

Part II
Country Studies

Chapter 3

Childlessness in the UK

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3.1 Introduction

Interest in Britain in the causes and consequences of childlessness has grown since the 1980s in response to the increase in voluntary childlessness from very low levels in the 1960s and early 1970s (e.g., Baum and Cope 1980; Campbell 1985; Kiernan 1989). Some early authors characterised childlessness as “a mode of ultimate feminism” (McAllister and Clarke 2000), and early studies focused on women who had been married for at least 10 years but had had no children (e.g., Kiernan 1989). More recently, scholars have used a life course approach to investigate the parental background and life course factors associated with fertility intentions and outcomes (McAllister and Clarke 2000; Berrington 2004; Kneale and Joshi 2008; Simpson 2009; Berrington and Pattaro 2014). From the outset, researchers in this area have struggled with the difficulties inherent in defining and measuring voluntary and involuntary childlessness, in differentiating between those who wish to postpone childbearing and those who do not want children, and in understanding how individuals’ viewpoints change across the life course (Baum and Cope 1980; Iacovou and Travares 2011).

Relative to the rest of Europe, Britain is a particularly interesting case because it is one of the countries where overall aggregate levels of fertility are high (with a completed family size of around 1.9 births per woman), but levels of childlessness are also high (at around 20 %) (Coleman 1996; Berrington et al. 2015). This chapter provides new empirical evidence for Britain which can help us better understand this apparent contradiction. We add to the existing knowledge on this topic in a number of ways. First, we examine how the educational gradient of childlessness

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has changed over birth cohorts. Second, we examine childlessness trends for both men and women using a unique cohort study of individuals born in Britain in one week of April 1970. Using prospective data collected from this cohort during their adult years, we investigate how the childbearing intentions of individuals who are childless at age 30 are associated with the likelihood of remaining childless at age 42. Finally, we examine the reasons given for not (yet) having had children among those who are childless at age 42.

3.1.1 A Continuum of Childlessness

Traditionally, a distinction has been made between people who are involuntarily childless as a result of biological infertility, and people who are voluntarily childless. However, this distinction is not necessarily clear-cut, since, for example, individuals who are not fertile may be accepting of their childless situation (McAllister and Clarke 2000). Involuntary childlessness can arise for reasons other than health problems. The terms “childless by circumstance” or “social infertility” (which describe those who do not have a suitable partner, or who have a partner who does not want children) are used both in academic research (e.g., Carmichael and Whittaker 2007) and more generally (e.g., Black and Scull 2005; Day 2013). Indeed, while one member of a couple may be infertile or choose not to have children, for the other member this inability or unwillingness to have children may represent a circumstance which he or she has not chosen (Carmichael and Whittaker 2007). Several authors have suggested that there is a continuum of childlessness (Letherby 2002; McAllister and Clarke 2000). On one end of the continuum is a small group who report from a young adult age that they do not want to have children; the so-called “early articulators” (Houseknecht 1987). Qualitative research has suggested that such women often feel they do not have an affinity for babies or young children. There is less support for the idea that these women are making their decision to remain childless to protect a high-powered career (McAllister and Clarke 2000; Carmichael and Whittaker 2007). At the other extreme are women who are childless due to a medical condition. In between is a group of women who intended to have children, but who ended up with no children because of their circumstances (McAllister and Clarke 2000; Carmichael and Whittaker 2007; Keizer et al. 2008). There is also a category of women who never made a conscious decision about whether to have children. These women have sometimes been referred to as being “ambivalent” about childbearing. For these ambivalent women, childlessness is the consequence of having chosen to follow a particular life pattern, rather than of a decision made at an easily identified point in time.

Of particular relevance in the UK context is the association between the rise in childlessness and the increased mean age at entry into parenthood, particularly among more educated women (Berrington et al. 2015). As more couples delay childbearing, the issue of declining reproductive capacity with age becomes increasingly important. In addition, as more young adult women spend extended periods in

education or pursuing career opportunities that have recently opened up to women, they may repeatedly decide to postpone childbearing, and thus drift into childlessness (Merz and Liefbroer 2012). Such individuals, who express a positive fertility intention but postpone childbearing until it is “too late”, are described by Berrington (2004) as “perpetual postponers”. Recent UK data confirm that very few individuals report that they wish to remain childless, including people who are still childless in their thirties (Ní Bhrolcháin et al. 2010; Berrington and Pattaro 2014). Some of these men and women will not be able to have the children they desire, due to age-related infecundability. It is difficult to quantify exactly what proportion of women who try to have their first baby at older ages will not succeed. Recent estimates show that rates of sterility rise after age 35 and especially after age 40, and that this increase is due not only to difficulties in conceiving, but to increased rates of fetal loss at higher ages (Leridon 2008; Eijkemans et al. 2014).

In summary, childless men and women are a very heterogeneous group. Both “active” and “passive” decision-making occurs across the life course which results in some individuals not having children (Gillespie 1999). Individuals can move along the childlessness continuum over time as their own life course develops (Baum and Cope 1980; McAllister and Clarke 2000). As Miettinen (2010: 20) noted: “For many, the decision not to have children may be a consequence of a process, where childbearing is postponed due to reasons related to relationship, personal considerations as well as financial and work-related constraints until it is too late to have children.”

There is a risk when studying childlessness that the researcher will inadvertently characterise men and women without children as somehow lacking or as deviating from the norm. Some commentators prefer to use the term “childfree” rather than “childless”, thereby emphasising that many couples who decide not to have children are making a positive choice to, for example, have more freedom and disposable income than families with children typically have (McAllister and Clarke 2000; Carmichael and Whittaker 2007). In this chapter, I use the term childlessness in its demographic sense to describe a person who has not had a biological child of his or her own, while noting that many individuals, especially men, act as social parents to children who may not be their own biological children.

Much of the previous work on childlessness has focused on women only. This is partly due to data constraints. The data published within the vital registration system generally only links births to the mother’s characteristics (ONS 2014), while in many surveys (e.g., the British General Household Survey) only female respondents are asked questions about their past fertility. It is, however, important to consider men’s experiences of childlessness as well (Jamieson et al. 2010). Choosing not to become a parent may not be equally socially acceptable for men and women (Rijken and Merz 2014). Furthermore, the factors associated with remaining childless are likely to differ by gender, as there are gender differences in, for example, the opportunity costs of childbearing. Moreover, although decisions about childbearing are often made jointly by a couple, the interaction of the partners’ desires and intentions is rarely examined. Qualitative research for the UK suggests that ambivalent women can be swayed either way by their partner’s views (McAllister and Clarke 2000),

while quantitative research using longitudinal data indicates that when the intentions of the partners conflict, the probability of having further children is reduced (Berrington 2004). Among childless couples, research has generally shown that women's intentions are stronger predictors of entry into parenthood than men's intentions.

3.1.2 Aims of This Chapter

This chapter provides new insights into trends in childlessness by using an approach which compares findings for men and women and for individuals with different educational backgrounds. The following research questions are examined: How have childlessness levels changed across birth cohorts of women, and how do rates differ according to level of education? What proportion of childless individuals in their thirties say they intend to have children? Does this share differ by gender or level of education? What proportion of these "postponers" go on to have a child by age 42? How does this share vary by gender, education, and partnership history? What reasons do people give for not having had a child by age 42? How do these reasons vary by gender, level of education, and partnership history?

3.2 Data Sources

Three data sources are used: vital registration data, retrospective fertility histories from a series of cross-sectional surveys, and longitudinal prospective data collected within a national birth cohort study. Below, we describe the latter two data sources in more detail. The vital registration data are a long time series of data on the proportions of individuals who remain childless. The data, which are provided by the Office for National Statistics (ONS 2014), are based on births registered in England and Wales. However, these data are available for women only, and are not broken down according to any socio-economic characteristics.

3.2.1 Retrospective Fertility Histories from the General Household Survey and the United Kingdom Household Longitudinal Study

In order to examine how educational differentials in childlessness have changed over cohorts, we use a specially constructed dataset which combines data from repeated retrospective surveys of women carried out between 1979 and 2009 (General Household Survey Time Series dataset (Beaujouan et al. 2014)). This dataset

is augmented by retrospective fertility data for recent cohorts collected within the first wave of the United Kingdom Household Panel Survey (UKHLS) (Knies 2014). Both the General Household Survey and the UKHLS collect information on respondents' educational attainment upon leaving full-time education and their retrospective childbearing histories, and both surveys have been used to examine educational differentials in the timing and quantum of fertility in Britain (Ní Bhrolcháin and Beaujouan 2012; Berrington et al. 2015).¹ Childlessness estimates are based on responses from women aged 40–49 at the time of the survey. Women's highest qualification upon first leaving education (i.e., at the end of continuous education) provides the best available indication of educational attainment prior to entry (or potential entry) into motherhood.² The analyses presented here use four categories of education: less than secondary level, secondary level, advanced level, and academic degree or equivalent. A secondary-level qualification is equivalent to a school-leaving qualification typically earned at age 16. An advanced-level qualification is typically earned at age 18, and is generally required for entry into a tertiary (university) educational institution. The interpretation of changing educational differentials in fertility over time is made more complex by the changing composition of the British population by education. The proportion of the female population who have either no qualifications or who failed to earn any secondary-level qualifications at the end of compulsory schooling (generally at age 16) decreased from 64 % of women born in 1940–1949 to just 18 % of women born in 1960–1968. Over the same cohorts, the proportion of women who earned an academic degree or another higher-level qualification increased from 9 to 20 %.

3.2.2 *Prospective Data from 1970 British Birth Cohort*

Prospective longitudinal data are needed to examine fertility intentions and their association with subsequent fertility behaviour. The UK is fortunate to have a number of birth cohort studies that have followed respondents from birth to adulthood. Data collected from people born in Britain in 1946 and 1958 have provided us with new insights into the parental background and life course factors associated with intentions to remain childless and childbearing outcomes (Kiernan 1989; Kneale and Joshi 2008; Berrington and Pattaro 2014). In this chapter, we use data for men and women born in Britain in one week of April 1970 (BCS70) who have been followed up in multiple waves of data collection through childhood and early

¹ The data are weighted to take account of survey design and non-response (Beaujouan et al. 2011; Knies 2014).

² We recognise that the level of educational attainment among some women is a result of their childbearing patterns: i.e., some of the youngest mothers may have had to leave full-time education as a result of becoming pregnant.

adulthood to age 42 (Elliott and Shepherd 2006).³ We focus on individuals who were childless at age 30 (3209 childless men and 2603 childless women). Overall, 60 % of men and 46 % of women born in 1970 were childless at age 30, but far higher proportions of academic degree-educated men and women were childless at age 30 (80 % of academic degree-educated men and 69 % of academic degree-educated women). This gap reflects the tendency among individuals with a higher level of education to postpone childbearing.

At age 30, the respondents were asked the following question: “Do you intend to have any children?” The possible answers were: “yes”, “no”, and “don’t know”. At age 42, the respondents were asked to provide details of their achieved fertility. The analyses in which we compare fertility intentions with outcomes are restricted to the respondents who were present in both the age 30 and the age 42 waves. Of those respondents who reported being childless at age 30, 73 % of the men and 80 % of the women also participated in the survey at age 42.⁴ The respondents who were childless at 42 were given a showcard of possible reasons for not having had children (see [Appendix](#)). The respondents were invited to tick as many reasons as were applicable. Those who ticked more than one reason were then asked to identify the reason they consider most important. In this chapter, I focus on the most important reason given.

3.3 Childlessness Trends in the UK

3.3.1 *Historical Trend in Childlessness*

Figure 3.1 shows for England and Wales the percentages of women born between 1920 and 1983 who were childless at age 30 and at the end of their reproductive period. Levels of childlessness at the end of the childbearing period were very low among women born in the 1940s. Childlessness started rising among later cohorts, and then stabilised among women born in the 1960s. For example, just 9 % of women in the 1946 birth cohort, but 18 % of women born in 1968 (the most recent cohort to reach age 45), had not had a child by the end of their childbearing years. Childlessness first started to increase among the cohorts born in the 1950s, who were also the cohorts who first started postponing childbearing (Office for National Statistics 2014). These two trends are related, and later in this chapter we examine the achievement of fertility intentions among “postponers”.

³Since this is a birth cohort study of those born in Britain in 1970, the sample is primarily white British. No attempt is therefore made to examine ethnic differences in childlessness. Further details of the on-going study can be found here: <http://www.cls.ioe.ac.uk/>

⁴Response rates were slightly higher among degree-educated men and women (80 % and 85 %, respectively). Thus, more advantaged socio-economic groups may be over-represented in the reasons for childlessness.

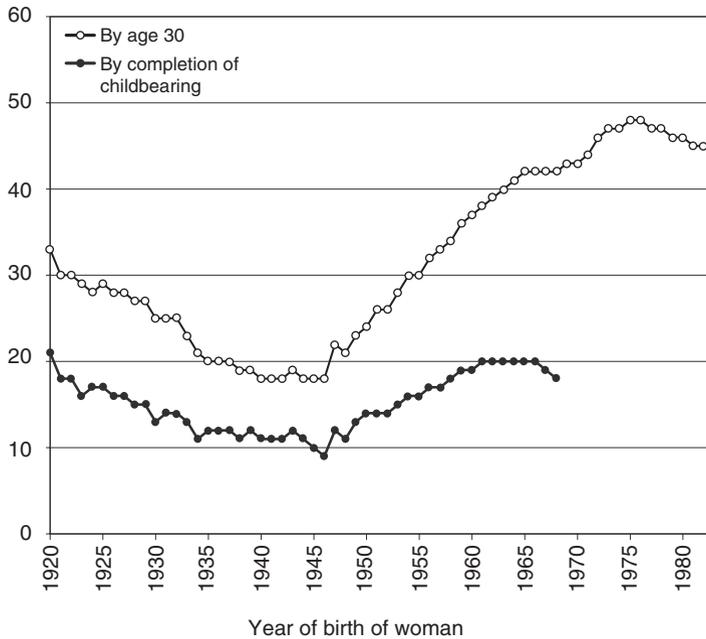


Fig. 3.1 Share of women who were childless at their 30th birthday and upon completion of childbearing, by year of birth of woman. England and Wales, in per cent (Source: ONS (2014))

The current levels of childlessness are not, however, historically unprecedented. As has been shown for many other European countries (Dykstra 2009) and the United States (Morgan 1991), there is evidence in the UK of a U-shaped pattern of childlessness among birth cohorts. Historically, more than one-fifth of the population of England and Wales were childless, largely as a result of non-marriage (Hajnal 1965).

Historically in Britain, there was a tradition of late marriage, and high proportions of the population never married. These trends were characteristic of the West European Marriage Pattern, as described by Hajnal (1965). In the early twentieth century, high levels of non-marriage were associated with imbalances in the sex ratio resulting from excess male emigration and male mortality during the First World War (Kiernan 1988; Dykstra 2009). Additionally, as noted by Holden (2005), non-marriage may have become economically feasible for middle- and upper-class women due to the availability of jobs in light industry, services, and businesses in urban areas.

What differentiates the patterns of contemporary cohorts from those of historical cohorts is that today the high levels of childlessness at age 30 are associated with the postponement of the start of parenthood to older ages. The share of women who were childless at age 30 rose from 18 % of those born in 1946, to 42 % of those born in 1968, and to 46 % of those born in 1983. The data suggest, however, that levels

of postponement and childlessness are no longer increasing, and may have even gone into reverse, with the proportion women who are childless at 30 peaking among those born in the mid-1970s.

3.3.2 Educational Differentials in Childlessness in the UK

Figure 3.2 shows the proportions of British women who were childless at age 40 according to birth cohort and highest educational level upon first leaving full-time education. The positive educational gradient in childlessness existed in all birth cohorts starting with women born in the 1940s. The proportion childless among respondents with a tertiary education is roughly double that among respondents with no or less than secondary qualifications (i.e., the least educated). Over time, the educational gradient has increased very slightly as a result of faster increases in childlessness among women with tertiary education. Thus, among British women born in the 1960s, 22 % of university graduates, and 10 % of the least educated group remained childless.

These strong educational differences have tended to fuel discussions in the media, with commentators frequently asserting that many highly educated women

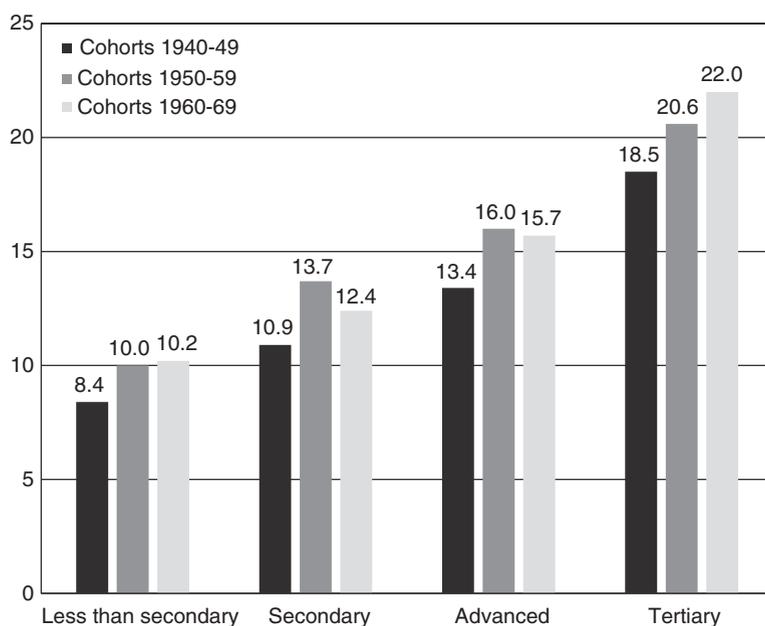


Fig. 3.2 Childlessness by birth cohort and highest level of education. British women aged 40–49 born 1940–1969, in per cent (Source: Author’s analysis of CPC General Household Survey Time Series and UKHLS)

in Britain are choosing to remain childless in order to “pursue a career”, or that they have postponed starting a family in response to the conflicting demands of their career, and “have left it too late” to have a child (McAllister and Clarke 2000; Hadfield et al. 2007). In the following sections, we examine the likelihood that highly educated women intend to remain childless, and how their intentions compare with those of their male counterparts.

3.4 Fertility Intentions and Childlessness

3.4.1 Fertility Intentions

Studies using a number of different data sources have consistently shown that very few British men and women intend to remain childless—at least if we take survey responses on intentions at face value (Berrington 2004; Ní Bhrolcháin et al. 2010; Berrington and Pattaro 2014). Research indicates that the proportion of individuals who intend to remain childless increases with age, as individuals adjust their intentions according to their lived experiences (Berrington 2004; Iacovou and Tavares 2011). Nevertheless, in the UK a large share of individuals who are still childless in their thirties express a strong desire to have children. This is consistent with the notion that individuals are postponing their childbearing to later ages, rather than rejecting parenthood altogether (Ní Bhrolcháin et al. 2010; Berrington and Pattaro 2014). Table 3.1 below presents the childbearing intentions at age 30 of childless men and women born in Britain in 1970, according to their highest level of qualification.

Table 3.1 Intention to have a child according to highest level of education among 1970 British Cohort Study members who were childless at age 30. Row per cent

	Yes	Don't know	No	Self/partner not able to have children	Number of cases
Men					
Less than secondary	57.2	22.8	16.3	3.7	754
Secondary	62.6	21.5	13.1	2.8	1044
Advanced	64.1	22.0	11.5	2.4	460
Tertiary	69.3	19.3	10.2	1.3	945
Total	63.5	21.2	12.8	2.5	3203
Women					
Less than secondary	58.1	18.9	15.0	8.1	434
Secondary	63.2	14.3	14.4	8.0	810
Advanced	66.8	17.1	11.8	4.3	397
Tertiary	67.6	19.5	9.7	3.1	958
Total	64.5	17.4	12.4	5.7	2599

Source: Author's analysis of BCS70

Around 3 % of men and 6 % of women said that either they or their partner were unable to have children. The percentage who reported infertility problems was much higher among respondents with lower levels of education, reflecting a selection effect whereby less educated men and women who remain childless at age 30 are a select subset of the population with lower levels of education, who typically start their childbearing at earlier ages (Kneale and Joshi 2008; Berrington et al. 2015).

Overall, the respondents' childbearing intentions at age 30 differed little by gender: around two-thirds of both men and women who were childless expressed an intention to have at least one child, 12 % said they do not intend to have a child, while around 20 % said they are unsure. Tertiary-educated childless men and women were more likely to express a positive intention, while those with the least education were more likely to express a negative intention. The majority can therefore be classified as postponers i.e., they have a positive intention to have a child, but they remain childless. However, the fact that 20 % of the group are uncertain suggests that circumstances could easily play a role in shaping their decision.

3.4.2 *Fertility Outcomes*

Figure 3.3 examines the question of whether the respondents who were childless at age 30 had entered parenthood by the time they were interviewed in 2012, when they were age 42. Once again, there is remarkable consistency in the findings for childless men and women. Fertility intentions at age 30 were a good predictor of fertility outcomes: around 30 % of those who said they intend to have a child remained childless at age 42, compared to around one-half of those who said they are uncertain in their intentions, and around three-quarters of those who said they do not intend to have a child. Half of both male and female postponers—i.e., those who said they intend to have children—went on to have two or more children. Of those who did not intend to have any children, 11 % of men and 18 % of women went on to have at least one child. Thus, the fertility intentions of the respondents were both under- and overachieved, but the levels of underachievement were higher. Men and women with uncertain intentions appear to have behaved in a similar fashion: compared to respondents with positive intentions, they were more likely to have remained childless or to have had just one child, and they were less likely to have had a second child. In further analyses (not shown) highly educated men and women are found to be more likely than less educated individuals to achieve their positive intentions for childbearing at older ages. This is consistent with earlier findings (Berrington 2004; Berrington and Pattaro 2014), and is likely to be related to the selection effect whereby individuals from lower educational groups who remain childless at age 30 are more likely to have other socio-demographic characteristics (e.g., health problems) associated with a lower likelihood of becoming a parent.

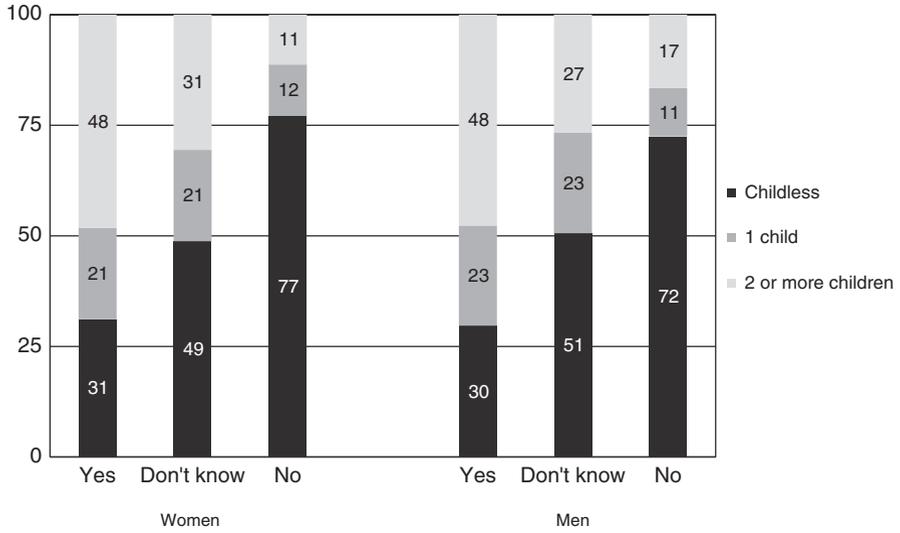


Fig. 3.3 Distribution of achieved family size at age 42, according to intentions at age 30. 1970 British Cohort Study members who were childless at age 30, in per cent. Sample size for men is: 1359 Yes, 441 Don't know, 280 No. Sample size for women is: 1260 Yes, 345 Don't know, 246 No (Source: Author's analysis of BCS70)

Table 3.2 Percentage childless according to partnership status at age 42. 1970 British Cohort Study members who were childless and had never had a co-residential union at age 30. In per cent

	Men	Women
Never married no partner	92	81
Never married currently cohabiting	50	52
Currently married	20	23
Divorced, separated, widowed, currently no partner	43	27
Divorced, separated, widowed, currently cohabiting	40	75
Civil partnership/ex civil partnership	100	50

Source: Author's analysis of BCS70

3.4.3 Partnership Experience and the Likelihood of Achieving Intentions

An important pathway through which positive fertility intentions remain unrealised is partnership experience (McAllister and Clarke 2000; Berrington 2004; Carmichael and Whittaker 2007; Berrington and Pattaro 2014). To gain a better understanding of this dynamic, let us look at BCS70 cohort members who were childless and had never lived in a co-residential union at age 30, but who had a positive intention to have a child. Table 3.2 shows the percentage of this group who remained childless by their partnership status at age 42. Of course, we cannot tell from these data the

extent to which partnership status had a *causal* effect on childlessness, since both partnership formation and childbearing are likely to be influenced by other factors, such as the respondent's health status, work ambitions, and attitudes regarding family formation. Nevertheless, the table clearly shows that partnership experience plays a key role in childlessness over the life course. The vast majority (nine out of ten men and eight out of ten women) of those who were never married and did not have a co-residential partner at age 42 remained childless. By comparison, about half of those who were in a cohabiting relationship at age 42 remained childless. The group most likely to have achieved their fertility intentions were those who married after age 30 and remained married at 42; only one-fifth of this group remained childless. In comparison, levels of childlessness were higher among those who married after age 30 but subsequently separated.

3.5 Reasons for Remaining Childless

Of the BCS70 respondents at age 42, one-quarter of the men and just under one-fifth of the women had never had a biological child of their own. Consistent with our earlier findings for women based on the General Household Survey/Understanding Society Survey (Sect. 3.3.2), we observe a strong positive educational gradient in the proportion childless among women: one-quarter of female university graduates born in 1970 remained childless, compared to 15 % of women with less than secondary qualifications.⁵ However, among the male cohort members, the differences by educational level in the proportion childless were much smaller (27 % of male university graduates were childless at 42, compared to 23 % of men with less than secondary-level qualifications).

3.5.1 *Work and Careers Not Reported as the Main Reason*

Table 3.3 shows the reasons given by childless respondents at age 42 for why they had not (yet) had children. Recall that respondents were asked to tick the possible reasons, which are shown in the [Appendix](#). Three main reasons dominate the responses. The most common reason was that the respondent had not wanted children (cited by 28 % of men and 31 % of women). The second most common reason was that the respondent had never met the right person (cited by 23 % of men and 19 % of women). A similar share of women cited health reasons: i.e., that they or their partner were infertile, or had some other health problem. Men were less likely to cite their own infertility as a reason for childlessness.

⁵For this analysis only, educational attainment is measured at age 42 so as to maximise sample size.

Table 3.3 Most important reason for remaining childless. 1970 British Cohort Study members who remained childless at age 42. Column per cent

	Men	Women
Not wanted children	28	31
Never met right person	23	19
Own infertility	3	12
Other health reason	2	4
Partner's infertility	4	3
Wanted children but not got around to it	6	5
Partner did not want children	3	4
I have been focused on my career	3	2
Financial/housing situation would have made it difficult	2	2
Other reason	2	2
Partner has been sterilised/vasectomy/hysterectomy	1	1
Partner already has children & does not want more	1	1
In a same-sex partnership ^a	1	0
Did not want to compromise relationship	1	0
No particular reason	18	12
Don't want to answer	2	3
Total	976 (100 %)	845 (100 %)

Source: Author's analysis of BCS70

^a“In a same-sex partnership” was one of the write-in responses that respondents added to the list of possible answers (see the [Appendix](#))

Other reasons were less prevalent. A small share of respondents (3 % of men and 4 % of women) said their partner did not want children, which reminds us of the importance of the couple in childbearing behaviour. A significant minority, 18 % of male and 12 % of female childless respondents, did not tick any reason.

Some respondents agreed with the statement that they had wanted children, but had not got around to it, which suggests ambivalence about childbearing. Just 3 % of men and 2 % of women cited being focused on their career as their main reason for remaining childless. In further analyses (not shown), we compare the reasons given according to the highest level of education. While childless university graduates were slightly more likely than others to have responded that they were focused on their career, the shares were still only 4 % of men and 3 % of women. These findings are in stark contrast to the prevailing tone of media discussions, which often portray childless women as being too focused on their career.

In fact, we see two main differences in the distribution of reasons for childlessness based on the highest level of education. First, health reasons were cited by a higher proportion of the least educated women. Second, both male and female university graduates had a greater tendency than respondents with less education to report that they had never met the right person: 30 % of male and 34 % of female university graduates gave this response, compared with 19 % of men and 28 % of women with less than a secondary education.

Table 3.4 Most important reason for remaining childless according to legal marital status at age 42. Female 1970 British Cohort Study members who were childless at age 42. Column per cent

	Married	Div./Wid./Sep.	Never married
Not want children	34	26	30
Health reasons ^a	32	24	12
Wanted but not got round to it	5	5	5
Partner did not want children	3	6	3
Never met the right person	2	14	31
I have been focused on career	3	4	1
No particular reason	10	11	12
Other & don't know ^b	6	8	4
Don't want to say	4	3	2
Total	264 (100 %)	111 (100 %)	452 (100 %)

Source: Author's analysis of BCS70

^aHealth reasons includes "own and partner's infertility"

^bOther includes "financial and housing worries", "partner already had children", "did not want to compromise relationship", and "in a same-sex partnership"

3.5.2 *The Importance of Having a Partner*

Table 3.4 presents the reasons for remaining childless by legal marital status at age 42. We show the pattern for women only, since the findings for men are very similar. Those women who had been married but who had remained childless were more likely than women who had never married to say either that they had not wanted to have children, or that there were health reasons that had prevented them from having children. By contrast, among those who had never married, almost one-third said they had never met the right person, and another 30 % said they had not wanted to have children. Interestingly, the proportion of respondents who reported that their partner had not wanted children was slightly higher among those who were divorced or separated; at around 6 %. The divorced, separated, and widowed group were also quite likely to say they had not met the right person.

3.6 Discussion

This chapter has provided new insights into childlessness in Britain by showing how the overall trend masks considerable educational differences in the likelihood of not having children. Unlike in some other European countries, such as the Netherlands (van Agtmaal-Wobma and van Huis 2008) and Norway (Andersson et al. 2009), educational differentials in childlessness are not narrowing over time, but remain large, and are even increasing slightly. Today, tertiary-educated women are roughly twice as likely as women with low levels of education to remain childless.

The co-existence in Britain of relatively large completed family sizes (of around 1.9 children per woman) with high levels of childlessness results from different childbearing patterns within different sub-groups of the population (Berrington et al. 2015). High levels of childlessness among tertiary-educated women are being offset by relatively high rates of progression to third and fourth births, especially among mothers with the lowest levels of education (Berrington et al. 2015). The cohort fertility rates for women born in the 1980s suggest that childlessness, both at age 30 and upon completion of childbearing, may no longer be increasing. Thus, we may not see in Britain the very high levels of childlessness currently observed in countries like Austria and Italy.

Levels of childlessness, at least at age 42, are higher among British men than among British women, although it is of course possible for men to enter fatherhood at older ages. Nevertheless, a significant minority of men will remain childless. Educational differentials in childlessness are much smaller among men than among women. The proportion of men without children is high both among more educated and less educated men, though we might speculate that the pathways through which this occurs differ according to socio-economic status. Consistent with Demey et al. (2014), we see a significant minority of socio-economically disadvantaged men who are not given the opportunity for family formation. Quantitative evidence from the 1970 and previous 1958 British cohorts (Berrington and Pattaro 2014) and qualitative evidence from Jamieson et al. (2010) suggest that for some men (particularly socio-economically disadvantaged men), finding a partner can be very difficult, which leads indirectly to unfulfilled childbearing intentions. While some women with low levels of education are unable to fulfil their childbearing intentions between ages 30 and 42, the share among women is much smaller than it is among men.

