

# Does Migrant Background Matter for Adolescents' Fertility Preferences? The Latin American 1.5 Generation in Spain

Elisabeth K. Kraus<sup>1</sup> · Teresa Castro-Martín<sup>2</sup>

Received: 18 March 2016 / Accepted: 1 April 2017 / Published online: 30 May 2017  
© Springer Science+Business Media Dordrecht 2017

**Abstract** This article examines the fertility preferences of Latin American adolescents of the 1.5 generation and their native peers in Spain. We compare their expected age at first birth as well as their expected family size. The fertility preferences of the 1.5 generation are likely to reflect the family values of two different socialization environments as well as the adaptation process to the childbearing norms of the host society. The analysis is based on the *Chances Survey*, which collected data from 2700 adolescents in secondary schools in Madrid in 2011. Results indicate that fertility timing preferences of Latin American adolescents reflect socialization influences from the society of origin, but also a quick adaptation to the childbearing norms in the host society, since their expected age at first birth is somewhat earlier than that of their Spanish peers but considerably later than that prevailing in their country of origin. The degree of social integration, measured by the number of the respondent's best friends who were Spanish, seems more important than age at migration for diminishing the gap between Latin Americans and Spaniards. Moreover, higher educational expectations are associated with preferences for postponed entry into parenthood. With regard to family size expectations, we find no significant variation between adolescents of migrant and native origin, confirming the argument that the “two-child norm” currently prevails in both middle- and high-income countries.

---

✉ Elisabeth K. Kraus  
elisabeth.kraus@upf.edu

Teresa Castro-Martín  
teresa.castro@cchs.csic.es

<sup>1</sup> Department of Political and Social Sciences, Universitat Pompeu Fabra, Barcelona, Spain

<sup>2</sup> Institute of Economics, Geography and Demography, Centre for Human and Social Sciences, CSIC, Madrid, Spain

**Keywords** Adolescents · Fertility preferences · Child migrants · 1.5 Generation · Adaptation · Socialization · Spain

## 1 Introduction

As immigrants play an increasingly important role in the demographic, social and cultural trends of European societies, there is a growing interest in their family dynamics. While the fertility patterns of immigrants in European countries have received considerable attention in the recent demographic literature (Andersson 2004; Kulu 2005; Kulu and González-Ferrer 2014; Milewski 2007; Wolf 2016), their descendants' family formation preferences and behaviour—including those of the so-called 1.5 generation<sup>1</sup>—have been less studied (De Valk 2013; De Valk and Liefbroer 2007a, b; De Valk and Milewski 2011; Kulu et al. 2015; Milewski 2010).

The main focus of research on migrant fertility has been on assessing the influence of past and current social environments and disentangling the role of socio-economic and cultural factors in shaping migrants' childbearing patterns (Kulu and González-Ferrer 2014). For instance, a central question surrounding recent discussions on Hispanic fertility in the USA is whether observed differentials with respect to native fertility stem from disparities in socio-economic position or from cultural norms related to family life and the value attached to children (Hartnett and Parrado 2012).

Several major hypotheses have been proposed in the literature to depict the interrelationship between migration and fertility: disruption, interrelation of events, selection, socialization and adaptation (Andersson 2004; Kulu 2005; Kulu and González-Ferrer 2014; Milewski 2007). In general, these hypotheses aim to explain and predict how migrants coming from countries with relatively high and early fertility behave after moving to countries with low and late fertility. These hypotheses have been empirically tested in the US context (Lindstrom and Giorguli-Saucedo 2002; Parrado and Morgan 2008; Singley and Landale 1998) as well as in several European destination countries (Andersson 2004; Kulu 2005; Milewski 2007, 2011), and it appears that their relative importance varies across immigrant groups and also across socio-economic, institutional and policy settings (Kulu and González-Ferrer 2014).

The selection, socialization and adaptation hypotheses have also been used to interpret the childbearing patterns of migrants' offspring. Although self-selection mechanisms are less relevant for migrants' descendants—they do not make the decision to migrate—the indirect influence of parental selective migration should not be overlooked. Migrant parents tend to be positively selected in terms of socio-economic resources, educational attainment and social mobility aspirations for themselves and their children (Adserà et al. 2012; Feliciano 2005), which may in turn influence their children's educational, employment and fertility preferences. Moreover, the relative influence of socialization and adaptation processes on reproductive norms and behaviour is difficult to disentangle, both for the second and

---

<sup>1</sup> The terms *1.5 generation* and *child migrants* are used interchangeably throughout this article. Both terms refer to individuals who were born abroad and who migrated (with one/both parents or following them) during childhood or adolescence.

1.5 generations. The second generation is born and raised in the host country, but within an immigrant family, which plays an important role in the intergenerational transmission of cultural values (Milewski 2007, 2011). Members of the 1.5 generation occupy a “socio-cultural middle ground” (Holland and De Valk 2013) between their countries of origin and destination, and we can presume that their family formation norms and behaviour are shaped by both societal contexts.

A different body of literature deals with adolescents' fertility preferences in ethnically or racially diverse societies. Most of the existing studies focus on the USA and attribute racial–ethnic differences in adolescents' fertility preferences to divergences in cultural values and in parental socio-economic status (Plotnick 2007; Starrels and Holm 2000; Trent 1994). However, the US literature on adolescents' reproductive preferences tends to focus on racial–ethnic disparities rather than on the comparison of native and foreign-born adolescents.

This paper brings the literature on migration and fertility into conversation with the literature on adolescents' fertility preferences by addressing the following research questions: Do adolescents' preferences about their future family size and age at first birth differ by migrant status? Do child migrants gradually adapt their fertility preferences towards those of natives with longer duration of stay at destination? Which migration-related, family-related or individual characteristics contribute to these differences?

Research on adolescents in Spain, and particularly on adolescents of immigrant families, has been severely limited by lack of available data. Our empirical analysis draws on a new data set, the *Chances Survey*, collected in 30 secondary schools in Madrid during the first half of 2011, and focuses on the Latin American 1.5 generation. Spain, a relatively new immigration country with lowest-low and latest-late fertility patterns, is an interesting case to study. Although Spain and Latin American countries have traditionally shared similar cultural features, such as language, Catholic religion and familistic values, both settings differ considerably as regards their family formation patterns. Latin American first-generation immigrant women have maintained many of the family patterns of their countries of origin. They tend to enter younger in union, usually through cohabitation, to have more children—although this was so only up to the onset of the economic crisis—and to have a much earlier fertility calendar than their Spanish counterparts. However, it is not known whether these patterns persist for the 1.5 and second generation.

The Latin American second generation, born in Spain to two Latin American-born parents, is still a rather small group with a very young age profile—mean age of 9.5 in the 2011 Census. Most of them have yet to reach their reproductive age. In contrast, the Latin American 1.5 generation had a mean age of 17.9 by the 2011 Census. By looking at the reproductive preferences of the 1.5 generation, we will be able to gain valuable insights into the socialization influences and the on-going adaptation processes, which might in turn shed some light on the second-generation's future fertility behaviour.

The contributions of this article are twofold. First, from a theoretical perspective, we discuss to what extent existing theories on the interrelationship between migration and fertility are pertinent to migrants of the 1.5 generation. Second, the

empirical comparison of fertility quantum and timing preferences of foreign-born and native adolescents advances our understanding of the process of social and cultural integration of child migrants in a recent immigration setting.

## 2 Background

### 2.1 The Emergence of the Latin American 1.5 Generation in Spain

Spain has been traditionally a country of outmigration, but at the turn of the twenty-first century it became one of the major immigrant receiving countries in Europe. The share of the foreign-born population increased steeply from 2.3% in 2000 to 14.4% in 2011, although afterwards it declined slightly to 13.2% in 2015 due to return migration linked to the economic crisis (Instituto Nacional de Estadística 2016). When clustering countries by continents, Latin Americans are the largest foreign-born population group in Spain. Latin American flows to Spain are predominantly labour migration flows and highly feminized, partly due to the large demand in the Spanish labour market for domestic service and care workers (Bueno García and Vono de Vilhena 2009). These flows were intensified due to exemptions of many Latin American countries from visa requirements (Oso Casas 2010). On the other hand, in Ecuador, the main origin country of Latin American migrants in Spain, a deep economic crisis, rising poverty and high political instability functioned as push factors for outmigration during the late 1990s and early 2000s (Gabielli 2015). In other countries, such as Peru or Colombia, structural adjustment programs imposed by global financial institutions to transform the economy along neoliberal lines provoked a fall in employment, wages and living standards, also boosting emigration flows (Massey and Capoferro 2006).

At first, high rates of female outmigration resulted in transnational families and new arrangements of kinship and foster care, as mothers temporarily left their children in the care of spouses, relatives and friends in the origin countries. But over the years, often in anticipation of an imminent implementation of stricter visa requirements, many women brought over their husbands and children for the purpose of settlement (Oso Casas 2010). The process of family reunification was particularly rapid in the case of Spain, although it largely took place at the fringes of the legal family reunification procedure (González-Ferrer 2011). The result was a growing Latin American 1.5 generation, children born in Latin America who migrated with or followed their parents to Spain (Aparicio 2007). According to the 2011 Census, the largest Latin American population groups residing in Spain were Ecuadorians, Colombians, Argentinians, Bolivians and Peruvians (in descending order) (Instituto Nacional de Estadística 2011). This country ranking also corresponds to the Latin American 1.5 generation, which amounts to almost 550,000 individuals who migrated to Spain before reaching the age of 18. On average, this group arrived at the age of 8.8 years in Spain, and at the time of the last census in 2011, they were 17.9 years old (Instituto Nacional de Estadística 2011).

