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University of Southampton

FACULTY OF HUMAN AND SOCIAL SCIENCES

Division of Demography and Social Statistics

"The relationship between economic precariousness, parental socio-economic status, and partnership dynamics among young adults in the UK"

by

Lydia Veronica Palumbo

Apr-22

Thesis for the degree of Doctor of Philosophy

University of Southampton

Abstract

FACULTY OF HUMAN AND SOCIAL SCIENCES <u>Division of Demography and Social Statistics</u> Thesis for the degree of Doctor of Philosophy

THE RELATIONSHIP BETWEEN ECONOMIC PRECARIOUSNESS, PARENTAL SOCIOECONOMIC STATUS, AND PARTNERSHIP DYNAMICS AMONG YOUNG ADULTS IN THE UK

Lydia Veronica Palumbo

This thesis uses data spanning over 30 years from the British Household Panel and Understanding society to analyse how economic precariousness is associated with actual and expected partnership dynamics of young adults in the UK (16–34). The three research questions addressed in the empirical Chapters are the following: *(i)* What is the relationship between economic precariousness and entry into the first coresidential partnership in the UK? (ii) Does an economically precarious condition associate with the outcomes of couples in their first cohabitation in this country? (iii) Is parental socioeconomic background related to young Britons' lifelong expectations about the type and the timing of their partnership transitions?

The results for the first research question show that, among youth aged 20–30, the relationship between the indicators used to represent economic precariousness and the first coresidential partnership formation is negative, whereas it is not significant or, even, positive in the youngest and oldest ages. This finding, however, is valid for objective measures, whereas it is weaker and less intuitive for subjective measures. Trends by historical time highlight that, around the Great Recession (2008–2013), those out of the labour market may have decreased their probability of forming a first coresidential partnership more than their least precarious counterparts. No particular differences were witnessed over time by gender, apart from labour income.

The findings regarding the second research question show that couples where both partners were not precarious (regarding employment, earnings, savings and financial perceptions) or owned a house presented a higher predicted probability of marrying and a lower one of separating than the opposite arrangement (both precarious). Concerning the heterogeneous couples (the male or the female partner was precarious), the findings were less neat. On the one hand, there was evidence that men's lack of savings and, to a lesser extent, non-employment discouraged the risk of marriage. On the other hand, some trends showed that men's joblessness and women's negative financial perceptions could increase the risk of dissolution more than the opposite gender. Results by historical period suggest that, in the most recent decades, couples where both partners were economically precarious tended to have a higher risk of dissolution and a lower one marrying than other arrangements.

The results for the third research question indicate that those with the least advantaged parental occupational class present lower marriage expectations than their advantaged counterparts. Such differences are lower for cohabitation. Moreover, they also tend to consider "lifelong cohabitation", "lifelong singlehood" and "uncertainty towards both partnership types", relative to "premarital cohabitation", more likely. They also present a higher uncertainty towards the age at marriage and had a higher likelihood of rejecting marriage. Being raised in a lone parent family (rather than both married parents) mediates a sizable part of the relationship for three outcomes: marriage expectations, "uncertainty towards marital age" and "lifelong cohabitation". Other family structures and educational aspirations during adolescence explained a much lower share of the effects.

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Research Thesis: Declaration of Authorship

I, Lydia Veronica Palumbo, author of the thesis entitled

"The relationship between economic precariousness, parental socio-economic status, and partnership dynamics among young adults in the UK"

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

- 1. This work was done wholly or mainly while in candidature for a research degree at this University;
- 2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
- 3. Where I have consulted the published work of others, this is always clearly attributed;
- 4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- 5. I have acknowledged all main sources of help;
- 6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
- 7. Parts of this work have been accepted for publication

Palumbo, L., Berrington, A., Eibich, P. and Vitali, A. Uncertain steps into adulthood: does economic precariousness hinder entry into the first coresidential partnership in the UK?. *Population Studies* (forthcoming)

Signature:..... Date:....

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Definitions and Abbreviations

 BHPS: British Household Panel Survey

 EFA: Exploratory Factor Analysis

 IFS: Institute for Fiscal Studies

 IPPR: Institute for Public Policy Research

 ISER: Institute for Socioeconomic Research (Colchester, Essex)

 NS-SEC: National Statistics Socioeconomic Classifications

 ONS: Office for National Statistics

 SDT: Second Demographic Transition

 UK: the United Kingdom

 US: the United States

 UKHLS: UK Household Longitudinal Survey, a.k.a. Understanding Society

 WWII: Second World War

Chapter 1 Introduction

The transition to adulthood, which traditionally consists of five interconnected steps – i.e., finishing school, starting a full-time career, leaving the parental home, forming a coresidential union, and becoming a parent (Shanahan, 2000) – has undergone dramatic changes in recent decades in Western countries (Arnett, 2000; Bynner, 2005; Côté and Bynner, 2008). The transitions from one state to the other have become more complex, fragmented, and de-standardised (Coles, 1995; Fahmy, 2006; Furlong and Cartmel, 2006), both within and across countries (Billari & Liefbroer, 2010; Billari & Wilson, 2001). Young adults' partnership dynamics, which represent an integral part of the processes of becoming an adult, have also undergone unprecedented changes, especially the processes of family formation and union dissolution¹ (Lesthaeghe, 1998).

This thesis analyses long-run longitudinal data spanning almost 30 years (1991-2018/19) with the aim of improving our understanding of the relationship between economic precariousness and partnership dynamics in the UK. Recent studies have identified the increasing economic insecurity of young adults as one of the determinants of the relatively recent changes in partnership dynamics, and of their consolidation. Section 1.1 of this introductory chapter sets the scene for the reader by describing the major shifts that have occurred in the partnership dynamics of young adults in the UK, and in the broader geographical area of Europe. This overview covers the past five to six decades, including the period analysed in the thesis (from the 1990s to the late 2010s). Section 1.2 gives further details about the proposed explanations for these shifts, including those related to economic precariousness. Section 1.3 describes the life course theory, which is the overarching framework within which the research questions, the aims, and the objectives of the thesis are developed. The following related sections outline the expected contributions of the thesis (1.4), and the motivations for studying the relationship between economic precariousness and partnership dynamics among young adults (1.5). Finally, section 1.6 explains the data and methods used, and section 1.7 presents the overall structure of the thesis.

¹ Another trend affects family reconstitution, but because it is less relevant to young adults, it is not listed.

1.1 Young adults' partnership dynamics in Europe and the UK

1.1.1 Marriage trends

Since the second half of the last century, marriage rates have been decreasing across European countries, with this trend starting in Northern and Western Europe in the 1960s–1970s, and then in Southern Europe in the 1970s, and, finally, in post-Communist Central and Eastern Europe in the 1990s. As a result of this trend, period total first marriage rates in Europe have declined sharply over the last half century, from high levels in the 1960s (around one) to low levels (0.5–0.6) in the 2010s (Sobotka and Toulemon, 2008). It thus appears that the frequency of marriage has been declining (*quantum effect*), and that the individuals who marry have been increasingly marrying at older and more dispersed ages than in the past (*tempo effect*) (Sobotka and Toulemon, 2008; Beaujouan and Bhrolcháin, 2011). It has, for example, been shown that the average age at first marriage has increased by five to six years across all European regions over the past three decades (1990–2017) (ibid).

Like in other Western European countries, marital rates among young adults in the UK have been changing. Figure 1-1 shows that, in the UK, there was a significant decrease in marriage rates across all age groups in the 1970s–1980s; whereas in the 1990s–2000s, marriage rates declined more rapidly among individuals aged 20–29 than among other age groups, albeit at a slower pace than in the earlier period. In the most recent period that began in the late 2000s, marriage rates fluctuated: i.e., they increased slightly in 2010–2012, and then decreased between 2013–2018, especially among people aged 25–39 (ONS, 2015). The increase in marriage rates in 2010–2012 may have been due to a recoupment of delayed marriages after the economic downturn in 2008–2009 (ONS, 2015). Alongside these shifts in marriage rates, the average age at first marriage in the UK has been increasing over the last 50 years in line with patterns observed in other European countries, from 22.8 for women and 25.1 for men in the 1970s, to 31.5 for women and 33.4 for men in 2016 (Stripe, 2019).