Our findings regarding fertility intentions and outcomes for the 1970 British birth cohort suggest that relatively few men and women are rejecting parenthood. In terms of the “continuum of childlessness”, this so-called “certain group” (or “early articulators”) who declare that they do not intend to have children are a minority (around about one in eight of those who are childless at age 30).⁶ The majority of both men and women are “postponers”, as at age 30 just under two-thirds of childless men and women express a positive intention to have a child. There is a substantial group of childless men and women who report having uncertain fertility intentions. Some of these respondents would probably fall into the “ambivalent group”, as described by McAllister and Clarke (2000), who have not explicitly considered whether they intend to have children. Other uncertain respondents may have considered their ideal family size, but remain uncertain about having a child because they are unsure of their situation. For example, they may not know whether they will have a suitable partner who also wants children, or whether childcare will be available. The significance of uncertainty in fertility intentions has not received the attention it should (although see Berrington 2004; Ní Bhrolcháin et al. 2010;

⁶ We note that there may be a social desirability effect whereby British respondents may be unwilling to express a desire to remain childless, as British society and media tend to have a pro-natalist bias (Hadfield et al. 2007).

Ní Bhrolcháin and Beaujouan 2011). Evidence from the 1970 cohort suggests that those who are uncertain have an intermediate chance of having a first birth: i.e., in between those who have a negative intention and those who have a positive intention. Thus, if those who were uncertain had been included in the group with positive fertility intentions, there would have been a lower level of agreement between intentions and outcomes. Moreover, uncertain intentions might reflect the fact that intentions for childbearing can be affected by period circumstances, such as partnership status and the availability of childcare, some of which could be affected by social policy changes.

Consistent with findings from earlier UK and US cohorts, respondents both under- and overachieve their intended fertility (Morgan and Rackin 2010; Berrington and Pattaro 2014), but childless postponers are more likely to underachieve: overall, 30 % of those who were childless at age 30 and who said they intend to have a child were still childless at age 42. Interestingly, this share is almost identical for male and female postponers. It is of course possible that the respondents' intentions were modified between ages 30 and 42 in response to circumstances such as partnership experiences and work situations. Consistent with Berrington (2004), we find that the percentage of postponers who achieved their intentions was higher among men and women with higher levels of education and those who married (and stay married). Over one-third of postponing men with no or secondary-level qualifications remained childless at age 42.

Morgan (1991) cautioned against viewing childlessness as a modern phenomenon, and suggested that the reasons why people are childless today may not be very different from those of previous generations. In this British cohort, childless respondents gave a variety of reasons for not having had a child at age 42: around three in ten said they “had not wanted children”, and two in ten said they had “never met the right person”. Health issues were also frequently cited, especially by women, who were more likely than men to have reported their own infertility problems. It would be useful to know the extent to which these health problems were associated with the postponement of fertility and age-related declines in fecundability. If health played an important role, the association between increased postponement and increased childlessness among cohorts born from the 1950s onwards may be partially causal.

Comparatively few men and women reported that they had not had children because they had “not got round to it” or were “focused on career”. The finding that career demands do not play a large role in the decision to remain childless is consistent with previous research for the UK, Australia, and Finland (McAllister and Clarke 2000; Carmichael and Whittaker 2007; Miettinen 2010). The reported reasons for childlessness are similar across genders and levels of education, but differ more by partnership history. Finding and staying together with an appropriate partner appears to be a key element in childbearing decisions.

This study has a number of limitations. The type of evidence collected in quantitative surveys is limited, and individuals' statements about the number of children they want are likely to be subject to social desirability effects and post-hoc rationalisations. The chapter presents intentions as measured at age 30, and outcomes at age

42. It would be interesting to know how individuals' intentions change between ages 30 and 42 in response to life course events. Second, while this study is novel in that childlessness data are available for both men and women, the data do not provide information about couples. As childbearing is generally a couple-level activity, one would ideally want to investigate the preferences and constraints of both partners. Finally, many of the reasons offered to respondents in the BCS70 questionnaire for not having had children are negative, such as being in poor health or not having found the right partner. Ideally, the reasons offered should also include positive pull factors of being childfree, such as having more freedom and disposable income (Gillespie 2003). Around 30 % of childless women ticked the "not wanted to have children" box but this still leaves open the question of why they did not want to have children.

In summary, childlessness increased first among the cohorts born in the 1950s, who were also the first cohorts to start postponing childbearing. Postponement and childlessness may be causally related, e.g. through reduced fecundity with age, but both are also manifestations of underlying changes in women's lives, such as opportunities for women to develop a career, the availability of reliable contraception, and increased partnership postponement and instability (Murphy 1993; Hobcraft and Kiernan 1995; Thomson et al. 2012).

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Appendix

Most Important Reason for Remaining Childless Showcard.

1970 British Birth Cohort Study, Age 42 Questionnaire.

1. Infertility problems
2. Partner sterilized, had vasectomy/hysterectomy
3. Other health reasons
4. I have not wanted to have children
5. I have wanted to have children but not got round to it
6. I have been focused on my career

7. I have never met the right person to have children with
8. My partner has not wanted to have children
9. My partner already has children and has not wanted more
10. I have not wanted to compromise my relationship with my partner
11. My financial situation would have made it difficult
12. My housing situation would have made it difficult
13. No particular reason
14. Other reason – please write in: _____

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Chapter 4

Childlessness in France

Katja Köppen, Magali Mazuy, and Laurent Toulemon

4.1 Introduction

Current discussions on decreasing birth rates, high rates of childlessness, and a lack of support for working parents in some European countries often cite France as an example of a country with a successful family policy. Compared with most other western European countries, France not only has higher maternal labour force participation rates; it also has higher fertility rates. As the average French woman has two children, the birth rate in France is higher than in any other European country, except for Iceland and Ireland (Eurostat 2012a). Less than 15 % of women in France remain childless; a share which is considerably lower than those of women in neighbouring countries like England, Switzerland, or Germany. In this article, we will attempt to explain why parenthood is still a standard part of the biography among French men and women. After providing an overview of the institutional regulations and family policies, we will present the most important demographic indicators of childlessness, and look at how they differ by social group.

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4.2 Institutional Framework and Family Policies

When seeking to explain the high fertility rates and comparatively low childlessness rates in France, scholars often cite the country's extensive and well-developed child care system and generous family benefit system, which provide tax deductions and financial support to families with many children (Ehmann 1997; Becker 2000; Fagnani 2002; Letablier 2002; Köppen 2006; Thévenon and Luci 2012). These high levels of state support and family-friendly measures can be traced back in history. France experienced a rapid drop in fertility much earlier than most countries, as birth rates were falling even in the nineteenth century. French women born in the middle of the nineteenth century had an average of 3.4 children. During the same period, women in France's neighbouring country Germany had an average of 5.4 births, which was higher than the European average (Festy 1979: 49). Since then family policy in France has always had strong pro-natalistic elements. Even today, this bias is apparent in the promotion of large families and the relative neglect of one-child families in French family policy (Schultheis 1988: 92).

Some contemporary family benefits in France can also be traced back to charity programmes of Catholic enterprises during the nineteenth century: for example, child allowances, support of proprietary, and the work-free family Sunday evolved from voluntary benefits offered by employers (Spieß 2004: 51). During this period, so-called compensation funds were established to compensate wage earners for the burdens associated with rearing and caring for children. After employees went to court and demanded that these initially voluntary benefits were made mandatory in work contracts, the benefits became a standard part of regular wage employment, and these programmes increasingly came under state control. First, family compensation funds, which took over the payment of family benefits from companies, were founded in 1920. A large proportion of employees had to join these funds in 1932. In response to the on-going decline in the population, the *Code de la Famille* standardised and regulated the hitherto non-governmental, corporate-based family policy in 1939. Today, family benefits are organised and financed through the *Caisse Nationale d'Allocation Familiale* (CNAF), the bureaus in charge of distributing family benefits. One-third of the funding of the CNAF comes from the government, and two-thirds comes from employer contributions and tobacco tax proceeds (Spieß 2004).

Another factor that helps to explain contemporary family policies in France is French laicism. The state in France has a strong legal mandate to intervene and participate in family matters and childcare arrangements. In particular, childcare is supported and subsidised by the state. There are historical reasons for this high degree of government involvement in family arrangements. To attenuate the influence of the Catholic Church on family and education and to ensure that children were raised as loyal republican citizens, the French government took over control of the educational system in the late nineteenth century. In 1881 a public educational system based on republican-secularist principles was established in France (Veil 2002: 1). As children are seen in France as the "future of the nation" (Letablier

2002: 171), the state is considered responsible for their well-being, health, and education. The government aims to provide equal opportunities to all children, regardless of their parents' income. The principle that childcare should be state-supported is also based in moral concepts regarding the relationship between state and church. The church lobbied for Catholic and conservative values, whereas the state advocated republican values: i.e., the principles of *égalité et liberté*. To ensure that women do not have to leave the labour market when they become mothers, the state supports them by providing adequate childcare (Letablier 2002).

Having children is not seen as a reason for quitting work or reducing work hours. Although attendance is not obligatory, currently almost all French children between the ages of three and six attend preschool, the *écoles maternelles*. Thus, preschool is an established institution in France. The majority of children attend preschool between 8.30 a.m. and 4.30 p.m., and some preschools offer care after those hours (the so-called *garderie*). Most of the *écoles maternelles* are state-run and free of charge; however, parents have to pay a small amount for lunch and care after the official closing time (Letablier 2002: 172). In addition to public services, there are other forms of childcare in France. Childcare for children younger than 3 years of age is especially diverse, and is dominated by privately organised domestic childcare arrangements. The government provides financial allowances and tax deductions that offset the costs of employing a registered day-care professional (*assistante maternelle agréée*). These benefits are available for dual-earner parents with children under 6 years of age who employ a registered day-care professional. Parents can also engage a nanny (*nourrice*), who may perform household work in addition to providing childcare. In this case as well, parents can apply for governmental assistance and make use of tax deductions (Becker 2000: 231f.). Children in compulsory education in France attend school all day. School starts at 8.30 a.m. and usually finishes at 4.00 or 4.30 p.m., interrupted by a break for lunch, which is paid for in part by the parents. Children in pre- or primary schools may attend after-school care programmes. However, as there is no school on Wednesday afternoons, parents may be forced to find alternative childcare arrangements, work part-time, or use the 35-h limit on working hours in France to take a half-day off on Wednesdays.

The cost of childrearing is reduced in France and parents are encouraged to return to work soon after giving birth not just by a comprehensive system of childcare, but also by a system of monetary benefits for families. In France, monetary incentives to remain home after the birth of the first child are comparatively low. Child benefits and paid parental leave have long been available to two-child families only. Before 1994, only families with at least three children were eligible for these allowances. However, since 2004 parents with one child also receive a basic allowance for the first 3 years and paid parental leave.

In France, under the principle of family splitting, the family's tax burden is reduced based on the number of children. In this system families with at least three children and high-income households have the highest level of tax relief (Dingeldey 2000: 76). Thus, large families with dual-earner parents benefit the most from tax deductions.

This historically evolved system of comprehensive and reasonably priced child-care, lower taxes for large families, and high levels of acceptance of and appreciation for children in French society are among the reasons why France has relatively high birth rates, but also high levels of labour market attachment among women, and among mothers in particular. The dilemma of how to combine work and family that many women still have to face is thus less pronounced in France, but also the social pressure to have children is stronger in France than in most other western European countries (Debest and Mazuy 2014).

4.3 Female Employment

In recent decades the share of women who have a high level of education has been increasing in Europe. At the same time, female employment rates have been rising continuously. Table 4.1 displays the development of maternal employment in France for the years 1990, 1995, 2000, and 2013. Labour force participation rates increased steadily over this period, even among mothers with three and more children. In 2000 there is a noticeable decline in the rate of employment among mothers with two children, including those with one child under age three. This decrease has been attributed to changing parental leave regulations. Since 1994 women who gave birth to a second child could apply for paid parental leave. Before this point, only women with at least three children were eligible for paid leave. Younger and less educated women in particular took advantage of the paid leave option, and one-third of the applicants have been unemployed (Reuter 2002: 19).

The abovementioned changes in parental leave were apparently introduced to encourage women to withdraw from the labour market, at least for the years immediately after the birth of their second child (Reuter 2002: 19). In this context, another aspect worth mentioning is the high unemployment rate among French women. Unemployment is higher among women than among men, even though women are more likely to work in the public sector, which tends to be less affected than other sectors by unemployment (Toulemon and de Guibert-Lantoine 1998: 4). Young women in particular are at risk of becoming unemployed. In 2010, 23.7% of all French women younger than age 25 were unemployed (Mansuy and Wolff 2012). In

Table 4.1 Labour force participation rates of mothers who live in a partnership, by number of children and age of youngest child, 1990, 1995, 2000, 2013

	1990		1995		2000		2013	
	Under 3	3–5						
No. of children								
One child	76.6	83.2	79.8	82.9	81.3	85.5	83.0	89.8
Two children	66.3	75.7	68.0	78.3	56.5	81.4	68.6	86.9
Three and more children	31.7	43.8	32.6	56.2	36.1	60.2	43.6	73.0
All	61.2	68.0	64.3	72.6	61.6	76.2	68.9	84.1

Source: Avenel and Roth (2001) and Guggemos and Vidalenc (2014)

contrast, the unemployment rate of this particular group of women in Germany (eastern and western Germany combined) was just 8.8 % (Federal Statistical Office of Germany 2012).

However, in France a comparatively large share of women are in full-time employment. During the first half of the 1990s, less than 25 % of French women worked part-time, and almost 30 % of these women would have preferred to work full-time if given the choice. Recently, female part-time employment rates have increased slightly in France, but they are still lower than those in many other European countries (Eurostat 2012b).

4.4 Fertility and Ideal Family Size

As in most western European countries, a rather traditional view of family life dominated in French society until the 1970s: a family consisted of a male breadwinner who had to provide for his wife and at least three children. Since the beginning of the 1980s, alternative forms of private living arrangements have become increasingly important, and non-marital unions with children have become a permanent feature of everyday life. Almost 58 % of all children born in the year 2014 had non-married parents. In this respect, France and Scandinavia are quite similar: i.e., becoming a parent is no longer automatically associated with marriage.

France has one of the highest birth rates in Europe. Since 1975 the total fertility rate has been rather stable, at an average of 1.8 children per woman, and recent numbers indicate that the TFR has risen to two children per woman (Fig. 4.1). Even from a cohort perspective, French fertility is exceptionally high. For French women

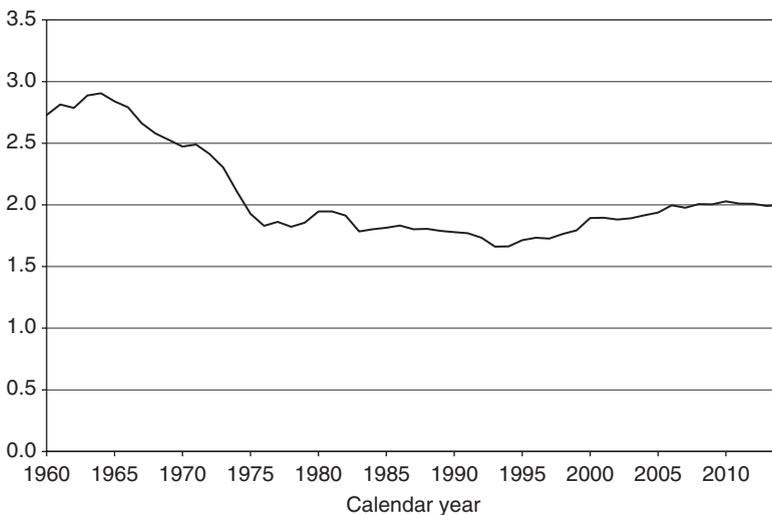


Fig. 4.1 Total fertility rate, France 1960–2014, provisional numbers for 2013 and later (Source: Council of Europe (2004), Richet-Mastain (2006) and Bellamy and Beaumel (2015))

born in 1960, the cohort fertility rate is 2.1, which is basically replacement-level fertility (Mazuy et al. 2014). Moreover, childbearing intentions, as reported in social science surveys, are comparatively high in France. When people are asked about their ideal number of children, the scores are highest in France, Ireland, Finland, and Great Britain (Toulemon and Leridon 1999; Goldstein et al. 2003). In France, most men and women say two or three is the ideal number of children, and the average preferred family size is 2.6. Less than 5 % of French respondents see childlessness as the most favourable living arrangement (Toulemon 2001b). By contrast, the ideal family size in Germany is below two; the lowest number in Europe (Dorbritz and Ruckdeschel 2012).

4.5 Childlessness

4.5.1 *How Is Childlessness Measured in France?*

Three sources are available to estimate childlessness in France: the census, official registration, and survey data. We encounter certain problems when seeking to measure childlessness in France. The registration office in France does not register the births by their biological order (Toulemon 2001a). Therefore, vital statistics data do not provide information on the evolution of childlessness. Yet it is possible to get comparatively reliable information on the development of childlessness for France. Since 1982 the National Institute for Statistic and Economics Studies (INSEE) has conducted a series of surveys on family life in which 1–2 % of all women in France are interviewed. These women are also asked about their number of births. On the basis of these surveys it is possible to estimate the complete fertility histories of women born during the twentieth century. However, reliable information about the final number and order of births can be obtained only for women aged 45 and older, and with a small degree of uncertainty for women above age 40. For cohorts born after 1975 only estimations can be made, since they have not yet completed their fertility. In addition to these surveys, a yearly census has been conducted in France since 2004. Previously, census data had been collected every 8–9 years, and the last census year was 1999. Due to the survey structure of the census (a rolling system in which only part of the population are interviewed each year), the initial results were published in 2008, and have since been updated each year.

For most of the following analyses, we use the *enquête Famille et logements*, a representative survey on family life which has been conducted parallel to the 2011 census, and contains life histories of around 360,000 men and women. For the period estimates of mean age at first child birth, we used combined information from the 1999 family survey, the civil registration system, and the French census.

Table 4.2 Mean age at first childbirth, France 1960–2010

Calendar year	Mean age at first childbirth
1960	24.1
1965	23.8
1970	24.0
1975	24.4
1980	24.9
1985	25.7
1990	26.6
1995	27.4
1998	27.7
2010	28.1

Source: Numbers for France 1996–1998: INSEE, enquête Étude de l’Histoire Familiale 1999 – Toulemon and Mazuy (2001); numbers for France 2010: INSEE, civil registration and population estimates – Davie (2012)

4.5.2 Development of Childlessness

In a first step, we display the mean age at first childbirth as an indicator of the postponement in childbearing. Subsequently, the focus will be on the development of childlessness in France.

When we look at the mean age at which women became mothers for the first time, we can clearly see a postponement to higher ages: the mean age at first childbirth increased from 24 years in the 1970s to 27.7 years in 1998 and to 28.1 years in 2010 (Table 4.2). Despite this shift to having children at older ages, the postponement of childbirth has not been associated with increasing shares of childlessness: 11–13 % of all women born 1960 in France remained childless (Toulemon and Mazuy 2001; Masson 2013). France not only holds a top position in overall fertility; it also has the lowest share of childlessness in western Europe.

Figure 4.2 displays the development of family size according to a fertility projection (Toulemon and Mazuy 2001). This projection is based on the 1999 family survey, and is updated here using the 2011 estimates.¹ For women born between 1935

¹ According to the 2011 survey, the proportion of women who are childless is higher than we would have predicted given the results of the 1999 EHF survey. In the 2011 survey a minimum of 12 % is reached for cohorts 1935 and 1955, and infertility increases to 13 % for women born in 1960 and to 14 % for those born in 1965. However, based on the 1999 survey we assumed that the proportion childless would be as low as 10 % among the 1940–1960 cohorts. We believe that the 1999 survey partly overestimated cohort fertility due to a non-response bias (whereby childless women are more prone to avoid filling out a form). On the other hand, the data for the cohorts born before 1950 may become less reliable in 2011, when cohorts were 12 years older than in 1999, due to differential mortality and out-migration. We thus transformed our projection using the mean of both surveys estimates for the 1920 cohort, the 2011 estimate for the 1960 cohort, and similar assumptions on trends for more recent cohorts. For the sake of simplicity, we use the 2011 survey only when we compare subgroups within the population, as for older cohorts the social differences are similar.

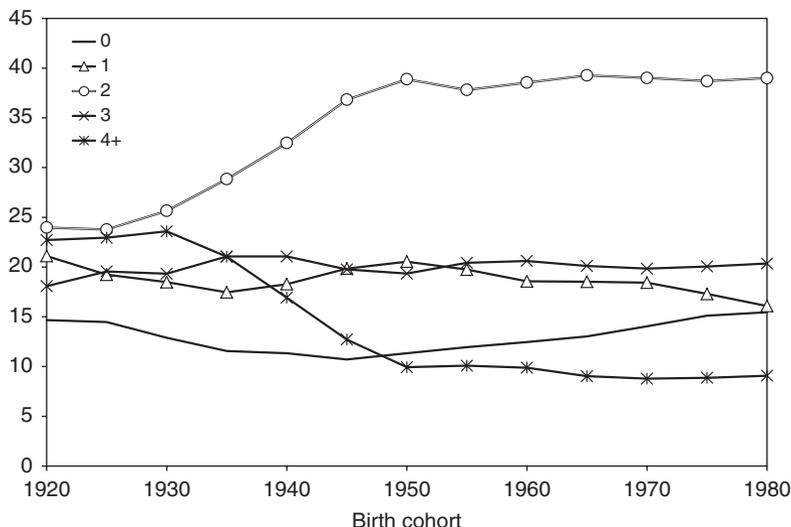


Fig. 4.2 Number of children, women in France, birth cohorts 1920–1960, in per cent (Source: INSEE, enquêtes Étude de l’Histoire Familiale 1999 and Famille et logements 2011; Toulemon and Mazuy (2001) and authors’ update)

and 1955, childlessness stabilises at around 12 % (11 % for cohorts around 1945). A slight increase can be observed for women born after 1960, and the proportion childless increases to 15 % among women born in 1980. The majority of women in France have at least two children. Starting with the 1930 cohort, the share of women with large families (four or more children) has been decreasing, and the share with two children has been increasing. However, smaller shares of women born after 1960 had only one child than had three children. The high number of three-child families can most likely be explained by French policies that support large families.

Figure 4.3 displays the shares of women who are childless by birth cohort and age. Due to the lack of men after the First World War (Onnen-Isemann 2003), almost one-quarter of the women born at the beginning of the twentieth century remained childless. Childlessness decreased to constant and stable low levels in the following cohorts, and started to increase again among women born after 1960. However, reliable numbers for the final shares of women who are childless cannot be estimated since not all women born during the 1970s had reached the end of their reproductive life in 2011. Nonetheless, it appears that rates of childlessness are lower in France than in most European countries, and that the increase in childlessness has slowed due to the increase in fertility in the 2000s (Toulemon et al. 2008).

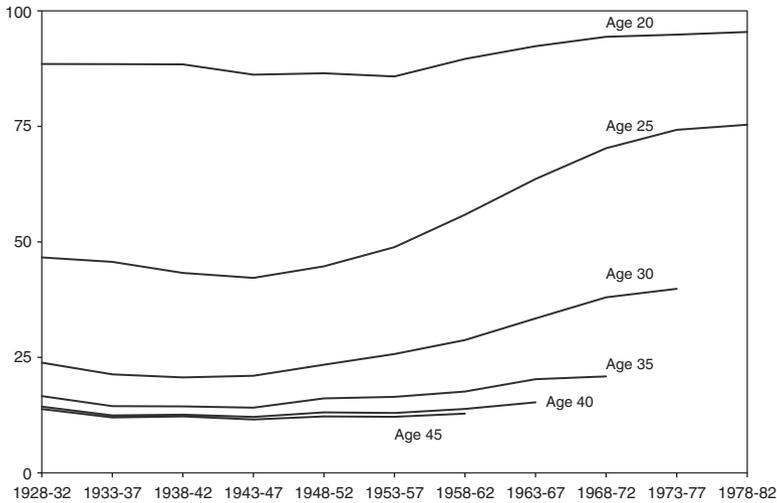


Fig. 4.3 Share of childless women in France at ages 20, 25, 30, 35, 40, 45, and 50, birth cohorts 1928–1982, in per cent (Source: INSEE, enquête Famille et logements (2011), own estimations)

4.5.3 Differences in Childlessness by Education and Occupation of Women

The transition to parenthood differs by education. Compared to women with higher levels of education, less educated women become mothers earlier and more frequently. Women with less education also have a high probability of having a child in a first union, whereas highly educated women are more likely to have a child in the second or third partnership episode. Lone parenthood after first childbirth is also more common among less educated women. The higher the level of education, the longer the duration of the partnership is likely to be before the birth of the first child (Mazuy 2006). As in other countries, women with a university degree are most likely to be childless.² The high proportion of university graduates who are childless is not a novelty, as highly educated women who were born before World War II also had high rates of childlessness (Fig. 4.4a). The exceptionally high rates of childlessness among highly educated women are partly attributable to their tendency to have their first child at a higher age, but also to the amount of time they live without a partner. These women tend to be older at their first union, and are more likely than less educated women to remain single (Robert-Bobée and Mazuy 2005; Masson 2013). In the more recent cohorts, women with low levels of education have higher

²French levels of education are defined as follows: (1) Collège=first 4 years of secondary education from the ages of 11–15; 2. CAP-BEP=vocational high school after collège, duration 2–3 years; (3) Baccalauréat=baccalauréat diploma that leads to higher education studies or directly to professional life; (4) Sup=all higher education studies such as bachelor's, master's, or doctoral programmes.

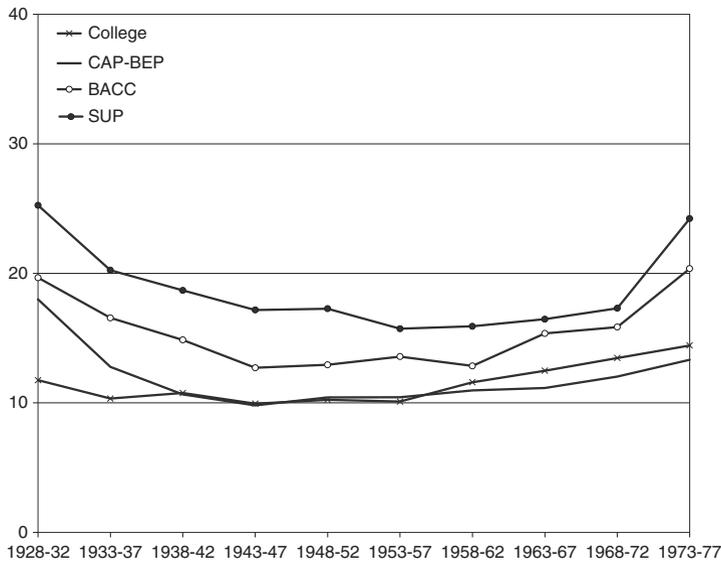


Fig. 4.4a Proportion of childless women in France by level of education (in per cent), birth cohorts 1928–77 (Source: INSEE, enquête Famille et logements (2011), own estimations). Among cohorts born after 1972 (under age 38 at 1-1-2011), the proportions childless or who never lived in a union may decline after the survey

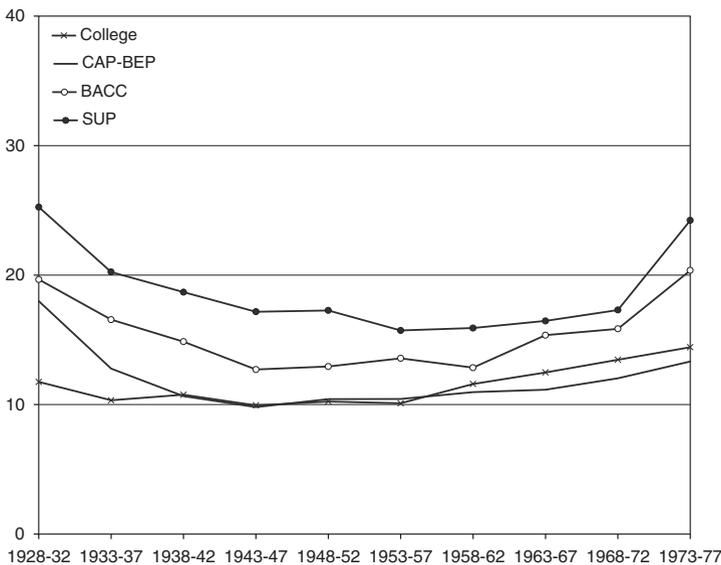


Fig. 4.4b Proportion of childless women in France (in per cent), among women who have ever lived as a couple by level of education, birth cohorts 1928–1977 (Source: INSEE, enquête Famille et logements (2011), own estimations)

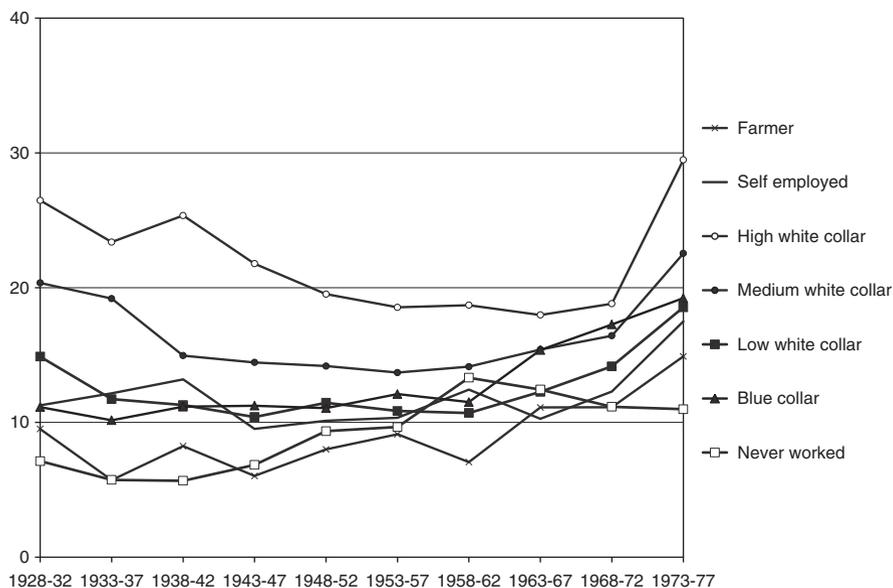


Fig. 4.5 Proportion of childless women in France by occupation, birth cohorts 1928–1977 (Source: INSEE, enquête Famille et logements (2011), own estimations)

rates of childlessness than women with short secondary education. This appears to be because the least educated make up a growing proportion of the women who never enter a union.

If we only consider women who are living or have ever lived as a couple, the degree of childlessness decreases for all women, regardless of the level of education. However, the proportion of childlessness is still higher for women with a university degree (Fig. 4.4b). The data for the cohorts born in 1973–1977, who were aged 33–37 at the time of the survey, are still provisional, especially for more educated women, who may have a first child after the survey.

Childlessness varies not only by level of education, but also by occupation. White-collar employees are more likely to remain childless than blue-collar workers, self-employed women, or women who have never been in employment. The lowest level of childlessness is observed among women who have never been employed or who work as farmers (Fig. 4.5). Again, the overall share of women who are childless decreases when we exclude women who have never been in a union (Fig. 4.6). But although the relative differences in childlessness between the single occupational groups become smaller when only women who ever lived as a couple are considered, the rates of childlessness are still higher among women in higher-level occupations than among women with a lower occupational status.