## 2.2 Fertility Behaviour at Origin and Destination

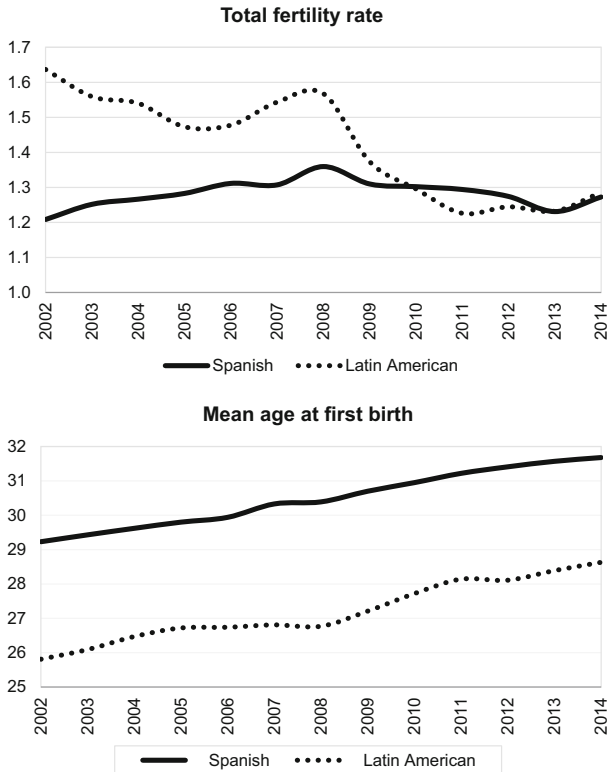
In general, women and men in Latin America have their first child at a relatively young age, and throughout their life course they have more children than Spaniards. The average age at first birth in the Latin American region is 21.7<sup>2</sup> (Bongaarts and Blanc 2015), nearly 9 years earlier than in Spain (mean age of 30.6 in 2014). With regard to fertility levels, the total fertility rate (TFR) was 2.1 in Colombia (2010), 2.5 in Peru (2009), 3.3 in Ecuador (2004) and 3.5 in Bolivia (2008), according to Demographic and Health Survey data (Table 1), whereas in Spain it averaged 1.32 children per woman during the 2000–2014 period. Although the average desired family size has declined to about two children in most Latin American countries (Westoff and Bankole 2002), in low educated strata, individuals tend to overachieve their desired family size, reflecting unmet need for family planning (Sedgh et al. 2016). One of the singular demographic features of Latin America is that rapid and sustained fertility decline was not accompanied by a gradual delay in the onset of childbearing (Heaton et al. 2002), as has been the norm in European countries. It is only recently that an emerging trend towards childbearing postponement has been observed among the highly educated strata (Rosero-Bixby et al. 2009). Furthermore, Latin America continues to have an adolescent fertility rate well above the level expected in light of its TFR and socio-economic indicators (Rodríguez-Vignoli and Cavenaghi 2014).

Spain is currently one of the European countries with lowest fertility. After a historic low in the late 1990s (TFR of 1.15 in 1998), fertility slowly recovered up to 1.45 in 2008, but the beginning of the economic recession again led to a downward trend (Castro-Martín and Martín-García 2013). The moderate fertility recovery in the early 2000s can be explained, at least partly, by the increased migration to Spain.

Nonetheless, the overall impact of migrant fertility on the Spanish TFR is rather modest (Castro-Martín and Rosero-Bixby 2011; Roig Vila and Castro-Martín 2007). As illustrated in Fig. 1, the fertility levels of Latin American women residing in Spain have always been well below those observed in their countries of origin, a pattern that reflects the higher education composition of migrants compared to non-migrants, as well as the disruption processes associated with migration. Fertility levels among Latin American immigrants have also experienced a considerable decline over time: from 1.64 children in 2002 to 1.29 children in 2014, converging to native levels. The decline intensified from 2008 to 2011 and can presumably be linked to the economic crisis, which has been particularly severe for the immigrant population in Spain (Martínez-Molina et al. 2014).<sup>3</sup> However, such convergence has not been observed with regard to the fertility calendar. During the past decade, Latin

<sup>2</sup> The median age at first birth hovers around 21–22 in Bolivia, Colombia, Dominican Republic, Ecuador and Peru, according to *Demographic and Health Survey* data (Table 1). Only women with tertiary education display a later age at first birth, ranging from 23.8 in the Dominican Republic to 27.2 in Colombia. Nevertheless, even among Latin American women with university studies age at first birth is considerably earlier than among Spanish women with tertiary education (mean age of 33.6 in 2014).

<sup>3</sup> In 2011, the unemployment rate among extra-EU migrants (34.6%) was well above that of Spaniards (19.7%). Similarly, the wage gap between immigrants and natives has also broadened with the economic crisis (Martínez-Molina et al. 2014).



**Fig. 1** Total fertility rate and mean age at first birth of Spanish women and Latin American women residing in Spain, 2002–2014. *Source:* INE, *Population Figures* and birth microdata

American immigrants have entered motherhood, on average, about three years earlier than Spanish-born women (Fig. 1). In 2014, for instance, the mean age at first birth was 28.6 years for Latin American women and 31.7 for Spaniards.

In brief, for most of the past decade, the fertility level and calendar of Latin American first-generation immigrants have occupied a space in between those recorded in origin and destination, although differences at destination between natives and immigrants have diminished over time and even disappeared in the case of period fertility levels—perhaps temporarily due to the economic crisis. In this context, the fertility preferences of the 1.5 generation are of special interest, since this group has been socialized “in between” two cultures with distinct fertility patterns and norms.

### 3 Theoretical Framework and Hypotheses

#### 3.1 Adolescents’ Fertility Preferences

Originally studied in the field of social psychology, fertility preferences have found their way into demographic research. Fertility preferences encompass two

**Table 1** Total fertility rate, ideal number of children and age at first birth in selected Latin American countries, by women's age and education

Country	Total fertility rate			Mean ideal number of children			Median age at first birth				
	15-49	15-49	15-49	15-19	15-49	15-49	15-49	25-29	25-49	25-49	
	Secondary	Secondary	Tertiary		Secondary	Tertiary	Secondary	Secondary	Secondary	Tertiary	
Bolivia	3.5	3.0	1.9	2.0	2.4	2.3	2.4	21.2	21.1	21.3	25.7
Colombia	2.1	2.3	1.4	1.9	2.2	2.1	2.0	21.4	21.6	21.4	27.2
Dominican Rep.	2.5	2.4	1.9	2.4	2.8	2.6	2.7	21.3	20.9	21.0	23.8
Ecuador	3.3	3.0	1.9	2.2	2.6	2.4	1.7	21.1	21.2	21.1	25.8
Peru	2.5	2.5	1.7	2.1	2.4	2.3	2.3	22.3	21.9	21.4	27.1

Sources: *Demographic and Health Surveys* for Bolivia (2008), Colombia (2010), Dominican Republic (2013) and Peru (2007-2008); *Reproductive Health Survey* for Ecuador (2004)

interrelated but theoretically distinct concepts. While *fertility desires* or *aspirations* refer to ideals and wishes for one's future, *fertility expectations* refer to more realistic plans that take into account possible constraints that might go beyond an individual's control (Morgan 2001). Expectations also take into consideration possible problems with or access to contraception, the perceived economic situation and aspirations in other (competing) life domains, such as education or the labour market (Régnier-Loilier 2006). However, both concepts are highly correlated and in many studies they are used interchangeably (Miller 2011). We will examine both fertility desires and expectations, but because fertility expectations are closer to subsequent behaviour than fertility aspirations, our main focus will be on expectations.

Fertility expectations of adolescents tend to be more uncertain than those of older individuals that are already in their peak reproductive years (Berrington and Pattaro 2014; Walker 2001). Teenagers may not be able to forecast realistically future fertility outcomes, and many might see family formation as too distant in the future. Yet, adolescents' fertility preferences are still meaningful and relevant to analyse. First, some studies have shown that family building preferences are formed relatively early in the life course (Berrington and Pattaro 2014), and that fertility-related expectations are in fact "salient events" for 15–17-year-olds (Walker 2001). Second, in our study we are not interested in the predictive power of fertility preferences, but rather in the differences between native and foreign-born adolescents. Hence, even if the fertility desires and expectations of teenagers reflect merely social and cultural norms rather than realistic personal plans, they are still of scientific relevance.

### 3.2 The Impact of Migrant Background on Fertility Preferences

The aim of this section is to discuss whether the most common hypotheses used in the literature to explain the interrelationships between migration and fertility for the first generation (disruption, interrelation of events, selection, adaptation and socialization) are relevant to understand the fertility preferences of the 1.5 generation and, with this in mind, derive our hypotheses. In our hypotheses we distinguish explicitly between preferences towards age at first birth and family size, since they do not necessarily follow the same socio-psychological logic.

The disruption and interrelation of events hypotheses focus on the short-term impact of migration on family formation events. According to the *disruption* hypothesis, in the immediate time before and after migration, immigrants have low fertility levels as a result of "disruptive factors" (such as economic and psychological stress or separation of spouses) inherent to the migration process (Kulu 2005). The *interrelation of events* hypothesis argues that higher fertility levels shortly after migration are attributable to the coincidence of migratory and family formation processes (Andersson 2004). Both mechanisms apply to migrants of the first generation, who migrate during their reproductive phase, and thus are rather unlikely to affect the fertility preferences and behaviour of the 1.5 generation (Adserà and Ferrer 2014).



The *selection* hypothesis posits that the fertility behaviour of migrants differs from that of non-migrants at origin due to the fact that migrants are a selected group in terms of education and upward mobility aspirations (Kulu 2005; Milewski 2007). This hypothesis may apply to child migrants, although only indirectly through parental selective migration. Parents of child migrants tend to be selected on grounds of socio-economic resources, education and social mobility aspirations (Feliciano 2005); many of them migrate just because they search for a better (educational and professional) future for their children (Adserà et al. 2012). As a matter of fact, it has been documented that Latin American migrant women in Spain have higher educational levels than non-migrant women in their corresponding origin countries (Castro-Martín and Rosero-Bixby 2011). As an illustration, we compared the educational levels of Ecuadorian parents of 14–16 years old living in Spain and of those back home in Ecuador. Using census data from Ecuador (Instituto Nacional de Estadística y Censos 2010) and Spain (Instituto Nacional de Estadística 2011), we were able to confirm positive educational selection of the fathers, and particularly the mothers, of the Ecuadorian 1.5 generation in Spain: the proportion of mothers who had completed at least secondary education was 42.3 among migrants in Spain compared to 27.4 among non-migrants in Ecuador (Table 7 in the “Appendix”). We should note that educational level might be a misleading proxy for socio-economic status at destination in the case of first-generation Latin American migrants, since they often take up jobs below their qualification level, with low salaries and precarious conditions (Bernardi et al. 2011). However, the positive educational selection of migrant parents is likely to influence adolescents' fertility preferences, because more highly educated parents are more likely to transmit aspirations for high educational attainment and professional occupations to their children, which compete with early family formation (De Valk and Liefbroer 2007a, b; Plotnick 2007; Starrels and Holm 2000). Although controlling for selective migration, both in terms of observed and unobserved characteristics, is beyond the scope of this paper, we include in the analysis a covariate for the highest level of parental education in order to take into account its influence. We anticipate that parental education will have a positive effect on migrant adolescents' expectations to postpone entry into parenthood, but a weak impact on their expected number of children, since family size preferences do not vary much across educational groups in Latin American societies (as shown in Table 1).