Figure 1-1: Marriage rates over the years for the overall UK population aged 16-39

Source: own graphical representation from ONS (2017) data

The decline in British marriage rates can be attributed to both tempo and quantum effects. Figure 1-2 shows that 91% of British women² born in 1940 were married by age 30, but that this share had declined to 77% for women born in 1960, and to 38% for women born in 1980. Moreover, recent data indicate that this share further decreased among women born in 1990, although the decline was less dramatic. However, 71% of British women born in 1970 and 61% of those born in 1980 were married by age 40³, thereby indicating a postponement of the age at marriage rather than a absolute retreat from it. Nonetheless, these figures are still 10–20% lower than those for previous cohorts, which suggests that an increasing share of Britons is likely to reach the end their life course without marrying.

² While they are not shown for reasons of clarity and space, there are similar trends for men as well. ³ Age 39 in the case of the cohort born in 1980.



Figure 1-2: Proportion of women ever married by age 50

Source: ONS Source: own graphical representation from ONS (2018) data

1.1.2 Cohabitation trends

While large shares of young adults are either not marrying or postponing marriage, they have progressively adopted new living arrangements, which have become more established over the decades. The most striking change has been the increase in the prevalence of nonmarital cohabitation (or, simply, cohabitation); i.e., living together without being married. The diffusion of cohabitation has been accelerating since the 1970s, reaching a peak in the 1980s and the 1990s (Kiernan, 2002). Like the decline in marriage rates, the increase in cohabitation rates has followed different paths across European countries. In the Nordic and Western European countries, cohabitation has become the norm for couples entering their first coresidential union (Coleman, 2006), and has substituted direct marriage (i.e., marrying without previously cohabiting). In these contexts, cohabitation can represent a medium- or long-term arrangement prior to marriage, or even an alternative to marriage (Hiekel et al., 2014b). Southern and Eastern European countries appeared to be almost untouched by the rise in non-marital cohabitation until recently, when this living arrangement started spreading more widely (Sobotka and Berghammer, 2021). However, in these countries, cohabitations tend to be briefer than they are elsewhere in Europe, and they often represent a prelude to marriage (Hiekel et al., 2014b).

In line with trends across Western countries, in the UK, cohabitation has been the normative way of entering the first coresidential partnership since the 1990s (Berrington and Diamond, 2000; Beaujouan and Bhrolcháin, 2011) The proportion of young adults

aged 20–39 who cohabit before marriage has been rising since 1994, except for young people under age 20, whose cohabitation rates decreased in the 2000s (Figure 1-3). The increase in cohabitation has also been accompanied by a rise in nonmarital childbearing: i.e., the proportion of live births to unmarried parents increased from 11.7% to almost 50% at the end of the 2010s (ONS, 2019). However, marriage remains the preferred context for raising children. For instance, in 2018, more than 60% of parents with dependent children in the UK were married (63.5%), whereas 15.3% were cohabiting, and 21.1% were single (ONS 2018a).





Source: own graphical representation from ONS (2017) data

The average duration of premarital cohabitations in the UK has tripled since 1980, from one year in 1980–1984 to three years in 2004–2007 (Beaujouan and Bhrolcháin, 2011; Murphy, 2000). Despite this increase in length, long-term cohabitations tend to be quite rare. It has, for example, been shown that 60–70% cohabitations end either with dissolution or marriage within the first five years (Beaujouan and Bhrolcháin, 2011). At the same time, the outcomes of cohabitation have changed considerably: i.e., in 1980–1984, 60% of cohabitations ended in marriage and 20% ended in separation; whereas by 2004–2007, the corresponding shares were 40% and 35%. Chao et al. (2020), using Understanding Society data, also found that of the cohabitations that started in 2000–2009, 36% ended in marriage and 35% ended in separation within the first five years.

While the diffusion of cohabitation has contributed significantly to the decline in marriage rates in the UK, the increase in cohabitation has not been as large as the

decrease in marriage at younger ages (Beaujouan and Bhrolcháin, 2011). Similar patterns have been observed in other European countries (Sobotka and Toulemon, 2008). Among the potential explanations for this trend, which are presented in more detail in sections 1.1.3 and 1.1.4, are the postponement of the first coresidential union and the increasing diffusion of living arrangements other than marriage or cohabitation.

1.1.3 Postponement of the first coresidential union

The increase in the ages at which young adults form their first coresidential union, which has contributed to the increase in the average age at first marriage, is a pattern that has been observed across European countries. Figure 1-4 shows the increase in the age at first union for women from different cohorts born between 1950s and 1970s in selected European countries (similar trends exist for men).



Figure 1-4 : Women's age at first coresidential union across 5-year cohorts born between the 1950s and the 1970s

Source: selected countries from Corijn and Klijzing (2001), Ermisch and Francesconi (2000b) for the UK cohort 1966–70

An ongoing trend towards postponement is visible for all countries, including the UK; although this cross-country comparison indicates that the increase in the age at first union formation has been relatively limited in this country. There are, however, signs of further postponement among subsequent cohorts (Beaujouan and Bhrolcháin, 2011). Indeed, the proportions of men and women who had ever been in a coresidential partnership by age 25 decreased from around 60% of men and 80% women in 1980–1984 (i.e., cohorts born in the 1960s–1970s) to 40% of men and 60% of women in 2004–2007. These differences between historical periods narrowed, but were still present, when the

shares of men and women who had ever entered a coresidential partnership by age 30 were analysed, and appear to have remained stable for ages 35 and 40. This pattern indicates that young adults have been delaying partnerships, but not foregoing them. It is, however, uncertain whether this is still the case for the most recent cohorts, among whom the share of single individuals has been increasing (Berrington and Stone, 2015).

1.1.4 Living arrangements other than marriage or cohabitation

The progressive postponement of the first coresidential partnership among young adults has been accompanied by the diffusion of alternative living arrangements: e.g., living-apart-together (LAT), living alone or in shared accommodations, and living with parents (Sobotka and Toulemon, 2008). These individuals are generally defined as "singles", although singlehood has been defined in different ways. The term may refer to individuals without a (stable) partner (Klinenberg, 2013); to individuals who are in a relationship but are not living with their partner (LAT) (Sobotka and Toulemon, 2008); or to individuals who are simply "not co-residing with a partner" (e.g., when data do not provide information on a potential non-coresidential partner) (Bellani et al., 2017; Jalovaara and Fasang, 2017).

The living arrangements of singles differ across Europe. Northern and Western European countries have much higher shares of one-person households or of households made up of similarly aged single adults than Southern and Eastern European countries (Fokkema and Liefbroer, 2008). By contrast, Southern and Eastern European countries have much higher shares of young adults living with their family of origin up to their mid-twenties or beyond; a trend that increased among cohorts born in the 1970s. In North-Eastern European countries, this trend towards the postponement of home leaving remained fairly stable up to the first decade of the 2000s (Billari and Liefbroer, 2010). There is also evidence that in some countries where home leaving tends to occur early, the age at home leaving has been increasing in the most recent period due to lower economic self-sufficiency (Berrington et al., 2009; ONS, 2018).

Single living has also been increasing in the UK in recent decades, although the living arrangements associated with it differ by age group. Singles who live alone are mainly in their thirties, while singles in their twenties are more likely to share living accommodations with unrelated adults (Stone et al., 2011). As shared living is strongly related with being enrolled in higher education, it is most common in areas with universities or attractive employment opportunities. For instance, the proportion of individuals in shared living arrangements is twice as high in London as it is in the rest of the UK (6% vs 3% in 2011–2013) (ONS, 2014). As was noted above, the UK is one of the countries where the share of young adults living with their parents rose dramatically over the last three

decades, which suggests that young adults are increasingly in a state of dependency or semi-dependency on their parents (Stone et al., 2011; Berrington and Stone, 2014). The number of young adults aged 20–34 in the UK who were living with their parents increased from 2.7 million in 1996 to 3.3 million in 2013 (i.e., 26% of this age group) (ibid.). Between 2008 and 2018, this number increased by 24%. Thus, by 2018, one out of four young adults in the UK were living with their parents. While this increasing trend has mainly occurred among young adults in their mid-twenties, it can also be observed among individuals in their thirties. Moreover, while this increasing trend has occurred across socioeconomic groups, at higher ages, the share of adults who are living with their parents who are inactive, unemployed, sick, or disabled becomes larger (ONS, 2012a).