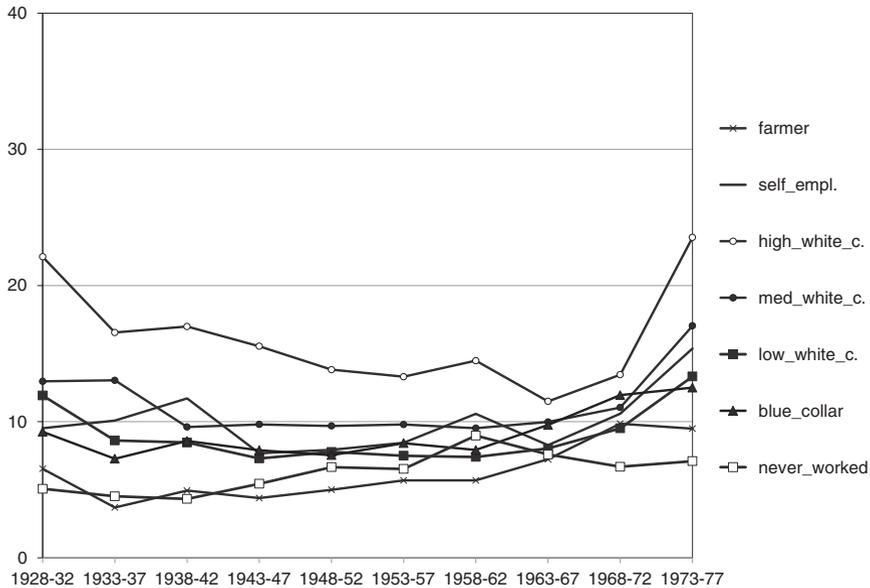


Fig. 4.6 Proportion of childless women in France, among women who have ever lived as a couple by occupation, birth cohorts 1928–1977 (Source: INSEE, enquête Famille et logements (2011), own estimations)

4.5.4 Men and Childlessness

When we try to interpret permanent childlessness among men, certain problems arise. Whereas births can almost always directly be assigned to the respective mother, this is not always the case for men. Around 2% of all children are not recognized by their biological father. On the basis of survey data, this results in an overestimation of biological childlessness for men (Toulemon and Lapierre-Adamcyk 2000). In addition, our analyses confirm that men tend to be older than women at first child-birth. Moreover, after a union disruption men may lose touch with their children, and may then become reluctant to refer to them in the survey, especially if they have almost never lived with their children or have no contact with them. Almost 60% of women born around 1945 have been mothers at age 25, but only 40% of men had a first child at this age (Fig. 4.7). The gender differences are estimated at around 2% for the birth cohorts 1930–1945, and increase for younger cohorts.

Another reason for gender differences in childlessness are imbalanced partner markets, in which either men or women are overrepresented. Men born in France after 1940 remained childless to the same extent as women if they had ever lived as a couple. However, single men displayed a much higher rate of childlessness. A major reason for this pattern may be gender-specific immigration patterns. In the past, more men than women migrated to France, resulting in an excess of male

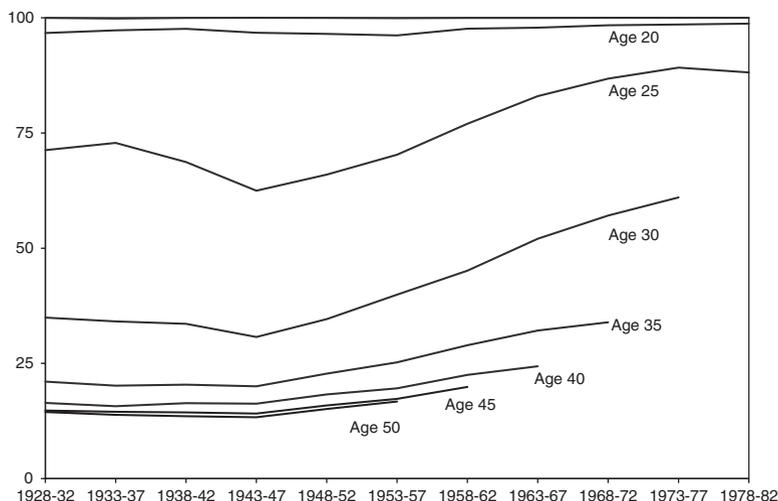


Fig. 4.7 Share of childless men in France at ages 20, 25, 30, 35, 40, 45, and 50; birth cohorts 1928–1982 (Source: INSEE, *Famille et logements* (2011), own estimations)

marriage partners of reproductive ages. Among cohorts born after 1955, migration by sex is more balanced. Nevertheless, more men than women remain single (whereby more men than women experience many unions), which in turn leads to higher rates of childlessness among men. Moreover, union disruptions are more frequent among men, and some men lose touch with their children (Toulemon 1996: 8).

Among men, the effect of education on childlessness is the opposite of that among women. Like for women, the data for the cohorts born in 1973–1977 are still provisional. There are almost no differences in the levels of childlessness by education, except among men with a low level of education, who tend to be more likely to remain childless (Fig. 4.8). If men who have never lived in a couple relationship are excluded, less qualified men are as likely as better educated men to become fathers (Fig. 4.9). The high proportion of men with a low level of education who are childless is mainly due to their partnership status. They are more likely to be excluded from the marriage market, which hampers their chances of starting a family; while the opposite used to be the case for less educated women (Toulemon and Lapierre-Adamcyk 2000; Mazuy 2002). Over time, social differences based on the level of education are decreasing more rapidly among men than among women. Among recent cohorts, women with a low level of education have reduced risks of entering a union, and, as a consequence, are more likely to remain childless than women with secondary or tertiary education (Fig. 4.4a, Toulemon 2014). This trend is related to the increasing proportion of couples in which the woman is more educated than the man; a trend that has been observed in many countries around the world (Esteve et al. 2012). As it has become increasingly necessary to have two incomes to maintain a household, women with only a basic level of education and

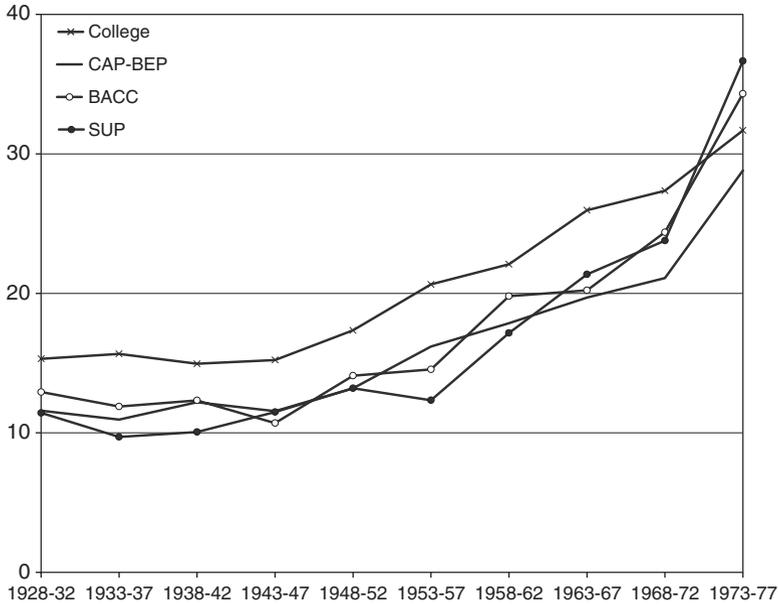


Fig. 4.8 Proportion of childless men in France by level of education, birth cohorts 1928–1977 (Source: INSEE, enquête Famille et logements (2011), own estimations). Among cohorts born after 1972 (aged less than 38 years at 1-1-2011), the proportions childless or who never lived in a union may decline after the survey

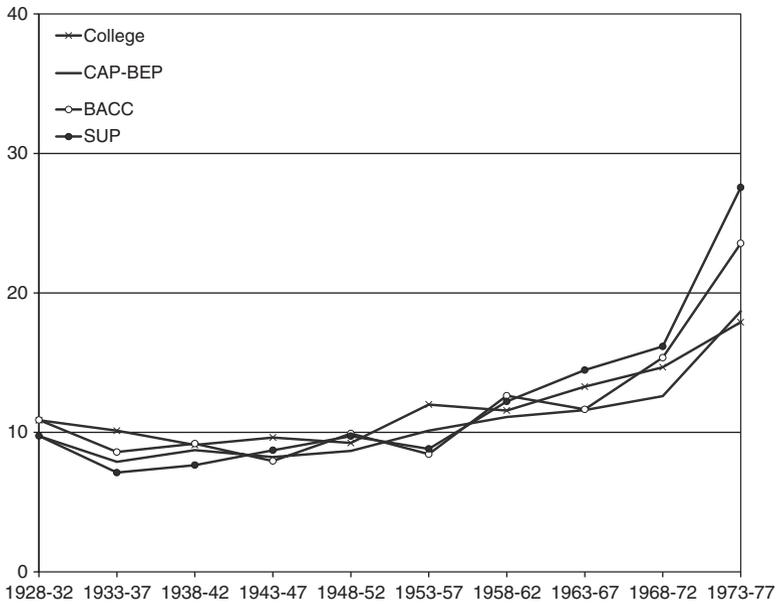


Fig. 4.9 Proportion of childless men in France who have ever lived as a couple by level of education, birth cohorts 1928–1977 (Source: INSEE, enquête Famille et logements (2011), own estimations)

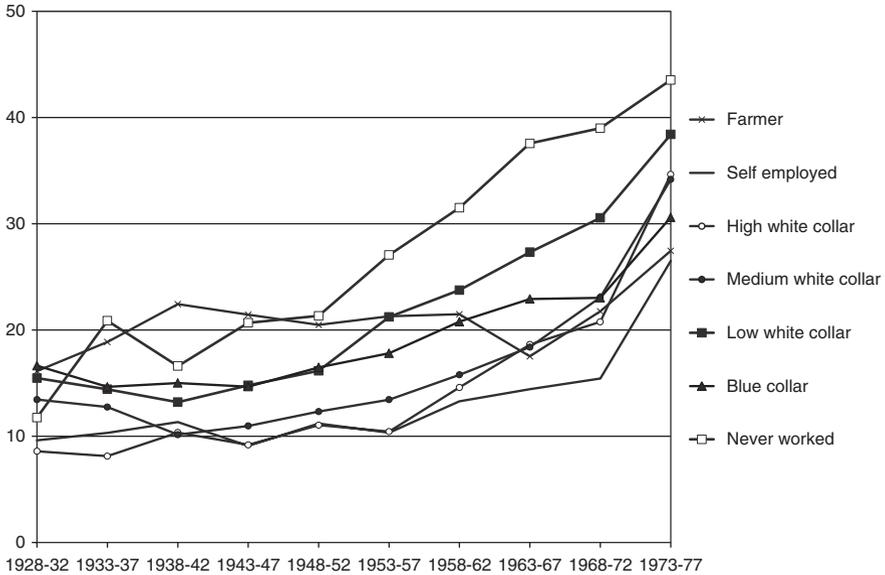


Fig. 4.10 Proportion of childless men in France by occupation, birth cohorts 1928–1977 (Source: INSEE, enquête Famille et logements (2011), own estimations)

comparatively bad income prospects have lower chances of finding a suitable partner and eventually becoming a mother.

There are marked differences in the levels of childlessness of different occupational groups. The higher a man’s occupational status, the less likely he is to remain childless³ (Fig. 4.10). Men who are farmers, blue-collar workers, or low-level white collar workers are more likely to remain childless than men who are self-employed or who work in higher-level white-collar occupations. In recent cohorts, childlessness has increased in all of the groups except for farmers, as this group is getting smaller, more selected, and more educated (a secondary diploma is now required to get the necessary loans for farming). While in the past a large share of farmers remained unmarried, this is no longer the case among recent cohorts. The differences between the various occupation groups have become smaller and the share of men who are childless has decreased, if only the men who have ever lived as a couple are considered (Fig. 4.11). Thus, it is again the elevated share of single men that contributes to the increase in childlessness in most occupational groups.

³ More than half of all men who have never been employed remain childless. Due to a strong selection of these men who have never worked and due to the very small sample size, we do not display them in the graph.

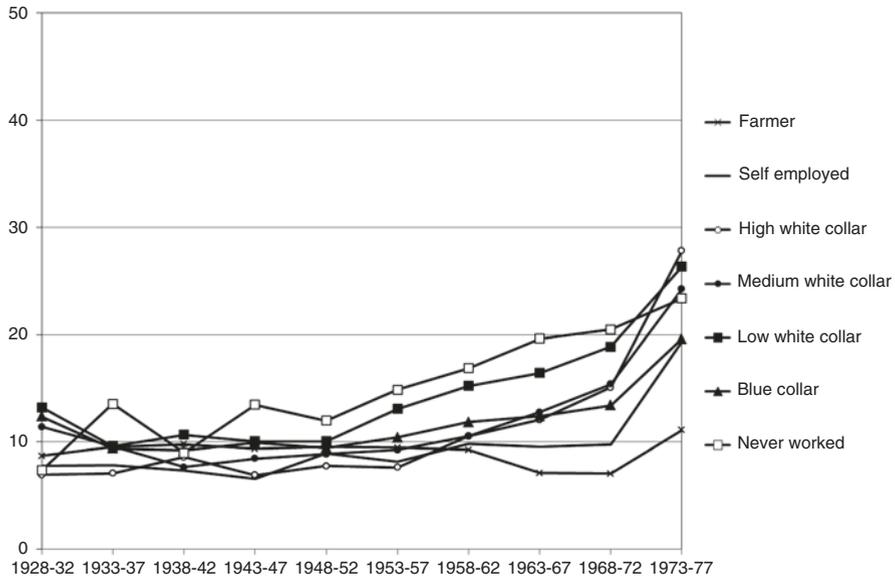


Fig. 4.11 Proportion of childless men in France who have ever lived as a couple by occupation, birth cohorts 1893–1966 (Source: INSEE, enquête Famille et logements (2011), own estimations)

4.6 Conclusion

Our aim in this article was to present an overview of the development of childlessness in France, and to describe some of the underlying institutional trends. In western Europe, France has some of the smallest proportions of men and women who remain childless. When asked about their ideal number of children, only a very small share of French men and women say they do not want to have any children at all (Debest and Mazuy 2014). This is probably related to France’s system of state-supported family benefits and its well-developed childcare system. The French state and French society strongly promote and support the reconciliation of work and family life, but the social pressure to have children also remains strong.

However, the extent of childlessness differs between social groups: i.e., between birth cohorts, between men and women, and between different educational and occupational groups. For men and for women, childlessness is increasing in younger birth cohorts independent of their level of education or their occupational status. Whether this increase in childlessness is permanent or is due to a postponement of the first childbirth is not yet entirely clear. While the age at first birth in France has been increasing, birth rates have not been decreasing. Thus, it is possible that a non-negligible share of those men and women who are still childless at ages 35+ may still have children in the future.

One of the reasons why the childlessness rate is higher among men than among women is that problems arise when measuring the number of children men have. Imbalances in the partner market can also account for the higher rate of childlessness among men. Yet married men are as likely as married women to remain childless. Partnership status is thus a decisive parameter of the extent of childlessness. Men and women who have never lived in a couple relationship (either a marriage or a non-marital union) are much more likely to remain childless than those who live in or have lived in a union. Since more than 90 % of all men and women are or have been in a relationship, a large share of childlessness can be traced back to those 10 % who have been without a partner or remained single until the time of interview.

Despite the family-friendly conditions that help women combine work and family life, highly educated women in France are still more likely than less educated women to be childless, despite the fact that they now as likely to live in a couple relationship. During the period of life in which many women start a family, women who are earning a university degree are still in education or are trying to establish a career. The older they get, the more likely it is that their initial desire to have children, if any, will turn into involuntary childlessness due to infertility, or will be given up in favour of pursuing other goals. However, the differences by education are currently becoming smaller in France, mainly because the least educated women are more likely to remain childless.

In contrast, there are only slight differences in rates of childlessness by education among men. Men with low qualifications are more likely to remain single, and for that reason are also more likely than highly educated men to remain childless. This pattern can be observed for different occupational groups as well: blue-collar workers and low-level white-collar workers are the most likely to remain childless, as they are more likely than other occupational groups to have a precarious employment status or a low income. Among men in France, having an unstable economic situation leads to the postponement of marriage and family formation, which may result in childlessness (Oppenheimer 1988; Mills and Blossfeld 2003; Pailhé and Solaz 2012). Persistent high unemployment, an increase in the prevalence of part-time jobs, and the economic demand for dual-earner households may exacerbate feelings of economic uncertainty. This insecurity could lead young people to postpone childbearing, which may in turn lead to an increase in childlessness among younger cohorts.

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Chapter 5

Childlessness in East and West Germany: Long-Term Trends and Social Disparities

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5.1 Introduction

It is a well-established historical fact that childlessness has been a frequent phenomenon in Western Europe for centuries. Historical demography has found ample evidence that it was not uncommon for 20 % or more of a cohort to never marry, and in most cases these unmarried people remained childless (Hajnal 1965). In Germany during the seventeenth and eighteenth centuries, the feudal order restricted the marriage behavior of the serfs, who needed to seek the consent of their “seigneurial lords” to get married (Mitterauer 1990). In the nineteenth century, when the feudal order had been overthrown in many of the German states, opportunities to get married improved. Nonetheless, the authorities continued to restrict access to marriage for people who were “considered to be in an unfavorable economic situation or otherwise socially undesirable” (Knodel 1967: 280; Matz 1980). The formation of the German Empire and the introduction of civil marriage in 1876 did not provide universal access to marriage, either. Marriage restrictions (*Ehebeschränkungen*) were not abolished in Germany until 1919 (Knodel 1967). In addition to the legal regulations that governed marriage and fertility behavior, economic and political conditions heavily influenced historical trends in childlessness. The significant events of the first half of the twentieth century that contributed to high levels of

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childlessness among the relevant cohorts were the Great Depression and the World Wars I and II (Schwarz 1991).

In Germany, as in other parts of Europe, a range of legal, economic, and social conditions shaped historical trends in childlessness. What makes the German case interesting is the more recent history since the mid-twentieth century, when Germany was divided into two opposing political systems. In the state-socialist German Democratic Republic (GDR), the centrally planned economy guaranteed stable and predictable employment paths. Furthermore, social and family policies that were often ridiculed in the West as being “pro-natalistic” encouraged early childbearing and the full-time integration of mothers into the labor market. West Germany’s social policies were geared towards the male breadwinner model, and the trade unions adhered to the principle of family wages for male employees. Family policies, in particular the system of joint taxation and the coverage of non-working spouses in the public pension and health care systems, are the key characteristics of a regime that was never seriously interested in the integration of mothers into the labor market. Pro-natalism was rejected in West Germany, not only because it was misused during the Nazi period, but also because the government wanted to take a clear political stance against the pro-natalist orientation of East Germany’s family policies. A statement by the first West German chancellor Konrad Adenauer reflects the attitudes towards family policies that were prevalent among West German politicians during that period: “*Kinder bekommen die Leute immer*” (“People will always have children”).

When Adenauer made his famous statement, the fertility patterns in the two parts of Germany were quite similar. In the 1960s, the age at first birth was low, and the total fertility rate was around replacement level in both East and West Germany. However, the behavioral patterns in the two parts of the country started to diverge in the 1970s; and, from a cohort perspective, for women and men born in 1950 onwards. Among the cohorts born in 1950–1964, the share of women in East Germany who would remain childless held steady at around 10 %, whereas the share increased from 10 % to around 20 % in West Germany. The growth in childlessness in West Germany was accompanied by a steady rise in the age at first birth, a postponement of marriage, and an upsurge in cohabitation. Retrospectively, West Germany emerges as one of the “vanguard countries” in Europe in the trend towards high levels of childlessness. Other countries—and especially the countries of Southern Europe—started following this pattern later (see Sobotka in this volume).

The legacy of having lived under two very different regimes is still deeply entrenched in the fertility patterns and living arrangements that we observe in contemporary Germany. Compared to West Germans, East Germans are less likely to remain childless, are younger at first birth, and are far more likely to have children in a cohabiting union or as a single parent (Huinink et al. 2012). The correlation between socioeconomic characteristics and childlessness also differs between East and West. In East Germany, there are only small differences in childlessness rates by women’s level of education; whereas in West Germany, highly educated women were far more likely than less educated women to remain childless. This elevated

childlessness of the West German female academics has attracted considerable public and media attention, and was probably an important motivation for recent policy reforms, including the expansion of public childcare and the reform of the parental leave benefit system (*Elternzeit*). However, there is also evidence that behavioral patterns have shifted among the most recent cohorts, and that the educational disparities are narrowing for the younger cohorts of West German women.

In this paper, we aim to describe recent developments and to integrate them into a larger historical, economic, and social-political framework. The remainder of this paper is structured as follows. In the next section (Sect. 5.2) we present data from census and vital registration systems that elucidate long-term trends in childlessness in East and West Germany. In Sect. 5.3 we analyze the disparities in female childlessness between different socioeconomic groups using micro-census data. Due to the paucity of information on male fertility in the official data, we complement the official data with estimates on the number of children by gender based on social science survey data, and illustrate the major pathways that have led to childlessness among recent birth cohorts in Germany. In Sect. 5.4 we draw a conclusion.

5.2 Childlessness in German Census and Micro-census Data: Long-Term Trends in Childlessness

There is a dearth of official data on childlessness in (West) Germany. Census data, including the recent register based census of 2011, do not include the number of biological children ever born. Moreover, the only census that surveyed the number of children of *married* women is the one conducted in 1970. Although estimates of childlessness from these data may be too high because they do not include births to unmarried women, the census of 1970 is one of the rare sources that gives us an impression of the long-term trends in childlessness in West Germany.¹ The estimates from these data show that childlessness was elevated for women born in the late nineteenth and early twentieth centuries. Further evidence that there were elevated levels of childlessness among the cohort born around 1900 comes from East German statistics (also Table 5.1). Unlike the censuses in West Germany, the East German census of 1981 collected the number of children ever born for the entire population, regardless of marital status.² These data confirm that more than 20 % of the East German women born in 1902–1909 were childless.

¹Fertility estimates of census data have limitations. Most importantly, they do not cover the fertility behavior of the people who had died or had emigrated prior to the date of the interview. While this is a well-known problem of estimates based on census or micro-census data, it is aggravated for the West German census of 1970 because of the high death rates during World War II (including the mass killings of the Jewish population), large-scale resettlement (particularly from the former eastern German territories), and the high rates of emigration during and following the war.

²Like the West German census of 1970, the East German census of 1971 collected the number of children for married women only.

Table 5.1 Childlessness of women in per cent, West German census of 1970 and East German census of 1981

Cohorts	1895– 1904	1905– 1909	1910– 1914	1915– 1919	1920– 1924	1925– 1929	1930– 1934	1935– 1939	–
West Germany	33	33	28	25	25	25	22	18	–
Cohorts	–	1902– 1909	1910– 1914	1915– 1919	1920– 1924	1925– 1929	1930– 1934	1935– 1939	1940– 1944
East Germany	–	22	17	17	18	16	12	10	9

Note: West German data come from the Volkszählung 1970 BRD (own estimates conducted by Sebastian Böhm at GESIS, Mannheim). Only marital births were queried in these data. Furthermore, because foreigners were not asked in the census about their number of children, this group was eliminated from the analysis. The East German data come from the Volkszählung 1981 DDR. These data were provided upon request by Olga Pötzsch (Federal Statistical Office Germany)

The cohorts born around 1900 (in both East and West Germany) experienced economic deprivation in the aftermath of World War I and the Great Depression. While having experienced economic and social hardship certainly played a role in the high levels of childlessness in these cohorts, deprivation was not the only contributing factor. A potential factor that is seldom mentioned in this context is female emancipation. This is surprising, as the scholars of that time were very concerned about the growing share of women who were “earning their own livelihood” (Brentano 1910: 376). The cohorts born in the late nineteenth century would have entered adulthood during a period when new employment opportunities for young women were emerging in the growing service sector in the Weimar Republic of Germany (Zeeb 1915).

The most significant event that affected the life course of the following cohorts was World War II. As a result of the upheavals during and after the war—including resettlements, mass emigration, high rates of imprisonment, and the excess death rates among soldiers—the sex ratio among these cohorts was highly distorted. For example, for the West German cohort born in 1920, there were only 73 men to 100 women at age 36 (Human Mortality Database 2016). Thus, the lack of a marital partner was probably a key element in the family behavior of this generation of women.

Apart from censuses, long-term trends in childlessness are commonly generated based on vital statistics data. Among the prerequisites for using such data are that the biological order is available from the vital registration system, and that this information is collected for a sufficiently long period of time. Unfortunately, West German vital statistics do not fulfill these criteria.³ In the absence of better

³The vital statistics were not changed to include biological birth order in the registers until 2008. Since 2009, the new registration system has been fully implemented. Although this reform modernized German vital statistics system, it does not enable the system to generate cohort estimates of childlessness until several decades in the future. In order to estimate the share of ultimate childlessness by birth cohort among women, order-specific birth information for the reproductive histories of an entire cohort must be collected. This means that the German registration system will produce the first estimates of childlessness for the cohorts born in 1994 who reached age 15 in

Table 5.2 Number of children by birth cohorts of women (in per cent) and mean number of children. Vital statistics (East Germany) and combined vital statistics and survey data (West Germany)

Cohorts	1940	1945	1950	1955
East Germany				
Childless	11	8	7	8
One child	26	29	30	27
Two children	35	42	47	48
Three and more children	28	21	16	18
Total	100	100	100	100
Mean number of children	1.98	1.87	1.79	1.84
West Germany				
Childless	11	13	14	19
One child	26	30	31	27
Two children	34	35	35	36
Three and more children	29	22	20	18
Total	100	100	100	100
Mean number of children	1.97	1.78	1.70	1.62

Source: For East Germany, data were provided upon request by Jürgen Dorbritz (Bundesinstitut für Bevölkerungsforschung). Data for West Germany are estimates based on Kreyenfeld (2002)

Note: For the West German 1955 cohort, the estimates are up to age 40 only

alternatives, researchers had estimated childlessness by combining survey and vital statistics data (Birg et al. 1990; Kreyenfeld 2002). For East Germany, superior data are available, as the vital statistics of the GDR had included biological birth order. It is one of the ironies of German unification that this practice was discontinued in 1990 because East Germany had to adopt the German Federal Statistics Law. Nevertheless, during its 40 years of existence, the vital statistics of the GDR produced data for a period that is long enough to allow us to calculate the share of ultimately childless women for several cohorts of women. These data, together with the estimates from the West German data, are presented in Table 5.2. They show that in East Germany 11 % of the 1940 cohort were childless, and that this share declined to less than 10 % for the subsequent cohorts. In West Germany, by contrast, 11 % of the 1940 cohort remained childless, but childlessness increased gradually among the subsequent cohorts, reaching 19 % for the 1955 cohort.

Micro-census data are a further source for generating fertility indicators, including the prevalence of childlessness by birth cohorts of women (and, ideally, of men).⁴ In the German micro-census, women aged 15–75 are asked every 4 years

2009, when the reform was first implemented. Thus, the first official estimates on ultimate childlessness from the German registration system will be generated in 2043, when this birth cohort reaches age 49.

⁴In Germany, the questionnaire of the micro-census is governed by law, and requires the approval of the German *Bundesrat*. The inclusion of the question on the number of children was preceded by a lengthy debate over the sensitivity of the item. Among the arguments that were made against

how many biological children they have.⁵ The question about the number of children was included in the micro-census for the first time in 2008, and for the second time in 2012 (see also: Bujard 2015; Bujard et al. 2015; Dorbritz 2015; Naderi 2015). The parity distribution that is generated using these data is displayed in Table 5.2. The table shows that childlessness has been rising in West Germany starting with the 1940s cohorts. Of the most recent cohorts, those born in 1965–1969, 22 % have remained childless, which suggests that childlessness has increased steadily starting with the cohorts born in the 1940s. By contrast, in East Germany female childlessness levels stalled for the 1940–1959 cohorts, and increased only slightly thereafter. Hence, childlessness levels in East Germany are still substantially lower than those of West Germany. However, the increase in childlessness among the recent birth cohorts indicates that the differences in the birth patterns of the two parts of Germany have become smaller.

Examining the childlessness trends in East Germany is instructive when seeking to understand how radical changes on the macro level transfer into cohort-specific behavioral patterns. The cohorts who were most affected by the economic and political transformation in the aftermath of unification were those born between 1965 and 1969. They experienced the early stages of their employment careers in the 1990s, and thus during the period when the East German economy was being privatized. In the course of privatization, many factories were closed, unemployment was high, and work schedules were reduced. Yet despite these challenging economic conditions, only 17 % of these cohorts were childless; a considerably smaller share than that of their West German counterparts. One explanation for this relatively low level of childlessness is that many of the women in these cohorts had their first child before German unification; while a second explanation is that these cohorts were still in the mid- or late twenties when the Berlin Wall came down, and could thus delay childbearing without getting to close to the biological limits of fertility. The East German case illustrates that even severe economic upheavals do not necessarily lead to an increase in childlessness, and that the extent to which economic conditions affect childlessness depends on the “fertility regime”. Since the fertility regime of East Germany was characterized by universal and early childbearing, childless women had the “biographical leeway” to postpone childbearing until conditions improved.

the inclusion of this question were, for example, that the micro-census is a household survey. The opponents also argued that during the interview situation a man (or a woman) may be forced to report having a child whom he had, up to that point, successfully concealed from his spouse. Still other opponents raised concerns that a question on the number of children would create distress for people with deceased children. A further argument was that a woman who had deposited her child in a “baby hatch” would be forced to report a birth she would like to keep anonymous.

⁵ Unfortunately, the question on the number of children is one of the few non-obligatory questions in the German micro-census. Unlike most of the other questions, which respondents are required to answer by law, people are free to choose whether to provide this information. Missing cases were largely imputed by the German statistical office, but sensitivity analyses of competing imputation methods have, unfortunately, never been conducted. Nevertheless, compared to estimates from social science surveys, estimates from micro-census data are presumably relatively reliable due to the high case numbers and the low unit non-response of these data.

5.3 Social Disparities in Childlessness

5.3.1 Childlessness by Level of Education

In the public debate, concerns have been raised about the elevated rates of childlessness among female university graduates in West Germany. Some of these estimates—e.g., that 40 % or more of these women are childless (see e.g.: Der Spiegel 2005)—are greatly exaggerated. Nevertheless, there is firm evidence from multiple sources that female university graduates in West Germany are more likely to remain childless than their less educated counterparts (see e.g., Duschek and Wirth 2005; Schmitt and Winkelmann 2005). In Table 5.3 we provide new evidence on female childlessness by level of education in East and West Germany based on an analysis of data from the German micro-census of 2012. Migrants have been omitted from

Table 5.3 Number of children by birth cohorts of women (in per cent) and mean number of children. German micro-census 2012

	1940– 1944	1945– 1949	1950– 1954	1955– 1959	1960– 1964	1965– 1969 ^a
Germany						
Childless	12	13	15	18	20	22
1 child	25	27	27	25	24	25
2 children	40	40	41	40	39	37
3 and more	24	20	17	18	17	16
Total	100	100	100	100	100	100
Mean number of children	1.89	1.76	1.69	1.67	1.60	1.54
East Germany						
Childless	10	10	10	10	13	17
1 child	28	30	29	27	32	34
2 children	40	44	47	48	43	36
3 and more	22	17	14	16	13	13
Total	100	100	100	100	100	100
Mean number of children	1.87	1.73	1.72	1.75	1.61	1.52
West Germany						
Childless	12	14	17	20	22	24
1 child	23	27	26	24	22	23
2 children	40	39	39	38	38	37
3 and more	25	21	19	19	18	17
Total	100	100	100	100	100	100
Mean number of children	1.90	1.76	1.68	1.64	1.59	1.54

Note: East Germany, including East Berlin

^aAged 43–47 in 2012

Course: Micro-census 2012 (own estimates)

this analysis because migration background is an important confounder in the association between education and fertility (see also Naderi 2015, and Table A2 in the [Appendix](#) for a calculation by migrant status). We distinguish between women with a tertiary degree, with a vocational training degree, and with none of these certificates. This distinction differs slightly from the ISCED classification that is commonly used in cross-national comparisons, but it is particularly well suited for mapping differential labor market opportunities in Germany, which tend to reward tertiary education and vocational education and training more than general secondary education (Konietzka 2003).