The underlying assumption of the *socialization* hypothesis is that an individual's family-related behaviour is largely shaped by the cultural values and norms internalized during childhood (Milewski 2007). According to this hypothesis, first-generation migrants tend to maintain the fertility patterns of their country of origin, and only second and subsequent generations, which are exposed during childhood and adolescence to the culture and norms of the host society, would converge to the patterns of the majority population.

Finally, the *adaptation* hypothesis assumes that the fertility preferences of migrants gradually adapt to the new economic, social and cultural environment at destination. According to this view, migrants' fertility behaviour will progressively converge to that prevailing in the host society (Lindstrom 2003). This convergence does not necessarily imply a process of acculturation, but can result from adjustment

strategies to cope with the political, societal and labour-market situation in the new country (Andersson 2004).

Both socialization and adaptation mechanisms are relevant to understand the fertility preferences of the 1.5 generation, although their relative influence might be hard to disentangle. Child migrants are socialized partly at origin and partly at destination. Since they arrive before starting their reproductive life, individuals of the 1.5 generation have enough time during their childhood and adolescence to adapt to the life style and fertility norms of the destination country.

From previous research, we know that ideal ages for entering parenthood vary across origins for 1.5- and second-generation immigrant youths (De Valk 2013; De Valk and Liefbroer 2007a). Migrant children coming from countries with earlier ages at first birth prefer earlier transitions to parenthood than their native counterparts. However, migrant children favour a later entry into parenthood than their parents do, indicating an adaptation process towards the norms of delayed commitment to family roles prevalent in most Western societies (De Valk and Liefbroer 2007a). In Spain, a recent study shows that the actual timing of first births of the Latin American 1.5 generation also more closely resembles the timing pattern of native Spanish women than that of the Latin American first generation (González-Ferrer et al. 2015a). These results are not totally conclusive because, given the young age profile of the Latin American 1.5 generation, they are based on the reproductive behaviour of the older members, and patterns might change as the rest of the 1.5 generation reaches adulthood. However, they do seem to signal a relatively fast intergenerational adaptation towards the late childbearing patterns prevailing in Spain. The findings of prior research lead to our first hypothesis:

**H1** Adolescents of the 1.5 generation have been socialized partly at origin and partly at destination. Therefore, their expected age at first birth should be younger than for native adolescents, but older than the actual age prevailing in the society of origin.

Age at migration and duration of stay at destination are crucial to disentangle the relative strength of socialization and adaptation influences on the 1.5 generation. A younger age at migration means more time to adapt to the socio-economic, cultural and family patterns prevalent in the host country. Moreover, a longer part of childhood and adolescence, the socialization phase, is spent at destination (Adserà and Ferrer 2014). Therefore, we hypothesize the following:

**H2** Adolescents of the 1.5 generation adapt gradually to the family-related norms present at destination. Therefore, the lower their age at migration, the higher their expected age at first birth, and the narrower the gap with native adolescents.

The degree of *social integration* into the host society also conditions the pace of adaptation to the fertility norms prevailing at destination. In this context, social integration refers to the extent to which immigrants and their children interact with or are segregated from members of the host society (Nimmerfeldt et al. 2013). Several indicators can be used to measure the 1.5 generation's degree of social integration into the host society—such as maintaining friendships with natives,

having native-dominated social networks and belonging to ethnically diverse classrooms or neighbourhoods. Prior research has found that friends and social networks influence childbearing attitudes through social learning and social influence (Balbo and Barban 2014). Accordingly, foreign-born adolescents who are more socially integrated are presumed to have a stronger adherence to the fertility norms prevalent at destination. Therefore, we anticipate the following:

**H3** The more socially integrated the adolescents of the 1.5 generation, the later their expected ages for having the first child and the smaller the differences with their native counterparts.

As noted earlier, parents of Latin American-born adolescents are a selective group in terms of social mobility aspirations for their children. Prior literature has documented that immigrant families, both in the USA and Europe, hold rather optimistic views about their children's educational prospects (Kao and Tienda 1998; Salikutluk 2016). In spite of worse school results, generally linked to disadvantaged socio-economic status, children of immigrants are expected to benefit from their families' high educational ambitions for them. Spain is not an exception in this regard: despite educational underperformance, children of immigrant families are largely optimistic regarding their educational expectations, although to a lesser extent than natives (Cebolla-Boado et al. 2013; Portes et al. 2010). Previous research has also shown that there is a clear link between adolescents' educational expectations and fertility timing preferences: the higher adolescents aim for their educational future, the later they prefer to enter parenthood (Plotnick 2007). Yet, it remains to be explored how educational expectations relate to fertility preferences among adolescents of the 1.5 generation in Spain. We anticipate the following:

**H4a** The higher adolescents' educational expectations, the higher their expected ages for the first child.

**H4b** A large part of the observed differences in fertility timing expectations between 1.5 generation and native adolescents can be attributed to their dissimilar educational expectations.

Since educational expectations are influenced by previous school performance, in the analysis we control for whether the respondent has *repeated at least one school year* during her or his school trajectory. For adolescents of migrant origin, grade retention tends to be more prevalent, since their international migration experience has a (temporary) disruptive effect on their school performance. Although Latin American students presumably enjoy an advantage over other immigrants because they already possess Spanish language abilities, prior studies have documented that they underperform natives, even after controlling for family background and school characteristics (Azzolini et al. 2012).

The previous four hypotheses focus on fertility timing preferences, which diverge considerably at origin and destination. In contrast, with regard to family size preferences, a "two-child norm" prevails both at origin and destination and hence not much variation by migrant status can be expected. Across Europe, although many countries experience fertility levels far below replacement, the ideal family

size has remained stable at around two children for the last three decades (Sobotka and Beaujouan 2014; Testa 2014). Across Latin America, the average desired family size has declined to about two children in the past decade (Westoff and Bankole 2002). Table 1 displays family size preferences for five Latin American countries for which there are recent demographic surveys available—they also represent the top migrant sending countries to Spain. The mean ideal number of children ranges from 2.2 in Colombia to 2.8 in the Dominican Republic among women aged 15–49. However, among women with at least secondary education, and especially among women aged 15–19, the age range we are interested in, the mean ideal family size hovers around two children. These figures show that, while actual fertility levels are higher in Latin America than in Spain, the ideal number of children among young cohorts does not differ much in both settings. Therefore, we anticipate that adolescents of the 1.5 generation would largely conform to the two-child norm.

**H5** Family size expectations of adolescents hover around two children, independent of migrant status.

### 3.3 Other Socio-Demographic and Family-Related Factors Influencing Fertility Preferences

The family is an important socializing agent and may play a key role in shaping the fertility preferences of adolescents of immigrant origin as well as of natives. In addition to *parental educational attainment*, we take into account the intergenerational transmission of fertility patterns by controlling for the *number of siblings*. Adolescents growing up in large families are more likely to prefer a larger family size and an earlier family formation than comparable adolescents with fewer siblings (Berrington and Pattaro 2014; Plotnick 2007). *Family structure* may also affect adolescents' fertility preferences. Studies on Hispanic adolescents' fertility expectations in the USA arrive at the conclusion that youth living in non-traditional families are more likely to develop non-normative attitudes and expectations towards their own family formation (Trent 1994).

*Religiosity* has also been found to be relevant for fertility preferences of adults (Hayford and Morgan 2008; Rackin and Bachrach 2014) and adolescents (De Valk and Liefbroer 2007a). Children growing up in non-religious families are more likely to favour postponed parenthood compared to those with strong religious involvement (De Valk and Liefbroer 2007a). Using the same data set as the present study, González-Ferrer et al. (2014) found that the more religious parents and adolescents are, the more likely are the latter to prefer earlier entry into parenthood.

Furthermore, fertility timing preferences vary by *gender*, since women are typically younger when having their first child compared to men (Fussell and Furstenberg 2005). When focusing on adolescents, it is also important to take into consideration respondents' *age* at the time of the survey, since preferences may change in the process of social maturation.

## 4 Data and Methods

### 4.1 The Chances Survey

The data set used for the analysis is the *Chances Survey*,<sup>4</sup> which collected data from 2700 adolescents aged 14–18 enrolled in third and fourth grade of compulsory secondary education in the city of Madrid in 2011 (González-Ferrer et al. 2015b). The school sample was selected through a two-step procedure. In the first stage, 24 neighbourhoods were selected from four different strata constructed by combining three indicators: (1) the total number of foreign-born children aged 10–16 from the ten largest immigrant groups living in Madrid, (2) the percentage of the immigrant-origin population in the neighbourhood and (3) the socio-economic profile of the neighbourhood, according to official data provided by the City Statistical Office. The only neighbourhoods excluded from the sample design were those with less than a 9% foreign-born population (13 neighbourhoods out of 133 in the city), which overall contained only 3% of the total foreign-born population in Madrid.<sup>5</sup> The 24 selected neighbourhoods included 120 schools with secondary education. In the second stage, 30 schools (15 public schools and 15 private but state-funded schools) were randomly selected from those 120 secondary schools. With the cooperation of school principals, the survey was administered to all students—both natives and of immigrant origin—in all the third- and fourth-grade classrooms.<sup>6</sup> Completely private schools, which comprise 19% of all secondary schools in Madrid, were not included in the study, because less than 5% of foreign students are enrolled in them, and because most of their foreign students (73%) are from EU-15 countries (Consejería de Educación y Empleo 2012). Since secondary education is compulsory in Spain, no specific group is excluded because of early school leaving.

The resulting data are a representative sample of (non-EU15) immigrant adolescents enrolled in the 3rd and 4th grades of secondary school in the municipality of Madrid, including a native control group constituted of all their Spanish classmates. Since upper-class neighbourhoods with <9% of foreign-born population and entirely private schools were excluded from the sample design, the native sample is not representative for Spanish adolescents living in Madrid.

Our analyses are restricted to Spanish natives and Latin American migrants of the 1.5 generation. Immigrants from other countries were excluded, since sample sizes were small and fertility patterns are quite diverse in different origin regions. Adolescents of the second generation (born in Spain with one or two Latin American-

---

<sup>4</sup> The data collection was carried out under the framework of the *Chances Project*: Aspirations, expectations and life-course orientations of immigrant and non-immigrant origin youth in Spain. The role of the social context and intergenerational conflict. The research project and the data collection were co-directed by Amparo González-Ferrer (CSIC) and Héctor Cebolla-Boado (UNED). <http://chancesproject.es>.

<sup>5</sup> At the time of the 2011 Census, the overall share of the foreign-born population in Madrid was 17%. The Latin America-born population represented 57% of the total immigrant population in Madrid (Instituto Nacional de Estadística 2011).

<sup>6</sup> In addition to the students' questionnaire, the parents completed a parallel questionnaire at home. However, parental response rates were low: 38.8% among immigrant-origin parents and 48.5% among native parents.