1.2 Explanations for the shifts in partnership dynamics

Over the past several decades, scholars have offered a number of potential explanations for these changes in partnership dynamics across European countries, and, more generally, across Western countries. These shifts have consequences for individuals and their households, as they affect the constraints and opportunities young adults face in forming or continuing a partnership. Moreover, these individual- and household-level shifts ultimately lead to changes at the societal level (Oppenheimer, 2000).

In the mid-1980s, the Second Demographic Transition (SDT) theory argued that traditional institutions, such as marriage, are being rejected in favour of alternative living arrangements, such as cohabitation or singlehood, because of a shift towards the adoption of individualistic and secular values; and because of technological innovations, such as more efficient contraception or more secure abortion (Lesthaeghe and Van de Kaa, 1986). Later, the SDT theory was expanded to include socioeconomic shifts that occurred over the past five to six decades as potential drivers of the changes in family dynamics, such as the increases in education, labour market participation, and economic self-sufficiency among women, and the deterioration in men's wages (Lesthaeghe, 2010; Sironi and Furstenberg, 2012). The entry of women into the "public sphere" (i.e., society) may have restructured the traditional roles attributed to both women and men in the "private sphere" (i.e., family), which, in turn, modified their opportunity costs in terms of the timing and the modalities of partnership formation and dissolution (Becker, 1981; West and Zimmerman, 1987; Oppenheimer, 1988; Goldscheider et al., 2015). Therefore, economic determinants started to play a more important role in explanations for changes in family dynamics (Oppenheimer, 2000).

In the 2000s, new strands in the sociodemographic literature offered other explanations for the emergence and the persistence of new trends in young adults' partnership behaviour, and, more generally, in family dynamics. These explanations referred to the structural changes that have occurred in the economies of industrialised countries, which have led to increasing economic precariousness among young adults (Mills and Blossfeld, 2005; Standing, 2011; Berrington et al., 2014b; Kalleberg, 2018). Economic precariousness, which represents the explanation of interest in this thesis to motivate shifts in partnership dynamics, is defined here as "*a lack of economic resources across several dimensions that may generate insecurity around the present and future state of these resources*" (the concept is presented in more detail in Chapter 2). Economic resources were defined in a broader sense to include an individual's occupation (e.g., precarious work), along with other domains of an individual's situation (e.g., financial, housing, or subjective circumstances).

It has also been argued that the structural changes that have exacerbated this state of economic precariousness were attributable to the globalisation process, which, according to Mills and Blossfeld (2005, 2013) and their "globalisation framework", consisted of: the internationalisation of labour markets; the intensification of competition due to market deregulation; privatisation and liberalisation; the spread of new technologies; and, finally, the more frequent occurrence and prolonged effects of random macroeconomic shocks. Although some of these changes have led to new opportunities, e.g., wider access to jobs and resources or increases in cross-border investments and cooperation (Storbieski, 2021); they have also contributed to young adults' levels of insecurity in the educational and labour market systems by increasing the casualisation and instability of their jobs and their risk of unemployment, and by reducing their wages relative to those of older age groups (Green, 2017; Kalleberg, 2018). Concurrently, the more frequent occurrence of unexpected macroeconomic shocks that spread extremely rapidly across the globe may have had long-term consequences for young adults' employment, economic resources, and family outcomes worldwide (Mills and Blossfeld, 2013). One such shock was the Great Recession that occurred in the late 2000s (Sobotka et al., 2011). These developments have exacerbated the conditions of economic, temporal, and employment uncertainty (described in section 2.2.2) under which young people make their decisions, and may have knock-on effects on family dynamics (Brückner and Mayer, 2005; Mills and Blossfeld, 2005).

In the UK, the context of analysis in this thesis, there have also been significant shifts in young individuals' occupational and economic conditions during the period under consideration, which may have changed the partnership dynamics in the country (Berrington et al., 2014a; Furlong et al., 2017; Green, 2017). However, as discussed in detail in Chapter 2, the UK has specific characteristics that need to be considered when

conceptualising and operationalising economic precariousness and its relationship with partnership dynamics in this context.

1.3 Research questions, aims, and objectives

1.3.1 Aim and research questions

The aim of this thesis is to examine the relationships between economic precariousness and partnership formation, both in terms of young adults' expectations and their observed behaviour. The theoretical background provided in sections 1.1 and 1.2 (and discussed in more detail in Chapter 2) led to the formulation of the following main research questions, examined in the empirical Chapters 3–5:

- 1. Are economically precarious conditions related to entry into the first coresidential partnership in the UK?
- 2. Does living under economically precarious conditions associate with the outcomes of couples in their first cohabitation in the UK?
- 3. Is parental socioeconomic background related to young adults' lifelong expectations about the type and the timing of their partnership transitions in the UK?

1.3.2 Objectives using a life course approach

To explore the research questions and to set the aim and objectives, the thesis drew upon the principles of the Life Course Theory (LCT), which provides its overarching framework. The life course has been defined as "a sequence of socially defined events and roles that the individual enacts over time" (Giele and Elder, 1998: p.22). Individuals experience several changes in states or roles during their life course, i.e., transitions; which, in turn, constitute trajectories, i.e., sequences of transitions (Elder et al., 2003). The life course consists of the intersection of several interlocking trajectories characterising different life domains, such as work and family (Elder and O'Rand, 1995).

The five principles of the LCT are described as follows (Elder et al., 2003). The "time and place" principle assumes that the life course of individuals is embedded and shaped within the historical time and the places they experience over their life trajectory (Heinz and Marshall, 2003). The "timing" principle posits that the impact of certain events on the individual's life course depends on when these events are experienced; e.g., at a certain age or concurrent with certain macroeconomic events. The "life-span development" principle recognises that since human development and ageing are lifelong processes, people's current choices and behaviours are based on experiences that occurred earlier in life (Kok, 2007). These first three principles illustrate that time is an essential dimension of

the life course. Personal time coincides with age, defined either by a biological process (chronological), or by social norms (social age). Historical time coincides with the calendar year, and can determine either cohort or period effects, depending on whether historical or societal changes affect the general population or only a group who share the experiences of a particular event at that specific point in time (e.g., birth). The "linked lives" principle assumes that individuals' life trajectories are interdependent and influence each other (e.g., partners within couples or parents and children). The "agency" principle posits that individuals construct their life course based on choices and actions within the opportunities and constraints of their historical and social circumstances (Elder et al., 2003). Gender and socioeconomic status are also important structures that determine the opportunities and constraints of an individual's life course (Krüger, 2003).

As illustrated by Figure 1-5, while using a life course approach, the thesis explores the research questions and achieves its aim through four objectives: (1) to examine specific transitions in young adults' actual and expected partnership trajectories; (2) to use a "linked lives" approach; (3) to operationalise economic precariousness in a novel way; and (4) to consider potential moderators of the relationship between economic precariousness and partnership dynamics among young adults.

The figure can be read both horizontally and vertically. When read horizontally (i.e., following the red arrows), it shows that the research questions of the thesis are explored through three empirical papers. The first paper (Chapter 3) investigates the relationship between *individual* economic precariousness and the transition to a first coresidential partnership; i.e., marriage or cohabitation. The second paper (Chapter 4) examines the relationship between a *couple*'s economic precariousness and the outcomes of their first cohabitation; i.e., marriage or dissolution. Finally, the third paper explores the association between *parental* economic precariousness, proxied through parental socioeconomic status, and young adults' lifelong expectations regarding the formation of partnerships (marriage or cohabitation) and the age at marriage.

When read vertically (i.e., focusing on each box separately), the figure shows that the topic of each paper can be broken down to accomplish each thesis objective. Each paper considers one transition in young adults' partnership dynamics, adopts a specific linked lives perspective, presents a novel way of looking at economic precariousness, and considers specific moderators of the relationship between economic precariousness and partnership dynamics. Each objective is related to an expected contribution of the thesis to the literature (details in section 1.4). The objectives are explained when the figure is read vertically.