The findings displayed in the table support the notion that childlessness levels are indeed high among female university graduates, especially among the cohorts born in 1940–1944: 25 % of the women with tertiary education, but only 13 % of those with a vocational training degree and 9 % of those without a degree remained childless. It is, however, important to note that only a small fraction of the women in these cohorts received tertiary education (see Table A1 in the [Appendix](#)), whereas the women of the following cohorts greatly profited from the educational expansion in Germany. Even though in all of the cohorts women with a university degree were the most likely to remain childless, the table shows significant changes in this pattern over time. Most importantly, it is clear that for the youngest cohorts the levels of childlessness among university educated women have not been increasing, even though the levels have been rising among the other educational groups, and especially among those who did not earn a degree. This means that educational differences in levels of childlessness are narrowing over time. The West German cohort born in 1965–1969 will probably be the first for whom female education explains only a very small share of the differences in childlessness at later ages.

In East Germany, the differences in childlessness rates by level of education are small. We even see that women without a degree are more likely to remain childless than women with a university or vocational training degree. It is important to note, however, that East Germany was a much more homogeneous society than West Germany. On the one hand, the state-socialist policies pushed people to earn at least a vocational training degree. Thus, the share of individuals who never earned a degree was very low, and represented a selective group of people who probably also suffered from health impairments (see Table A1 in the [Appendix](#)). On the other hand, access to university education was highly rationed and directed by the state authorities. Despite the selectivity of the university graduates in the older East German cohorts, levels of childlessness were very low among female university graduates. Even among the 1965–1969 cohorts, East German women with a university degree are less likely to be childless than less educated West German women.

Table 5.5 reports the results from analyses based on alternative operational definitions of education. In order to guarantee significant case numbers of individual categories, we grouped the 1960–1964 and 1965–1969 cohorts into a single group and restricted the analysis to the West German sample. The upper part of the table contains the results by whether the woman has a vocational or a university degree. Similar to the results from Table 5.4, educational differences are small. When the analysis of women's childlessness is based on their school-leaving certificates (sec-

Table 5.4 Childlessness of women by birth cohorts and education (in per cent). Women without migration background. German micro-census 2012

	1940– 1944	1945– 1949	1950– 1954	1955– 1959	1960– 1964	1965–1969 ^a
West Germany						
No degree	9	12	15	18	21	25
Vocational degree	13	14	17	19	21	22
Tertiary degree	25	24	28	31	32	31
East Germany						
No degree	9	13	17	26	28	29
Vocational degree	9	9	8	8	10	14
Tertiary degree	13	16	13	14	18	23

Note: ^aAged 43–47 in 2012. Women with a migrant background were excluded from this table
 Course: Micro-census 2012 (own estimates)

Table 5.5 Childlessness in per cent. West German women without a migration background. Cohorts 1960–1969

Vocational or university education	
No degree	23
Vocational degree	22
University degree	32
School level degree	
Low (<i>Hauptschule</i> or less)	20
Medium (<i>Realschule</i>)	22
High (<i>Fachhochschulreife, Abitur</i>)	30
Combined degrees	
No degree & low schooling	22
No degree & medium schooling	21
No degree & high schooling	32
Vocational degree & low schooling	19
Vocational degree & medium schooling	22
Vocational degree & high schooling	29
University degree	32

Source: Micro-census 2012 (own estimates)

ond part of the table), we find a clear negative educational gradient. In the last part of this table, we have combined the two types of operational definitions of education into seven different categories. This system of classification results in a very uneven pattern: in addition to women with a university degree, women whose highest degree was the *Abitur* are found to have high levels of childlessness. It is likely that the educational careers of women who have the *Abitur*, but who never earned a vocational training or university degree, were disrupted. These women may have entered and exited education, and never settled into a stable employment career, and for this reason remained childless.

Table 5.6 Childlessness by education. West German Cohorts 1971–1973. German Family Panel (pairfam). Column per cent

	Women	Men
No degree	20	36
Vocational degree	25	36
University degree	25	28
All	25	33
Sample size	800	617

Note: The sample includes women and men aged 40 and older at the time of the interview. Migrants are excluded from this analysis. Estimates are weighted by the combined designs and post-stratification weight `d1calweight`

Source: German Family Panel pairfam, waves 1–6 (years 2008/2009–2013/2014)

5.3.2 *Childlessness Among Men and Women*

To further explore the socioeconomic gradient in childlessness, we analyzed estimates from the German Family Panel pairfam, the results of which are shown in Table 5.6 (for details on this data see: Huinink et al. 2011; Kreyenfeld et al. 2012). The sample was restricted to West German men and women of the 1971–1973 cohorts who were at least 40 years old at the last interview (on average age 41) and who were born in Germany. Although the German Family Panel oversamples East Germans, the number of childless East Germans of these cohorts is too small for a meaningful investigation. Thus, as a separate analysis of the East German patterns was not feasible using these data, the table shows the results for the West German respondents only. The findings presented in the table only partially support the prior evidence of the micro-census, as women without a degree are found to be substantially less likely to remain childless than the other two groups. This difference may stem from the different operational definitions of education in these data. It should also be noted that these cohorts are, on average, age 41 at the time of censoring. It seems likely that the highly educated have a greater probability of having children at higher ages; thus, the differences in childlessness levels between the less educated and the highly educated may narrow further over time.

With regard to gender differences in childlessness, we observe that 25 % of the women, but 33 % of the men are childless at age 41 (which is the average age at censoring in the sample). It is well known that men start the family formation process later than women, and the biological limits of fertility are often considered to be less fixed for men than for women. Thus, there is every reason to believe that the male respondents are more likely than the female respondents to have children past the date of the interview. Other potential explanations for the gender difference are that childless men are not well covered in the survey data, and that when they are covered they are more likely than women to provide faulty reports on their number of children (Rendall et al. 1999). Because we have no external sources to validate male fertility, we can only raise this concern, but have no remedy to cure it. More clarity exists regarding the educational gradient in childlessness. The findings dis-

played in the table suggest that there is a negative educational gradient in childlessness among men. While a large share of the men with a vocational degree or with no degree have no biological children, the percentage of university educated men who are childless is substantially lower.

Unlike other types of demographic behavior, such as divorce, teenage pregnancy, or non-marital childbearing, childlessness cannot be inherited, and thus passed on to the next generation. However, the number of brothers and sisters a person has may influence his or her ideas about family behavior. Thus, in Table 5.7 we display the results of an analysis of the degree of childlessness by the number of siblings. We find that there is indeed a strong association between these two parameters. Women and men who come from larger families are less likely to remain childless than women and men who were raised as only children. This evidence suggests that a decline in the number of children in each family could result in an increase in childlessness among the next generation. However, this is only an association that does not control for the many characteristics that may be correlated with the number of siblings, such as parental education and the value orientations of the parents and their children.

A characteristic that must be considered in this context is religious affiliation, which has been shown in prior investigations to explain fertility differences in contemporary as well as in past societies (Berghammer 2012). The data from the German Family Panel support this association (see Table 5.8). If we look at the female respondents, we can see that 32 % of those who have no religious affiliation, but just 23 % of those who have a religious affiliation, are childless. A more subtle analysis in a multivariate framework (not shown here) indicates that the effect of religiosity is stable to the inclusion of further covariates, such as education and number of siblings. For men, the differences in levels of childlessness by religiosity are smaller, and insignificant. An aspect that this simple cross-tabulation does not explore is the interaction of having children and religious practices and affiliations over the life course (for a longitudinal analysis of religiosity in Germany, see Lois 2010).

Table 5.7 Childlessness by number of siblings, West German cohorts 1971–1973. German Family Panel (pairfam). Column per cent

	Women	Men
No siblings	33	44
1 sibling	23	35
2 siblings	32	31
3 and more siblings	16	25
Sample size	800	618

Note: The sample includes women and men aged 40 and older at the time of the interview. Migrants are excluded from this analysis. Estimates are weighted by the combined designs and post-stratification weight `d1ca1weight`

Source: German Family Panel pairfam, waves 1–6 (years 2008/2009–2013/2014)

Table 5.8 Childlessness by religious affiliation. West German cohorts 1971–1973. German Family Panel (pairfam). Column per cent

	Women	Men
Religious affiliation	23	32
No religious affiliation	32	36
Sample size	801	618

Note: The sample includes women and men aged 40 and older at the time of the interview. Migrants are excluded from this analysis. Estimates are weighted by the combined designs and post-stratification weight $d1ca1weight$. Source: German Family Panel pairfam, waves 1–6 (years 2008/2009–2013/2014)

Table 5.9 Childlessness by marital status. West German cohorts 1971–1973. German Family Panel (pairfam)

	Women	Men
Never married	68	77
Married	12	13
Divorced or widowed	21	16
Sample size	800	611

Note: The sample includes women and men aged 40 and older at the time of the interview. Migrants are excluded from this analysis. Estimates are weighted by the combined designs and post-stratification weight $d1ca1weight$. Source: German Family Panel pairfam, waves 1–6 (years 2008/2009–2013/2014)

In most cases, childlessness is not the result of a single decision, but is instead the outcome of an accumulation of actions and decisions in the various domains of the life course (Hagestad and Call 2007; Jalovaara and Fasang 2015). In addition to his or her employment and educational careers, an individual’s partnership process is likely to affect whether he or she remains childless. Thus, in Table 5.9 we show the results of the analysis on levels of childlessness by marital and partnership status. It is hardly surprising that men and women who were single at the time of the interview have a much higher probability of being childless than married women and men. Marriage and childbearing are “tied events” (Hoem and Kreyenfeld 2006; Nave-Herz 2006) in West Germany, and people often get married in anticipation of having children. While it may seem obvious that there is a strong correlation between marriage and childlessness, it is surprising to see how closely the two are correlated: 12 % of the married women and 13 % of the married men are childless, whereas among the never married, about 75 % of the men and almost 70 % of the women are childless.

5.3.3 *Pathways to Childlessness*

Marriage and the partnership status in the abovementioned analyses refer to the characteristics of the respondent at the date of the last interview. Because parents may be more hesitant to dissolve a union than childless couples, being single at the time of the interview may not be the cause, but the consequence of not having children. In order to explore how the marital and partnership trajectories relate to later life childlessness, we present sequence index plots in the following (Abbott 1995). To improve the comparability of the plots, we have drawn a sample of men, women, childless individuals, and individuals with children. All four groups contain 50 randomly selected cases. Their union histories are displayed in Fig. 5.1. In the figure we distinguish between episodes (a) of being single; (b) of being in a cohabiting union without being married; (c) of being separated, widowed, or divorced; and (d) of being in a marital union, irrespective of whether the partner lives in the same household.

The figure shows that childlessness is closely related to the individual's partnership biography. The childless women, and particularly the childless men, were single for much of their twenties and thirties. Only a small fraction of the childless men have been married over a longer period of time (for a detailed study on childlessness of married couples, see Rupp 2005). In addition to observing that a large share of the childless individuals are permanently single, we can see that a large fraction of the childless men and women moved in and out of a (cohabiting or marital) union. Overall, there seem to be two dominant pathways to childlessness: having a turbulent partnership biography and being permanently single. The latter pathway is more typical for men than for women.

While the patterns for childless men and women differ, this is not the case for men and women with children. The primary difference between the sexes in this context is that men tend to enter cohabitation later than women. For both sexes, periods of cohabitation are typically of short duration. The large majority of the men and women who eventually have children turn their cohabitation into a marriage in West Germany.

5.4 Summary

In this paper, we have provided an overview of the long-term trends in childlessness in East and West Germany. We have also explored the socioeconomic differences in childlessness and how they have changed over time. For East Germany, we find only little differences in childlessness by female education. East German women of the birth cohorts 1940–1969 mostly had their children before unification when child-bearing was almost universal and women integrated into the labor market full-time. In West Germany, there is a strong educational gradient of female childlessness. University educated women are substantially more likely to remain childless than

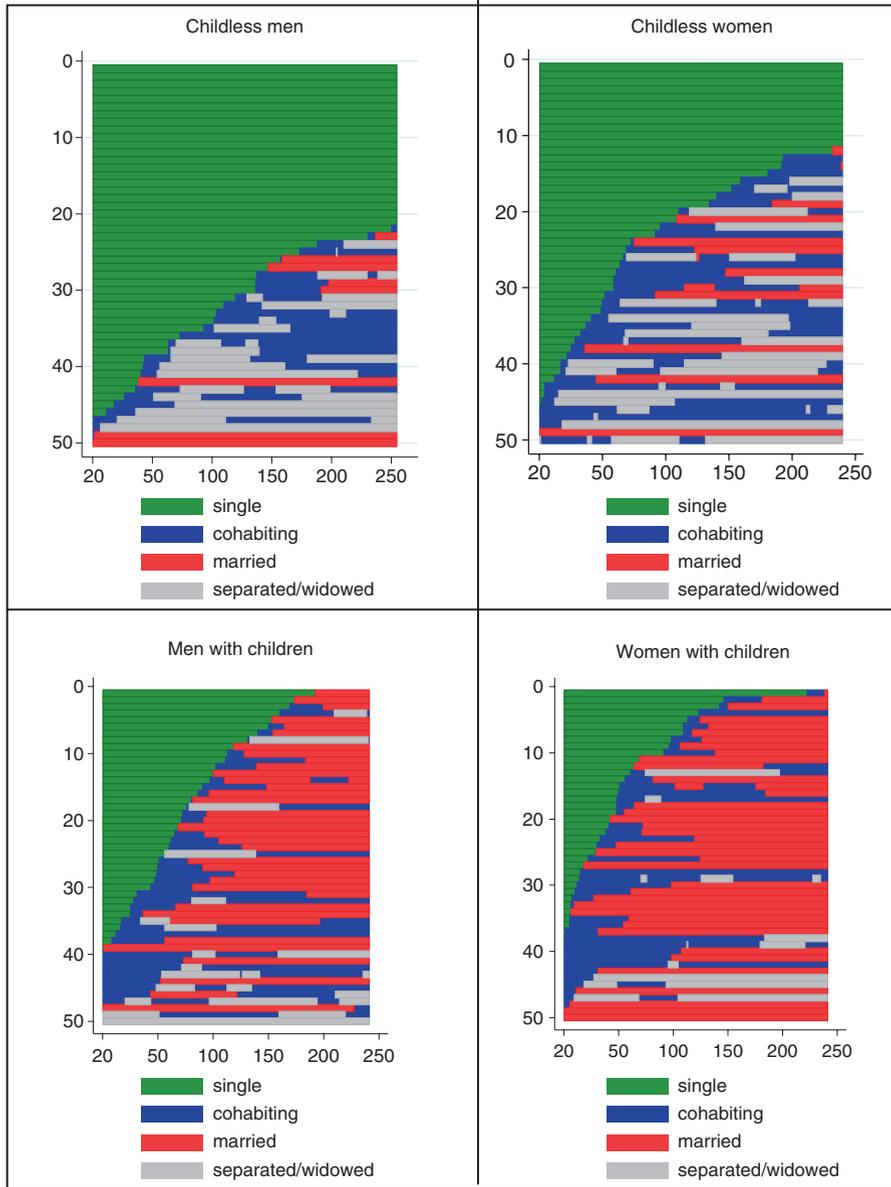


Fig. 5.1 Sequence index plots of the partnership trajectories for West German men and women (x-axis: time since age 20 in months, y-axis: number of cases)

medium or lowly educated women. A very significant development is, however, the narrowing of childlessness by education among the recent female birth cohorts in West Germany. While childlessness among the highly educated has stalled for the recent cohorts, it has continued to increase among the other educational groups, and particularly among women who never earned a university or a vocational training degree. A possible explanation for this finding is that highly educated women have profited more than less educated women from recent policy reforms, such as the expansion of public day care and the reform of the parental leave benefit system in 2007. It may also be the case that less educated women are gradually losing out on the partner market. This finding would appear to confirm evidence from other countries that the lack of a partner often leads to childlessness among less educated women (Jalovaara and Fasang 2015, see also Berrington in this volume). If this interpretation was correct, it would stand in contrast to prior speculations that the lack of a partner was the typical pathway into childlessness for the highly educated women in Germany (Der Spiegel 2005).

The investigations that have been presented in this paper have many limitations. One of the limitations is that findings were sensitive to the classification of education. Moreover, education was only measured at interview and did not capture the educational biographies that may or may not have led to a specific educational outcome. Related to that we have pointed out the problems of correctly classifying a person who got a high school degree (*Abitur*), but never continued to receive a university or vocational training certificate. These people are very often childless, most likely because of their disruptive educational careers.

Some of the findings that we have generated in this paper were hard to interpret. In particular, it seems difficult to understand why childlessness is continuously increasing among West German women with a vocational training degree. More nuanced analyses by type of education would certainly lead to a better understanding for the elevated childlessness among this large group of women (see Neyer et al. in this volume for analyses by field of education using Swedish and Austrian data). We also explored pathways into childlessness by means of sequence analysis in this paper. It was shown that permanent singlehood as well as turbulences in the partnership history are strongly associated with childlessness. However, this part of the analysis remained very explorative. The results confirm that a partnership is a prerequisite for having children, but the causal direction, in particular how fertility preferences influence partnership dynamics, was not explored.

Appendix

Table A1 Level of education by birth cohorts (in per cent). Women without migration background. German micro-census 2012

	1940– 1944	1945– 1949	1950– 1954	1955– 1959	1960– 1964	1965–1969*
West Germany						
No degree	30	23	18	14	13	11
Vocational degree	63	68	69	72	72	73
Tertiary degree	7	9	13	14	15	17
Total	100	100	100	100	100	100
East Germany						
No degree	12	7	6	5	4	4
Vocational degree	79	82	78	79	80	80
Tertiary degree	9	11	15	15	16	16
Total	100	100	100	100	100	100

Source: Micro-census 2012 (own unweighted estimates)

Note: *Aged 43–47 in 2012

Table A2 Childlessness of women by birth cohorts and education (in per cent). All women (including those without migration background.) German micro-census 2012

	All	West Germans		East Germans
		No migration background	Migration background	No migration background
No degree	17	23	8	28
Vocational degree	19	22	12	12
Tertiary degree	28	32	21	21

Source: Micro-census 2012 (own un-weighted estimates)

Note: Due to the small numbers of migrants in East Germany, we did not distinguish the East German sample by migration background

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Chapter 6

Childlessness in Switzerland and Austria

Marion Burkimsher and Kryštof Zeman

6.1 Introduction

For several reasons, Switzerland and Austria are of interest to researchers analysing the factors that influence levels of childlessness. The countries are similar in terms of population size, standard of living, and socio-economic setting. The Alpine regions have traditionally had rather high levels of childlessness, with a significant proportion of women and men remaining single (Viazzo 1989). The current population of Switzerland is about 8.2 million, of whom 65 % are German-speaking, 23 % are French-speaking, and 8 % are Italian-speaking. As each canton has its own official religion and language(s), there are French- and German-speaking Catholic, Protestant, and secular cantons. In the age range 20–39 a third of the population has foreign citizenship. These immigrants come not only from the neighbouring countries of Germany, France, and Italy, but also from ex-Yugoslavia, Portugal, and Spain. Austria has a slightly larger population, at 8.6 million, and the official language is German, with 89 % of the population speaking German as their mother tongue. The proportion of foreigners in the country is less than half that of Switzerland, with immigrants from Germany and the countries of ex-Yugoslavia and Turkey being the most numerous. Around 20 % of women in Switzerland who have reached the end of their reproductive years have no children, while the corresponding figure in Austria is a little lower, at around 18 %. In Switzerland, the share

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of the population who are childless has never been lower than 14 % even for the cohorts who lived through the baby boom years, whereas in Austria it dropped to around 12 %. These levels and trends are similar to those of some countries in western Europe (the United Kingdom, Germany, the Netherlands) and a few overseas developed countries (the United States, Japan), but are very different from central and eastern Europe, which have much lower rates of childlessness.

This chapter examines the differentials in fertility outcomes across sub-populations in the two countries, drawing on census and survey data. Specifically, we examine the variations in levels of childlessness by cohort, educational attainment, religion, migration background, and current place of residence in the country. We also provide insights into differences in fertility desires in the two countries.

6.2 Institutional Setting and Data

6.2.1 *Institutional Setting*

In Austria, the parental leave period is up to 3 years, and because the conditions for taking this leave are relatively generous,¹ it is widely used. Only one-third of mothers with children under age three are in the labour force, well below the OECD average of 41 % (OECD 2014). Just 21 % of children under age three were in public day-care in Austria in 2012, which is the lowest proportion among all of the western European countries. As childcare in Austria is administered by municipalities, there are big disparities in childcare provision between the regions. The availability of day-care has been increasing in Vienna, and the proportion of children under age 3 who are enrolled has grown from 17 % in 1995 to 35 % currently. Participation rates have generally been high for children aged 4–5, and have recently increased considerably among 3-year-olds, from 40 to 50 % in the 1990s to 81.5 % in the 2012/13 school year (Statistics Austria 2013a). Women in Austria have a legal right to reduce their working hours to part-time after having a child, and many women take advantage of this option. Among couples with children ages 0–14, the proportion of families in Austria with one parent working full-time and the other working part-time was 44 % in 2011, the highest share amongst all OECD countries except for the Netherlands with 60 % (OECD 2014). Public spending on the family is very biased towards cash benefits (such as parental leave and child allowances) rather than services (pre-school childcare, or policies to help parents combine work and childrearing). As Neyer and Hoem (2008: 94) noted, “Austria represents a conservative, gendering welfare state which supports mother’s absence from the labor market”.

In Switzerland, by contrast, there is less public support for new families. Maternity leave is only 14 weeks and childcare facilities are scarce and expensive, especially in the German- and Italian-speaking areas of the country. High incomes

¹ Since 2008 parental leave in Austria has been made more flexible, with three variants of duration of 18/24/36 months, which offer different levels of monthly allowances, of 800/624/436 EUR.

and the widespread availability of part-time jobs only partially offset the challenges facing couples with small children; the opportunity costs of a break in employment to have a child are higher in Switzerland than in most other countries. The female labour force participation rate of women aged 25–39 has been increasing, and was 85 % in 2014. While 80 % of employed women living in a household with child(ren) under the age of 15 are working part-time, the corresponding proportion of men with young families who are working part-time remains low, but increased from 3 % in 1992 to 10 % in 2014 (Federal Statistical Office 2015a).

6.2.2 Data

In this chapter, the primary data source for Switzerland is the full population census taken in the year 2000. The census asked both women and men to state the number of children they had ever borne or fathered. The question on number of children was not compulsory, and around 3 % of women did not respond. This proportion was a little higher for men, and was markedly higher among young and elderly people, who may have considered the question irrelevant. Foreigners also had an elevated non-response rate, of around 7 %.

Austria has similar census data, which in 1981, 1991, and 2001 included fertility data. Women aged 16 and over were asked to report the number of live-born children they had ever had. Because of the way the census question was posed, there were some discrepancies in the proportion of respondents who said they were childless among comparable cohorts between the 1981 survey and subsequent surveys (Zeman 2011). For this chapter, we mainly use the 2001 census data.²

Birth registration data for the years since the last census, together with population estimates from registers, allow for the calculation of age- and birth order-specific fertility rates, and thus enable us to make on-going estimates of cohort fertility. For Switzerland and Austria, these base data are available in the Human Fertility Database (2015).

Surveys of various sizes and spheres of interest are used to complement the census and birth registration data for both Switzerland and Austria. In 1994, Switzerland participated in the multi-national Fertility and Families Survey (FFS). More up-to-date information was gathered in 2013 with the Families and Generations Survey (FGS). This survey, which had a sample size of over 17,000, included information on family sizes and fertility intentions, along with many other demographic variables. Another on-going survey that offers insights into fertility in Switzerland is the Swiss Household Panel (SHP). In Austria, a micro-census of around 22,500 households is performed four times a year, and includes many socio-economic variables, with a focus on the labour market. Special modules asking about the number of

²Census data on parity by level of education, origin, and cohort are available in the Cohort Fertility and Education database (Zeman et al. 2014).

children and fertility intentions (*Kinderwunsch*) are included about every 5 years (1986, 1991, 1996, 2001, 2006, and 2012). In this chapter we use the individual micro-data from the micro-census wave of the fourth quarter of 2012.

6.3 Childlessness by Socio-economic Characteristics

6.3.1 Changing Levels of Childlessness by Birth Cohort

Figure 6.1 shows the trends in cohort fertility for Austria and the corresponding proportions of women born between 1920 and 1960 who were childless. In earlier generations, the rates of childlessness were even higher: among the cohorts born in the 1880s and 1890s, around one-third of the women remained childless in both Switzerland and Austria (Viazzo 1989). In traditional societies a substantial proportion of the population did not marry for a variety of reasons. For example, many people were discouraged or prohibited from marrying by family inheritance systems; poverty and the inability to raise enough money to marry; choosing to enter into religious orders; or legal restrictions on the right to marry for members of the lower classes (Mantl 1999). In addition, a significant proportion of married women remained childless because, for example, they suffered from infectious diseases or were infertile, their pregnancies ended in miscarriage or still-birth, or they were widowed or separated from their partner for long periods of time (Ehmer 2011).

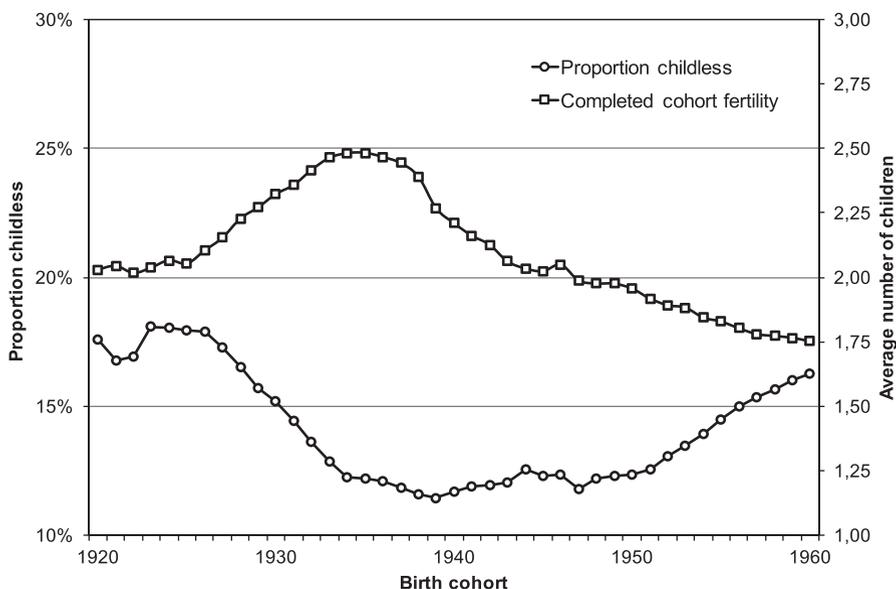


Fig. 6.1 Proportion of women who were childless, cohorts 1920–1960 (*left scale*) and completed cohort fertility (*right scale*) by birth cohort, Austria (Source: Census 2001, own estimates)

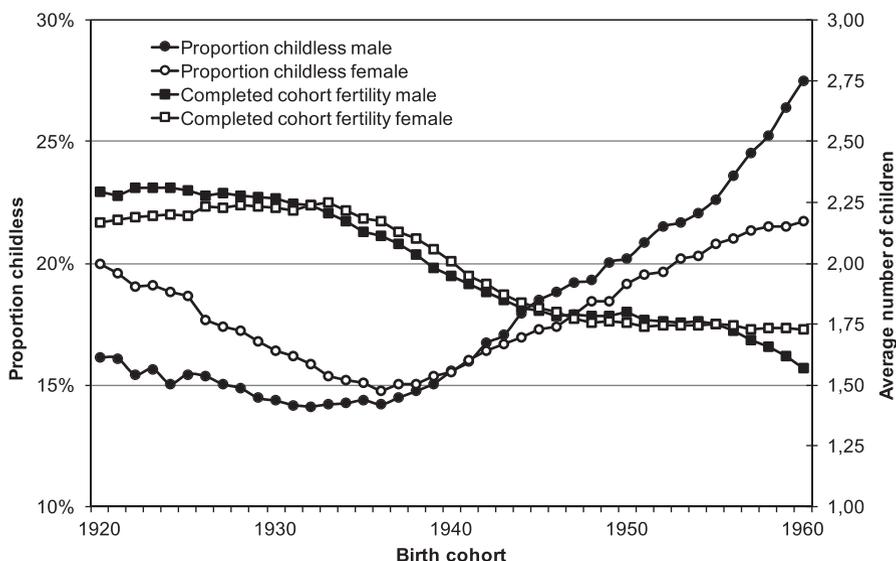


Fig. 6.2 Proportion of men and women who were childless, cohorts 1920–1960 (*left scale*) and completed cohort fertility (*right scale*), Switzerland (Source: Census 2000, own estimates)

The lowest level of childlessness in Austria, at around 12 %, was reached for women born in 1938. The childlessness rates among subsequent cohorts increased steadily, rising to around 18 % for women born around 1970. In 1984, only 11 % of first births occurred after age 30, and just 0.3 % of births occurred after age 40. In 2013, the corresponding figures were 45 % and 2.3 %, which represents a significant shift. As women are postponing the birth of their first child to increasingly high ages, the risk of infertility is rising, and is only partially offset by the increasing availability of assisted reproductive technology (ART). In Austria, public health care provides subsidised ART to infertile women, and 2 % of live births resulted from the use of ART in 2010 (ESHRE 2014).

Switzerland has fertility data for both men and women (see Fig. 6.2), and while the levels and trends in Switzerland are similar to those of Austria, they are not identical. The lowest childlessness rates were for the 1932 male cohort and the 1936 female cohort. It is interesting to note that for the cohorts born before 1940 childlessness was higher for women, but among the more recent cohorts childlessness has been higher for men. There is no clear explanation for this shift. It is possible that men of earlier generations would seek a new partner if their first wife did not bear them a child, as the pressure to produce an heir, especially in rural communities, may have been significant. Among more recent generations, the situation may be reversed, as an increasing proportion of less skilled men are failing to find a partner. The different life courses and work constraints of male and female immigrants and low skilled workers, and how they have changed over time, may also explain the differential.

The baby boom was associated with a double peak in period fertility rates. In Austria, the highest TFRs were 2.75 in 1940 and 2.82 in 1963, while Switzerland's peak TFRs were a little lower, at 2.62 in 1946 and 2.68 in 1964. An upsurge in early births was a major cause of the temporal peaks in period fertility; whilst postponement, together with the decline in large families, has depressed period rates since the baby boom. Although the period trends were similar in Austria and Switzerland, the cohort fertility trends in the two countries were rather different. In Austria there was a peak of 2.5 children on average, for women born in the mid-1930s, followed by a decline to 1.75 for the 1960 cohort (Fig. 6.1). In Switzerland the average family size was quite stable at around 2.2 children for the cohorts born up to the mid-1930s. Subsequent cohorts then experienced declines to the current level of around 1.75.