**Table 2** Composition of the analytical sample by country of birth

Origin	<i>N</i>	%
Spanish	1496	66.2
Ecuadorians	414	18.3
Other Andean (92 Peru, 65 Bolivia, 63 Colombia)	220	9.7
Rest of South American (14 Venezuela, 13 Brazil, 13 Paraguay, 12 Argentina, 6 Chile, 5 Uruguay)	63	2.8
Central American and Caribbean (53 Dominican Republic, 8 Cuba, 1 Guatemala, 1 Honduras, 1 Mexico, 1 Nicaragua, 1 Panama)	66	2.9
Total	2259	100.0

Source: *Chances Students' Survey 2011*

born parents) were also excluded from the analytical sample because the sample size was relatively small ( $N = 77$ ) and our focus is on the 1.5 generation. Latin American adolescents born abroad and having mixed parents (one born in Latin America and the other one in Spain) were classified as Latin Americans ( $N = 25$ ).

Our final analytical sample includes 1496 natives and 763 Latin Americans of the 1.5 generation. Table 2 shows the distribution of respondents by country and subregion. Among Latin American-born adolescents, more than half come from Ecuador ( $N = 414$ ), followed by Peru, Bolivia, Colombia and the Dominican Republic, roughly reflecting the actual composition of the Latin American population aged 14–17 in Madrid in 2011.

## 4.2 Measures

The analysis focuses on two dependent variables, the first one referring to first child timing preferences and the second one to family size preferences. For both fertility timing and quantum, distinct questions on desires and expectations were formulated. Concerning fertility timing, students were asked: “At what age would you like to have your first child?” (*desire*), followed by the question “Do you really think you will have your first child at the age indicated? If not, at what age do you think you will have it?” (*expectation*). Concerning family size, students were asked: “How many children would you like to have?” (*desire*), followed by the question: “Do you really think that you will have the number of children indicated? If not, how many children do you think you will have?” (*expectation*).

The distributions of desired and expected age at first birth show substantial heaping on ages ending in 0 (desires = 20 and expectations = 22%) and 5 (16 and 15%), both among Spanish and Latin American adolescents (see Fig. 2 in “Appendix”). The level of non-response for expected age at first birth is slightly lower among Latin Americans (17%) than among Spaniards (20%), although differences are not statistically significant.<sup>7</sup> The relatively high level of non-

<sup>7</sup> Logistic regression models predicting the likelihood of a missing response in expected age at first child, and controlling for the same covariates as in the full model of Table 5, show that boys and native students are slightly more likely not to provide an answer.

response and age heaping possibly reflects uncertainty and ambiguity in reproductive preferences (Ní Bhrolcháin and Beaujouan 2011; Walker 2001) and strengthens the argument that fertility preferences during adolescence tend to reflect social norms rather than personal intentions.

Our main covariates to measure migrant background are the following: (a) *Origin*: Adolescents born in Latin America are defined as migrants of the 1.5 generation. The Spanish native control group comprises those individuals born in Spain to Spanish parents. The migrants were classified into four groups, based on sample size and geographic proximity (Del Rey and Grande 2015): Ecuador (the largest group in our sample), other Andean countries (Peru, Bolivia, Colombia), the Rest of South America (Venezuela, Brazil, Paraguay, Argentina, Chile, Uruguay) and Central America and the Caribbean (Dominican Republic, Cuba, Guatemala, Honduras, Mexico, Nicaragua, Panama). (b) *Age at migration*: A dummy variable distinguishes adolescents who migrated at age 10 or later from the rest (those migrated before age 10 and natives).<sup>8</sup> (c) *Spanish best friends*: The number of Spanish best friends is used as a proxy for social integration into the host society (Nimmerfeldt et al. 2013). A dummy variable was constructed indicating whether, among the respondent's three best friends, at least two of them had Spanish-born parents.

To take into account the mediating role of educational expectations, a dummy variable measuring the expectations of going to university, as well as a covariate for current educational performance (measured by whether the student has ever repeated a grade), is included. Furthermore, we include a variable for the highest educational level of the father or mother in order to account for parental selective migration, as well as covariates for the number of siblings, whether the adolescent is currently living with both parents, and whether the adolescent considers religion to be important (defined as 7–10 on a 0–10 scale of self-assessed importance of religion). The analyses also control for adolescents' gender and age.

### 4.3 Methods

We first present descriptive analyses of the differences between native and Latin American-born adolescents in fertility desires and expectations concerning age at first birth and number of children. We calculate means and standard deviations for migrant and native girls and boys and test whether or not observed differences are statistically significant.

Next, ordinary least squares regression (OLS) is employed to examine fertility timing preferences, and covariates are included in a stepwise fashion. In Model 1, only migrant background was included. In order to test the adaptation hypothesis, age at migration was incorporated in Model 2. In the next model, the number of Spanish best friends, a proxy for social integration, was added. Model 4 incorporated the variables for socio-demographic and family background. Lastly,

---

<sup>8</sup> We could not distinguish between these two groups, as this variable would be highly correlated with the measure for origin. Additional analyses focusing only on migrants showed no statistically significant differences in expected fertility timing by age at migration.

Model 5 included adolescents' educational expectations in order to assess their mediating effect, as well as the measure for school performance. To account for the hierarchical structure of the data, standard errors were clustered on the school level (cluster option in STATA 14) across all models.

Lastly, Poisson's regressions with clustered standard errors were computed to examine the desired and expected number of children (Cameron and Trivedi 2009).<sup>9</sup> Following the same order and logic as for fertility timing preferences, five models were computed. Multivariate analyses were performed for both desired and expected age at first birth and number of children. The correlations between desires and expectations were greater than  $r = 0.85$ , and the substantive results of the analyses were very similar, regardless of the measure used. Therefore, we present and discuss only multivariate results based on fertility expectations, which tend to be more realistic, and the models based on fertility desires can be consulted in "Appendix" (Tables 8, 9).

## 5 Results

### 5.1 Similarities and Divergences in Fertility Preferences

Table 3 provides descriptive statistics for the dependent variables by origin and gender.

As anticipated, Latin American boys and girls desire and expect to have their first child earlier than their Spanish counterparts. For girls, the gap in desired age at first birth between Latin Americans and Spaniards is 1.2 years, and for expected age at first birth, it is 1.8 years. The observed gap for boys by origin is similar: 1.4 years for desired age at first birth and 1.8 years for expected age at first birth. These gaps are narrower than those in the actual age at first birth observed for Latin American first-generation migrants. As noted earlier, Latin American women residing in Spain enter motherhood on average 3 years earlier than Spaniards. The most frequent answer given by respondents was 30, both for age at first birth desires and expectations. Only the modal value for Latin American girls was 25 years (see Fig. 2 in the "Appendix").

In contrast, there is not much variation in the mean desired and expected number of children, which hovers around two children for both Spanish and Latin American boys and girls. Interestingly, the mean desired number of children is slightly lower among Latin American adolescents than among their Spanish counterparts, but differences are not statistically significant when distinguishing by gender. The mean expected family size is also slightly lower than the desired family size, suggesting that adolescents would like to have more children than they think is feasible. The share of adolescents who desire and expect to remain childless is larger among Latin Americans, both for boys and girls, but the differences do not reach statistical significance. Overall, descriptive comparisons for family size preferences support the pervasiveness of the two-child norm anticipated in Hypothesis 5.

---

<sup>9</sup> A multinomial logit analysis to examine the propensity to depart from the two-child norm was also performed, but substantial conclusions did not change.



**Table 3** Descriptive statistics for dependent variables by origin and gender

	By origin		By origin and gender			
	Spanish	Latin American	Girls		Boys	
			Spanish	Latin American	Spanish	Latin American
<i>Desired age at first birth</i>						
Mean (years)	28.4	27.1***	27.7	26.5***	29.1	27.7***
SD	3.7	3.8	3.3	3.4	3.9	4.1
Missing (%)	9.7	7.0*	7.2	5.6	12.0	8.6
<i>Expected age at first birth</i>						
Mean (years)	28.7	26.9***	28.1	26.3***	29.3	27.5***
SD	3.7	4.0	3.5	3.7	3.9	4.2
Missing (%)	19.8	17.2	19.4	17.5	20.2	16.7
<i>Desired number of children</i>						
Mean	2.1	2.0*	2.2	2.1	2.0	1.9
SD	1.0	1.0	0.9	1.1	1.1	1.0
0	7.2	9.7*	5.1	8.0	8.9	11.6
1	10.3	10.4	6.4	10.7*	13.6	9.9
2	55.2	56.6	59.2	57.9	51.9	55.3
3	18.2	16.3	21.6	14.7**	15.3	18.0
4+	5.5	5.2	5.7	7.7	5.4	2.5*
Missing (%)	3.6	1.8**	2.0	1.0	4.9	2.8
<i>Expected number of children</i>						
Mean	1.9	1.9	2.0	1.9	1.9	1.8
SD	1.0	1.0	0.9	0.9	1.0	1.0
0	7.4	9.6	5.5	8.0	9.0	11.3
1	14.0	13.5	11.4	13.0	16.3	14.1
2	52.3	51.4	55.4	54.9	49.6	47.5
3	14.7	14.6	16.8	12.5*	13.0	16.9
4+	3.1	3.9	2.9	5.2	3.3	2.5
Missing (%)	8.4	7.1	8.0	6.5	8.8	7.7
N	1496	763	686	401	810	362

Source: Chances Students' Survey 2011. Asterisks indicate significant differences between Spanish and Latin American adolescents

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; SD standard deviation

Table 4 presents descriptive statistics for the independent variables. Nearly 55% of Latin American adolescents in the sample migrated to Spain under age 10, and 16.6% have two or more Spanish best friends. With regard to family background, there are no apparent differences in parental education, supporting the positive educational selection of Latin American immigrants in Spain. There is, however, an important difference across origins regarding the number of siblings, which reflects actual differentials in fertility levels at origin and destination. The share of Latin