Objective 1: To focus on specific transitions in young adults' partnerships trajectories

The first objective of the thesis consists of considering different transitions in the young adults' actual and expected partnership trajectories. As highlighted by the LCT, it is important to analyse events early in the life course because they may explain differences in adults' life courses. Moreover, the analysis of different transitions through prospective data, as done in this thesis (details in section 1.6), allows following respondents through their personal and historical time. Chapter 3 accomplishes this objective by focusing on entry into the first coresidential partnership (i.e., marriage or cohabitation) of individuals aged 18–34. Chapter 4 examines the outcomes of the first cohabitations among those who entered the first cohabitation at ages 19–35. Finally, Chapter 5 analyses youth aged 16–21 and their lifelong expectations towards partnership transitions and age at marriage. While analysing these transitions, the thesis meets another criterion of the LCT, i.e., analysing the intersections of life domains, i.e. partnership, occupational and economic ones.

Objective 2: To use a "linked lives" perspective

The second objective is to study the relationship between economic precariousness and partnership dynamics adopting a "linked lives" perspective. The chapters accomplishing this objective are Chapter 4 and Chapter 5. Chapter 4 studies how economic precariousness at the couple level is associated with the first cohabitation outcomes. The literature highlights the importance of the partner's role in analysing a household's economic circumstances (Blossfeld and Drobnič, 2001; Ishizuka, 2018). A couple-level approach shows whether economic precariousness, within a cohabiting couple, is gendered by considering the relative contribution of young men's and women's economic precariousness to the outcomes of a first cohabiting union (Oppenheimer, 2003; Kreyenfeld, 2010; Busetta et al., 2019), whether there are some characteristics making the couple resilient to the effect of precariousness (Conger et al., 1999) and, finally, whether economic precariousness accumulates within couples (Grotti and Scherer, 2014).

Chapter 5 links parental and young adults' lives by exploring how parental class relates to young adults' expectations towards the type and the timing of family transitions. Extended literature argues that partnership attitudes and expectations strongly depend on parental economic resources and role models (Schoeni and Ross, 2005; Thornton et al., 2007b; Berrington et al., 2009). The considered data allows linking parents to their young adult children and accessing the information on young adults before turning 16, i.e. during their childhood (paragraph 1.6). Data would also unfold potential childhood mechanisms that could link parental economic circumstances to their children's future partnership

expectations. Finally, Chapter 3 is the one that aligns with the "linked lives" perspective the least because it explores the relationship between economic precariousness and first partnership formation at the *individual* level. However, the empirical models of this chapter also consider the parental background as a determinant of first partnership transition, thereby achieving, albeit to a more limited extent, the objective of interrelating individuals' life-trajectories.

Objective 3: To develop new ways of defining and operationalising economic precariousness

The third objective is more detached from the life course perspective and responds to the need for conceiving and operationalising economic precariousness in a novel way, compared to those adopted until now, as mentioned in section 1.2 and deepened in section 2.2.1. The definition of economic precariousness in this thesis is "*a lack of economic resources across several dimensions, potentially generating insecurity around the present and future state of these resources*". Chapter 3 and Chapter 4 fulfil this objective by analysing whether different markers of economic precariousness, both objective and subjective, present a similar relationship with the young adults' partnerships transitions, whether one marker has a path that is the most coherent with the hypothesised ones, and, also, explore how these markers "behave" once analysed together.

This operationalisation extends previous ones to include other important indicators than occupational ones, which regard the financial (income, wealth and welfare) and housing sphere, as well as the subjective one. In Chapter 5, parental economic precariousness is proxied through parents' occupational class, which is a reliable indicator for social origins (Blanden and Macmillan, 2011; Bukodi and Goldthorpe, 2013). Although the use of parental class as an indicator of parental background is not novel in the literature, its operationalisation innovates previous literature by exploring potential mechanisms underlying the relationship with partnership expectations.

Objective 4: To consider moderators of the relationship between economic precariousness and partnership dynamics

A fourth objective is to explore potential moderators of the relationship between economic precariousness and partnership dynamics across different sources of heterogeneity in the population. Some dimensions are examined across all three empirical chapters, i.e., gender and historical period. The analysis by historical periods aims to understand whether shifts in macroeconomic conditions, over the years, in the UK, have changed the relationships analysed in each paper. This analysis responds to the LCT need for considering the (period) effects of historical time and the social context in which individuals are embedded and experience their life trajectories.

Gender is considered by the LCT as an important structure potentially differentiating individuals' actual and expected life courses. A research question in terms of gender is present across all the three chapters. Chapter 3 aims to understand whether the relationship between economic precariousness and entry into the first coresidential partnership by historical period has presented gender differences. Chapter 4 dedicates more attention to whether the distribution of economic precariousness between men and women could determine different cohabitation outcomes. Finally, the gender dimension in Chapter 5 investigates whether the parental background influences more young men's or women's partnership expectations.

1.4 Expected contributions to the literature

There is a vast literature over many decades that addresses the relationship between economic resources and family formation. However, the renovated interest in the precarisation of young adults' economic resources in the 2000s has highlighted the presence of gaps within this research area and the need for filling them. The contributions to the literature are strictly related to the objectives of the thesis.

Contribution 1: Updating the literature on youth partnership dynamics to recent times in the UK

The first contribution is an update of the literature on the relationship between economic circumstances and partnership dynamics in the UK context. Despite the regular availability of panel data and the implementation of UKHLS to extend and continue the BHPS data collection, studies relating economic determinants to young adults' partnership dynamics in the UK still analyse periods in the 1990s or refer to older cohorts (Berrington and Diamond, 1999; Ermisch and Francesconi, 2000b; Francesconi and Golsch, 2005). An exception is Pelikh (2019), who analyses the partnership trajectories of three different cohorts, including the one born between 1985–1991. However, her approach does not specifically focus on economic determinants, although she focuses on education and parental background. Regarding Chapter 5, the study of young adults' lifelong expectations towards family transitions is also an important contribution, as there is limited literature dedicated to this topic in the UK, apart from Berrington (2020).

The update of this literature was possible using prospective data from the British Household Panel Survey and Understanding Society, which is rich and detailed, long-run, household and individual level. The richness and level of detail of this data allow an indepth analysis of the concept of economic precariousness. The long-run nature of the data, which spans almost 30 years, grants a historical perspective on the role of current economic circumstances on partnership dynamics, considering specific moments characterised by difficult macroeconomic conditions. Moreover, the prospective nature of the data gives the chance to consider the men's and women's life courses from their exposure to the event of interest and to link the information on young adult respondents to one collected duriing their late childhood and early adolescence.

Contribution 2: A "linked lives" approach

In Chapter 4, using a couple-level approach applied to the *cohabitation* outcomes highly extends the UK literature, as the analysis of the "economic foundations" (Sweeney, 2002; Ishizuka, 2018) of the outcomes of the cohabitation is scarce in this country and focused on the period in the 1990s (Ermisch and Francesconi, 2000a; Francesconi and Golsch, 2005; Golsch, 2005). Moreover, several studies focused on dissolution rather than marriage (e.g., Boheim and Ermisch, 2001; Blekesaune, 2008) or on different outcomes than partnership transitions, albeit related (e.g., Zhou and Kan, 2019 on gender attitudes; Blom and Perelli-Harris, 2021; Perelli-Harris and Blom, 2021 on relationship quality). A couple-level approach exploring the economic factors determining the cohabitation outcomes is not, however, a novelty in the recent international literature. One example regards Ishizuka (2018), who has implemented this approach to the topic in the US using data from the Survey of Income and Program Participation or Di Nallo et al.(2021) who used a couple approach using data from several countries, including the UK, to look at dissolution following a dismissal.

The intergenerational link between parental economic precariousness, proxied by class, and young adults' expectations in Chapter 5 represents a contribution to the literature, as it is one of the few pieces of work using a socioeconomic panel looking at the adolescents' childhood experiences and then, following them up to explore their partnership expectations. In this way, data are transposed to almost assume a cohort-study structure, which generally has information on children at multiple ages (in this case, the data structure allows analysing late childhood/early adolescence only) (Pelikh, 2019a). This is the first paper to use BHPS and UKHLS to analyse this relationship in such a detailed and complex way. To our knowledge, this approach to study expectations and parental background is also novel in the international literature. For instance, Manning et al. (2019) used the parental background associated with partnership expectations in the US but did not use children's information.