6.3.2 *Childlessness by Education*

A large number of studies have shown that, for women, having more education is associated with lower overall fertility and higher rates of childlessness (for a general overview, see Skirbekk 2008; for Austria, see Neyer and Hoem 2008, Prskawetz et al. 2008, Sobotka 2011; for Switzerland, see Coenen-Huther 2005, Sauvain-Dugerdil 2005, and Mosimann and Camenisch 2015; for other countries, see Wood et al. 2014). For an analysis of the link between childlessness and field of education, see the chapter by Neyer et al. in this volume.

Over the past century, educational levels have been rising, particularly for women. In Switzerland, for example, the proportion of women who have tertiary-level education increased from 6 % of those born in 1930, to 13 % of those born in 1950, to 21 % of those born in 1970, and it is still rising. The corresponding figures for men born in 1930, 1950, and 1970 are 24 %, 30 %, and 33 %, respectively. We might expect to find that with higher education becoming more prevalent, the reproductive behaviour of highly educated women would become less differentiated from that of less educated women. Interestingly, Austria has seen such a convergence (Fig. 6.3), whereas Switzerland has seen a divergence (Fig. 6.4). Austria differs from most other developed countries in that men are still more likely than women to enrol in tertiary education; whereas in most other European countries, including in Switzerland, women now outnumber men in higher education.

The 1981 Austrian census showed that around 60 % of the women born in the 1890s and early 1900s who had a tertiary education were childless: thus, their decision to pursue a higher education was effectively a "life calling" similar to the calling to commit to a celibate life in the church. Among the cohorts born after the Second World War in Austria, there has been a convergence in childlessness rates between women at the upper two educational levels, and between women at the lower two educational levels; the differentiating factor is whether or not a woman graduated from secondary school with a high school diploma (*Matura*) (Fig. 6.3). This pattern may be caused by Austria's early educational streaming of pupils after the fourth year of elementary school into either vocational training or a higher

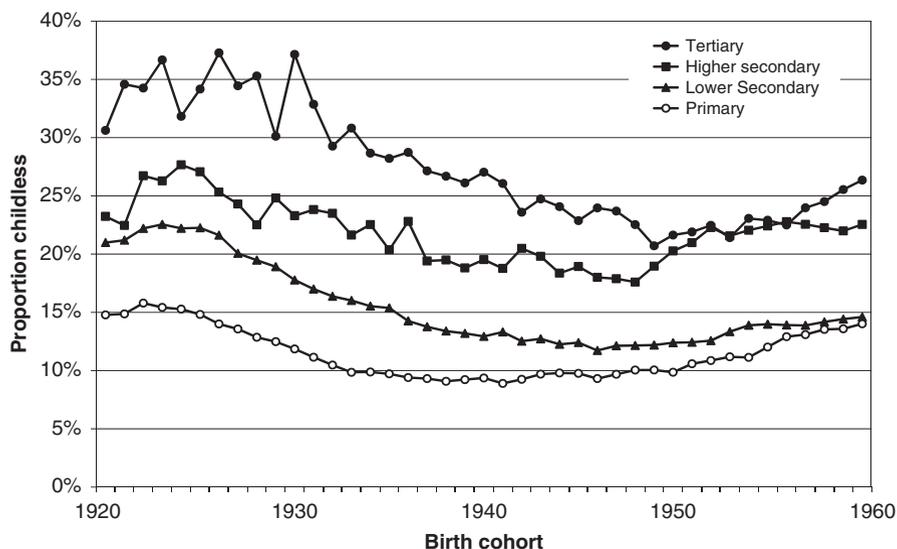


Fig. 6.3 Proportion of women who were childless by birth cohort and level of education, Austria. Note: The primary level includes ISCED 1997 levels 0–2; the lower secondary level includes ISCED levels 3B and 3C; the higher secondary level includes ISCED levels 3A and 4; and the tertiary level includes all ISCED levels of 5 and 6 (Source: Census 2001, own estimates)

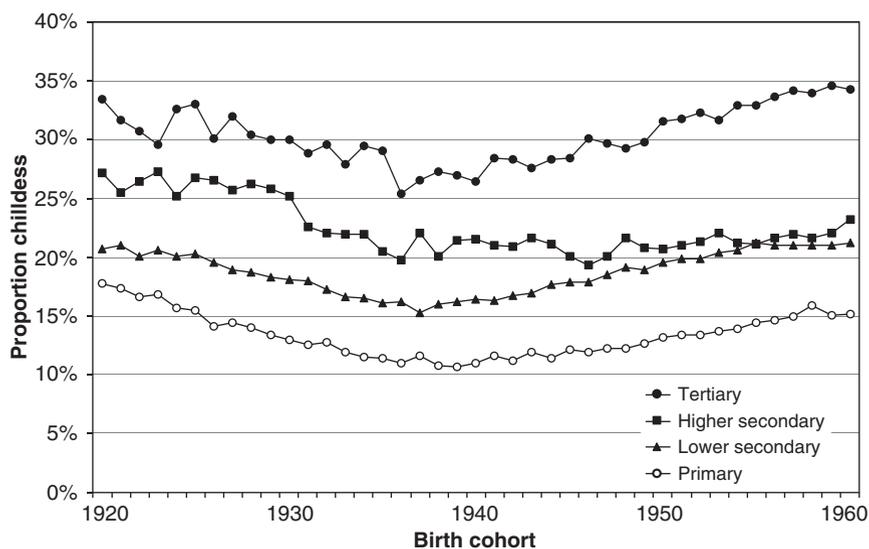


Fig. 6.4 Proportion of women who were childless by birth cohort and level of education, Switzerland. Note: The primary level includes ISCED 1997 levels 0–2; the lower secondary level includes ISCED levels 3B and 3C; the higher secondary level includes ISCED level 3A; and the tertiary level includes all ISCED levels of 5 and 6 (Source: Census 2000, own estimates)

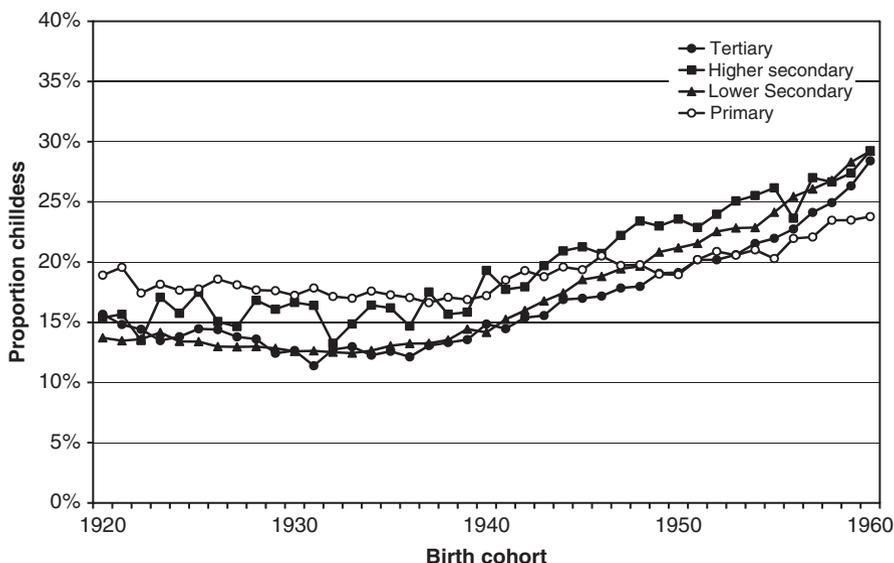


Fig. 6.5 Proportion of men who were childless by birth cohort and level of education, Switzerland. Note: The primary level includes ISCED 1997 groups 0–2; the lower secondary level includes ISCED levels 3B and 3C; the higher secondary level includes ISCED levels 3A and 4; and the tertiary level includes all ISCED levels of 5 and 6 (Source: Census 2000, own estimates)

secondary and university track, with limited opportunities to transfer between the two. This educational system has been described as being “segregated by gender and social class” (Neyer and Hoem 2008: 107).

Figure 6.4 shows the incidence of childlessness for women of different educational levels in Switzerland. Among women with a low educational level, the rates are similar for Switzerland and Austria, at around 15 % of the current generation completing their childbearing. However, for women with tertiary education, the rates of childlessness differ considerably between the two countries: one-third of these women in Switzerland are childless; whereas in Austria only around one-quarter are childless, which is similar to the rate for women with higher secondary education. Moreover, unlike in Austria, in Switzerland the two secondary education groups recently converged at a level of about 20 %. In Austria there are now two distinct groups: moderate rates of childlessness among women with primary or lower secondary education, and higher rates of childlessness among women with tertiary or higher secondary education. In Switzerland, however, three groups have emerged: moderate rates of childlessness among women with primary education, higher rates of childlessness for those with secondary education, and the highest rates of childlessness for women with tertiary education.

The differentials in childlessness by education for men are much smaller than those for women (see Fig. 6.5 for Swiss data). Among the older generations, lower educated men had the highest rates of childlessness, most likely caused by poverty.

There is a transposition in ranking among younger men, with an intermediate level of academic attainment being associated with the highest levels of childlessness. It was still possible that the men born after 1955 (who were under age 45 at the time of the census) could father a child.

6.3.3 *Childlessness by Religion*

Back in 1994, the Swiss FFS found that religiosity was associated with different views on the benefits of having children (Coenen-Huther 2005). The findings indicated that compared with respondents who were active in their faith, those with no religious affiliation were less likely to believe that having children offers benefits such as joy and satisfaction, partnership consolidation, and continuation of the family line. In addition, the respondents who did not attend religious services were less likely to see children as a potential support when elderly, or as a continuation of life after their death. It is, therefore, not surprising that religiosity has an impact on fertility outcomes.

Both Austria and Switzerland are more religious than many other western European countries, with up to one-quarter of all adults regularly attending a religious service. In Austria the majority religion is Catholic; 61 % of Austrians are members of the Catholic Church, whilst around 5 % are members of Protestant churches. In Switzerland there is a more even split between the Catholic and the Reformed (Protestant) denominations, and affiliation with these churches is mixed across both regional and linguistic lines. In both countries the proportion of the population with no religious affiliation is growing, and young people attend religious services much less frequently than older people (Burkimsher 2014). In Switzerland, religious affiliation was recorded in the 2000 census. For Austria, census data from 2001 is available for women in Vienna, obtained as part of the WIREL project (see Acknowledgements).

There is a close relationship between educational level and religious affiliation. Most notably, those who classify themselves as having “no religion” have, until recently, been more concentrated among the highly educated. Recent evidence suggests, however, that among the younger generations (those born after the 1960s) this link is weakening or even reversing.

In general, the differences between Catholics and Protestants in rates of childlessness are slight in both Switzerland and Austria. However, very significant differences appear when we look at the non-religious. Holding other factors constant, the childlessness rate of the non-religious is about double that of Catholics and Protestants in Switzerland. This result contradicts the findings of Baudin (2008) for France: that (non-)religiosity has a significant effect on family size, but not on the likelihood of remaining childless. The differential between Catholics and those with no religion is not quite as marked in Austria (Vienna) as in Switzerland, but it is still significantly large.

Vienna is a very heterogeneous city in which all the major religions are represented. In the 2001 census the level of childlessness for 45–54-year-old women was 20 % for both Catholics and Protestants. Among Muslim and Orthodox women the childlessness levels were significantly lower, at 8 % and 9 %, respectively. In contrast, the childlessness level for women with no religious affiliation was significantly higher, at 26 %. When we take into account country of birth and education in our analysis, the distinctiveness of Muslim and Orthodox women becomes weaker, which suggests that the very low levels of childlessness among these women is attributable in part to their migration background and low educational attainment. In Vienna, the factors of education and country of birth have greater effects on childlessness than religion *per se*.

In a recent study that focused on women scientists in Austria, Buber-Ennser and Skirbekk (2015) found that education (along with age and marital status) was the most important determinant of *actual* childlessness; and that religious affiliation, whilst still having significant explanatory power, had a weaker effect. In contrast to *actual* childlessness, differentials by religiosity in the *intention* to remain childless were large. However, there were no significant differentials in fertility intentions by education when religion was taken into account (but a significant proportion of highly educated women fail to achieve their fertility ambitions). The same pattern was found for men and women in the FGS in Switzerland: i.e. the non-religious were much more likely than the religious to say they did not want to have a child, but the differentials in actual childlessness were smaller.

In Switzerland, the effects of having a higher education and no religious affiliation are multiplicative: for women born in the 1960s, almost 45 % of those who were both tertiary educated and had no religious affiliation were childless. From the 1920s cohort to the 1960s cohort an increasing proportion of the population (4–12 % of women) embraced the “no religion” position. At the same time, their fertility behaviour, perhaps surprisingly, became increasingly differentiated from that of women who were traditional Catholics/Protestants. But among younger cohorts there are indications that the patterns in Switzerland and Austria are becoming increasingly similar to those observed in Britain (Dubuc 2009): i.e. as the lower educated increasingly describe themselves as having no religion, the historical association between having no religion and a high rate of childlessness is starting to break down.

In contrast to the traditionally Christian background of the local population, the Muslim (predominantly immigrant) communities are distinctive in their partnering and fertility behaviour (Fig. 6.6). Almost all Muslims marry, and within marriage childlessness is rare; probably around the biological minimum. There is a norm of early marriage and childbearing: at age 30 (in 2000) only 6 % of Muslim women were still unmarried, and 84 % had had at least one child.

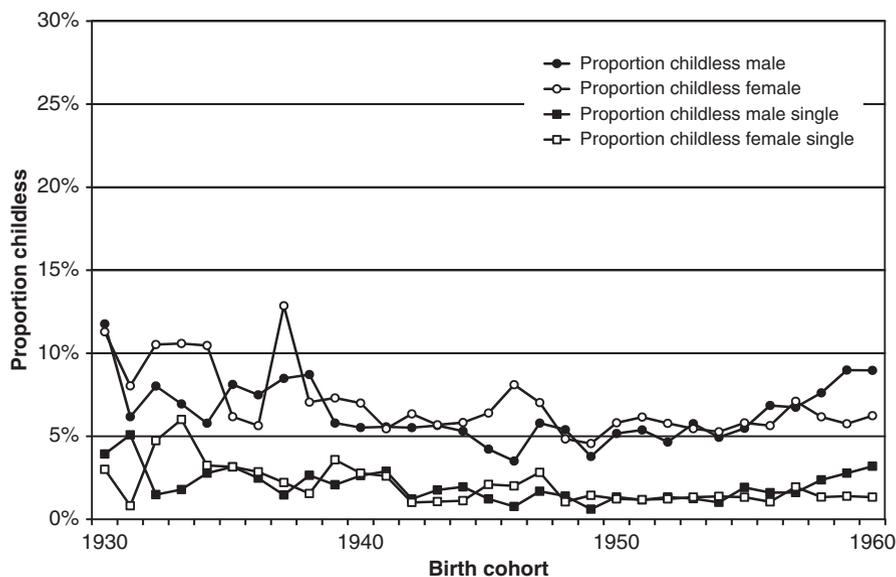


Fig. 6.6 Proportion of Muslim men and women who are single or childless by cohort, Switzerland (Source: Census 2000, own estimates)

6.3.4 Childlessness by Country of Birth

In Switzerland, and to a lesser extent in Austria, very high proportions of the young adult population were born outside of the country. Their reasons for being in the country, as well as the strong influences of education and religion, as already discussed, affect their levels of childlessness.

On average, immigrants have a lower rate of childlessness than the native-born. However, closer investigation reveals that there are big differentials by country of origin. Censuses record either current citizenship (Austria in 1981 and 1991) or country of birth (Austria in 2001); or they record both (Switzerland in 2000). These categories are not directly equivalent, as the relative ease or difficulty of naturalisation determines how many immigrants acquire citizenship; it is easier to become a citizen in Austria than in Switzerland, and it is easier for some nationalities than others to acquire citizenship in both countries. In both Switzerland and Austria, being born in the country does not confer the automatic right to that country's citizenship. Table 6.1 shows the proportion of the total population by citizenship, and by whether they were born in the country.

In general, people with foreign citizenship have a younger age profile than all people “born abroad”, because immigrants who stay in the country longer often aspire to citizenship. Having children in the country also tends to be associated with settling or remaining for a longer period of time. The outcome of these factors in terms of childlessness is illustrated in Table 6.1 for Austria. The 1981 census showed

Table 6.1 Proportion of population (men and women) in 2013 by current citizenship and country of birth

	Switzerland	Austria
Swiss/Austrian citizenship, born in the country	67.2 %	82.0 %
Foreign citizenship, born in the country	4.6 %	1.8 %
Swiss/Austrian citizenship, born abroad	9.0 %	6.1 %
Foreign citizenship, born abroad	19.2 %	10.1 %

Sources: Swiss data from Population and Households Statistics, STATPOP (Federal Statistical Office, 2015b), Austrian data from Statistics Austria (2013b)

that the childlessness level of women with *foreign citizenship* was ten per cent higher than that of Austrian women. This reflects the fact that in the 1960s and 1970s many immigrants came from Western Europe for short- and medium-term work, and they made up a very small share of the population (1.5–3 % of the 1920–1940 cohorts). In the 2001 census, when *country of birth* was recorded, the differentials were much lower, and among women younger than age 50 there was a reversal, with immigrants having lower levels of childlessness than the native-born. The reason for this shift is that in the 1990s more immigrants came from the war-torn countries of former Yugoslavia, and later from Turkey; and these migrants, who were especially likely to settle and have a family in Austria, had higher fertility rates than the native population. These immigrants also made up a much larger share of the population than other groups of foreign citizens (10–14 % of the 1920–1940 cohorts) (Fig. 6.7).

For Switzerland, we have more detailed information on childlessness rates by country of birth from the 2000 census. Table 6.2 shows the rates for a selection of countries and regions to illustrate certain factors that have a bearing on childlessness. A higher rate of childlessness is associated with coming from a culture in which childlessness is quite common, especially amongst highly educated women. This can explain the high rates for women from the Anglo-Saxon countries, Finland, Germany, and the Netherlands; as well as from the developed countries of the Far East, including Japan, South Korea, and Taiwan. In contrast, childlessness is low among women from southern Europe, the Balkans, and Turkey, as in those countries childlessness is rare. However, the high rates of childlessness among women from the ex-communist countries are surprising, as the rates were traditionally very low in these countries.

For some immigrants, the constraints imposed by their specific work conditions in Switzerland can have a significant impact on their rates of marriage and child-bearing. The high levels of childlessness among women from the Philippines, Thailand, and Latin America is likely attributable to the fact that many come to work as maids or nannies. The childlessness rates are significantly lower for men from these countries than for women. Immigrants from some countries find a restricted “marriage market” in the country, caused by a gender mismatch in the number of immigrants from the same culture. As was already mentioned, this mismatch partly explains the higher rates of childlessness for women than men from

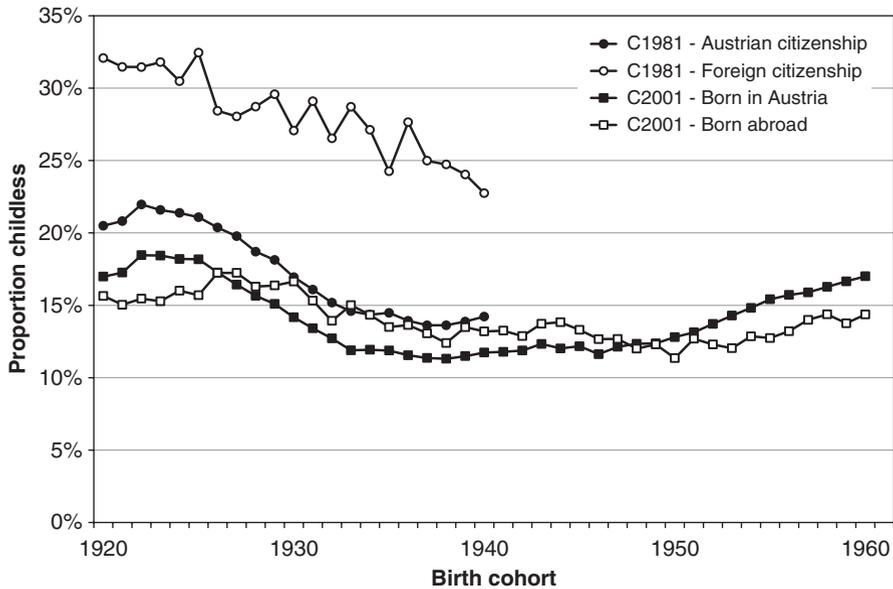


Fig. 6.7 Proportion of women who were childless by birth cohort, citizenship, and migration background, Austria (Source: Census 1981 and 2001, own estimates)

less developed countries. Similarly, it explains why childlessness is higher for men compared to women coming from Spain and Italy. Many single young men come from these countries to work in physically demanding jobs, often on a short- or medium-term basis; if they marry, they often return to their home countries.

We can see the influence of these factors playing out if we compare German, French, and Italian speakers by their respective places of birth: i.e., Switzerland, Germany, France, or Italy (Figs. 6.8, 6.9, and 6.10).

As we noted earlier, the childlessness level for Germans is rather high, and the differential between native Swiss-Germans and immigrant Germans is getting larger with younger cohorts. Childlessness is particularly common for German women living in Switzerland: it is nearly 35 % for the 1960 cohort, compared to “only” 25 % for the Swiss-Germans of the same cohort.

The graph for French speakers (Fig. 6.9) is quite different from that for German speakers in Switzerland. The childlessness rates for French speakers are lower than the rates for German speakers, and the differences by country of birth (France or Switzerland) are much smaller. For men the gap between the two groups is insignificant, although for women immigrating from France, the rate is a couple of percentage points higher.

Figure 6.10, which shows the patterns of childlessness for Italian speakers, is different again. Immigrants from Italy have very low levels of childlessness; lower even than those of native Italians in Italy. The proportion of native-born Italian speakers—most of whom live in the canton of Ticino—who are childless is even

Table 6.2 Proportion of childless women (cohort 1930–1960) and childless men (cohort 1930–1950) by country of birth, Switzerland

Country of birth	Women		Men	
	Per cent childless	N	Per cent childless	N
Far East developed*	26 %	1565	17 %	277
Philippines & Thailand	25 %	4858	18 %	3217
Anglo-Saxon*	24 %	12,894	20 %	5060
Finland	24 %	1887	14 %	191
Germany	23 %	58,107	19 %	29,790
Netherlands	21 %	5193	17 %	2162
Latin America*	20 %	8185	15 %	1485
Ex-communist*	20 %	14,680	19 %	8586
France	20 %	27,914	17 %	12,605
Switzerland	19 %	961,364	18 %	576,147
Austria	17 %	21,499	17 %	9075
Italy	9 %	65,973	10 %	60,440
Spain	9 %	17,636	13 %	10,302
Ex-Yugoslavia & Albania	8 %	40,875	6 %	17,671
Portugal	8 %	12,095	6 %	3406
Turkey	5 %	8273	6 %	4301

Source: Census 2000, own estimates

Note: *Far East developed = Japan, South Korea, Taiwan; Anglo-Saxon = UK, Ireland, USA, Canada, Australia, New Zealand; Latin America = Mexico, Brazil, Argentina, Chile, Colombia, Peru; Ex-communist = Hungary, Czech Republic, Poland, Romania, Slovakia, Russia, Bulgaria

higher than in the German-speaking parts of the country. In this Alpine region, there is a long-established tradition of marrying late, and a high rate of singlehood. This may be an adaptation to life in a rugged region, where population pressures were mitigated by a division into high-fertility “family” women and men, and those who remained single and had other specific roles to play in society (Viazzo 1989). The low, though steadily increasing rates of childlessness among Italian immigrants may be explained by their origin in southern Italy, where fertility behaviour follows the southern European pattern.

6.3.5 Geographical Variations in Childlessness and the Process of Concentration

Childlessness has traditionally been considerably higher in Vienna than in the rest of Austria, for two main reasons: first, a large proportion of the city’s population are single, many of them students or seasonal migrants; and, second, there is selective outmigration of young families to the periphery of Vienna, which is mostly in the province of Lower Austria. Table 6.3 gives the proportion of women who are

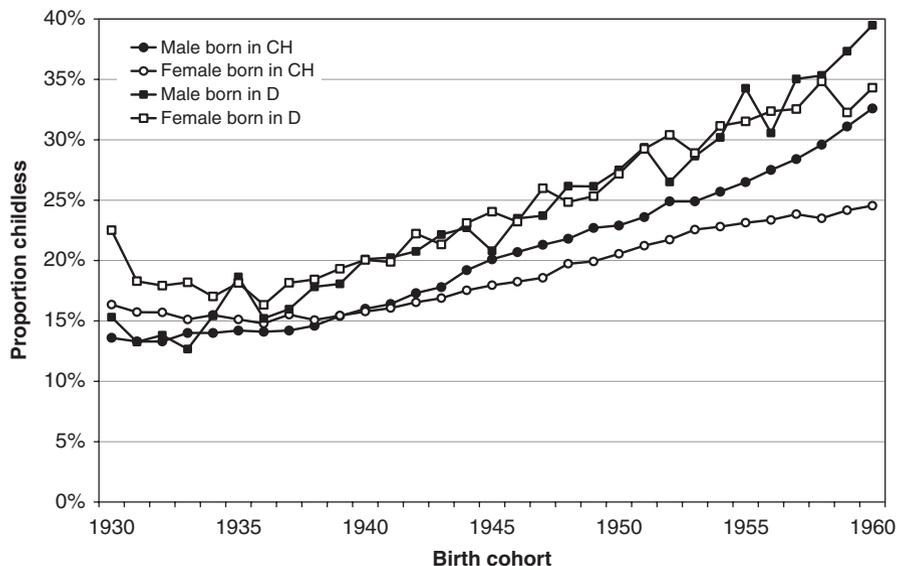


Fig. 6.8 Proportion of German-speaking women and men in Switzerland who are childless, whether born in Switzerland or Germany (Source: Census 2000, own estimates)

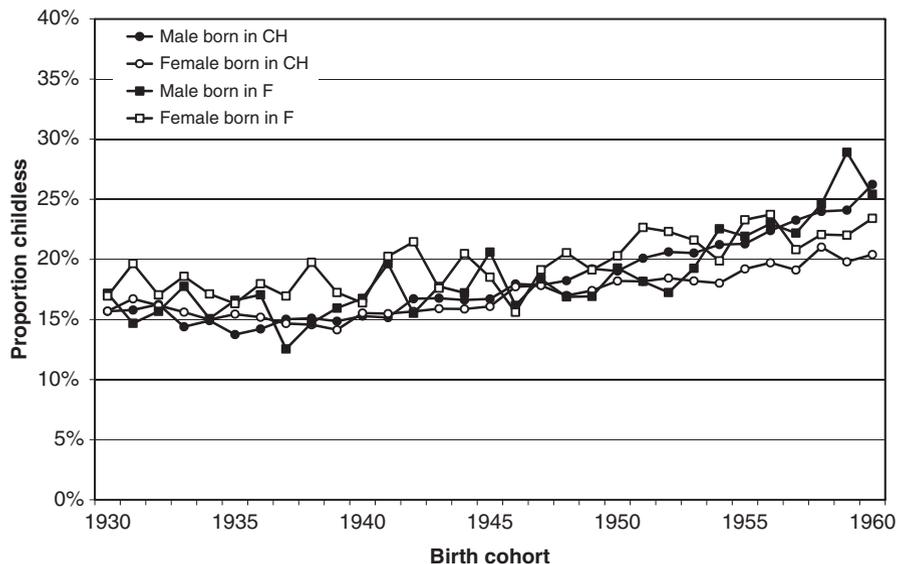


Fig. 6.9 Proportion of French-speaking women and men in Switzerland who are childless, whether born in Switzerland or France (Source: Census 2000, own estimates)

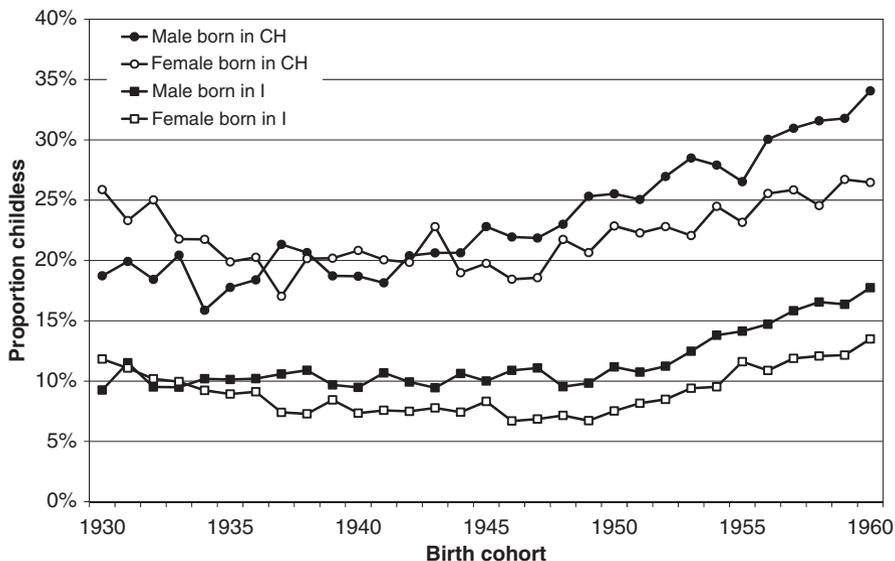


Fig. 6.10 Proportion of Italian-speaking women and men in Switzerland who are childless, whether born in Switzerland or Italy (Source: Census 2000, own estimates)

Table 6.3 Proportion of women who are childless, by province (Bundesland), cohorts 1958–1967 (aged 45–54), Austria

Bundesland	Childlessness
AUSTRIA	15.4 %
Styria	11.2 %
Upper Austria	12.7 %
Carinthia	13.2 %
Vorarlberg	13.6 %
Tyrol	14.4 %
Salzburg	15.4 %
Lower Austria	15.6 %
Burgenland	19.8 %
Vienna	25.6 %

Source: Mikrozensus Q4/2012, own estimates
 Note: The childlessness level of 15.4 % for Austria as a whole, as shown in this table, is lower than that estimated from census and *Geburtenbarometer* data due to the specificity of the micro-census respondents

childless at ages 45–54 (i.e., the birth cohorts of 1958–1967) by province (*Bundesland*) based on the micro-census Q4/2012 data. Most of the regions have a childlessness level of around 11–15 %, whereas in Vienna it is nearly 26 %. Another region with high rates of childlessness is Burgenland, a small region of mixed ethnicity in the Vienna outer commuter belt bordering Hungary and Slovenia: there, the childlessness level is nearly 20 %.