**Table 4** Descriptive statistics for independent variables by origin

	Spanish %	Latin American %
<i>Migrant background</i>		
Origin	66.2	33.8
Latin American region		
Ecuador		54.3
Other Andean		28.8
Rest of South America		8.3
Central Am. & Caribbean		8.7
Age at migration to Spain		
Mean (years)		8.9
SD		3.6
Migrated before age 10		54.7
Migrated at age 10 or later		44.0
Missing		1.3
Spanish best friends		
2 or 3	85.0	16.6***
0 or 1	7.7	76.2***
Missing	7.4	7.2
<i>Socio-demographic and family background</i>		
Highest parental education		
Primary or less	10.4	10.0
Secondary	48.0	49.8
University	33.9	35.1
I don't know	7.7	5.1*
Number of siblings		
2 or more	20.6	58.3***
0 or 1	77.9	41.0***
Missing	1.5	0.7*
Family structure		
With both parents	80.8	64.1***
With one or no parent	18.5	35.1***
Missing	0.8	0.8
Importance of religion		
Mean (scale 0–10)	3.4	5.6***
SD	3.1	3.1
Important (7–10)	18.4	40.6***
Not important (0–6)	79.8	57.7***
Missing	1.8	1.7
Female	45.9	52.6**
Age at survey (mean in years)	15.2	15.6***
SD	1.0	1.1

**Table 4** continued

	Spanish %	Latin American %
<i>Educational performance and expectations</i>		
Grade ever repeated	33.2	59.7***
University degree expected		
Yes	58.2	44.8***
No	40.9	44.8***
Missing	0.9	1.2
<i>N</i>	1496	763

*Source:* Chances Students' Survey 2011. Asterisks indicate significant differences between Spanish and Latin American adolescents

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; *SD* standard deviation

American adolescents with two or more siblings is almost three times as high as that of Spaniards (58.3 vs. 20.6%). Latin American adolescents are also more likely to live with only one parent, and they attach more importance to religion than their Spanish counterparts. At the time of the survey, Latin American students were slightly older than their Spanish counterparts (15.2 vs. 15.6 years); the age difference can be explained by the larger share of Latin American students who have repeated a grade (59.7% compared to 33.2 of Spaniards).<sup>10</sup> With regard to their educational expectations, natives on average aim higher: 58.2% (vs. 44.8% of Latin Americans) expect to attain a university degree.

## 5.2 Fertility Timing Preferences

Table 5 presents the multivariate results for expected age at first birth. The OLS regression coefficients confirm that Latin American adolescents generally expect to have their first child earlier than their Spanish classmates, even after controlling for compositional differences. This holds true for Ecuadorians and other Andeans, the main origin groups. For all groups, the effect of origin attenuates when introducing the control variables and particularly after controlling for social integration in Model 3. For Central Americans/Caribbeans, the effect of origin is no longer statistically significant after controlling for educational expectations (Model 5). Only the "Rest of South America" category does not show any significant difference to natives before controls, which can be presumably attributed to the fact that South Cone countries like Argentina, Chile or Uruguay have already started the postponement phase of the Second Demographic Transition (Nathan et al. 2016). Hypothesis 1, in which we hypothesized that adolescents of the 1.5 generation would prefer to have their first child earlier than comparable Spaniards, can therefore be confirmed for the largest Latin American groups. Latin American

<sup>10</sup> These numbers are relatively close to those recorded at the national level. According to PISA-2012, the percentage of immigrant students that have repeated at least a year of school before the age of 15 (54.9%) is much higher than among native students (30%) (Calero and Escardíbul 2016).

Table 5 OLS regression models for expected age at first child for Spanish and Latin American adolescents

	(1)	(2)	(3)	(4)	(5)
<i>Migrant background</i>					
Origin					
(Ref: natives)					
Ecuador	-2.16*** (0.32)	-2.11*** (0.33)	-1.38*** (0.38)	-1.23** (0.41)	-1.13** (0.41)
Other Andean	-1.73*** (0.36)	-1.66*** (0.40)	-0.98* (0.47)	-1.10* (0.46)	-1.08* (0.45)
Rest of South America	-0.21 (0.40)	-0.11 (0.39)	0.42 (0.41)	0.37 (0.38)	0.18 (0.42)
Central Am. + Caribbean	-2.29*** (0.52)	-2.22*** (0.57)	-1.48* (0.56)	-1.27* (0.61)	-1.21 (0.61)
Migrated at age 10 or later (Ref: before 10 or native)		-0.16 (0.28)	-0.04 (0.26)	0.26 (0.27)	0.24 (0.27)
Spanish best friends (Ref: 0 or 1)			1.08*** (0.23)	0.81** (0.22)	0.67** (0.22)
<i>Socio-demographic and family background</i>					
Parental highest education (Ref: secondary)				-0.64** (0.23)	-0.51* (0.20)
University				0.43* (0.21)	0.23 (0.19)
2 + siblings (Ref: 0 or 1 sibling)				-0.55* (0.25)	-0.49 (0.25)
Living with both parents (Ref: with one or no parent)				0.32 (0.22)	0.25 (0.23)
Importance of religion (Ref: not important)				-0.02 (0.18)	-0.11 (0.18)
Gender				-1.18*** (0.22)	-1.26*** (0.22)

Table 5 continued

	(1)	(2)	(3)	(4)	(5)
(Ref: male)				(0.24)	(0.24)
Age				-0.11 (0.09)	0.16 (0.13)
<i>Educational performance and expectations</i>					
Grade ever repeated					-0.52 (0.31)
(Ref: no)					0.92*** (0.22)
Expects to go to university					25.81*** (1.95)
(Ref: expects lower degree)					1696
Constant	28.74*** (0.18)	28.74*** (0.18)	27.78*** (0.27)	30.02*** (1.35)	1696
<i>N</i>	1696	1696	1696	1696	1696
<i>R</i> <sup>2</sup>	0.06	0.06	0.07	0.10	0.12

Source: *Chances Students' Survey 2011*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; standard errors in parentheses. Missing values in the independent variables are included as a separate category in the models, but coefficients are not presented

adolescents' timing preferences for entry into parenthood reflect the influence of early socialization in origin but also adaptation, since their expected age at first birth is considerably later than that prevailing in their country of origin.

In contrast to what we anticipated, age at migration does not have any effect on the expected age at first child. According to Table 5, those who arrived in Spain at the age of 10 or older are not significantly different in their fertility timing expectations from those who migrated at younger ages. Other age cut points were also tested, but the results were not affected. The gap in fertility timing preferences between Latin American adolescents and their native classmates does not seem to narrow with increasing duration of stay at destination, and since these findings are not consistent with the presumption of a gradual adaptation process, Hypothesis 2 must be rejected.

Having two or three Spaniards among respondents' three best friends is associated with a higher expected age at first child. Consequently, Hypothesis 3 on the effect of social integration can be confirmed: more socially integrated adolescents of the 1.5 generation have fertility timing expectations that are closer to their native counterparts. Apparently, social integration is more important for the adaptation of adolescent migrants' fertility preferences than the actual age at migration.

The rest of the covariates show effects in the expected direction, although they do not always reach statistical significance. With regard to family context, adolescents with parents who have only primary or less education expect to have their first child earlier and adolescents with university-educated parents expect a delayed entry into parenthood. However, this last effect becomes insignificant when controlling for educational performance and expectations in Model 5. Having two or more siblings is associated with an earlier expected age at first birth, but it is only significant before controlling for educational performance and expectations. Neither family structure nor the importance that adolescents attach to religion appears to have a significant influence on adolescents' expected age at first birth. Mirroring actual fertility patterns, girls expect to have their first child earlier than boys, but there are no significant differences by respondent's age.

Finally, turning to educational performance and expectations (Model 5), we find that the higher the adolescents' educational expectations, the more they expect to delay their first child. Adolescents who think they will reach university expect to have their first child significantly later than those who expect to have a lower degree, supporting Hypothesis 4a. However, educational expectations do not seem to have a mediating effect on the relationship between migrant background and age at first birth preferences, since coefficients remain virtually unaffected when this covariate is controlled for. Therefore, Hypothesis 4b, which posited that a large part of the observed differences in fertility timing preferences between migrant and native adolescents could be explained by their dissimilar educational expectations, is not supported by the data.

### 5.3 Family Size Preferences

Table 6 presents Poisson's regression results for adolescents' expected number of children. Overall, Latin American adolescents' family size expectations are not significantly different from their Spanish counterparts. The only exception is adolescents born in Central America or the Caribbean, whose expected family size is slightly above that of Spaniards. However, once family context is controlled for, coefficients lose statistical significance. According to the models, age at migration and the proxy for social integration (number of Spanish best friends) do not exert a significant influence on family size preferences.

The covariates that have a significant impact on expected family size are not identical to those influencing expected age at first birth. The expected number of children is higher for girls than for boys, and also higher among adolescents brought up in larger families, in line with the findings of previous studies (Régnier-Loilier 2006). However, although religiosity had no significant influence on expected fertility timing, it has a positive impact on expected family size. Conversely, higher educational expectations favoured delayed entry into parenthood, but they do not have an apparent effect on expected family size.

All in all, the results are in line with Hypothesis 5: family size expectations do not differ by adolescents' migrant background, since in both the origin society and the destination society the two-child norm is dominant among younger cohorts, even though actual fertility levels are notably higher in Latin America than in Spain.

## 6 Summary and Discussion

This study has explored the childbearing preferences of the Latin American 1.5 generation coming of age in Spain, a country which is a latecomer to mass immigration, and which is characterized by lowest-low and latest-late fertility patterns. The adolescents of the 1.5 generation are classic in-betweeners: they were born in the origin country and are being raised in immigrant families, but are attending school and reaching adulthood in the host society. We have examined to what extent their expected age at first birth and family size differ from those of native adolescents. One of our objectives was to assess whether the socialization and adaptation hypotheses, originally developed to study the fertility behaviour of first-generation immigrants, could be extended to the analysis of the 1.5 generation's childbearing preferences. Our results suggest that, as regards fertility timing, both socialization and adaptation processes are at work. Latin American-born adolescents have been exposed to the age norms for family transitions in their home country, and this early socialization might explain why they expect to have their first birth at a relatively younger age than their native peers. At the same time, their expected age at first birth is considerably older than that prevailing in the origin society, suggesting a relatively fast process of adaptation—which encompasses both girls and boys—to the late family formation norms prevailing in Spain. The extent to which adaptation reflects an adherence to new cultural norms or a response to the socio-economic conditions in the host society remains an open

**Table 6** Poisson's regression models for *expected* number of children for Spanish and Latin American adolescents (incidence rate ratios)