Contribution 3: Conceptualisation and operationalisation of economic precariousness

As explained further in Chapter 2, there is no single definition of precariousness in the literature (Campbell and Price 2016). Across all the three papers, the thesis contributes to the debate on how to think theoretically and measure empirically economic precariousness. Therefore, the thesis undertakes a novel approach to economic precariousness, innovating both its conceptualisation and operationalisation. The first two empirical chapters use a multidimensional approach to depict economic precariousness in the UK, which considers how different aspects of the individual and couple economic situation contribute to establishing and maintaining a coresidential partnership, including both objective and subjective aspects. The multidimensional operationalisation used in this thesis refers to employment aspects but extends the concept of precariousness to include some important financial, welfare and housing indicators, as well as subjective ones. The use of subjective measures, in addition with objective ones, is an important aspect too. Even though there is growing attention to subjective aspects and their effect on demographic outcomes (Vignoli et al., 2020; Bolano and Vignoli, 2021), these studies still emphasise the necessity of opening further this "black box" (Bolano and Vignoli, 2021). The neglect of subjective aspects and the focus on selected indicators of economic precariousness, mostly occupational ones, are some of the current drawbacks of the approaches to operationalising economic issues in the demographic literature (Kreyenfeld, 2015).

The third empirical chapter also constitutes an innovation for the conceptualisation and operationalisation of economic precariousness. Economic precariousness is considered an intergenerational concept, in the sense that parental resources can determine the amount and the security of children's future resources and, therefore, their future outcomes. Here, the concept of parental economic precariousness is proxied through parental socioeconomic status, a concept that represents the availability of economic resources but also incorporates aspects related to social norms (Berrington et al., 2015). Chapter 5 tries to disentangle possible mechanisms underlying the association between parental economic resources and partnership expectations while applying mediation techniques that are typical of the field of intergenerational reproduction of disadvantage. This approach is novel since it is generally used to investigate other outcomes, e.g. education-related instead of family-related ones (Bernardi and Boertien, 2017; Boertien and Bernardi, 2020). It is also original because, when the relationship

between parental resources and family outcomes are considered, the mechanisms underlying this relationship are hardly empirically identified.

Contribution 4: To explore the moderating effect of historical period and gender

The major extension to the literature is represented by the analysis of potential differences in the relationship between economic precariousness and partnership formation over time. Macroeconomic, political and institutional conditions have changed in the UK over the years. Still, to the author's knowledge, there is no research on whether these exogenous events could have driven changes in how economically precarious conditions are associated with partnership outcomes. The need for a historical perspective of the topic has become even more relevant after the Great Recession, which started in late 2007, since the global severity of this economic shock might have had more long-term consequences than previous national downturns (Bell and Blanchflower, 2010).

Other studies in the UK context have undertaken a historical perspective using the richness of BHPS and UKHLS but focused on different outcomes (Zhou and Kan, 2019) or use a different approach, not specifically focused on spotlighting the changing importance of material conditions over time (also given the small sample size that the research design allowed) (Pelikh, 2019b). Some studies consider a historical perspective in the relationship between economic uncertainty and demographic events in other contexts. For instance, Kreyenfeld (2010) used the German Socioeconomic Panel data to perform a historical analysis of the micro-level association between economic uncertainty and fertility in Germany.

Another contribution regards the gendered lens adopted in the papers. Undertaking a gendered perspective is an important step to account for whether, within a period matching the dramatic increase in female educational expansion and labour market participation, women's economic precariousness determines their partnership dynamics or the expectations towards them. The large sample size available for Chapter 3 allows exploring whether the role of young women's economic precariousness in determining their first partnership formation has changed over time. Chapter 4 and Chapter 5 investigate whether women's role still matters once men's is considered and whether their parental background constitutes a potential barrier towards expecting to form a coresidential partnership in their future according to gender.

1.5 Relevance of the topic

Studying potential vulnerabilities in the process of partnering is important from several points of view: (1) individual; (2) family; (3) society. If an individual perspective is taken, not entering or being unable to maintain a stable partnerships under economically precarious conditions could signal that young adults have difficulties in making a successful transition into adulthood (Corijn and Klijzin, 2001) and would not benefit from the advantages that staying in a partnership implies. First, as outlined by the life-course approach (Elder, 1974), not forming partnerships could have a knock-on effect on fertility (Corijn and Klijzin, 2001), thus leading to a further delay or forego in childbearing (Sobotka et al., 2011). Second, the access to the advantages in terms of subjective well-being, e.g. emotional support, intimacy, companionship and social interaction, would also be hindered (Musick and Bumpass, 2012; Perelli-Harris and Styrc, 2018; Perelli-Harris et al., 2019). Third, there would not be the chance to enjoy the financial advantages that a partnership, especially marriage, could have in the long run, e.g., long-term investments, such as the purchase of a house and stronger financial commitment, which should strengthen the bond between partners (ibid.). Since relationships under economically precarious conditions would have a higher risk of dissolution (Conger et al., 1990), this could have several implications on the separating partners. For instance, a partnership dissolution could lead to phenomena of socioeconomic disadvantage and social exclusion, especially when a single-parent family is involved (Kiernan, 2011).

Studying the relationship between economic precariousness and partnership dynamics is also relevant at the family level. Oppenheimer (2000) argues that the wellbeing side is important, as the family provides for the well-being of its members all over its developmental cycle. This well-being function strongly depends on the economic resources of the family. For instance, a household with at least one economically precarious partner may be subject to economic stress, with potential spill-over effects on the other partner's and children's psychological well-being (Conger et al., 1990, 1994; McLovd, 1990). Still, Oppenheimer (2000) argues that one of the family goals is its biological and socioeconomic reproduction, meaning that couples collect economic resources to give their offspring the possibility of maintaining the same or even a higher standard of living and socioeconomic status. The presence of economic distress would also be more likely associated with family instability (Conger et al., 1990, 1994; McLoyd, 1990), leading to the creation of lone or stepparent families, with a more penalising environment for children and their future life chances (McLanahan, 2004; Bernardi and Boertien, 2017). Therefore, the family could also become a vehicle for an intergenerational reproduction of inequalities (Mclanahan and Percheski, 2008; Boertien and Bernardi, 2022). Finally, since the family is also the place
where partners' economic contribution is defined and its importance, economic precariousness could play an essential part in determining gender inequalities (West and Zimmerman, 1987; Goldscheider et al., 2015).

Analysing the relationship between economic precariousness and partnership dynamics has relevance also on a *societal* perspective. Since economic precariousness is becoming a large-scale phenomenon among youth, e.g., via globalisation (Mills and Blossfeld, 2005), it is also likely to affect the opportunities and the constraints faced by several individuals in the process of expecting, forming and maintaining unions, with consequences at the aggregate level (Coleman, 1990; Oppenheimer, 2000). The result would be increasing aggregate dissolutions, nonmarital childbearing and decreasing marital levels (Sobotka et al., 2011). Studying the relationship between economic precariousness and partnership dynamics would also be useful for identifying the most vulnerable groups in the young population, since an uncertain macroeconomic situation, e.g. high unemployment rates, could also increase the opportunity costs of forming a partnership, especially in very young ages. Second, alongside increasing dissolution and cohabitation rates, rising economic precariousness may also be associated with higher income inequalities at the national level (Mclanahan and Percheski, 2008). These trends may determine "diverging destinies" between children from advantaged and disadvantaged backgrounds (McLanahan and Jacobsen, 2015).

These new trends may also have an impact on the macroeconomic scenarios and related policy implications. For instance, increasing housing prices have been related to decreasing marriage and fertility rates, as young individuals would be less likely to afford buying or renting a house in recent times (Coulter et al., 2020; Tocchioni et al., 2020). These trends could have an impact on the housing sector, since the offer of housing need to adapt to new needs and develop new strategies to attract young adults into buying a home (Murphy, 2000), or the banking sector (as mortgage lenders), which should rethink its target segment and deal with new types of financial commitment, which require less binding instruments than a joint account (Hiekel et al., 2014a). These trends would also require a policy intervention aimed at allowing young adults to save and afford mortgage and housing.

1.6 Data and methods

1.6.1 Data

For conducting the empirical analyses across the three papers, the thesis uses data from two longitudinal social surveys interviewing households and individuals: the British Household Panel Survey (BHPS) and Understanding Society, also known as UK Household Longitudinal Survey (UKHLS) (Fumagalli et al., 2017). Both BHPS and UKHLS are complex surveys, meaning that they present a complex design and structure.