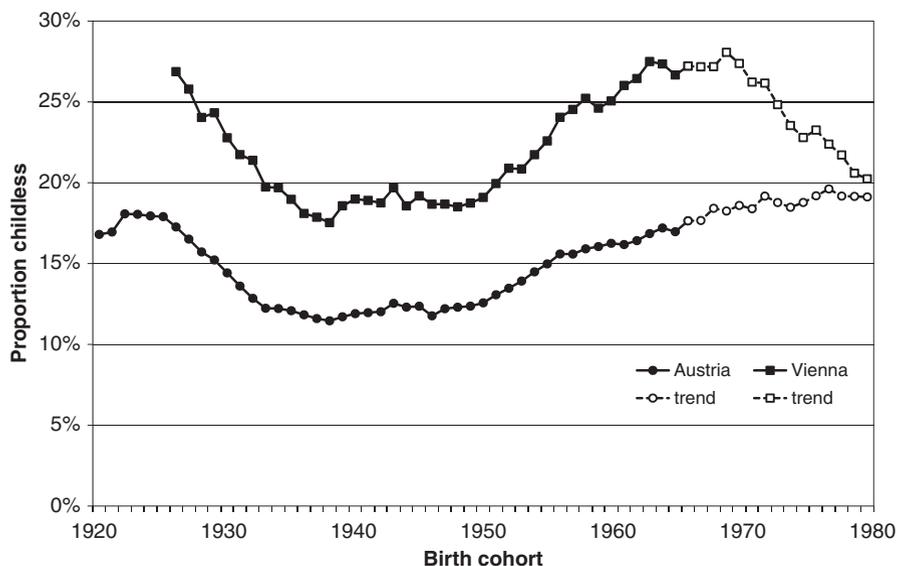


Fig. 6.11 Childlessness among women in Vienna and Austria as a whole: Known rates and projections extrapolating current trends of age-specific fertility rates, Austria and Vienna (Source: Geburtenbarometer (2014), own estimates)

Using data from the Geburtenbarometer (2014), and extrapolating the trends in age-specific fertility rates, we can project that any increase in childlessness will be modest, reaching perhaps 19 % for Austria as a whole. In Vienna, on the other hand, childlessness is forecast to decline, from 27 % to 21 %. Figure 6.11 shows this expected convergence. Among the 19–29 age group, the mean intended family size for women in Vienna is identical to that of Austria as a whole, at 1.8; and the proportion of women who intend to stay childless is also the same, at 12 % (Mikrozensus Q4/2012).

When we analyse variations by type of settlement, we can see that for women aged 45–54 the childlessness rate was around 8–9 % in agricultural areas, 12 % in rural areas, 15 % in small towns, 19 % in larger towns, and 27 % in Vienna. A similar pattern has been found in Switzerland (Wanner 2000). The 2013 FGS showed that the proportion of women aged 45–54 who were childless was 27 % in the major cities (Zürich, Geneva, Basel, Lausanne, Bern, and Winterthur), 20 % in other towns, and 18 % in rural areas. Among men of the same age, the childlessness rate was 43 %, 22 %, and 20 % for the respective areas. When we look at the map derived from the Swiss census data of 2000, which shows the relative levels of childlessness for 45–49-year-old women (Fig. 6.12), we can see clear concentrations of childlessness in the major urban areas, especially around Zürich and Bern, across much of the canton of Ticino, and in some pockets of the high Alpine areas.

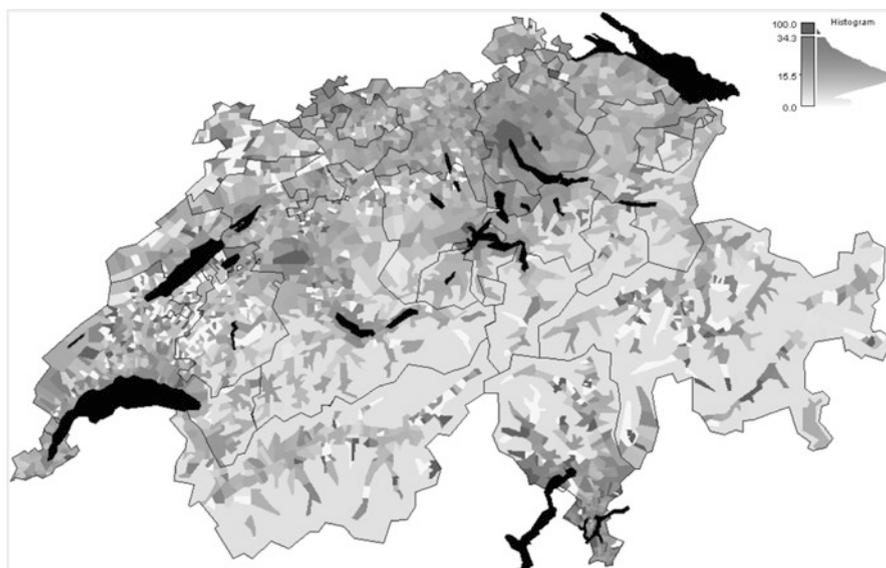


Fig. 6.12 Relative proportion of women who were childless at age 45–49 by local area, Switzerland (Source: Map prepared by Christoph Freymond (Swiss Federal Statistical Office) and Tom Hensel (MPIDR))

6.4 Fertility Intentions

Respondents are asked about their ideal family size in many social surveys, and the results indicate that the two-child family ideal is still widespread across Europe (Sobotka and Beaujouan 2014). However, for many young people this is a hypothetical question, with a distinction between general family ideals and individual fertility intentions or desires. There are several major hurdles individuals have to clear before they can consider having a child: finding a (suitable) partner, resolving any conflicts between life goals, and being able to offer a child a good start in life (by having access to, for example, adequate housing, sufficient income, employment security, and child care). For women, all of these conditions have to be met while they are still in their reproductive years. It is, therefore, not surprising that expressed desires are fluid until the reproductive clock has finally stopped ticking. Even if a significant proportion of children are still unplanned, most people will seek to fulfil at least some of the pre-requisites before becoming parents.

From the 1994 Fertility and Family Survey (FFS) of Switzerland it was apparent that the desire to have children changes as people move through their adult life (Gabadinho and Wanner 1999). While 7 % of female respondents in their early twenties said they intended to remain childless, this figure fell to 2 % for respondents aged 25–29, before rising again for respondents in their 1930s. Among male respondents, the proportion who said they plan to remain child-free was slightly

higher than that of women until they reached their late thirties. At that life stage, most of the women who had not had children accepted that they were unlikely to become a mother because of the path their life had taken; whereas some men, who are fecund for longer, indicated that they still hoped to become a father. The Swiss census confirmed that a few men do become first-time fathers even in their sixties and seventies.

The results of the Families and Generations Survey (FGS), which was undertaken in Switzerland in 2013, confirm these patterns and provide additional insights. As was shown by Mosimann and Camenisch (2015), having a low educational level appears to be associated with a reduced desire to have a child among young men, or it may reflect their limited potential for finding a partner. Among women, there is no difference based on educational level in the expressed intention to remain childless. Although women with a tertiary education are much more likely to end up childless, this does not reflect their stated aspirations when they were younger.

In Austria, family size ideals are below replacement level (Goldstein et al. 2003), with a relatively high proportion of women opting to remain child-free. According to the Eurobarometer 2011 survey, the mean intended number of children at ages 15–39 was 1.78, far lower than in any other country of Europe: the mean number was 1.9 in Romania and was two or more in all other countries, with an average of 2.3 across all of the surveyed countries (OECD 2014). For young men in Austria the intended number was even lower, at 1.55. At 11 %, the share of women in Austria who said they intend to remain childless was the highest among all of the countries in the survey. Educational level has been found to have a significant effect on fertility desires. Data from the micro-census Q4/2012 show that, at ages 19–34, the proportion of women who said they intend to stay childless was 7 % for those with low education, 10–12 % for those with completed secondary education, and 15 % for those with tertiary qualifications. By contrast, the final rates of childlessness for women aged 45–54 for these educational levels were 13–14 %, 16 % and 27 % respectively. This indicates that the differences in fertility intentions by level of education are smaller than the differences in fertility outcomes. A study by Buber et al. (2011) showed that, amongst a sample of 196 female scientists aged under 35 (PhD diploma holders who had applied for a grant at the Austrian Academy of Sciences), 11 % said they intended to remain childless, while the actual level of childlessness of similar women at age 45 was 44 %. Among the most important obstacles to childbearing cited were strong work commitment, the need to be geographically mobile, and the high prevalence of living-apart-together (LAT) relationships. The same sentiment was expressed by women in the Swiss Family and Fertility Survey, that their primary reason for not wanting to have a child was the problem of having to reconcile work and family (Coenen-Huther 2005).

The Swiss Household Panel survey sheds more light on the ambivalent fertility desires of individuals. From 2002 onwards the same group of respondents have been asked each year how many children they would ideally like to have. As they have been followed, it has become apparent that stated fertility intentions are volatile across the life course. Out of a sample of over 4000 respondents, for whom at least three survey waves were available and who were under age 38 in 2002, only 4

(0.1 %) stated they wished to have no children across all of the survey years. There was more stability in the responses of those who said they wanted to have at least one child, with over 57 % of the respondents falling into this category. However, a significant minority sometimes express the desire to have children and at other times say they do not (this does include some who actually have children). We can therefore deduce that while, on average, 11 % of respondents in any specific survey wave say they want no children, this is not a fixed trait: the blossoming (or breakup) of a romantic relationship may change their opinion (see Kuhnt et al. in this volume 11). The approach of menopause may increase the desire to have a child for some women, or extinguish it for others. The conflicting appeal of career versus motherhood—when there is a perception that these roles are incompatible—will influence the choice of a significant number of childless women (Mosimann and Camenisch 2015).

6.5 Conclusions and Discussion

Austria and Switzerland (along with Germany) share a pattern of low rates of fertility and high rates of childlessness which distinguishes them from other countries of Europe. Not all (developed) countries with relatively high levels of childlessness have low overall fertility. In some countries, such as the Nordic countries and the UK, the significant proportion of larger families compensates for the rather high levels of childlessness (see Berrington in this volume 3). In a western context, the countries that have a wide range of family forms and family sizes (including childlessness), and that allow for flexibility in the timing of childbearing, currently have higher fertility rates than countries in which fertility behaviour is more uniform. In Austria and Switzerland traditional norms tend to dominate.

Medical advances have changed patterns of childbearing, as women are able to postpone parenthood with the use of efficient contraceptives, and older women are able to have children using ART. However, many constraints remain, as the previous sections in this chapter have shown. Among these constraints are the varying degrees of desire to have a child. For example, German speakers are somewhat less family-oriented than French and Italian speakers. Moreover, the desire to have a child is not always fulfilled: for example, people who live in the Italian-speaking part of Switzerland apparently find it more difficult to meet their fertility goals. They have a low desire for childlessness, yet actual levels of childlessness are similar to those of the German-speaking region. It is unclear whether this gap is mainly attributable to the limited childcare facilities in Ticino, or to the legacy of traditional Alpine family formation patterns, as described by Viazzo (1989). In contrast, marriage rates in the French-speaking parts of Switzerland are lower than in the German- and Italian-speaking areas, yet childlessness is also less common: this reflects the higher incidence of extramarital fertility in the French-speaking region, which resembles that of France to some extent.

Men and women who classify themselves as having “no religion” have a much lower desire to have children than the religiously affiliated, and have lower marriage rates; as a consequence, they are more likely to remain childless. In addition, the Swiss census shows that a very high proportion—about one-third—of non-religious *married* men and women (secondary- and tertiary-educated) are childless. It would appear that the declaration of having no religion reflects life priorities that are different from those of people who are affiliated with religion to some degree. However, in Austria level of education and country of birth are more important explanatory characteristics of childlessness than religion itself, at least amongst women. In Switzerland, the influence of having no religion on childlessness has varied across cohorts, with the largest effect seen in women born in the 1950s, for whom the influence of being non-religious was even greater than that of having a tertiary education. Among men, education has a much smaller effect on the likelihood of being childless, with religion being the primary determinant across all cohorts.

At younger ages, the majority of women, regardless of their level of education, say they want two children (Mosimann and Camenisch 2015). It appears, however, that as life passes, highly educated women in particular face mounting constraints on their ability to fulfil their earlier expectations: they experience difficulties in finding a suitable life partner, reconciling the demands of a career and motherhood, and managing the practical issues of childcare.

The future trajectory of fertility in Austria and Switzerland will depend on whether women and men maintain their fertility intentions; whether partnering, marriage, and divorce patterns evolve; and whether the current hurdles faced by (for example) highly educated women can be overcome. The trends in the United States would suggest that the future could be brighter than is sometimes anticipated, as childlessness has been declining and fertility has been increasing amongst the highly educated (Livingston 2015 and Frejka, Chap. 8 in this volume). Where America is trending today, will Europe follow tomorrow? The projections for childlessness, calculated by Sobotka (in this volume), suggest that childlessness will indeed decline in Switzerland if current trends are maintained, and will rise only modestly in Austria, to around 20 %. Whether the differentials by sub-population are sustained remains to be seen.

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Chapter 7

Childlessness in Finland

Anna Rotkirch and Anneli Miettinen

7.1 Introduction

“– *Well, life didn't turn out as expected.*”

Recently, I (the first author of this chapter) attended a school reunion where I caught up with former classmates, many of whom I had not seen for decades. When I spoke to one of the attendees, I was intrigued by her frank answer, quoted above, to my general question about how she was doing. Finns have preserved the touching habit of taking small talk seriously. So I asked her what she meant.

“– *For a start, I have no children.*”

Since my former classmates are now approaching 50, it was clear that the child-bearing years were over for the women in the room. Most of the people gathered had a couple of teenagers at home, while some had older children who had already moved out. Some of the men had paired up with younger women and had toddlers. As so often in such social situations, how the children are doing emerged as the easiest, safest discussion topic in the noisy room. Even if the children have problems, they can be shared anecdotally, or glossed over by a superficial answer.

The topic of childlessness is much more sensitive. Finns are liberal and secular in their attitudes towards family life. As early as in the 1980s, over 70 % of Finnish women surveyed said they did not believe that a woman has to have children in order to be fulfilled (Nikander 1992), and only 20 % said they thought that a person could not be completely happy unless he or she has children (Paajanen et al. 2007). Although there is no strong stigma associated with childlessness in Finland, it is still not easy to ask people why they are childless, in part because the reasons they might

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give are so varied. Did my acquaintance have a partner? She indicated that she had been in a stable relationship for a long period of time. Was her partner unwilling to have children? Or had they experienced medical problems? Or, like the “perpetual postponers” found across Europe, had they avoided the decision about whether to have a child until it was biologically too late for her to conceive (Berrington 2004)? Had she acknowledged long ago that she was never going to become a mother, or had she only recently recognized that she would be childless?

I did not find out, as we were soon interrupted. Still, it may be the brevity and vagueness of our conversation that best captures the essence of childlessness in contemporary Finland. Like most Finns, my former classmate indicated that she had expected to become a mother. Indeed, most of our peers had two or three—or, more rarely, only one—child. But for my former classmate and a substantial and growing minority of the Finnish population things had not “turned out as planned” when it came to childbearing. Currently, 25 % of men and 20 % of women aged 40–45 do not have a child of their own.

In this chapter we describe the general trends in childlessness among both women and men in Finland, focusing on the generations born after the Second World War. In particular, we are interested in investigating how the prevalence of lifetime childlessness among people of different educational levels has changed, and how marriages and cohabitations relate to childlessness. We also discuss the childbearing intentions of childless Finns, and the extent to which these intentions are reflected in their actual childbearing behaviour. The term childless is used for all adults who have no children of their own, whether through birth or adoption. We recognise that this definition excludes important family ties individuals may have to a child, e.g., through step-parenting or foster care.

7.2 Data and Methods

Two types of data are used: register data obtained from Statistics Finland, and nationally representative survey data collected by the Population Research Institute at Väestöliitto. The survey data were also linked to register data on subsequent births.

7.2.1 Register Data

Statistics Finland provides register data on births and family life indicators. Some indicators span more than a century, and many are available at the Statistics Finland website, www.stat.fi. Birth statistics are collected for children born to women resident in Finland; we refer to these children and their parents as “Finns”. The majority of residents of Finland are ethnically Finnish and Finnish nationals. When we cite Statistics Finland as the data source, the data cover the entire Finnish population.

We also use the FINNUNION dataset, an 11 % sample drawn from the population registers by Statistics Finland. The register database covers the entire population of Finland from 1970 to 2010, and links data from a longitudinal population register, including data on vital events with registers of employment and educational qualifications. From 1987 onwards, the register-based union histories cover not only marriages, but also cohabitations, which is widespread in Finland (Coleman 2014). FINNUNION contains data on around 471,000 individuals born in 1930–1990 and their marital and cohabiting partners. When we cite the FINNUNION dataset as the data source, it refers to this particular register dataset. We divide individuals into 5-year birth cohorts, and denote each cohort—unless otherwise specified—by the first year of the 5 years. Thus, for example, a reference to birth cohorts 1950 and 1965 would refer to the birth cohorts 1950–1954 and 1965–1969, respectively.

7.2.2 Survey Data

The Well-Being and Social Relationships Survey is a nationally representative Finnish survey that was conducted in 2008 by the Population Research Institute at Väestöliitto (the Finnish Family Federation). The questionnaires were mailed to 7000 Finnish residents aged 25–44 years who had no or only one child (Miettinen and Rotkirch 2008; Miettinen 2010). The response rate was 44 %. The questionnaire asked the respondents about various aspects of their personal and marital well-being, attitudes and expectations towards work, relationship quality, family and social relationships, and childbearing ideals and intentions.¹ Here we use only the answers provided by the childless respondents ($N = 1244$). For more details, see Miettinen (2010) and Miettinen et al. (2011).

In 2011, these survey data were combined with register data from the Population Register Centre of Finland for those respondents who gave their permission. The combined data enabled us to examine the effect of fertility intentions and other survey measures including relationship quality on actual births during the period 2008–2011. The number of respondents in the combined data is 1981, of whom 922 were childless at the time of the survey in 2008; for more information, see Lainiala (2011, 2012).

7.3 General Trends in Fertility and Childlessness: Finland as the Northern European Outlier

Compared to other European countries, Finland has relatively high overall fertility levels: completed cohort fertility has remained quite stable and even risen, from 1.86 for women born in 1950 to 1.90 for the 1970 birth cohort (Myrskylä et al.

¹The questionnaire is available in English at http://www.vaestoliitto.fi/in_english/population_research_institute/family_research/late_fertility/

2013). However, compared to elsewhere in Europe, the share of the population who are childless is very high in Finland (see Sobotka, Chap. 2, in this book). A recent study that compared the childlessness rates of 40–44-year-old men and women across 20 European countries found that men in Finland had the highest level of childlessness, while women in Finland had the third-highest level of childlessness, after Italy and Switzerland. Finland has also seen its childlessness levels increase more rapidly in recent decades than most other European countries (Miettinen et al. 2015).

Finland's fertility regime and childbearing patterns are similar in many respects to those of the other Nordic countries (Andersson et al. 2009). Thus, the cohort fertility rate in Finland is close to the rate in Denmark of around 1.90 (for women born in 1950–1970), and is somewhat lower than the rates in Norway and Sweden of slightly higher than two (Myrskylä et al. 2013). These Nordic welfare states share a number of historical and social policy characteristics, and are the global leaders in social and gender equality (Kautto 2001). However, when we look at the distribution of the number of children born to each woman, we can see that the polarization of fertility, or the reproductive skew, is pronounced in Finland (Fig. 7.1).

As Fig. 7.1 shows, around 30 % of Finnish women currently in their 40s have three or more children. Together, these high-parity women produce half of the children born. By contrast, throughout the twentieth century, 15–25 % of Finnish women had no children. This distinguishes Finland from Scandinavia, where the reproductive skew is milder, mothers with more than two children are more scarce (Eurostat 2015) and childlessness is also lower (Andersson et al. 2009).

Among the women who were born in the early twentieth century in Finland, the proportion who were childless was as high as 25 % (Fig. 7.1). This share then declined to around 15 % among women born in the mid-twentieth century, and has since risen to around 20 % for the last cohort of women who have reached the end of their childbearing years. By comparison, among the women born in 1935–1949 in Norway, the share who were childless at age 40 was less than 10 %, and the corresponding figure for Sweden was 12 % (Andersson et al. 2009: 323).

Across the cohorts, lifetime childlessness in Finland has clearly been more prevalent among men than among women. Figure 7.2 shows the proportions of both women and men born between 1930 and 1975 who were childless at ages 40–44.

Although men can have children at later ages, very few of them do, as most Finnish men have a partner who is around the same age. Around 80 % Finnish couples have an age difference of 5 years or less, and less than 0.5 % have an age difference of 20 years or more (Nikander 2010). Consequently, men of the 1940–1950 birth cohort reached a 95 % level of achieved cohort fertility by ages 41–42 (Nisén, Martikainen et al. 2014: 127). It is of course possible for a man to have fathered a child even though his paternity is not recognised by the authorities. Currently, only 1.9 % of all children born have no registered father (THL 2015). Since not all of these cases involve men who are otherwise childless, the current proportion of men who have sired children but are not recognised as the father of any of those children—and are thus considered childless—can be estimated at no more than 1 %.

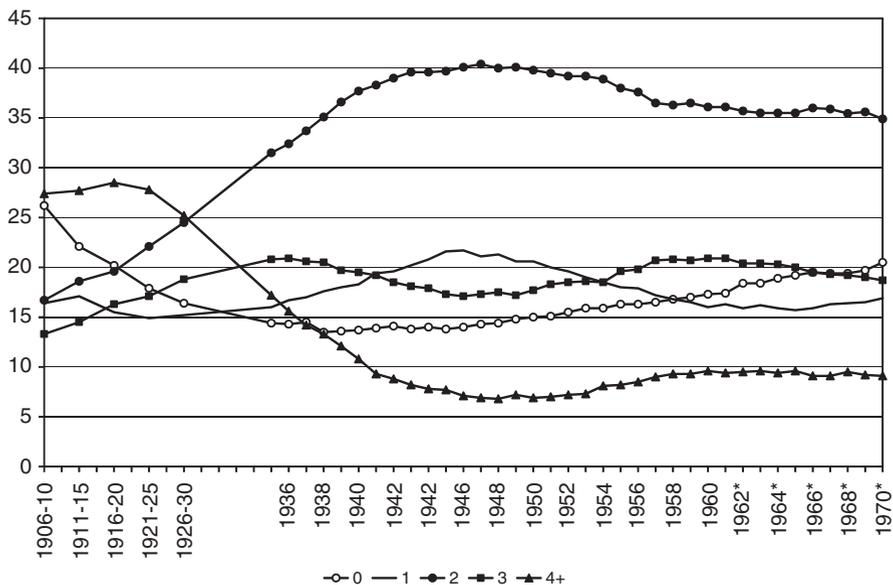


Fig. 7.1 Proportions of women by numbers of children, in per cent, female cohorts born in 1906–1970 (women at age 45/50). Note: *Asterisk* indicates cohorts who are still of reproductive age (Source: Statistics Finland and Population Research Institute, Väestöliitto (own calculations based on register data))

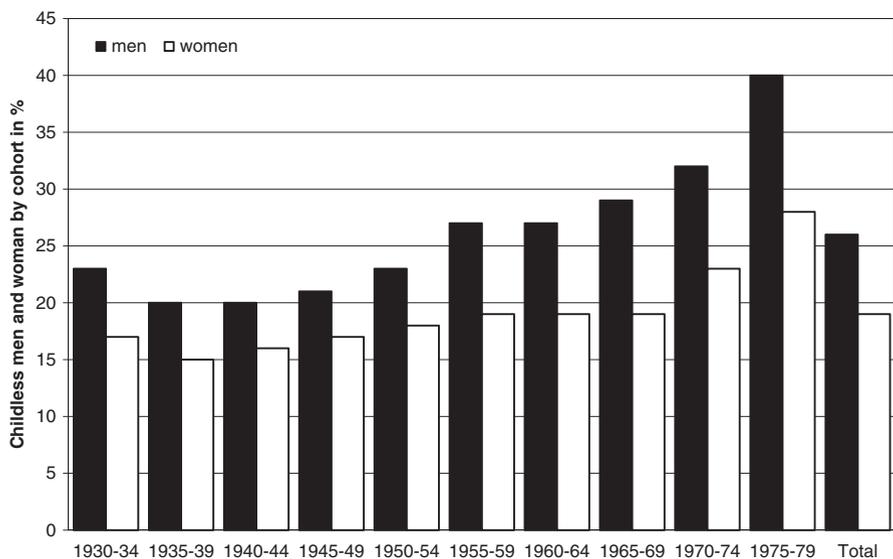


Fig. 7.2 Proportions of childless men and women in Finland at ages 40–44, in per cent, cohorts born in 1930–1975. Note: The last two cohorts have not reached the end of their childbearing years (Source: Statistics Finland, FINNUNION register dataset, and Population Research Institute, Väestöliitto (own calculations))

The historical data suggest that in preindustrial Finland childlessness was common among both men and women. Among agrarian Finns, who were largely neolocal, couples were not supposed to marry and have children until they were sufficiently independent to live and manage on their own (Therborn 2004). Consequently, the ages at marriage and first birth were relatively high, at around 25–26 years for women and a couple of years higher for men (see Lahdenperä et al. 2004 for the eighteenth century, Liu et al. 2012 for the nineteenth century). Data from four Finnish parishes in 1760–1849 indicate that among individuals who reached adulthood, lifetime childlessness was 34 % among men and 26 % among women. Among ever married adults, childlessness was 15.5 % among men and 14 % among women (Courtiol et al. 2012; Pettay, personal communication).

In European societies of the late nineteenth century and early twentieth century it was not unusual for 20–25 % of women to be childless. However, unlike in most of the rest of Europe, in Finland childlessness rates remained high throughout the twentieth century (Rowland 2007). While in most countries childlessness rates fell among the cohorts born in 1940–1950, in Finland the decrease was less marked. The lack of a “low dip” in childlessness levels in the mid-twentieth century can be attributed in part to the huge losses the country experienced during the Second World War and the ensuing relocation of a large share of the population. Finland lost 82,000 men in battle, a figure that is 13 times larger than the corresponding figures in the other Nordic countries. Moreover, 410,000 Finnish Karelians, or 12 % of the population, had to be relocated from Karelia to other parts of the country after 1940. In the 1960s, emigration especially to Sweden meant the loss of over half a million Finns from the population.

When the first cohorts studied were born (1940–1950), Finland was a relatively poor country that had only recently been industrialised, and was suffering from the effects of the Second World War. In the decades that followed, living standards improved, and the country made a rapid transition to being a post-industrial and wealthy welfare state. Traditionally, the labour force participation rates of Finnish women, including of mothers with children, have been high, and both women and men tend to work full-time (see, e.g., Haataja and Nyberg 2006).

7.4 Increase in Childlessness in Unions

While family formation and reproduction patterns have changed considerably in Finland in recent decades, being in a partnership continues to be an important prerequisite for childbearing (Spéder and Kapitány 2009; Miettinen et al. 2015). Like in many other developed countries, in Finland men are more likely than women to remain outside a marital or cohabiting union throughout their life. For both men and women, having socio-economic resources—such as high educational attainment, steady employment, and a reliable source of income—promotes union formation (Jalovaara 2012).

The age at first union formation in Finland appears to have changed little in recent decades. Among the cohorts who were born in the 1970s, half of the women were cohabiting or married by age 22, and almost half of the men were in a union by age 25. By the age of 33, 90 % of women and 83 % of men had formed a union (Jalovaara 2012: 75).

These relatively young ages at union formation are supported by the welfare state, which provides housing benefits and income support, and by the prevailing cultural ethos, which favours early independence from the family home. By contrast, the mean age at entering parenthood increased in recent decades: women who were born in the 1960s had their first child 2–3 years later than those who were born in the 1950s, and the mean age at first birth is now around 28.6 years (Official Statistics of Finland 2014). Thus, it appears that today Finns live in unions for longer periods of time before having a child. Does this mean that the association between having a partner and having a child has weakened?

Childlessness is indeed less tied to formal marriage today than it was in the past. Figure 7.3 shows how marital status (i.e., being never married, married, divorced, or separated) is related to being childless in different birth cohorts. We can see that among individuals who are in their early forties, childlessness is much more common among those who never married than among those who married, but that among men and women who never married the shares who were childless have

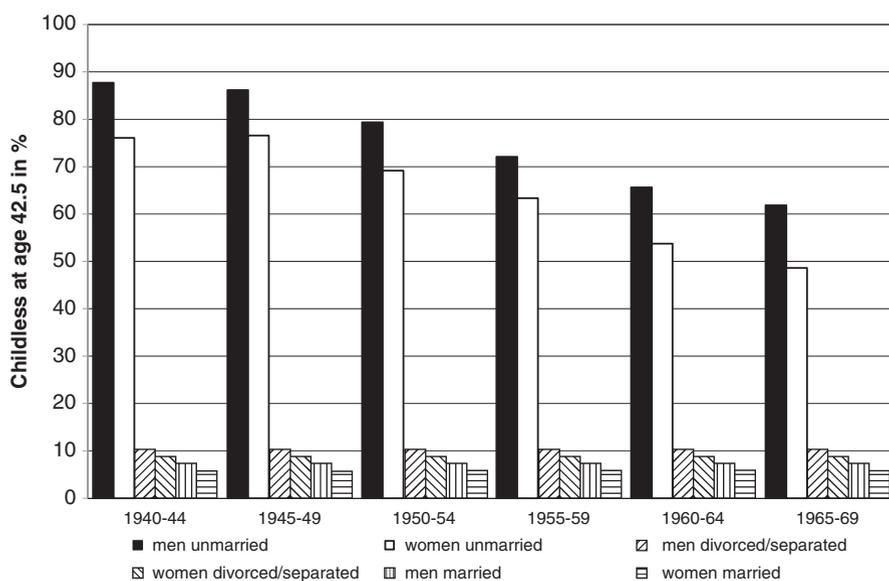


Fig. 7.3 Proportion of childless men and women in Finland at age 42.5 by marital status and birth cohort, in per cent. Note: Widowed persons (0.2 % among 42.5-year-old-men, 1.0 % among 42.5-year-old women) are included in the “married” category. Marital status as measured at age 42.5. Unmarried = person has never married (by age 42.5) (Source: Statistics Finland, FINNUNION register dataset, and Population Research Institute, Väestöliitto (own calculations))

steadily declined across birth cohorts: 88 % of never married men and 76 % of never married women born in 1940–1944 were childless in their early forties, compared to 66 % of men and 54 % of women born 20 years later, in 1960–1964.

The decreasing levels of childlessness among never married individuals across cohorts is related to the popularity of cohabitation in Finland. Nowadays the first union is usually cohabitation, and the first birth is typically to cohabiting parents. If cohabiting couples do not break up, they usually marry at some point in their life span. However, the wedding may be postponed considerably. Most couples with one child go on to have a second child, and they often get married at that stage, if they have not done so earlier (Miettinen and Rotkirch 2008). Thus, unlike in more traditional countries where cohabitation is less common, in Finland parenthood leads to marriage, rather than the other way around.

Being married is known to promote childbearing, especially compared to being single, but also compared to cohabiting (Coleman 1996). Also in Finland, married individuals have stronger intentions to become parents than cohabiting couples (Miettinen and Rotkirch 2008). However, even among married individuals childlessness has increased, from around 6 % to 8 % among men and from 5 % to 7 % among women (Fig. 7.3). This increase of around 2 % among married individuals accounts for less than 1.5 % of the overall rise in childlessness. Changes in the proportions of childless individuals among those who were married but later divorced or separated across birth cohorts have been even more modest, especially among women, for whom no time trend can be observed.

7.5 Childlessness Increases Among the Less Educated

In Finland as in many other countries, the relationship between socio-economic status and number of children is positive among men, largely because childlessness is more common among less educated men (Barthold et al. 2012). Figure 7.4 shows the proportions of men and women who are childless by level of education across birth cohorts. Among Finnish men, the proportion who are childless has clearly increased in all educational groups, while the educational gradient has persisted over cohorts (Fig. 7.4a).

Among Finnish women, the situation differs compared to men (Fig. 7.4b). In the oldest cohorts studied here, born during or immediately after World War II, the proportions of childless individuals are highest among women with a high level of education. Beginning with the female cohorts born in 1950, however, childlessness is highest among the least educated. In a wider context, this pattern is unusual: highly educated women are often the most likely to remain childless (see the chapters on the US and the UK in this book). However, in the Nordic countries motherhood has become increasingly common among highly educated women. Thus, the correlation between female educational levels and childbearing has become mixed or even positive in these countries (Kravdal and Rindfuss 2008; Persson 2010), including in Finland.