	(1)	(2)	(3)	(4)	(5)
<i>Migrant background</i>					
Origin					
(Ref: natives)					
Ecuador	0.98 (0.04)	0.99 (0.04)	0.99 (0.04)	0.93 (0.05)	0.93 (0.05)
Other Andean	0.97 (0.04)	0.99 (0.04)	0.98 (0.04)	0.93 (0.04)	0.93 (0.04)
Rest of South America	0.95 (0.07)	0.98 (0.08)	0.97 (0.08)	0.92 (0.08)	0.92 (0.08)
Central Am. + Caribbean	1.16 (0.09)	1.19* (0.10)	1.19* (0.10)	1.09 (0.10)	1.09 (0.10)
Migrated at age 10 or later					
(Ref: before 10 or native)		0.96 (0.04)	0.96 (0.04)	0.95 (0.04)	0.95 (0.04)
Spanish best friends					
(Ref: 0 or 1)			0.99 (0.04)	1.00 (0.03)	0.99 (0.03)
<i>Socio-demographic and family background</i>					
Parental highest education					
(Ref: secondary)					
Primary or less				1.04 (0.04)	1.05 (0.04)
University				1.05* (0.02)	1.05 (0.02)
Number of siblings				1.14*** (0.03)	1.14*** (0.03)
(Ref: 0 or 1 sibling)					
Living with both parents				1.05 (0.03)	1.05 (0.03)
(Ref: with one or no parent)					
Importance of religion				1.10** (0.03)	1.10** (0.03)
(Ref: not important)					
Gender				1.08** (0.03)	1.08** (0.03)



Table 6 continued

	(1)	(2)	(3)	(4)	(5)
(Ref: male)				(0.03)	(0.03)
Age				1.01	1.03
				(0.01)	(0.02)
<i>Educational performance and expectations</i>					
Grade ever repeated					0.95
(Ref: no)					(0.04)
Expects to go to university					1.01
(Ref: expects lower degree)					(0.03)
Constant	1.93*** (0.03) 2079	1.93*** (0.03) 2079	1.95*** (0.06) 2079	1.42 (0.26) 2079	1.14 (0.25) 2079
<i>N</i>					
Log pseudolikelihood	-3023.00	-3022.20	-3021.90	-3006.40	-3005.43

Source: *Chances Students' Survey 2011*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; standard errors in parentheses. Missing values in the independent variables are included as a separate category in the models, but coefficients are not presented

question, although both processes probably reinforce each other. Some of the reasons why Latin American-born adolescents readily embrace the late fertility norms of mainstream society might be that, like their native peers, they anticipate a late entry into the labour market—given the high rate of youth unemployment (46.1% in 2011)—and that they are well aware of the unfavourable childbearing conditions prevailing in Spain (Castro-Martín and Martín-García 2013).

In contrast to other studies that have examined the fertility adaptation of child migrants (Adserà and Ferrer 2014), we found no support for a process of gradual adaptation: adolescents who migrated at older ages have similar childbearing preferences to those who migrated at younger ages. However, our results confirm that social integration into the host society—measured by number of native best friends—reduces the gap in expected age at first birth between migrant and native adolescents. In other words, while duration of stay at destination apparently has no impact on adolescents' preferences, the composition of their peer group does. The less segregated teenagers of the 1.5 generation grow up, the more their family formation preferences resemble those of the native population. It could well be that, because of their immersion in the educational system, the process of adaptation of the 1.5 generation is far more rapid than that of the first generation. The lack of language barriers in the case of Latin American migrants probably also speeds up the process of integration.

Apart from social integration, the values transmitted from parents to children are also likely to be part of the explanation of why Latin American adolescents prefer to initiate childbearing at older ages than those prevailing in their origin countries. Additional analyses based on the parental questionnaire (available upon request) reveal that Latin American parents, regardless of their own educational level, favour delayed commitment to family roles for their daughters and sons, prioritizing educational and professional careers leading to upward social mobility. Hence, the selectivity of migrant parents in terms of ambitions for their children's future is likely to reinforce adolescents' inclinations to postpone family formation.

The importance of educational aspirations in shaping fertility timing preferences is confirmed in the models. Higher educational expectations are associated with preferences for postponed entry into parenthood. However, the fact that Latin American adolescents are less likely to envision themselves going to the university than their Spanish peers does not account for the observed gap in expected age at first birth.

With regard to family size preferences, we find no significant differences between Latin American-born and native adolescents. The two-child norm seems predominant among all adolescents, regardless of migrant background. This similarity in family size preferences cannot be readily interpreted as a sign of adaptation to host society norms, since the preferred number of children among young cohorts in the societies of origin also hovers around two, even though actual fertility levels are higher. In Spain, access to contraception is widespread, but we cannot rule out that younger ages at first birth among Latin Americans may eventually lead to higher fertility than initially anticipated, due to changing

preferences over the family life course or to unplanned pregnancy.<sup>11</sup> Although no differences regarding the expected number of children between Latin American and native adolescents could be found, it is important to examine and report family size preferences of immigrants in order to challenge the widespread—but unfounded—belief in Spanish society that Latin American immigrants desire and have much larger families compared to Spaniards, and that their descendants will too.

Although this study provides valuable insights into the fertility preferences of the 1.5 generation, several limitations need to be acknowledged. Firstly, the respondents are relatively young, and thus their capacity to articulate their childbearing expectations might be limited. Their responses are likely to reflect internalized social norms and broad attitudes towards family rather than personal plans. A second limitation is closely related to the first one: namely, that we are analysing fertility preferences at an early age and these preferences are not stable over the life course, but contingent on future partnership, educational and occupational paths. However, several studies using longitudinal data have found that fertility preferences measured during adolescence or early adulthood serve as valid predictors for actual outcomes in the future (Barber 2001; Miller et al. 2010; Morgan and Rackin 2010). A third shortcoming is that the survey is not nationally representative, since adolescents were sampled in only one city. Lastly, although (parental) selective migration is probably crucial in shaping fertility preferences of adolescent child migrants, the data used do not allow to account appropriately for this issue.

Notwithstanding these limitations, this study provides relevant insights into the socialization and adaptation processes underlying fertility preferences of child migrants, which occupy a socio-cultural middle ground between their country of origin and destination. Even though preferences are imperfect proxies for future behaviour, our findings suggest that the future fertility trajectories of the Latin American 1.5 generation—and possibly those of the Latin American second generation—will be characterized by a somewhat younger fertility calendar but no larger family sizes than their native peers.

**Acknowledgements** The research leading to these results has received funding from CSIC, Juan March Institute and Ministry of Economy and Competitiveness, under Grant Agreement CSO2012-35234, for the Chances Project “Aspirations, expectations and life-course orientations of immigrant and non-immigrant origin youth in Spain. The role of the social context and intergenerational conflict”, co-directed by Amparo González-Ferrer and Héctor Cebolla-Boado. Additional funding from the European Union’s Seventh Framework Programme (FP7/2007-2013) under Grant Agreement 320116 for the research project *FamiliesAndSocieties* is also gratefully acknowledged. We are very grateful for the comments and support given by Amparo González-Ferrer and for the useful suggestions of anonymous reviewers.

#### **Compliance with Ethical Standards**

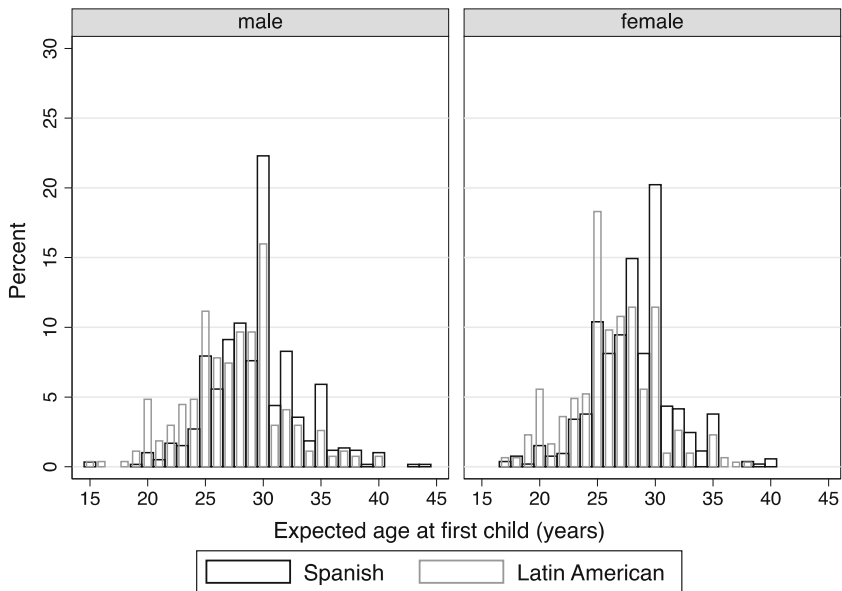
**Conflict of interest** The authors declare that they have no conflict of interest.

---

<sup>11</sup> The relatively high rates of abortion among Latin American women residing in Spain suggest a high incidence of unwanted pregnancy. According to data from the Ministry of Health, 24% of all induced abortions in Spain during 2014 were to Latin American women.

## Appendix

See Fig. 2 and Tables 7, 8 and 9.



**Fig. 2** Distribution of expected age at first child by origin and gender. *Source: Chances Students' Survey 2011*

**Table 7** Parental education of Ecuadorian adolescents aged 14–16 living in Ecuador and in Spain at the time of the last census

Residing in...	Father			Mother				
	Ecuador		Spain	Ecuador		Spain		
	Rural	Urban	Total	Total	Rural	Urban	Total	Total
Less than primary completed	27.3	11.3	17.7	19.4	36.3	15.7	23.9	23.9
Primary completed	41.7	31	35.3	23.1	45	39.2	41.5	28
Secondary completed	8.8	22.5	17	22.4	9.8	29.5	21.6	35.5
University completed	2.2	8.5	6	5.1	1.9	8.5	5.8	6.8
Unknown/missing	1.6	0.8	1.1	–	2	1	1.4	–
Not present in household	18.4	25.9	22.9	30	5	6.2	5.7	5.8

*Source: Census Ecuador 2010 (Instituto Nacional de Estadística y Censos 2010) and Census Spain 2011 (Instituto Nacional de Estadística 2011)*

**Table 8** OLS regression models for *desired* age at first child for Spanish and Latin American adolescents

	(1)	(2)	(3)	(4)	(5)
<i>Migrant background</i>					
Origin					
(Ref: natives)					
Ecuador	-1.57*** (0.24)	-1.57*** (0.23)	-0.90** (0.28)	-0.67* (0.30)	-0.57 (0.30)
Other Andean	-1.09** (0.31)	-1.09** (0.33)	-0.45 (0.38)	-0.48 (0.37)	-0.44 (0.36)
Rest of South America	0.06 (0.52)	0.05 (0.51)	0.56 (0.53)	0.64 (0.49)	0.55 (0.53)
Central Am. + Caribbean	-2.40*** (0.49)	-2.46*** (0.49)	-1.80** (0.52)	-1.45** (0.51)	-1.39** (0.50)
Migrated at age 10 or later (Ref: before or native)		-0.04 (0.23)	0.06 (0.21)	0.36 (0.21)	0.32 (0.22)
Spanish best friends (Ref: 0 or 1)			0.99*** (0.20)	0.66** (0.21)	0.56* (0.20)
<i>Socio-demographic and family background</i>					
Parental highest education (Ref: secondary)				-0.24 (0.26)	-0.14 (0.24)
University				0.56** (0.19)	0.37* (0.18)
Number of siblings (Ref: 0 or 1 sibling)				-0.63* (0.25)	-0.56* (0.25)
Living with both parents (Ref: with one or no parent)				0.29 (0.19)	0.20 (0.20)
Importance of religion (Ref: not important)				-0.45** (0.16)	-0.52** (0.16)
Gender				-1.26*** (0.16)	-1.34*** (0.16)