First, they consist of multiple waves, multiple levels (households and individuals) and several subsamples. BHPS consists of 18 waves, covering yearly the period between 1991 and 2008, while UKHLS, which is still ongoing, comprises ten waves, spanning annually from 2009/2010 to 2018/2019 (two years are mentioned because interviews to households in UKHLS are annual, but the period it takes to cover all the households for one wave is biennial). BHPS started in 1991 with a sample of about 5,500 randomly selected British households and was boosted to include additional sub-samples, e.g. Scottish and Welsh samples in 1999 and a Northern Irish sample in 2001. UKHLS comprised around 40,000 households in its first wave, including a general population sample and ethnic minority boost (EMB).

UKHLS began when BHPS stopped and contains some of its participants. The starting population consists of British and Northern Irish components called General Population Sample (GPS), along with the EMB sub-population. During the 2nd wave of UKHLS, BHPS respondents willing to participate in UKHLS also took part in the sample. In 2014/2015, an additional Immigrant and Ethnic Minority Boost (IEMB) of almost 3,000 households was added. The IEMB was designed such that at least 1,000 adults from the five most represented ethnic groups in the UK: Indian, Pakistani, Bangladeshi, Caribbean and African would be recruited. The IEMB targeted the five main ethnic British minority groups together with a sample of immigrants (i.e. non-UK born) from groups other than these five ethnic minority groups.

Data is collected from households and individuals and concerns the entire household roster, thereby allowing analyses considering different components of the household simultaneously. Adults aged 16 or above are interviewed and then interviewed again after approximately one year, through a one-to-one interview or a self-completion questionnaire. Therefore, children who were already present in the survey become eligible to answer the adult questionnaire at age 16. They are called the "rising 16s". However, household members aged 10–15 are interviewed through the short self-completion "youth

questionnaire" (Fumagalli et al., 2017). Within the main adult questionnaire, a specific module with rotational questions is dedicated to young adults aged 16–21, which also collect information on young adults' expectations. In the case some of the components are not interviewed (because of temporary absence, nonresponse or noncontact), available information is limited to administrative data (from the household grid). However, in the case one person is absent and there is one interviewed member in the household, this person can provide a proxy interview for the absent person⁴.

The surveys are complex in terms of their design and structure. The initial selection of households in BHPS and UKHLS was made through a two-stage clustered probability design and systematic sampling (Taylor et al., 1993; Lynn, 2009). The first stage consisted of selecting a sample of postal sectors to be used as Primary Sampling Units (PSUs). The second one aimed to select some addresses within each postal sector (ibid.). The selection of the PSUs occurred through three stages: postal sector grouping, stratification, selection (ibid.). In both surveys, the Northern Irish component was not clustered, whereas the other boosts' components were (ibid.).

The complex structure of these surveys means that they consist of several datasets at the individual and household-level and datasets dedicated to specific sub-populations (e.g. biomarkers or teachers). Taylor et al. (1993) and Fumagalli et al. (2017) provide a detailed description. At the individual level, core datasets for both BHPS and UKHLS include (1) indsamp, which has technical information on individuals within all issued households (response and sample status, information on movers into and out of households); (2) indall, which includes demographic information on all persons in households, including children and non-respondents; (3) indresp, which includes information on all the respondents in the household (demographic, education, health, labour market, values and opinions, finance and internal household organisation information, income, employment changes over the previous year); (4) egoalt, which provides kin and other relationships between pairs of individuals; (5) income, which includes details on the received income sources during the year; (6) xwavedat, which contains characteristics of all individuals ever enumerated. include: (1) hhsamp, which has sampling data on all the issued households; (2) hhresp, which identifies information on all the responding households and reports information mainly on housing, income and consumption variables.

The instruments and the questions in UKHLS present significant analogies with the ones of BHPS. However, there are also some differences in documentation, definitions and

⁴ Proxy interviews are, however, more limited than full interviews because they do not provide too detailed (e.g. savings) or subjective information.

identifiers, which make their combination quite complex (Fumagalli et al., 2017). Since the biennium 2015–2016, the Institute of the Social and Economic Research (ISER) provides a dataset harmonising data from the British Household Panel and Understanding Society.

1.6.2 Weights

Given the complexity of the two surveys, the analyses from Understanding Society and the British Household Panel necessitate weights. There are different types of weights according to: (1) whether the analysis is cross-sectional or longitudinal; (1) whether the analysis involves households or individuals; (2) whether the analysis is focused on respondents only or includes also proxy/telephone/nonrespondent interviewees (depending on this analysis the used dataset --indall, indresp, etc. -- also varies); (3) whether individuals answer all the waves; (4) whether it involves different sub-samples. For Chapter 3 and Chapter 4, longitudinal weights were used, since they are the standard for analysing transitions (Kaminska, 2015b). Contrary to cross-sectional weights, longitudinal weights are computed for OSMs only and are set to zero if an individual misses one wave. We used longitudinal weights on respondents only and selected the ones considering the introduction of boosts⁵. For Chapter 5, cross-sectional weights were used since questions were not asked consecutively and most individuals did not present a second observation. Cross-sectional weights were selected for respondents and considered the presence of boosts. Since the analysis in all three papers was performed by pooling data from both the surveys, a rescaling of weights was necessary to guarantee that all the waves were equally represented and one historical period was not overrepresented⁶. The rescaling follows closely the steps summarised by Kaminska (2015b) and uses as a reference the average of weights across waves. The rescaling of weights was performed on all the subsets considered rather than on the overall pooled sample. Both the alternatives were equally possible (private correspondence with O. Kaminska)⁷.

1.6.3 Methods

The methods used differ across the three empirical chapters. A detailed description of the sample and the specific method is performed in the papers. Here, just a synthetic overlook of the applied methods is provided. In Chapter 3 and Chapter 4, a discrete-time event history analysis was used to analyse the risk of experiencing a certain event between two waves, conditional on not having experienced one in the period before (Singer and

⁵ The types of considered weights are in Kaminska (2015a).

⁶ UKHLS is more numerous than BHPS, potentially triggering its overrepresentation.

⁷ A check without focusing on the sub-sample was also performed with no change in the conclusions.

Willett, 2003). Contrary to a continuous time-scale, which assumes that the time to the event occurrence is measured exactly or in small intervals that can be easily approximated to a continuous distribution, a discrete time-scale assumes that the event happens within a large time-interval, e.g. a year, a month or a decade (Allison, 1984).

The reason for choosing a discrete-time approach is that the analysis is in personyears. Even if some degrees of precision were lost (Mills, 2010), person-years rather than person-months were used (the event of interest is identified directly from the respondent questionnaire, indresp). Data in person-months on partnership histories would be available through the dataset reconstructed by Pronzato (2011) and Nandi et al. (2020), which are not used in the current thesis. However, data on the time-varying indicators representing economic precariousness were not available in this format (apart from employment). Therefore, the study used an yearly analysis, as others did (e.g., Ermisch and Francesconi, 2000a). An exploratory factor analysis was also used in Chapter 3 to verify whether the indicators used to operationalise economic precariousness could be expressed through a unique index.

The methods used in Chapter 5 relied on linear and multinomial logit regressions. Given the fact that most of these individuals had one or two observations at most, the analysis was not performed through more complex models, such as random effects or fixed effects models. Standard errors, however, were clustered at the individual level to account for potential heteroskedasticity due to the presence of repeated observations in the sample (Wooldridge, 2016). Chapter 5 also presented the exploration of mediating mechanisms, performed through the Karlson-Holm-Breen (KHB) method (Breen et al., 2012), which correctly identifies, even in non-linear models, which percentage of a certain effect is explained by the variables of interest.

1.7 Structure of the thesis

In Chapter 2, the thesis provides the necessary background for a deep understanding of the empirical work performed in the three empirical chapters, which span from 3 to 5. This background part starts with the definition of precariousness used in this thesis. Then, it focuses on the concept of economic precariousness, its definition and operationalisation in the literature and sheds light on how economic precariousness among young adults has developed over the years in the UK. Finally, it reviews the literature relating economic precariousness or, more generally, economic resources, to family dynamics. Chapter 3, Chapter 4 and Chapter 5 contain the three empirical chapters addressing the relationship between economic precariousness and family dynamics among young adults. Chapter 3 analyses the transition from being never partnered to the first coresidential partnership, whereas Chapter 4 focuses on the couples' transition from being in a first cohabitation to a first marriage or dissolution. Chapter 5 analyses the relationship between parental socioeconomic status and partnership expectations. Finally, Chapter 6 contains a discussion on the findings of the thesis, how they relate to the previous theory and how they contribute to the existing knowledge. It also reviews the coherence of the findings with the aims of the thesis, its limitations and the potential extensions of the research.