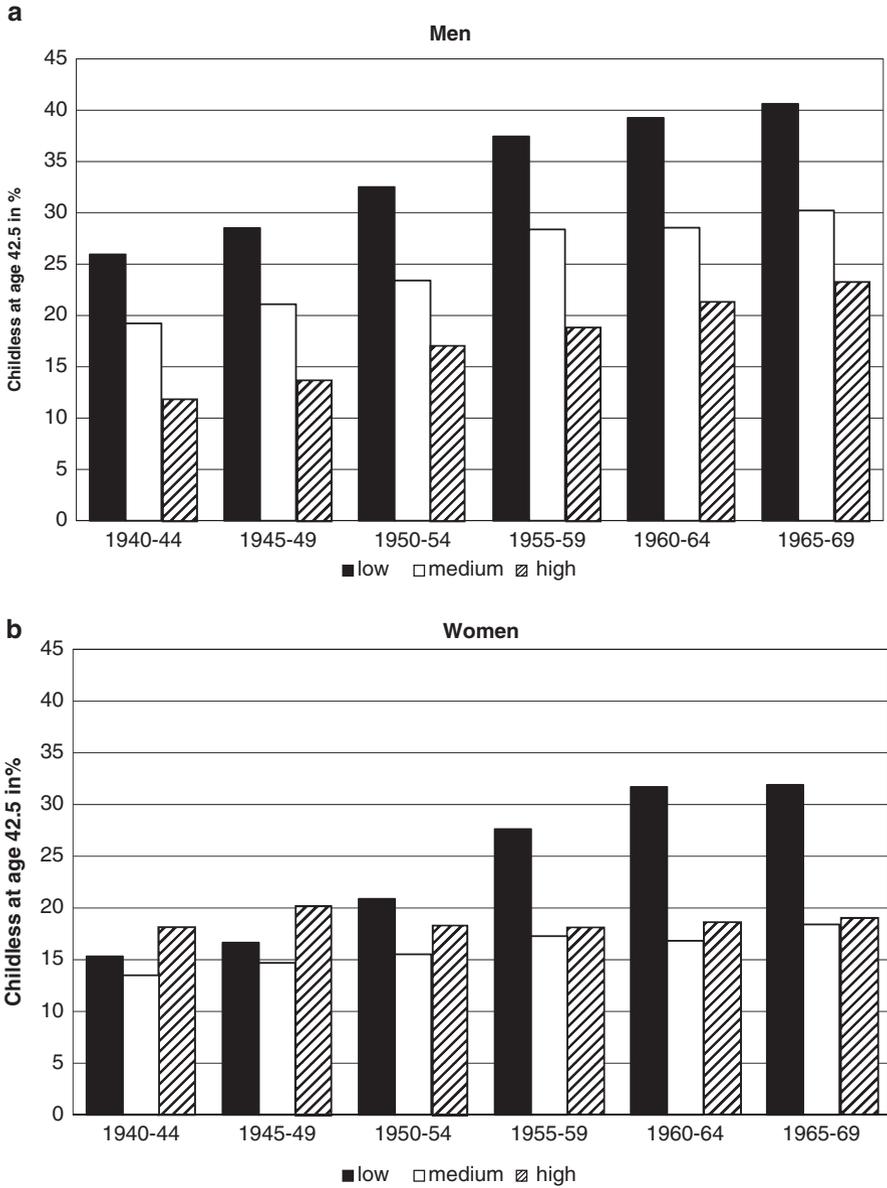


Fig. 7.4 (a and b) Proportion of Finns aged 42.5 who are childless by educational level, men (a) and women (b), in per cent. Note: For individuals born after 1967, at age 40–41. Education level: *Low* ISCED 1–2, *Medium* ISCED 3–4, *High* ISCED 5–6 (Source: FINNUNION register dataset, Population Research Institute, Väestöliitto (own calculations))

Figure 7.4b illustrates how women with a high level of education are somewhat more likely to be childless at age 42 than are women with a middle level of education in all birth cohorts. Childlessness slightly decreases among women with a high level of education, from 20 % in the 1945–1949 birth cohort, to around 18–19 % in the younger cohorts. By contrast, childlessness is most common among women with the least education during the last decades. Being childless has also increased twofold in this group during the period studied, from around 15 % to over 30 %. Also among women with mid-level education, childlessness has increased, but more moderately, from 13 to 18 %.

A comparison of childlessness levels across the entire population over the past decade shows a similar pattern to our analysis above: between 2004 and 2012, childlessness rates have increased the most among the least educated men and women (Fig. 7.5a and b).

When interpreting these results, one should keep in mind that the average level of education in Finland has increased: 26 % of men and 21 % women born in 1943–1972 and 18 % of men and 10 % of women born in 1973–1982 are in the lowest educational group (MED 2010).

It is also important to note that despite statistical associations between educational levels and childlessness, education is probably rarely the direct “cause” for childbearing behaviour. A study of childlessness among Finnish twins born in the 1950s found that the factors linking education to both male and female childlessness were shared by twins, and that these factors were genetic rather than environmental. For instance, cognitive abilities, personality traits or attitudes to parenthood may influence both the educational pathways and childbearing behaviour of individuals. The study found no evidence for a direct causal pathway linking childlessness in this cohort to lower education among men and higher education among women (Nisén et al. 2013).

7.6 Associations of Having a Spouse, Education and Childlessness

Is the increase in childlessness among less educated men and women associated with the lack of a partner? Above, we showed that being married remains linked to the probability of becoming a parent (Fig. 7.3). We further investigated how having ever had a spouse was associated with remaining childless in different educational groups. Having a spouse is defined as having lived in cohabitation or marriage at least once.

Never having had a spouse was clearly more frequent among men and women with little education compared to other educational groups (Table 7.1). Among those with least education, 24 % of men and 17 % of women had had no spouse. The more educated the men were, the more often they had had at least one spouse, so that only 7 % of highly educated men had not had any spouse. Among women, by

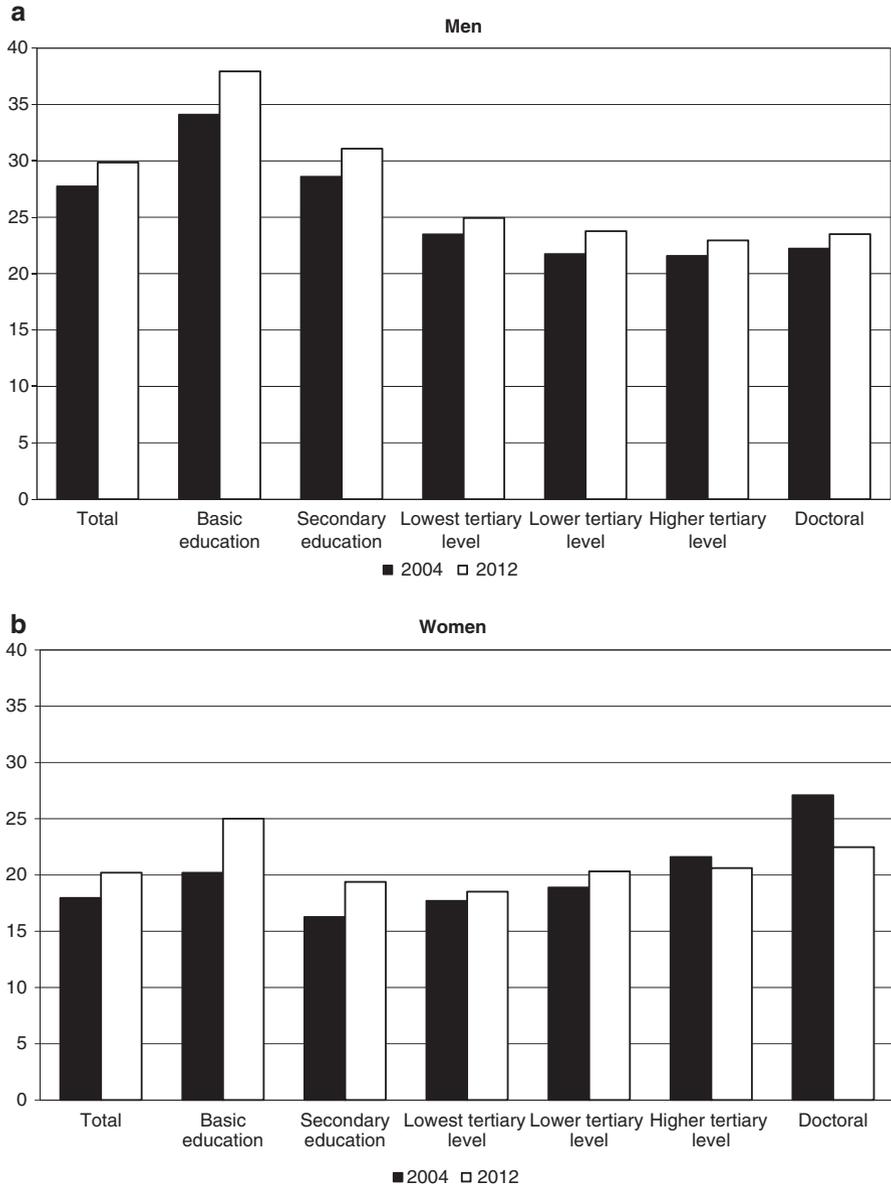


Fig. 7.5 (a and b) Proportion of childless people at ages 40–44 in 2004 and 2012 by educational level, men (a) and women (b), in per cent, entire Finnish population (Source: Statistics Finland and Population Research Institute, Väestöliitto (own calculations based on register data))

Table 7.1 Childlessness by having ever had a spouse (through marriage or cohabitation), Finnish men ($N = 95,331$) and women ($N = 91,528$) born 1945–1964, column per cent

		Having had no spouse	Childlessness among individuals with no spouse	Childlessness among individuals with at least one spouse	Proportion of childless individuals with no spouse of all childless individuals
Men	Low	24.1	92.1	17.0	63.3
	Middle	12.6	93.3	14.6	47.8
	High	6.5	94.8	11.3	37.8
	All men	14.8	92.8	14.3	53.0
Women	Low	17.4	84.1	12.2	59.2
	Middle	7.0	79.1	9.9	37.6
	High	9.5	86.4	12.2	42.6
	All women	10.8	83.6	11.3	47.3

Source: FINNUNION register dataset, Population Research Institute, Väestöliitto (own calculations)

Note: Educational level: Low = ISCED 1–2; Medium = ISCED 3–4; High = ISCED 5–6

contrast, those with highest education had somewhat more often not had any spouse than those with mid-level education.

Lifetime childlessness is strongly linked to not having had any spouse. Among men with no spouse ever, over 90 % were childless in all educational groups. Among men who had had a spouse, proportions of childless individuals ranged from 11 to 17 % in different educational groups and were most common among those with least education. Among women with no spouse, proportions of childlessness varied between 79 % among those with mid-level education to around 85 % among those with either low or high education. Of women who had ever cohabited or been married, those with mid-level education had the lowest proportions of childless individuals while women with either low or high education had similar levels of childlessness. Table 7.1 further shows that the concentration of childlessness among individuals with no spouse, compared to the overall childlessness in a particular educational group, also varied. Among men and women with middle or high education, between 40 and 50 % of childlessness was found among individuals with no spouse. Among men and women with low education, however, around 60 % of childless individuals had had no spouse.

We also entered these same variables into a regression (not shown in table; controlling for the effect of birth cohort). When taking into the account the effect of having had any spouse, differences in male childlessness by educational groups diminished, but remained highly statistically significant. Also among women, the educational differences in childlessness in women remained after controlling for having had any spouse, albeit less accentuated and only marginally statistically significant for the difference between women with low and high education. In other

words, the lack of spouse explains much but not all of differences in childlessness between educational groups. Having ever had a spouse accounts for most of the differences between women with high and low education.

Thus Finnish men with a low level of education were most likely never to have had a spouse, and also to be childless if they had had at least one spouse. Women with low education were also most likely never to have had a spouse, but as likely as those with a high level of education to have a child with or without a spouse. If having ever had a spouse would not affect childbearing, women with a low and women with a high level of education would be about as likely ever to become mothers. In this respect, it is Finnish women with a mid-level education who appear to be unusual, since they have lower levels of childlessness whether they had ever married or cohabited or not.

7.7 Regional and Occupational Effects

Region of residence and occupational status also affect the likelihood that an individual will enter a union or start a family. Finland has a small population, and the density of the population is low: there are around 5.5 million Finnish citizens and only 18 inhabitants per square kilometre. Thus, the population density in Finland is much lower than in Sweden and Denmark, although still higher than in Norway and Iceland. As a consequence of urbanisation and the high proportion of women who are educated, the sex ratios at age 20 in Finnish municipalities have become more skewed over the last three decades. Currently, half of the 20–29-year-olds live in a sub-region with a male surplus in that age range; with 10 out of 18 sub-regions having a sex ratio above 1.1 (Lainiala and Miettinen 2013).

Sex ratios are associated with childlessness. Higher sex ratios or a male surplus in a certain age group appears to accentuate the reproductive skew, especially among Finnish men. In Finnish municipalities where the proportion of young males is higher than the proportion of young females, a larger share of women are likely to partner earlier, and go on to have children earlier, than in areas with less skewed sex ratios. This may raise overall fertility levels in those municipalities. However, a larger share of men remain unmarried in these municipalities, contributing to increased male childlessness (Lainiala and Rotkirch 2015).

Childlessness has also been shown to be more common among some occupational groups. In a study of Finnish men and women born between 1940 and 1950 that used register data, Nisén, Myrskylä et al. (2014) investigated the effects of family background on fertility, including on childlessness. They found that women who were from families headed by an administrative or professional worker were more likely to have remained childless than women who were from a family headed by a manual worker or farmer. After various family background variables, such as the number of siblings and the family type, were taken into account, having a manual labour family background was still shown to be associated with female childlessness (ibid.).

7.8 Low Voluntary Childlessness

Is the growth in childlessness due to a preference for a childfree lifestyle? It is widely assumed that voluntary childlessness, or the decision to have a childfree lifestyle, is the main explanation for the increase in childlessness in contemporary western societies. While there is some evidence that young adults feel more free to express less traditional views on having children today than in the past, recent studies have shown that voluntary childlessness is still relatively rare in most countries. This seems to be the case in Finland, as well (Miettinen and Paajanen 2005).

We here define voluntary childlessness as a personal ideal and intention to have no children (Miettinen 2010). We also distinguish between childless individuals who say they intend to have children in the future, and those who say they do not expect to have children, whether voluntarily or not.

The results of several national and international surveys indicate that most Finns want to have children, and seldom choose to be childless. The average ideal and intended numbers of children cited by respondents in Finland have been around 2.5 since the 1970s (Miettinen and Rotkirch 2008). In the Eurobarometer 2011, the average ideal number of children cited was 2.5 among Finnish women and 2.1 among Finnish men (Testa 2011). The average intended number of children was, at 2.3 among women and 2.1 among men, somewhat lower than the average ideal number, but was still clearly higher than the actual fertility rate. In the same survey, 0 % of the women aged 25–54 said their ideal number of children was to have none, while 6 % of the 15–24-year-old women and 2 % of the women above age 55 said they did not wish to have children. Among men, childlessness as an ideal declined with age: from 10 % among 15–24-year-olds, to 6 % among 25–34-year-olds, to 5 % among 50–54-year-olds, and, finally, to 2 % among those aged 55 and above. Compared to the childbearing ideals expressed in other Nordic countries, Finnish fertility ideals Finland tend to be similar or somewhat higher (Testa 2011).

The Well-Being and Social Relationships Survey conducted by Väestöliitto in 2008 had a larger sample of childless individuals than the Eurobarometer. In this survey, the fertility intentions among the childless respondents aged 25–44 were as follows: among men, 4 % had a pregnant partner, 9 % had a partner who was trying to get pregnant, 38 % wanted to have children at some point, 22 % were unsure, and 27 % did not intend to have a child. Among women, 3 % were pregnant, 15 % were trying to become pregnant, 36 % wanted to have a child at some point, and 25 % did not plan to have children at all (Lainiala 2012).

Among those who did not intend to have children, the personal ideal number of children was often larger than one, indicating that voluntary childlessness was not very common (Fig. 7.6). Among the 25–29-year-old respondents who were childless, 5 % of the women and 3 % of the men stated that they did not intend to have any children, and preferred to have a life without children. Among the 35–44-year-old respondents, 14 % of the women and 10 % of the men were classified as voluntarily childless using the same criteria (Miettinen 2010).

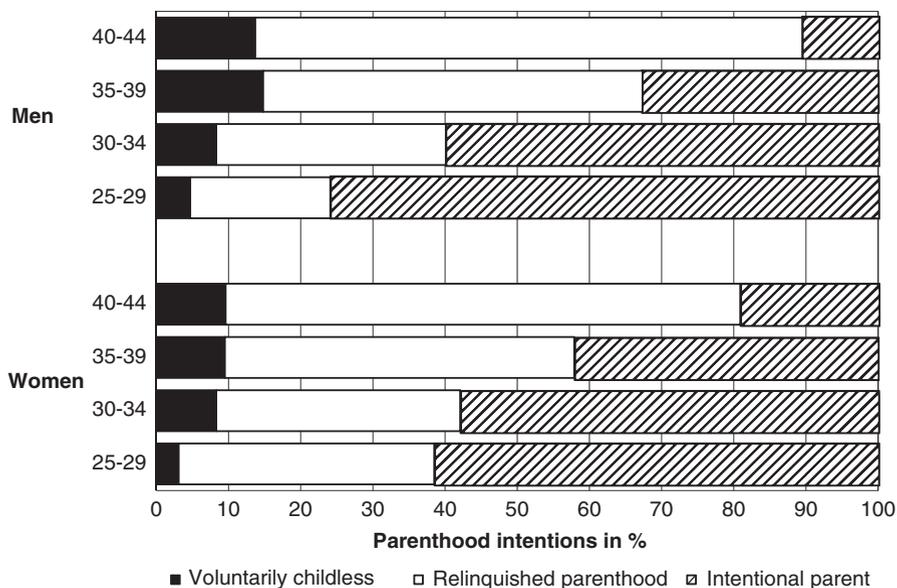


Fig. 7.6 Parenthood intentions among childless 25–44-year-old men and women in Finland in 2008, in per cent, $N = 1244$. Note: Reprinted from Miettinen (2010) (Source: Finnish Well-Being and Social Relationships Survey 2008, Väestöliitto)

If we take into account the proportion of all 40–44-year-olds who are childless, we can estimate that less than 3 % of Finnish men and women who have reached or are close to reaching the end of their reproductive age span can be said to be voluntarily childless.

7.9 Delays in Planned Childbearing

While fertility intentions feed into actual behaviour, there is a gap between ideals and intentions, on the one hand, and actual childbearing, on the other hand. In Finland, this gap is among the highest in Europe, mostly due to the proportions of childless people who would have wished for around two children (Goldstein et al. 2003). We combined data from the Well-Being and Social Relationships Survey with register data on births to find out whether the fertility intentions expressed by the childless respondents had been realised during the 3 years following the survey (Lainiala 2011, 2012). The results showed that of the 25–44-year-old men and women who had not yet had a child in 2008, 35 % had become a parent by 2011. Of the respondents who had said they intended to have a child within 2 years, 44 % had realised their plans. Thus, the majority of childless Finns who had wanted to have a child in the near future had not been able to do so.

The probability of becoming a parent was, unsurprisingly, positively related to fertility intentions. Among those who already tried to achieve pregnancy at the time of the survey, around two thirds had succeeded in having a child during the next years. Among those who were uncertain about having a child, however, less than 10 % had become a parent during the follow-up period. Finally, among those who said they did not want to have a child, only very few had nevertheless become a parent; this was the case among 0 % of men and 2 % of women (Lainiala 2012: 26). Why would this last group have changed its mind? Lainiala (2012) found that having a spouse who wanted a child in some cases changed a woman's (but no man's) fertility plans, so that they became parents although they had earlier declared they did not intend to do so.

Lainiala (2011) also investigated how relationship satisfaction at the time of the survey related to childbearing intentions, and to actually having a first child. For a male respondent, relationship satisfaction was a stronger predictor of actual fatherhood than his own fertility intentions. For a female respondent, relationship satisfaction was not as important for fertility, as a high degree of satisfaction with the spouse was related to both increased and decreased actual childbearing.

Other factors that negatively influenced the transition to a first child were age, being in education or unemployed, and for men, lack of a permanent job (Lainiala 2012).

7.10 Infertility

Of the Finnish men and women studied who remained childless in the Relationship and Wellbeing Survey, the share who had no children because they were suffering from primary infertility was around 10 % (Miettinen and Rotkirch 2008). This would represent around 5 % of the whole adult population. Notkola (1995), using retrospective data on female cohorts born in 1938–1965, found that 3 % of women remained childless due to primary infertility. However, the proportion of couples who suffer from infertility may have increased in recent years due to both the postponement of family formation and the spread of health conditions that can lead to infertility, such as obesity. On the other hand, assisted reproduction technologies have become increasingly sophisticated and available, countering the rise in childlessness due to primary infertility (Miettinen 2011). As the efficacy of treatments has improved, more couples will be able have the child they want with the help of technology. In 2013, 13,500 IVF-treatment cycles were started in Finland. From these treatments, 2473 live children were born, representing 4.4 % of live births in Finland in that year (National Institute for Health and Welfare 2015).

7.11 Conclusions: Many Shades of Childlessness

For decades, Finland has had some of the highest rates childlessness in Europe among both men and women. An unusual feature of childlessness in Finland is that it is particularly prevalent among both men and women from the least educated groups of society. This pattern has become even more pronounced in recent decades, as we have shown here. Part of the explanation is that men and women in the least educated group are also less likely to have had any spouse.

Like the other Nordic countries, Finland has generous family policies and high levels of gender equality—characteristics that are often associated with comparatively high fertility levels (Rønsen and Skrede 2010, see also Section 2.5). The availability of childcare has also been shown to increase fertility at all parities (Rindfuss et al. 2010). It has also been suggested that during the severe economic recession in the early 1990s in Finland, family policies that provided child home-care allowances helped to sustain fertility levels (Vikat 2004). Whereas in the UK and the US childlessness rates are low among less educated women because unwanted pregnancies are common, the Nordic welfare state is highly successful at preventing unwanted pregnancies. Nevertheless, both overall and involuntary forms of childlessness have increased in Finland, even as cohort fertility has been rising and family benefits have become increasingly broad and generous.

There are some clear-cut reasons for not becoming a parent: the lack of partner, not wanting to have a child, or being unable to conceive. Of these reasons, not having a partner remains the strongest single reason for not having children, in Finland and elsewhere. When we compare European countries, we can see that the proportion of the population who have ever married remains positively correlated with lower levels of childlessness, and the results for Finland are in line with this broader picture (Miettinen et al. 2015). It is also increasingly more common for an individual to be childless even though he or she has a partner.

Most childless Finns approaching the end of their reproductive lives are not childless by choice or through infertility. Around 4–5 % of the whole population say they do not want to have children. At the other “extreme” of the childlessness spectrum, infertility affects about the same proportion of the population. Thus, for most Finns who are not parents, childlessness is not attributable to a single, clear-cut reason, but rather appears to result from various choices about love, work, and contraceptive use made at different stages of life.

Finland’s history of having higher levels of childlessness than the other Nordic countries may be attributable to both geographical and historical factors. Although comparative data are lacking, it is likely that Finland had more skewed national and local sex ratios because of the country’s losses in the Second World War, mass emigration, and the low density of the population. These demographic challenges combine with the diverging educational trajectories of young men and women. Compared to the other Nordic countries, Finland has had a larger proportion of women with tertiary education, and this gap has widened over time.

The policies that successfully promote family formation may not be identical to those that would be most effective in preventing childlessness. Most worrying is the finding that childlessness—and consequently, proportions of persons without any close relatives in the old age—is increasing among the least educated men and women, who may be disadvantaged in terms of their access to health services, infertility treatments, and counselling.

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Chapter 8

Childlessness in the United States

Tomas Frejka

8.1 Introduction

In recent decades, childlessness among women in the United States has attracted a considerable amount of attention in the professional literature, and is frequently discussed in newspapers and on radio and television talk shows. This does not come as a surprise, as the percentage of women who do not have any children by the end of their reproductive years doubled between the mid-1970s and the mid-2000s, from about 10 to 20 %. Since then, however, the share of women who remain childless has been declining: in 2010–2012, the share was around 15 % (Table 8.1).¹ While establishing the levels of and the trends in childlessness is relatively simple, determining the circumstances and reasons which lead women and couples to remain childless is more complex.

Three different sources of statistical data on childlessness are available in the U.S. This wealth of data is almost as much a curse as it is a blessing. However, using data from all three sources one can obtain a good approximate idea of the levels of and the trends in childlessness. Yet because each source provides somewhat different data, it is difficult to determine which one most closely reflects reality. On balance the positive aspect of good approximate information prevails. Moreover, the overall perception provided by the three sources of data is consistent. Not only that. The available sources offer various types of information, including some kinds which are relatively rare. One of the sources contains a time series spanning an

¹The levels of and trends in childlessness among women are based primarily on data from the Current Population Surveys in Table 8.1, which is generally corroborated by data from the cohort fertility tables (Fig. 8.2, 1970 cohort) and from the National Surveys of Family Growth (Table 8.2, latest years).

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Table 8.1 Shares of childless women at ages 40–44, all, white, white non-Hispanic, black, and Hispanic women, 1976–2012, United States

Survey year	Percent of women childless					Effect of Hispanic on White childlessness (in % points)
	All	White	White non-Hispanic	Black	Hispanic	
1976	10.2	n.a.	n.a.	n.a.	n.a.	n.a.
1980	10.1	n.a.	n.a.	n.a.	n.a.	n.a.
1985	11.4	n.a.	n.a.	n.a.	n.a.	n.a.
1990	16.0	n.a.	n.a.	n.a.	n.a.	n.a.
1994	17.5	18.0	n.a.	14.3	13.0	n.a.
1995	17.5	18.1	n.a.	15.1	10.1	n.a.
1998	19.0	19.5	20.1	17.0	14.5	-0.6
2000	19.0	19.2	20.3	17.7	10.9	-1.1
2002	17.9	17.9	18.5	19.2	13.1	-0.6
2004	19.3	19.1	20.0	21.3	13.8	-0.9
2006	20.4	21.2	22.5	16.4	14.4	-1.3
2008	17.8	18.0	17.9	18.0	18.9	0.1
2010	18.8	19.1	20.6	17.2	12.4	-1.5
2012	15.1	15.3	16.4	15.4	10.9	-1.1

Source: U.S. Census Bureau, Current Population Survey for selected years, June 1976 to June 2012

entire century, which is also broken down by race. Another source provides data not only by race, but also for Hispanics. A third source contains data on whether women are temporarily, voluntarily, or non-voluntarily childless, as well as information about women's personal characteristics and selected attitudes to work and family. These data are available for a span of close to four decades. Knowledge which can be gleaned from all three sources of data is likely to be expanded in the future.

Following this introduction, the sources of data are discussed. In Sect. 8.3 levels of and trends in childlessness are outlined. Section 8.4 deals with motivations and reasons for childlessness. Section 8.5 discusses trends and circumstances of black childlessness. The chapter concludes with an epilogue.

8.2 Sources of Data

The three sources of statistical data on childlessness are *cohort fertility tables* (National Center for Health Statistics of the Centers for Disease Control and Prevention), the *biannual supplements on fertility of the Current Population Survey* (Census Bureau and Bureau of Labor Statistics), and the *National Survey of Family Growth* (National Center for Health Statistics of the Centers for Disease Control and Prevention [NCHS]).

8.2.1 *The Cohort Fertility Tables*

The Cohort Fertility Tables consist of two sets. The first set is based on recorded period fertility data for the years 1917–1973, and was prepared by Robert L. Heuser (1976). It provides information on childbearing of complete and incomplete birth cohorts of 1868–1959. The second set uses period data for 1960–2005, and was prepared by Brady E. Hamilton in collaboration with Candace M. Cosgrove (2010). Hamilton and Cosgrove updated this set with period fertility data for 2006–2009. It provides information on childbearing of complete and incomplete birth cohorts of 1911–1995. The Heuser tables can be linked with the Hamilton and Cosgrove tables to create a series of data on childlessness for 93 consecutive birth cohorts.

8.2.2 *The Fertility Supplement of the Current Population Survey*

The Fertility Supplement of the Current Population Survey is one of 20 supplements sometimes included in the *Current Population Survey* (CPS), a monthly survey of households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics. The CPS collects and maintains a comprehensive body of labor force data, including information on employment, unemployment, hours of work, earnings, and other demographic and labor force characteristics. The periodic fertility supplement provides data on the number of children women aged 15–50 have ever had, and their characteristics. It is usually conducted every 2 years, but the intervals have varied from 1 to 4 years (see Table 8.1 and Fig. 8.3). Since the mid-1990s data on the U.S. Hispanic population² have been provided (Bachu 1995).

8.2.3 *The National Survey of Family Growth*

The National Survey of Family Growth (NSFG) gathers information on family life, marriage and divorce, pregnancy, infertility, use of contraception, and men's and women's health; i.e. data on fertility and on the intermediate factors that explain fertility. The NSFG was conducted by the National Center for Health Statistics (NCHS) in 1973, 1976, 1982, 1988, 1995, and 2002. The most recent NSFG covered the years 2006–2010 (Martinez et al. 2012). In these surveys childless women

²The Office of Management and Budget (OMB) defines Hispanic or Latino as “a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.” In data collection and presentation, federal agencies are required to use a minimum of two ethnicities: “Hispanic or Latino” and “Not Hispanic or Latino.”

are comprised of three categories defined as follows (Abma and Martinez 2006; Martinez et al. 2012):

Temporarily Childless women are those who have not had any live births and expect a birth in the future.

Involuntarily Childless women are those with a fecundity impairment who reported to be sterile for non-contraceptive reasons; subfecund, i.e. they reported difficulty conceiving or delivering a baby or difficulty for partner to father a baby; or a doctor advised the woman never to become pregnant because of a medical danger to her, her fetus or both; married or cohabiting women that have had a 3 year period of unprotected sexual intercourse with no pregnancy.

Voluntarily Childless women are those who do not expect to have any children, and are either fecund or surgically sterile for contraceptive reasons.

Note that the cohort fertility tables are based on data from administrative birth records, whereas the other two data sources are based on sample surveys. The sample surveys provide information on the characteristics of mothers and their children which are not available in birth records. However, the estimates of common measures based on the sample surveys are not precisely the same as those based on administrative birth records.

8.3 Levels of and Trends in Childlessness

8.3.1 Cohort Fertility Tables

In any given birth cohort, the youngest women bear few children. With each passing year, these women will have borne more children, and the share of women who remain childless declines. To ensure the comparability of the rates of childlessness between cohorts, the data on the proportion of childless women at the end of their childbearing years are assembled for each cohort. Figure 8.1 depicts the shares of all U.S. childless women, and of white and black women at age 50 in the Heuser (1976) and in the Hamilton and Cosgrove (2010) cohort fertility tables.