Table 8 continued

	(1)	(2)	(3)	(4)	(5)
(Ref: male)				(0.22)	(0.21)
Age				-0.17	0.10
				(0.09)	(0.13)
<i>Educational performance and expectations</i>					
Grade ever repeated					-0.60*
(Ref: no)					(0.28)
Expects to go to university					0.73***
(Ref: expects lower degree)					(0.17)
Constant	28.42***	28.42***	27.52***	30.88***	26.76***
	(0.18)	(0.18)	(0.23)	(1.27)	(1.99)
N	1913	1913	1913	1913	1913
R <sup>2</sup>	0.04	0.04	0.05	0.10	0.11

Source: *Chances Students' Survey 2011*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; standard errors in parentheses. Missing values in the independent variables are included as a separate category in the models, but coefficients are not presented

**Table 9** Poisson's regression models for *desired* number of children for Spanish and Latin American adolescents (incidence rate ratios)

	(1)	(2)	(3)	(4)	(5)
<i>Migrant background</i>					
Origin					
(Ref: natives)					
Ecuador	0.94* (0.03)	0.96 (0.03)	0.96 (0.04)	0.89** (0.04)	0.90** (0.04)
Other Andean	0.96 (0.03)	0.99 (0.03)	0.99 (0.03)	0.93 (0.04)	0.93 (0.03)
Rest of South America	0.94 (0.07)	0.99 (0.08)	0.98 (0.08)	0.92 (0.08)	0.92 (0.08)
Central Am. + Caribbean	1.12 (0.09)	1.17 (0.11)	1.16 (0.10)	1.05 (0.10)	1.05 (0.10)
Migrated at age 10 or later					
(Ref: before or native)					
Spanish best friends		0.94 (0.03)	0.94 (0.03)	0.92* (0.03)	0.92* (0.03)
(Ref: 1 or 1)					
<i>Socio-demographic and family background</i>					
Parental highest education					
(Ref: secondary)					
Primary or less				1.05 (0.05)	1.05 (0.05)
University				1.06* (0.03)	1.06* (0.02)
Number of siblings				1.12*** (0.03)	1.12*** (0.03)
(Ref: 0 or 1 sibling)					
Living with both parents				1.02 (0.03)	1.02 (0.03)
(Ref: with one or no parent)					
Importance of religion				1.13*** (0.03)	1.13*** (0.03)
(Ref: not important)					
Gender				1.10*** (0.03)	1.10*** (0.03)
Female					

Table 9 continued

	(1)	(2)	(3)	(4)	(5)
(Ref: male)				(0.03)	(0.03)
Age				1.02*	1.04*
				(0.01)	(0.02)
<i>Educational performance and expectations</i>					
Grade ever repeated					0.95
(Ref: no)					(0.04)
Expects to go to university					1.00
(Ref: expects lower degree)					(0.03)
Constant	2.08***	2.08***	2.10***	1.35	1.10
	(0.03)	(0.03)	(0.07)	(0.22)	(0.24)
<i>N</i>	2191	2191	2191	2191	2191
Log pseudolikelihood	-3223.86	-3222.51	-3221.81	-3200.28	-3199.18

Source: *Chances Students' Survey 2011*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; standard errors in parentheses. Missing values in the independent variables are included as a separate category in the models, but coefficients are not presented



## References

- Adserà, A., & Ferrer, A. M. (2014). Fertility adaptation of child migrants to Canada. *Population Studies*, 68(1), 65–79. doi:10.1080/00324728.2013.802007.
- Adserà, A., Ferrer, A. M., Sigle-Rushton, W., & Wilson, B. (2012). Fertility patterns of child migrants: Age at migration and ancestry in comparative perspective. *The Annals of the American Academy of Political and Social Science*, 643, 160–189. doi:10.1177/0002716212444706.
- Andersson, G. (2004). Childbearing after migration: Fertility patterns of foreign-born women in Sweden. *International Migration Review*, 38(2), 747–775.
- Aparicio, R. (2007). The integration of the second and 1.5 generations of Moroccan, Dominican and Peruvian origin in Madrid and Barcelona. *Journal of Ethnic and Migration Studies*, 33(7), 1169–1193. doi:10.1080/13691830701541713.
- Azzolini, D., Schnell, P., & Palmer, J. (2012). Educational achievement gaps between immigrant and native students in two “new” immigration countries: Italy and Spain in comparison. *The Annals of the American Academy of Political and Social Science*, 643(1), 46–77. doi:10.1177/0002716212441590.
- Balbo, N., & Barban, N. (2014). Does fertility behavior spread among friends? *American Sociological Review*, 79(3), 412–431. doi:10.1177/0003122414531596.
- Barber, J. S. (2001). Ideational influences on the transition to parenthood: Attitudes toward childbearing and competing alternatives. *Social Psychology Quarterly*, 64(2), 101. doi:10.2307/3090128.
- Bernardi, F., Garrido, L., & Miyar, M. (2011). The recent fast upsurge of immigrants in Spain and their employment patterns and occupational attainment. *International Migration*, 49(1), 148–187. doi:10.1111/j.1468-2435.2010.00610.x.
- Berrington, A., & Pattaro, S. (2014). Educational differences in fertility desires, intentions and behaviour: A life course perspective. *Advances in Life Course Research*, 21, 10–27. doi:10.1016/j.alcr.2013.12.003.
- Bongaarts, J., & Blanc, A. K. (2015). Estimating the current mean age of mothers at the birth of their first child from household surveys. *Population Health Metrics*, 13(25), 1–6. doi:10.1186/s12963-015-0058-9.
- Bueno García, X., & Vono de Vilhena, D. (2009). Pautas reproductivas de las madres latinoamericanas en Estados Unidos y España a inicios del siglo XXI. *Diálogos Latinoamericanos*, 15, 94–114.
- Calero, J., & Escardíbul, J. O. (2016). *Skills acquisition in immigrant and non-immigrant students*. Barcelona: Social Observatory of La Caixa.
- Cameron, A. C., & Trivedi, P. K. (2009). *Microeconometrics using Stata*. College Station, TX: Stata Press.
- Castro-Martín, T., & Martín-García, T. (2013). The fertility gap in Spain: Late parenthood, few children and unfulfilled reproductive desires. In G. Esping-Andersen (Ed.), *The fertility gap in Europe: Singularities of the Spanish case* (Social Stu., pp. 45–81). Barcelona: La Caixa Foundation.
- Castro-Martín, T., & Rosero-Bixby, L. (2011). Maternidades y fronteras: La fecundidad de las mujeres inmigrantes en España. *Revista Internacional de Sociología*, 69(1), 105–137.
- Cebolla-Boado, H., González-Ferrer, A., & Soysal, Y. (2013). *The interplay between families and schools: Immigrant and native differentials in educational outcomes* (No. 280). Instituto Juan March de Estudios e Investigaciones, Centro de Estudios Avanzados en Ciencias Sociales Working Papers. Madrid. <http://digital.march.es/ceacs-ir/es/fedora/repository/ir%3A10081>.
- Consejería de Educación y Empleo. (2012). *Estadística de la Enseñanza de la Comunidad de Madrid. Curso 2009–2010. Datos definitivos*. <http://goo.gl/trkqDo>.
- De Valk, H. A. G. (2013). Intergenerational discrepancies in fertility preferences among immigrant and Dutch families. *The History of the Family*, 18(2), 209–225.
- De Valk, H. A. G., & Liefbroer, A. C. (2007a). Timing preferences for women's family-life transitions: Intergenerational transmission among migrants and Dutch. *Journal of Marriage and Family*, 69(1), 190–206.
- De Valk, H. A. G., & Liefbroer, A. C. (2007b). Parental influence on union formation preferences among Turkish, Moroccan and Dutch adolescents in the Netherlands. *Journal of Cross-Cultural Psychology*, 38(4), 487–505.
- De Valk, H. A. G., & Milewski, N. (2011). Family life transitions among children of immigrants: An introduction. *Advances in Life Course Research*, 16(4), 145–151. doi:10.1016/j.alcr.2011.10.001.