Chapter 2 Literature review

2.1 Summary

Section 2.2 of this chapter provides a detailed overview of the concept of precariousness, starting with an outline of its definition, conceptualisation, and operationalisation; and continuing with an explanation of the reasons for the selection of this specific approach. Section 2.3 reviews the major theories developed in the literature regarding the relationship between economic precariousness and partnership dynamics, and thus illustrates why an association between the two should be expected. Even though each empirical chapter represents a stand-alone part of the thesis, each was developed while considering a unique definition of economic precariousness, and while referring to a broad set of important theories and frameworks developed in the literature.

2.2 The thesis definition of economic precariousness

This thesis defines economic precariousness as "a lack of economic resources across several dimensions that may generate insecurity around the present and future state of these resources". The notion of economic precariousness is kept relatively broad in the thesis, and is therefore used as an umbrella term that covers employment, finances, housing, and subjective dimensions (Figure 2-1). There are several interrelated reasons for using a multifaceted approach to study economic precariousness. First, the use of this broad definition addresses the problems that can arise due to the lack of a unique definition of precariousness in the literature (Broughton et al., 2016) by merging several conceptualisations of precariousness that have been developed over the years. As was explained in section 2.2.1, the concept of precariousness is intertwined with both employment-related notions and more extended conceptualisations, including more general economic indicators (Barbier, 2011). Second, the use of this definition enables us to carefully analyse and compare both traditional indicators (e.g., Mills and Blossfeld, 2005) and more innovative measures, such as subjective indicators, which have also been shown to be important in defining the economic insecurity of individuals (De Witte, 2002; Kreyenfeld, 2010; Vignoli et al., 2020).

Third, as was discussed in section 2.2.2, considering several aspects, including subjective factors, could help us address the question of whether economic precariousness among young adults should be seen as a dangerous and insecure state that could undermine the realisation of the fundamental milestones of entry into adulthood. Fourth, in the context of this analysis – i.e., the UK, and, more generally, the Anglo-Saxon countries –

it is difficult to identify economic insecurity using only traditional indicators of precarious employment, such as temporary contracts (section 2.2.1). Therefore, the thesis has identified several areas that characterise the major developments related to economic precariousness among young adults in the UK, which could help to overcome the limitations associated with considering occupational aspects only (section 2.2.3). The results of this analysis of the context also led to the choice of the indicators used in the empirical chapters, which are summarised in Figure 2-1.

All of the indicators shown in Figure 2-1 are used in at least one chapter. Chapter 3 uses most of the indicators. In Chapter 4, a smaller number of the indicators is used, based on whether they were found to be poorly predictive or hard to interpret in Chapter 3, and on the peculiarities of the transition considered. As was anticipated in sub-section 1.3.2, Chapter 5 does not consider multiple indicators to represent economic precariousness, but instead focuses on the concept of parental socioeconomic status, operationalised through parental occupational class, as it is considered a good proxy for ongoing parental economic precariousness during childhood or adolescence (as is illustrated in section 5.2.5 of Chapter 5).

Apart from the context of reference and the coherence of the indicators with the socio-demographic and economic theories that focus on the concept of precariousness, a more operative criterion for the selection of the indicators was their availability for most of the waves in the surveys, given that one of the objectives of the thesis was to explore the moderating role of the historical period (section 1.3.2).

Figure 2-1: Indicators of economic precariousness in the thesis



Source: own graphical representation through BHPS and UKHLS

2.2.1 The concept of precariousness in the literature

As was highlighted in section 2.2, the concept of economic precariousness used in the thesis merges different conceptualisations of precariousness developed over the years, from employment-related to more extended definitions, e.g., précarité and precarity. In the academic literature, the term precariousness is used to reflect the condition of being precarious, which means uncertain in Latin (Barbier, 2011). The use of this concept has often been accompanied by that of other constructs that cover different levels of social life: e.g., precariousness in employment, precarious work, precarious workers, precariat, and precarity (Campbell and Price, 2016).

Pierre Bourdieu and Agnés Pitrou were among the first to use the word *précarité*, in the 1960s and the 1970s, respectively (Barbier, 2002, 2011). Both authors identified *précarité* as a condition of having irregular or no work, alongside sporadic finances, e.g., low wages and an absence of savings or wealth. The concept of précarité also included aspects beyond work, such as inadequate housing conditions and poor health. In addition, Bourdieu and Pitrou stressed that these objective conditions of précarité are accompanied by subjective sentiments of insecurity caused by poor career prospects and the impossibility of planning for the future (Pitrou, 1978; Bourdieu, 1979).

During the 1980s and the 1990s, scholars started using the concept of precariousness specifically in reference to various aspects of employment. In the 1980s, French academics and bureaucrats began using précarité to refer to the increase in the forms of employment that deviate from the standard employment relationship (full-time, long-term, and socially secure jobs) (Vosko et al., 2009), and that are characterised by uncertainty and instability (Barbier, 2002, 2011). In these decades, the concept of precarious work was mainly employed by continental European scholars, but was less discussed in the English-speaking countries (Barbier, 2011), with a few exceptions, including Rubery (1989), who wrote about "precarious work" in the UK in an international collection of papers. Some academics have explained this difference in approaches by noting that when precarious employment started to increase in continental Europe, mainly in the form of flexible or casual employment, it had already been introduced and integrated into Anglo-Saxon liberal regimes (Furlong et al., 2017). Moreover, these forms of precarious employment were less prevalent than other arrangements in the Anglo-Saxon countries because of the less restrictive employment protection legislation and lower levels of state intervention in these countries, which meant that employers did not need to use atypical contracts to get a more flexible labour force (Gallie, 2009; Kalleberg, 2018).

In both the theoretical and the empirical literature, precarious work has been operationalised both one-dimensionally, i.e., limited to selected aspects; or multidimensionally, i.e., encompassing a wide range of aspects (Steinmetz, 2019). Onedimensional operationalisations have included either unemployment or the contract type (Scarpetta et al., 2010), and have focused on current states, and on their persistence or frequency (Vignoli et al., 2012; Ciganda, 2015; Busetta et al., 2019). Multidimensional operationalisations are often concentrated on three aspects, in line with Rodgers and Rodgers (1989): namely, lacking continuity, e.g., being in short-term work or at high risk of becoming unemployed; lacking control, e.g., having little autonomy at work; and lacking adequate social protection and income (e.g., Laparra et al., 2004; Kalleberg, 2009, 2018; Olsthoorn, 2014)⁸. Although these multidimensional definitions concern the sphere of employment, they show more clearly than one-dimensional definitions do that precarious employment may be associated with vulnerability and fragility across several aspects of life (Paugam, 1995; Berrington et al., 2014a).

In the 2000s, the idea that precariousness is becoming pervasive, and is thus relevant to a number of different life dimensions, was defined as "*precarity*" by social movements like "EuroMayday" or "Occupy Wall Street", in line with the original concept of *précarité* (Foti, 2004; Mitropoulos, 2005). Precarity refers to a "generalised set of social conditions and an associated sense of insecurity, experienced by precarious workers but extending to other domains of social life such as housing, welfare provision and personal relationships" (Campbell and Price, 2016: p. 315). The people who are hardest hit by precarity, such as young people, are sometimes referred to as "precariat(s)": i.e., part of a class-in-the-making that can be entered or exited quite fluidly by anyone with insecure employment who engages in short-term jobs with minimal career prospects and few entitlements to welfare benefits (Standing, 2011).