Among the 40 cohorts born between the late 1860s and the early 1910s, around 20% of white women remained childless. Women who lived through the main years of their childbearing period during the core years of the historic economic depression of the 1930s—cohorts born between 1906 and 1911—experienced relatively high rates of childlessness, about 21%. However, this was not dramatically more than most of the preceding 40 cohorts. A rapid decline in the share of childless women started with the 1913 birth cohort and lasted through the 1925 cohort that reached a childless rate of 9%. A low share of childlessness among white women fluctuating between 8 and 10% was retained for almost 20 cohorts from the 1925

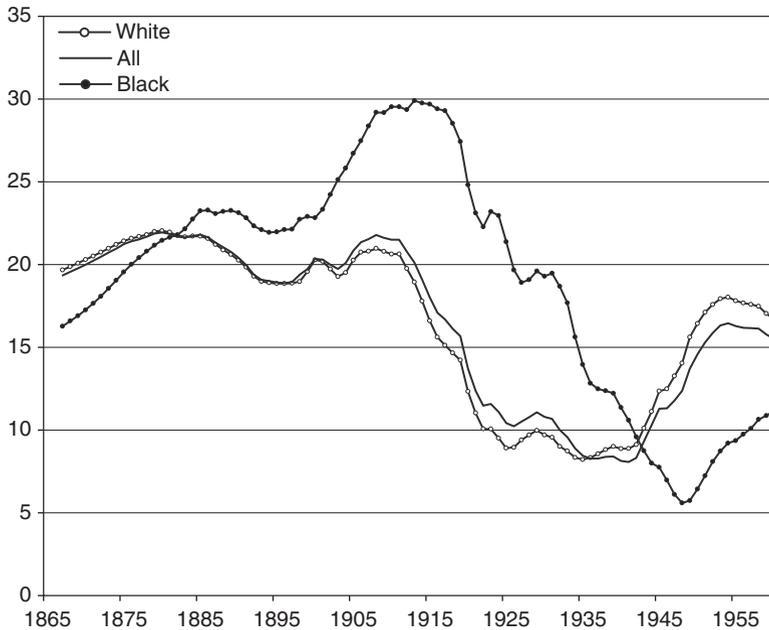


Fig. 8.1 Shares of childless women at age 50, all, white and black women, birth cohorts 1867–1960, United States (Sources: Heuser (1976); Hamilton and Cosgrove (2010))

through the 1943 birth cohort. A pronounced increase in the shares of childless women ensued, from 10% among the 1943 cohort to 18% among the 1953 cohort. The childless rate at age 50 was close to 18% for a few cohorts and then started to decline to around 17% in the 1959 and 1960 cohorts (Fig. 8.1).

The long-term trends in the shares of childless black women differed from those of white women. For about 60 cohorts, starting with those of the mid-1880s through those of the mid-1940s, black women experienced higher rates of childlessness than white women. Notably, almost one-third of black women who were in their most fertile years during the Great Depression of the 1930s remained childless. With a time lag of about five cohorts shares of childless black women declined from 29% among women born in 1916 for more than 30 cohorts to a low of 6% in the 1948 birth cohort. Thereafter, the share of childless black women increased reaching a share of 11% in the 1960 cohort (Fig. 8.1).

Although numbers of births after age 40 have increased in recent years (Sobotka 2009), these still tend to be relatively small. Consequently, trends in the shares of childless women at age 40 are essentially the same as trends in the shares of childless women at age 50 (Fig. 8.2). Thus the delineation of trends can be extended for 10 additional cohorts, namely for U.S. women trends of childless women can be obtained by observing trends of shares at age 40 for the 1960s birth cohorts. These women concluded their childbearing during the 2010s, and their principal period of childbearing was during the mid- to late 1980s and early 1990s.

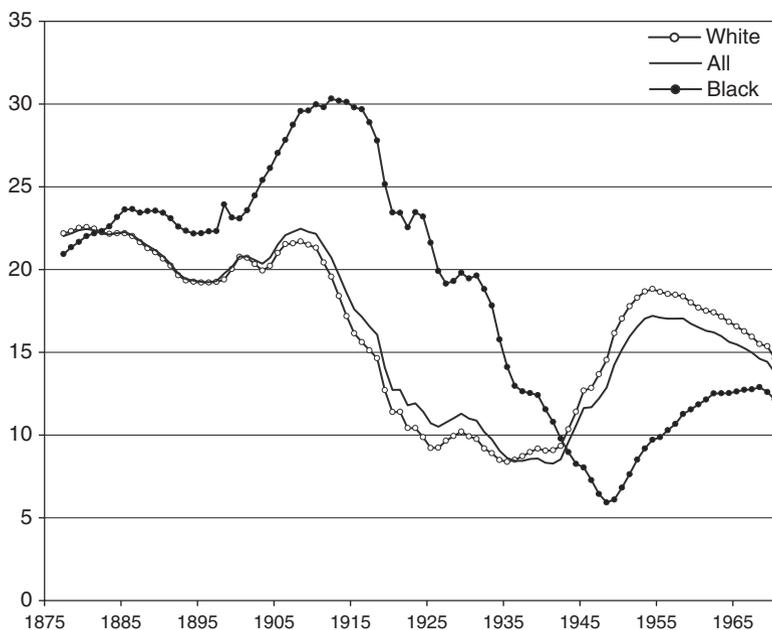


Fig. 8.2 Shares of childless women at age 40 (in per cent), all, white and black women, birth cohorts 1877–1970, United States (Sources: Heuser (1976); Hamilton and Cosgrove (2010))

Among white women the declining trend of childless women extended into the 1960s cohorts. The share of childless women in the 1960 birth cohort at age 40 was 17.7% and declined to 14.6% in the 1970 birth cohort (Fig. 8.2). This implies that around 13% of white women in the 1970 cohort will be childless at age 50. The rising trend in childlessness among black women of the 1950s cohorts stalled among the 1960s cohorts. The share of women who were childless at age 40 was 11.9% among the 1960 birth cohort, and 12.1% among the 1970 birth cohort (Fig. 8.2). This implies that around 11% of black women in the 1970 cohort will be childless.

It appears that shares of white and black childless women in the 1970 cohort will be quite similar. The difference in the shares of white and black childless women in the 1950 cohort at age 40 was 10.2 percentage points which declined to 5.8 points in the 1960 cohort and to 2.5 points in the 1970 birth cohort.

Levels and trends of overall shares of childless women follow the levels and trends of white women quite closely. This is not surprising, as the majority of the U.S. population was and still is white, although the percentage of whites has been declining. In 1900 about 88% of the U.S. population was white and 12% was black (U.S. Bureau of the Census 1975). These percentages were essentially maintained through 1970. As of 2000, whites comprised about 82% and blacks 13% of the population (U.S. Census Bureau 2012). The effect of black childlessness on the overall levels and trends is nonetheless discernable. When black childlessness is high the overall curve is above the white one, and *vice versa*.

The share of all childless women at age 50 in the 1960 cohort was 15.5% and at age 40–16.5%, a difference of exactly 1.0 percentage point. The share of all childless women at age 40 in the 1970 cohort was 13.8%. Thus it is virtually assured that the overall share of childless women in the 1970 cohort at age 50 will be below 13%, because the difference in the 10 years younger cohort was 1.0 percentage point and this difference of childlessness between ages 40 and 50 in a particular birth cohort was growing.

8.3.2 Fertility Supplements of the Current Population Survey

In the *fertility supplements of the Current Population Surveys* parity distributions—and thus also the shares of childless women—are provided for 5-year age groups. Until recently the oldest age group for whom these data were available was 40–44. Since 2012 the age group 45–50 has been added. Table 8.1 and Fig. 8.3 are based on data for the 40–44 age group. Although childbearing does not end at age 44, this cut off was necessary to obtain long-term time series.

According to these data the average share of all childless women aged 40–44 in the United States increased from 10% around 1980 to almost 20% in the 2000s, i.e. the proportion of childless women increased almost twofold within 20 years. Toward the end of the 2000s and the early 2010s, childlessness declined (Table 8.1).

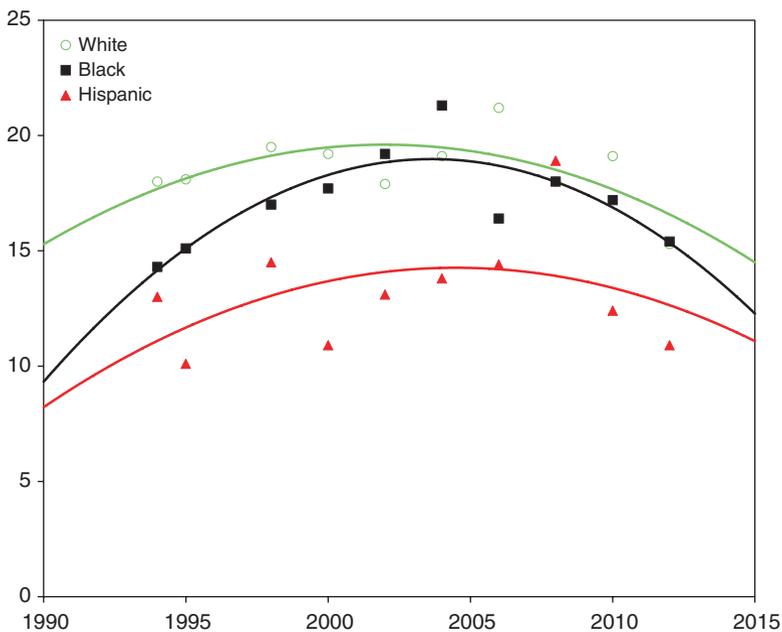


Fig. 8.3 Shares of childless women ages 40–44, white, black, and Hispanic women, 1976–2012, United States (Source: U.S. Census Bureau, Current Population Survey for selected years, June 1976 to June 2012)

In the mid-1990s the shares of white childless women were almost 10% higher than those of black women. By 2008–2012 the differences between white and black women in the rates of childlessness had diminished (Fig. 8.3 and Table 8.1).

When comparing childlessness of Hispanic women with childlessness among white and black women one has to keep in mind that in U.S. statistics Hispanics are included in the categories of “white” and “black.” Hispanics are considered an ethnic minority, not a race. It is nonetheless possible to get an idea of the effect of Hispanic childlessness on overall levels of childlessness of the race categories. Even though the Hispanic childlessness rate (5th numerical column in Table 8.1) is on average about 30% lower than childlessness of non-Hispanic white women (3rd col.), the difference between the shares of all white childless women (2nd col. which includes white Hispanic women) and non-Hispanic white women is relatively small, on average this difference is only 0.9 percentage points (last col. in Table 8.1). The reason for such a small difference is that in 2010, for instance, Hispanic women constituted only about 18% of white women, although the share of Hispanics in the population was increasing (U.S. Census Bureau 2011: Table 6). The effect of Hispanic black childlessness on total black childlessness was even smaller as the proportion of Hispanics among blacks was only about 5% in 2010.

8.3.3 *The National Surveys of Family Growth (NSFG)*

Shares of childless women ages 40–44 rose from 7% in the 1973–1976 rounds to 18% in the 1995 round of the NSFG. In the rounds conducted during the 2000s, the shares of childless women had settled at 15% (Table 8.2 and Fig. 8.4). Among childless women ages 40–44 the smallest shares were experienced by the temporarily childless. If the measurements had been taken at the end of women’s reproductive period, as was done in the cohort fertility tables, there would not be any temporarily childless women. As women ages 40–44 is the oldest category that can be analyzed, the temporarily childless women have a significant impact on the overall trends in childlessness. Since women are postponing births to higher ages, a larger amount of births are borne by older women; thus, an increasing proportion of women in the 40–44 age group still expect to bear children. While the share of temporarily childless older women has been increasing steadily, it still represents only 3% of all women and around one-fifth of all childless women. The share of all women who are involuntarily childless has been relatively stable at an average of 5%. In the 1973–1976 rounds, the share of involuntarily childless women as a proportion of all childless women was 60% because the overall numbers of childless women were relatively small. In the latest rounds, about one-third of childless women would probably want to have children, but for one reason or another—primarily related to a health issue—they have been unable to achieve this goal.

The NSFG definitions used to distinguish between voluntary and involuntary childlessness appear to be straightforward and clear (see Sect. 8.2.3 above). However, scholars have pointed out that an unknown segment of the women who at

Table 8.2 Women aged 40–44 and their childless status, National Survey of Family Growth, in per cent, United States

All women	1973–1976	1982	1988	1995	2002	2006–2010
One or more children	93	88	86	82	85	85
Childless	7	12	14	18	15	15
Total	100	100	100	100	100	100
All women	1973–1976	1982	1988	1995	2002	2006–2010
One or more children	93	88	86	82	85	85
Voluntarily childless	2	5	8	10	6	8
Involuntarily childless	4	4	5	5	6	5
Temporarily childless	1	1	1	3	2	3
Total	100	100	100	100	100	100
Childless women	1973–1976	1982	1988	1995	2002	2006–2010
Voluntarily	31	53	55	59	44	49
Involuntarily	60	38	36	26	40	30
Temporarily	9	9	10	16	16	21
Total	100	100	100	100	100	100

Sources: Abma and Martinez (2006), Martinez et al (2012), Mosher and Bachrach (1982), author’s calculations

Note: Sub-categories of childless do not add up to total due to rounding

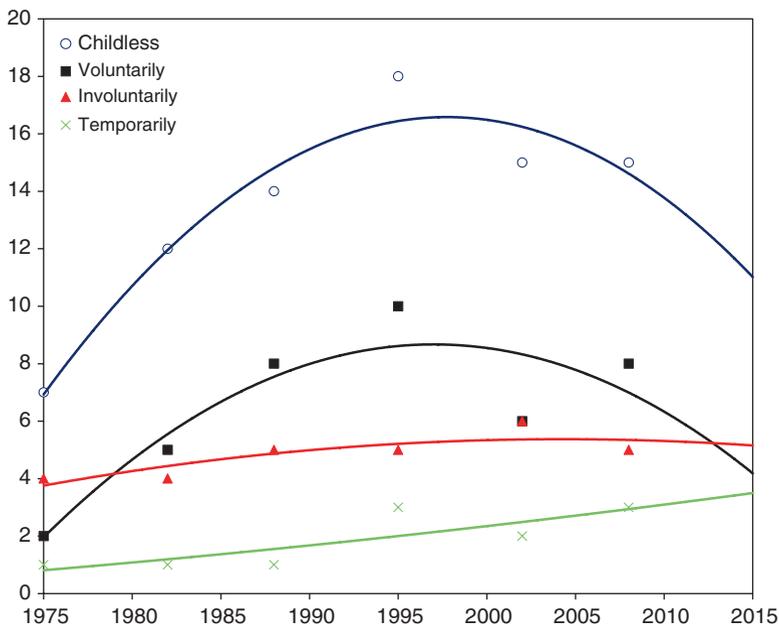


Fig. 8.4 Percent distribution of childless women aged 40–44 by childless status, National Survey of Family Growth, United States (Sources: Abma and Martinez (2006); Martinez et al (2012); Mosher and Bachrach (1982), author’s calculations)

the end of their reproductive period report being voluntarily childless or having become involuntarily childless were postponing childbearing for various reasons until it became too late for them to bear children (Rindfuss et al. 1988: throughout). In other words, some, possibly many, women wind up being unintentionally childless as a result of having postponed childbearing. Regardless of how the childlessness occurred, using NSFG definitions, the percentage of the voluntarily childless increased from one-third in the 1970s rounds to approximately one-half of childless women in subsequent rounds (Table 8.2).

8.3.4 *Personal Characteristics and Attitudes of Childless Women*

There is ample evidence from several rounds of the NSFG that childless women, and particularly the voluntarily childless, are disproportionately white, are employed full-time, and have a higher education; and are less likely to be currently or formerly married and are less religious (Abma and Martinez 2006). For example, data from the 2002 round show that among women aged 35–44, 69% of the voluntarily childless had some college or higher education, compared to 17% among all women of that age; 76% of the voluntarily childless were working full-time, compared to 51% among all women; 79% were non-Hispanic white, compared to 71% among all women; and 35% never attended religious services, compared to 17% among all women (Abma and Martinez 2006).

Among the women aged 35–44, the voluntarily childless also differed from the temporarily and involuntarily childless in terms of economic characteristics. They had the highest individual and family incomes, the most extensive past work experience, and were the most likely to be employed in professional and managerial occupations. For example, according to the results of the 1995 round, 57% of the voluntarily childless had individual annual earnings of over US\$25,000, compared to 41% of the temporarily childless and 36% of the involuntarily childless; and 84% had worked more than 15 years, compared with 72% of the temporarily childless and 77% of the involuntarily childless (Abma and Martinez 2006).

On the whole, the voluntarily childless tend to differ from women who have children and from the temporarily or the involuntarily childless in terms of their attitudes regarding gender egalitarianism, work, and family. For example, in their responses to questions in the 1995 round, 82% of voluntarily childless versus 72% of women with children disagreed with the statement “a man can make long-range plans, a woman cannot;” and 84% of the voluntarily childless versus 75% of the women with children agreed with the statement “young girls are entitled to as much independence as boys.” The voluntarily childless also stood out in their response to the question of whether “women are happier if they stay at home and take care of their children;” 87% of them disagreed, compared with around 76% of the women who had children or were temporarily or involuntarily childless (Abma and Martinez 2006).

8.4 Reasons and Motivations for Remaining Childless

In a discussion of the biological factors which contribute to childbearing motivations, Foster (2000: 227) argued that because of their genetic predisposition to nurture and the effects of hormones, “most women, motivated by a genetically developed desire to nurture, will choose to have at least one child, given reasonably favorable circumstances.” Moreover, McQuillan et al. (2008: 17) established that motherhood is valued by mothers and non-mothers alike, and that “there is no evidence that valuing motherhood is in conflict with valuing work success among non-mothers, and among mothers the association is positive.” Yet for prolonged periods a fifth of U.S. women, i.e. around 20%, remained childless. Why?

In the first place about 5% of women cannot or should not bear children; they are involuntarily childless, mostly due to fecundity impairments or health issues (Fig. 8.4 and Table 8.2). Then there are the temporarily childless, i.e. those that are still expecting to have a child. However, these women can no longer be considered temporarily childless once they have reached the end of their childbearing period. The remainder of women remains childless for a wide variety of reasons.

People grow up and live in differing social, cultural, and economic circumstances which influence their decisions regarding childbearing. They live aided or obstructed by a material world, and are affected by an array of social norms. They may also have their own independent reasons for not having children. Both the material conditions and the norms affecting their decisions may change over time. If we were to accept the notion that every woman has a natural desire to have children, irrespective of her surroundings, there would not be any voluntary childlessness. Indeed, there was a time in U.S. history when only around 8% of white women and only about 5 to 6% of black women were childless. Among these women, the rates of voluntary childlessness must have been negligible. The 1973–1976 round of the NSFG found that only 2% of women reported being voluntarily childless, which implies that this share might have been even lower during the 1960s among white women. Moreover, the 5–6% rate of childlessness among black women leaves very little room for voluntary childlessness. On the other hand, as was pointed out above, at certain points in time around 20% of white women and almost 30% of black women were childless, which implies that the shares of “voluntary” childlessness were large.

The basic explanation for these extreme high and low childlessness rates is the fact that the former occurred at a time of economic hardship and psychological stress for large strata of the population affecting family life during the Great Depression which started in 1929 and lasted through the early to mid-1930s. Conversely, the low childlessness rates occurred when a majority of the population experienced favorable economic and social conditions for childbearing after the Second World War. In his recently published book, *Labor’s Love lost: The Rise and Fall of the Working-Class Family in America*, Cherlin (2014) masterfully describes in great detail changes in American family life over the past two centuries. He characterizes “the Great Depression [as] a cataclysmic event in the United States in its

depth and duration” (Cherlin 2014: 60). Based on contemporary sociological research of Komarovsky (1940), Cherlin discusses the effect of the Depression, *inter alia*, on reproductive behavior.

Their sex lives often deteriorated: in twenty-two out of thirty-eight families for which adequate information was collected, the frequency of sexual relations declined—including four families in which sex stopped altogether. In some cases, however, couples reduced sexual activity not because of emotional strain but in order to lower the chance that the wife would become pregnant. Without modern means of birth control such as the pill or the IUD, financially struggling couples did what they could to avoid having another mouth to feed. One parent said, “It is a crime for children to be born when the parents haven’t got enough money to have them properly” (Cherlin 2014: 79).

The low shares of childlessness make clear sense in light of Cherlin’s characterization of the living conditions of American families in the post-World War II years.

Why did young couples have so many children? One reason lay in the unique life histories of the generation who were in their twenties and thirties. They experienced the Great Depression as children or adolescents and then a world war erupted as they reached adulthood. After enduring these two cataclysmic events, the “great generation,” as they are sometimes called, was pleased in peacetime to turn inward toward home and family. ... Family life was the domain in which they found ... security. Raising children provided a sense of purpose to adults who had seen how fragile the social world could be. ... Moreover, conditions were favorable for family formation and fertility: unemployment rates were low, wages were rising, and the government had enacted the GI Bill, which offered low-interest home mortgage loans to veterans so that they could buy single-family homes. ... Employers in the rapidly expanding American economy were forced to offer higher wages in order to attract new workers because they were in short supply (Cherlin 2014:115).

What remains to be clarified are the social, cultural, and economic circumstances shaping childlessness levels and trends prior to the Great Depression of the 1930s and the levels and trends unfolding during the two to three last decades of the twentieth century, as well as the peak and subsequent decline in childlessness in the early twenty-first century.

It could be considered odd that for 40 years (or 40 birth cohorts, i.e. 1867–1907) childlessness was at a similar level as during the Great Depression (Fig. 8.1). Morgan (1991) has argued that the period of high childlessness in late nineteenth and early twentieth centuries was mainly due to a strong motivation to delay marriage and childbearing, which eventually resulted in many women remaining childless, even though that was not their initial intention. Childbearing delays were significantly more pronounced in the economically more advanced states of the northeast. Many young women working in mills “may have been important income earners. Pressure for them to marry may have been replaced by pressure to continue supporting the family” (Morgan 1991: 801). Furthermore, the harsh conditions of the economic depression of the 1890s might have had an impact similar to that of the Great Depression of the 1930s, even though it was not as long or as deep. In addition, the risk of remaining childless would have been greater when childbearing was delayed, as sub-fecundity and sterility increases among women in their thirties. Finally, growing numbers of women were entering professions during this period,

and these women tended not to marry; or, if they married, they often remained childless.

Turning our attention to the end of the twentieth century and the early twenty-first century, numerous societal developments have been taking place simultaneously, each of which has played a role in shaping contemporary childbearing behavior, and has thus contributed to trends in childlessness. These include:

- The re-emergence of marriage and childbearing postponement (Kohler et al. 2002; Hašková 2007; Goldstein et al. 2009; Frejka 2011)
- Rising female labor force participation rates, which are now almost as high as those of men (Oppenheimer 1994; Bianchi 2011)
- The work-family dilemma for employed women (Bianchi 2011)
- The status of the childcare infrastructure (Laughlin 2013)
- The increase in women's earnings, and the growth in their income relative to that of men (Cherlin 2014: 126; Wang et al. 2013)
- The growing empowerment of women (Anonymous 2009)
- High rates of incarceration (Tsai and Scommenga 2012)
- The deployment of men and women in wars (Adams 2013)
- Technological developments in production and communication, and their impact on the composition of the work force (Karoly and Panis 2004; Economist Intelligence Unit 2014)
- The hollowing out of the work force (Cherlin 2014: 124–125)
- Changes in the class structure of society, with education playing the decisive role (Cherlin 2014)
- Growing job insecurity, particularly among the less educated (Farber 2010)
- Changing marriage and cohabitation patterns (Cherlin 2009)
- Changing income and wealth distribution patterns (Saez and Zucman 2014)
- Income stagnation among a large share of the population (Krugman 2007; Fry and Kochhar 2014)

The above developments may influence women and their partners—in various ways, at different stages, and to differing degrees—in their inadvertent or conscious deliberations about whether to remain childless.

On the other hand there are those, including professionals such as psychologists and physicians, who have argued that some women and men decide to remain childless for their own subjective reasons. These individuals presumably engage in an independent decision-making process in which they focus on their personal motivations and preferences, rather than allowing themselves to be influenced by their circumstances. Scott (2009: 75–110; 222) reported the results of a survey of childless individuals which found that the six most compelling motivation statements for not having children were:

- I love our life, our relationship, as it is, and having a child won't enhance it.
- I value freedom and independence.
- I do not want to take on the responsibility of raising a child.
- I have no desire to have a child, no maternal/paternal instinct.

- I want to accomplish/experience things in life that would be difficult to do if I was a parent.
- I want to focus my time and energy on my own interests, needs, or goals.

Taking into account the wide range of circumstances and personal subjective reasons which can affect people's decisions about whether to have children can help us to better understand the increase in the share of women who remained childless which occurred during the final decades of the twentieth century and into the twenty-first century. However, the reasons for the apparent reversal in this trend in the early years of the twenty-first century have yet to be explored. That is a topic for discussion and research in the near future, especially if this trend continues.

8.5 Black Childlessness: Trends and Explanations

For almost 60 birth cohorts (1883–1942) childlessness was higher among black than among white women (Fig. 8.1). At its peak black childlessness was 2.4 times higher than it was among white women – in the 1924 and 1925 birth cohorts. Starting with the cohorts born in the early 1940s, this trend was reversed, and black women became less likely than white women to be childless. Among the youngest cohorts, those born in the late 1950s and the 1960s, the shares of black and of white Americans who are childless are converging at around 12–15 % (Figs. 8.1 and 8.2). The relatively low childlessness among black women and the convergence with white childlessness since the end of the twentieth century is generally confirmed by data from the *Fertility Supplements of the Current Population Survey* as well as the *National Surveys of Family Growth*.

The basic reasons for high black childlessness were analogous to those shaping white childlessness, namely difficult economic and social settings, psychological stress and social norms. In addition, living conditions of black Americans were incomparably more difficult than those of whites. Racial segregation, discrimination, and inequalities have been basic features of American society throughout its history (Massey 2011), and are reflected in virtually all aspects of life, such as economic opportunities, remuneration, schooling, housing, and access to health and reproductive services.

Farley (1970: 217–226) was the first to analyze deteriorating health conditions of blacks systematically, and their effect on reproductive behavior during the first three decades of the twentieth century. An increase in the prevalence of venereal diseases, such as syphilis and gonorrhea may have been an important factor generating the fertility decline and the increase in childlessness among blacks, which culminated in the 1930s. Farley was criticized by McFalls (1973: 18) and others who argued in favor of “a more conservative interpretation of the importance of VD in the natality history of the black population.” Yet McFalls (1973: 18) conceded that “health factors undoubtedly played a more significant role” than other societal factors.

But what explains the decline in black childlessness and the crossover from relatively high to relatively low levels of childlessness from the 1941 to the 1942 birth cohorts? The decline in the childlessness rate of black women started with the cohorts most affected by the Great Depression, namely those born around 1915, and lasted until the 1948 cohort, from a share of 30% to 6% (Figs. 8.1 and 8.2). The childlessness decline among blacks took more than twice as long as that for white women, 33 compared to 14 cohorts. The childlessness descent for white women also started with the cohorts most affected by the depression of the 1930s, but stopped when living conditions started to improve significantly after the Second World War and essentially settled at that level for over 20 birth cohorts. Among black women childlessness stopped declining temporarily for a few birth cohorts – those born between 1926 and 1931 – but then resumed its decline with new force. Black childlessness declined from 20% in the 1931 cohort to 6% in the 1948 cohort.

The passage of the Social Security Act in 1935 strengthened government support for health activities (Farley 1970: 230–235). Title VI of that act appropriated money “for the purpose of assisting States, counties.... in establishing and maintaining adequate public health service, including the training of personnel for State and local health work...” This was an important element in the development of the health system. The resulting improvements in the health of the black population in turn led to declines in childlessness.

Moreover, there may be some justification to assume that improvements in living conditions and educational attainment levels among the black population during the second half of the twentieth century were associated with the long-term decline in childlessness. This progress was both absolute as well as relative to that of the white population. While living conditions for blacks remained inferior to those of whites, the disparities were narrowing as blacks were catching up. On average, incomes of blacks were rising faster than those of whites, especially during the 1990s (Fig. 8.5). Rates of poverty among blacks were also improving. Based on the definition of poverty of the U.S. Census Bureau, the ratio of blacks to whites who were living in poverty declined from 3.4 in 1970 to 2.1 in 2010 (DeNavas-Walt et al. 2012: Table B-1). In addition, educational attainment levels of blacks were increasing faster than those of whites. Between 1960 and 2009, the shares of blacks aged 25 and older who had graduated from high school rose from 20.1 to 84.1%, whereas the corresponding shares of whites increased from 43.2 to 87.1% (U.S. Census Bureau 2012: Table 225). Over the same period, the shares of blacks aged 25 and older who had graduated from college grew from 3.1 to 19.3%, while the corresponding shares of whites increased from 8.1 to 29.9% (U.S. Census Bureau 2012: Table 225).

What might be the reasons for the most recent turnaround – the doubling in black childlessness from 6% in the 1948 birth cohort to 12% in the 1968 cohort? The numerous societal developments shaping childlessness that have been taking place around the turn of the century listed above, together with the subjective motivations of women for not having children, surely played a role in influencing contemporary childbearing behavior and thus contributed to the increase in childlessness of black women.

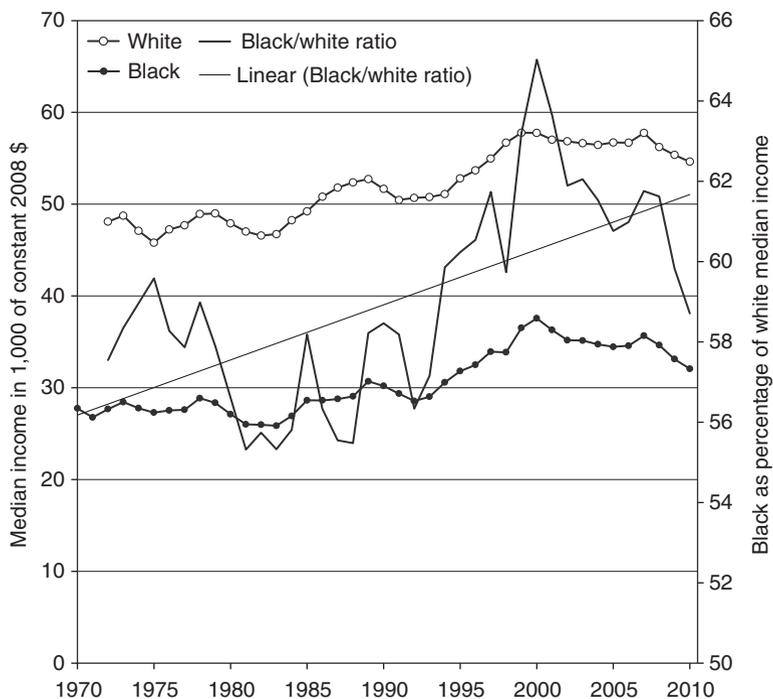


Fig. 8.5 Households by total money income (in 1000 of constant 2008 U.S. dollars) and race of householder, black as percent of white income, 1967–2010 (Source: DeNavas-Walt et al. (2012), Table A-2)

Other important factors which might have influenced the recent rise in black childlessness are changes in union formation and marital trends, and in fertility trends within unions. According to Cherlin (2009: 169), “the larger story for African Americans is a sharp decline in marriage that is far greater than among other groups.” In 2010 the share of black married women over age 18 was a mere 31 % compared to 61 % in 1960. In contrast, among white women this share declined from 74 to 55 % (Cohn et al. 2011). These developments are in line with the findings of Espenshade (1985: 209), who concluded that “at least since 1960 in the United States, a weakening of marriage has been under way. The fading centrality of marriage in the lives of American men and women is more noticeable for blacks than for whites.” Only 24 % of black women aged 15–44 were married compared with 46 % of white non-Hispanic women according to the NSFG 2006–2010 round (Copen et al 2012: 12).

A comprehensive, albeit complex, set of explanations for declining marriage rates among blacks has been revealed by research conducted by Banks (2011). Most black women want to marry and have children, as getting married is seen as a marker of status and social prestige, and remains an aspiration. Almost all black women would prefer to have a partner of the same race, as they are acculturated to date and