- Del Rey, A., & Grande, R. (2015). Longitudinal analysis of reproductive behavior. In A. Domingo Valls, A. Sabater Coll, & R. R. Verdugo (Eds.), *Demographic analysis of Latin American immigrants in Spain. From boom to bust?* (pp. 133–153). Cham: Springer.
- Feliciano, C. (2005). *Unequal origins. Immigrant selection and the education of the second generation*. El Paso: LFB Scholarly Publishing.
- Fussell, E., & Furstenberg, F. F. (2005). The transition to adulthood during the twentieth century: Race, nativity, and gender. In R. A. Settersten, F. F. Furstenberg, & R. G. Rumbaut (Eds.), *On the frontier of adulthood: Theory, research and public policy* (pp. 29–75). Chicago: University of Chicago Press.
- Gabrielli, L. (2015). *Corridor Report on Spain—The case of Ecuadorian and Moroccan Immigrants*. INTERACT Research Report/ Corridor Report No. 2015/15.
- González-Ferrer, A. (2011). Spousal reunification among recent immigrants in Spain: Links with undocumented migration and the labour market. In A. Kraler, E. Kofman, M. Kohli, & C. Schmoll (Eds.), *Gender, generations and the family in international migration*. Amsterdam: Amsterdam University Press. doi:10.13140/2.1.3590.5924.
- González-Ferrer, A., Castro-Martín, T., & Kraus, E. (2014). Does religiosity matter for partnership and fertility aspirations? A comparison of immigrant and native adolescents in Madrid. In *WIREL conference. Religion in Vienna: Urban Trends in a European Context*. Vienna.
- González-Ferrer, A., Castro-Martín, T., & Kraus, E. (2015a). Childbearing among women of immigrant and non-immigrant origin in Spain. *Country-specific case studies on fertility among the descendants of immigrants (Part 2)* (No. 39). Families & Societies Working Paper Series. [www.familiesandsocieties.eu](http://www.familiesandsocieties.eu).
- González-Ferrer, A., Kraus, E., Fernández, M., Cebolla-Boado, H., Soysal, Y., & Aratani, Y. (2015b). Adolescents' life plans in the city of Madrid. Are immigrant origins of any importance? *Metamorfosis Revista del Centro Reina Sofía sobre Adolescencia y Juventud*, 2, 25–49.
- Hartnett, C. S., & Parrado, E. A. (2012). Hispanic familism reconsidered: Ethnic differences in perceived value of children and fertility intentions. *The Sociological Quarterly*, 53(4), 636–653. doi:10.1111/j.1533-8525.2012.01252.x.
- Hayford, S. R., & Morgan, S. P. (2008). Religiosity and fertility in the United States: The role of fertility intentions. *Social Forces*, 86(3), 1163–1188. doi:10.1353/sof.0.0000.
- Heaton, T. B., Forste, R., & Otterstrom, S. M. (2002). Family transitions in Latin America: First intercourse, first union and first birth. *International Journal of Population Geography*, 8(1), 1–15. doi:10.1002/ijpg.234.
- Holland, J. A., & De Valk, H. A. G. (2013). Ideal ages for family formation among immigrants in Europe. *Advances in Life Course Research*, 18(4), 257–269. doi:10.1016/j.alcr.2013.08.002.
- Instituto Nacional de Estadística (2011). *Population and Housing Census Spain*. <https://goo.gl/4FwPYN>.
- Instituto Nacional de Estadística (2016). *Continuous Register Statistics*. <https://goo.gl/fzeVdY>.
- Instituto Nacional de Estadística y Censos (2010). *Population and Housing Census Ecuador*. <http://www.inec.gob.ec/estadisticas/>.
- Kao, G., & Tienda, M. (1998). Educational aspirations of minority youth. *American Journal of Education*, 106(3), 349–384.
- Kulu, H. (2005). Migration and fertility: Competing hypotheses re-examined. *European Journal of Population*, 21(1), 51–87. doi:10.1007/s10680-005-3581-8.
- Kulu, H., & González-Ferrer, A. (2014). Family dynamics among immigrants and their descendants in Europe: Current research and opportunities. *European Journal of Population*, 30, 411–435. doi:10.1007/s10680-014-9322-0.
- Kulu, H., Hannemann, T., Pailhé, A., Neels, K., Rahn, L., Puur, A., et al. (2015). *A comparative study on fertility among the descendants of immigrants in Europe (No. 40)*. Families & Societies Working Paper Series. [www.familiesandsocieties.eu](http://www.familiesandsocieties.eu).
- Lindstrom, D. P. (2003). Rural-urban migration and reproductive behavior in Guatemala. *Population Research and Policy Review*, 22(4), 351–372. doi:10.1023/A:1027336615298.
- Lindstrom, D. P., & Giorguli-Saucedo, S. (2002). The short- and long-term effects of U.S. migration experience on Mexican women's fertility. *Social Forces*, 80(4), 1341–1368.
- Martínez-Molina, S., Monsonís-Payá, I., Valía-Cotanda, E., Durá, E., Ródenas, F., & Garcés, J. (2014). *National report on the labour market position of vulnerable groups in Spain*. Valencia: University of Valencia.
- Massey, D. S., & Capoferro, C. (2006). Salvase quien pueda: Structural adjustment and emigration from Lima. *The Annals of the American Academy of Political and Social Science*, 606(1), 116–127. doi:10.1177/0002716206288105.

- Milewski, N. (2007). First child of immigrant workers and their descendants in West Germany: Interrelation of events, disruption, or adaptation? *Demographic Research*, 17(859–896), 2007. doi:[10.4054/DemRes.2007.17.29](https://doi.org/10.4054/DemRes.2007.17.29).
- Milewski, N. (2010). Immigrant fertility in West Germany: Is there a socialization effect in transitions to second and third births? *European Journal of Population*, 26(3), 297–323. doi:[10.1007/s10680-010-9211-0](https://doi.org/10.1007/s10680-010-9211-0).
- Milewski, N. (2011). Transition to a first birth among Turkish second-generation migrants in Western Europe. *Advances in Life Course Research*, 16(4), 178–189. doi:[10.1016/j.alcr.2011.09.002](https://doi.org/10.1016/j.alcr.2011.09.002).
- Miller, W. B. (2011). Differences between fertility desires and intentions: Implications for theory, research and policy. *Vienna Yearbook of Population Research*, 9(1), 75–98. doi:[10.1553/populationyearbook2011s75](https://doi.org/10.1553/populationyearbook2011s75).
- Miller, W. B., Rodgers, J. L., & Pasta, D. J. (2010). Fertility motivations of youth predict later fertility outcomes: A prospective analysis of national longitudinal survey of youth data. *Biodemography and Social Biology*, 56(1), 1–23. doi:[10.1080/19485561003709131.THE](https://doi.org/10.1080/19485561003709131.THE).
- Morgan, S. P. (2001). Should fertility intentions inform fertility forecasts? The direction of fertility in the United States. In *The direction of fertility in the United States*. Washington, DC: US Census Bureau.
- Morgan, S. P., & Rackin, H. M. (2010). The correspondence between fertility intentions and behavior in the United States. *Population and Development Review*, 36(1), 91–118. doi:[10.1111/j.1728-4457.2010.00319.x](https://doi.org/10.1111/j.1728-4457.2010.00319.x).
- Nathan, M., Pardo, I., & Cabella, W. (2016). Diverging patterns of fertility decline in Uruguay. *Demographic Research*, 34(20), 563–586. doi:[10.4054/DemRes.2016.34.20](https://doi.org/10.4054/DemRes.2016.34.20).
- Ní Bhrolcháin, M., & Beaujouan, É. (2011). Uncertainty in fertility intentions in Britain, 1979–2007. *Vienna Yearbook of Population Research*. doi:[10.1553/populationyearbook2011s99](https://doi.org/10.1553/populationyearbook2011s99).
- Nimmerfeldt, G., Schulze, J., & Taru, M. (2013). The relationship between integration dimensions among second generation Russians in Estonia. *Studies of Transition States and Societies*, 3(1), 76–91.
- Oso Casas, L. (2010). *An overview of gender and migration in Spain: From the presence of feminised migration flows to a greater gender balance*. <https://goo.gl/yc4fJj>.
- Parrado, E. A., & Morgan, S. P. (2008). Intergenerational fertility among Hispanic women: New evidence of immigrant assimilation. *Demography*, 45(3), 651–671. doi:[10.1353/dem.0.0023](https://doi.org/10.1353/dem.0.0023).
- Plotnick, R. D. (2007). Adolescent expectations and desires about marriage and parenthood. *Journal of Adolescence*, 30, 943–963. doi:[10.1016/j.adolescence.2007.01.003](https://doi.org/10.1016/j.adolescence.2007.01.003).
- Portes, A., Aparicio, R., Haller, W., & Vickstrom, E. (2010). Moving ahead in Madrid: Aspirations and expectations in the Spanish second generation. *International Migration Review*, 44(4), 767–801. doi:[10.1111/j.1747-7379.2010.00825.x](https://doi.org/10.1111/j.1747-7379.2010.00825.x).
- Rackin, H. M., & Bachrach, C. A. (2014). *Assessing the predictive value of fertility expectations through a cognitive-social model* (No. 13). Maryland Population Research Center, Working Paper.
- Régnier-Lollier, A. (2006). Influence of own sibship size on the number of children desired at various times of life: The case of France. *Population (English edition)*, 61(3), 165–194.
- Rodríguez-Vignoli, J., & Cavenaghi, S. (2014). Adolescent and youth fertility and social inequality in Latin America and the Caribbean: What role has education played? *Genus*, 70(1), 1–25. doi:[10.4402/genus-543](https://doi.org/10.4402/genus-543).
- Roig Vila, M., & Castro-Martín, T. (2007). Childbearing patterns of foreign women in a new immigration country. *Population (English edition)*, 62(3), 351–379. doi:[10.3917/pope.703.0351](https://doi.org/10.3917/pope.703.0351).
- Rosero-Bixby, L., Castro-Martín, T., & Martín-García, T. (2009). Is Latin America starting to retreat from early and universal childbearing? *Demographic Research*, 20(9), 169–194. doi:[10.4054/DemRes.2009.20.9](https://doi.org/10.4054/DemRes.2009.20.9).
- Salikutluk, Z. (2016). Why do immigrant students aim high? Explaining the aspiration–achievement paradox of immigrants in Germany. *European Sociological Review*, 32(5), 581–592. doi:[10.1093/esr/jcw004](https://doi.org/10.1093/esr/jcw004).
- Sedgh, G., Ashford, L. S., & Hussain, R. (2016). *Unmet need for contraception in developing countries: Examining women's reasons for not using a method*. Guttmacher Report. New York: Guttmacher Institute.
- Singley, S. G., & Landale, N. S. (1998). Incorporating origin and process in migration-fertility frameworks: The case of Puerto Rican women. *Social Forces*, 76(4), 1437–1464.
- Sobotka, T., & Beaujouan, É. (2014). Two is best? The persistence of a two-child family ideal in Europe. *Population and Development Review*, 40(3), 391–419. doi:[10.1111/j.1728-4457.2014.00691.x](https://doi.org/10.1111/j.1728-4457.2014.00691.x).
- Starrels, M. E., & Holm, K. E. (2000). Adolescents' plans for family formation: Is parental socialization important? *Journal of Marriage and Family*, 62(2), 416–429.

- Testa, M. R. (2014). On the positive correlation between education and fertility intentions in Europe: Individual- and country-level evidence. *Advances in Life Course Research, 21*, 28–42. doi:[10.1016/j.alcr.2014.01.005](https://doi.org/10.1016/j.alcr.2014.01.005).
- Trent, K. (1994). Family context and adolescents' fertility expectations. *Youth & Society, 26*(1), 118–137.
- Walker, J. R. (2001). Adolescents' expectations regarding birth outcomes: A comparison of the NLSY79 and NLSY97 cohorts. In R. T. Michael (Ed.), *Social awakening: Adolescent behavior as adulthood approaches* (pp. 201–229). New York, NY: Russell Sage.
- Westoff, C. F., & Bankole, A. (2002). *Reproductive preferences in developing countries at the turn of the century*. DHS Comparative Reports No. 2. Calverton, MD. <http://dhsprogram.com/pubs/pdf/CR2/CR2.pdf>.
- Wolf, K. (2016). Marriage migration versus family reunification: How does the marriage and migration history affect the timing of first and second childbirth among Turkish immigrants in Germany? *European Journal of Population, 32*(5), 731–759. doi:[10.1007/s10680-016-9402-4](https://doi.org/10.1007/s10680-016-9402-4).