The concept of precarity and precariats spread not only in continental Europe, but also in English-speaking countries. This likely happened in part because this concept has been attributed to phenomena that have been occurring across all of the rich democracies (Kalleberg, 2018), including globalisation, rapid advances in information and communication technologies, and the implementation of policies aimed at market privatisation and deregulation, which have affected youth employment and family dynamics, as discussed in section 1.2. However, since some of these structural changes had already occurred and been internalised in Anglo-Saxon countries, a second reason

⁸ Laparra and al. (2004) characterised precarious employment as lacking continuity, social rights and protection, secure income, and adequate working conditions. They argued that having a precarious job is accompanied by the risk of instability and insecurity; the risk of receiving low pay and earning a low income; the risk of having a bad work environment and organisation; and, finally, the risk of inadequate social protection. Later on, Kalleberg (2018) described precarious work as being insecure (due to the high risk of job loss); uncertain (unpredictable in terms of its continued existence or its schedule); with limited economic and social benefits and statutory entitlements (living wage or health insurance). Olsthoorn argued that precarious employment creates vulnerability because the work is insecure and provides few entitlements.

could be that the concept of precarity responded to the need for a broad conceptualisation of precariousness that was focused not only on its employment aspects. Moreover, given that in this context, precarity was based on the shared experience of an uncertain and unstable "global risk society" (Beck, 1992) involving social movements and protests, it may have raised awareness of economically insecure conditions (Barbier, 2011).

As perceptions of precarity began to play an increasingly important role in social movements, the use of subjective indicators to operationalise precarity and employment-related precariousness became an important part of academic research in several fields. Recently developed approaches in the economic and socio-demographic fields have stressed the importance of using prospective measures of economic precariousness; i.e., of looking into the future (Beckert and Bronk, 2019; Vignoli et al., 2020). Indeed, individuals who live under objectively precarious conditions are not be able to make rational decisions because they are existing under conditions of fundamental uncertainty; i.e., do not have the necessary information to anticipate the future. Therefore, they cannot make their choices by following the "narratives of the future", which are formed on the basis of expectations and imaginaries, and which are, in turn, derived from previous experience ("shadows of the past", as defined by Bernardi et al. [2019]). Narratives of the future are defined as "imagined futures embedded in social elements and their interaction" (Vignoli et al., 2020: p.26).

2.2.2 Are youth economically precarious?

A broader conceptualisation of economic precariousness that considers both objective and subjective aspects could also help shed light on potential ambiguities related to the precarious conditions of youth. There is debate about whether youth can be considered precarious. Although the transition into adulthood is traditionally conceived of as a sequence of multiple transitions, from finding the first job to forming the first partnership or having the first child (Shanahan, 2000), Arnett (2000) argued that the process of becoming an adult does not just consist of hitting a sequence of demographic milestones; but is, rather, measured by whether individuals feel that they are self-sufficient, i.e., able to make their own decisions, accept their own responsibilities, and be financially independent. He coined the term "emerging adulthood" to define a phase experienced by people who are aged 18–25, and who are thus in-between adolescence (teens) and young adulthood (mid-twenties to early thirties). This phase tends to be highly explorative, meaning that young adults experiment with less normative and more de-standardised ways of working and partnering before adopting definite roles during adulthood (Brückner and Mayer, 2005). Precarious jobs could, therefore, be a way to include young adults in the labour market rather than excluding them from it (Nicole-Drancourt, 1992), since they may

be willing to accept such jobs as a "stepping-stone" towards more stable employment, or to get some experience while studying.

This argument has, however, been challenged by scholars who have pointed out that the economic insecurity of young adults has increased compared to that of previous generations (Blanchflower and Freeman, 2007) in Western societies. Getting and maintaining a job is becoming more difficult; the jobs that do exist have become more casual and unstable; and job tenure and earnings have decreased (Green, 2017; Sironi, 2018). The increase in the number of unstable and unreliable jobs over the years has coincided with the impoverishment of young adults, which has undermined and delayed their progress towards achieving self-sufficiency (Smeeding and Phillips, 2002; Bell et al., 2007; Scarpetta et al., 2010), as they often lack financial independence and are constrained in their decision-making. This may, in turn, lead to the *involuntary* postponement, de-standardisation, or even foregoing of crucial phases of the transition to adulthood, such as partnership formation.

Theorists of the globalisation framework tend to support this claim, and have added that globalisation and the trends associated with it (illustrated in section in 1.2) have exacerbated these challenges in transitioning to adulthood by increasing the levels of economic, temporal, and employment relations uncertainty. Economic uncertainty derives from having an insecure occupational or economic position; e.g., in terms of a person's employment status, education, class, or earnings. Temporal uncertainty comes from a lack of long-term prospects, such as working under a temporary contract. Finally, employment relations uncertainty refers to the insecurity associated with having a certain activity status. such as being self-employed or in a certain occupational sector. Moreover, the increasing frequency of unexpected macroeconomic shocks, which is among the consequences of the process of globalisation, may have also contributed to an increase in the economic precariousness of young adults (Aassve et al., 2013; Tåhlin, 2014). Indeed, young people are considered extremely vulnerable to employment and financial shocks (O'Reilly et al., 2009) because they often work in sectors that are particularly affected by economic downturns (e.g., services or tourism); have atypical contracts (Aassve et al., 2013; Sironi, 2018); have little savings and difficulty getting access to credit; and, finally, are generally excluded from welfare system benefits (Aassve et al., 2013; Cho and Newhouse, 2013).

2.2.3 Youth economic precariousness in the UK

Although these changes in the economic precariousness of young people have occurred across most advanced economies, they have manifested themselves through different modalities in different countries, often depending on the respective welfare and labour market regimes (Smeeding and Phillips, 2002; Wilthagen et al., 2008). The UK has

also witnessed shifts in the economic precariousness of young people since 1960s, which could have had repercussions for changes in the partnership dynamics that have occurred in the country (Berrington et al., 2014a; Furlong et al., 2017; Green, 2017). However, the UK's liberal regime constitutes a unique case in geographical Europe (Gallie, 2009). Thus, there is a need for a broad conceptualisation and an operationalisation of economic precariousness in the UK that considers the specific changes and the peculiarities of the British context.

This study has identified four major domains that have characterised economic precariousness among young adults in the UK since the last century: (*I*) **occupational**, which refers to the changes in and the characteristics of the British educational and labour market systems; (*II*) **financial**, which refers to reductions in incomes, benefits, and savings; (*III*) **housing**, which refers to the increasing scarcity of adequate and secure dwellings; and (*IV*) **subjective**, which refers to young people's perceptions. The review of each domain, which is undertaken in the next section, will follow a historical perspective, and will, when possible, address in more detail the period under consideration in the three empirical chapters (1991–2019).

2.2.3.1 Occupational precariousness

Furlong et al. (2017) have argued that the occupational precariousness of young adults in the UK has long-term characteristics, and has been developing since World War II. Even though the 1960s are known as the "Golden Age" of full employment and smooth school-to-work transitions, even during that decade, young adults' employment careers were already characterised by frequent unemployment spells, cycles of low-qualified and low-paid jobs, and long apprenticeships, especially for low-skilled or low-class youth (Vickerstaff, 2003; Goodwin and O'Connor, 2005).

Beginning in 1979, the Thatcher neoliberal government enacted the most disruptive changes to the British economy since WWII. Some researchers have observed that this period could be the starting point for the current situation (Furlong et al., 2017; Leonard and Wilde, 2019). The governmental plan fostered market deregulation and privatisation, which led to a flexibilization of employment, a weakening of trade unions, and a curtailment of benefits and training programs targeted to young adults (ibid.). Thus, during this period, the UK was already anticipating the macroeconomic shifts commonly associated with rising globalisation, which may have increased the economic precariousness of young adults (Francesconi and Golsch, 2005).

Between the 1980s and 1990s, young Britons were encouraged to take shelter in higher education to avoid the labour market uncertainties generated in the decade before.

This shift contributed to the emergence of "mass tertiary education", which led to higher education enrolment rates increasing from 15% to over 30%⁹ between 1961 and 2015 (Boliver, 2011). This educational expansion was primarily driven by higher rates of female enrolment in education (ONS, 2013). The lengthening of the time spent in education, especially for women, had significant effects on the timing of the entry into the labour market, and, in turn, on the process of partnership formation. Even though educational expansion reduced the wage gap between the high- and the low-skilled during this period (Machin, 2011), inequalities did not disappear. For instance, from this period onwards, the UK has witnessed an increase in job polarisation, whereby the numbers of highly and poorly compensated jobs have increased, and while the number of jobs "in the middle" has declined (Goos and Manning, 2007).

The 1990s–2010s was a period that was characterised by crucial historical political and economic developments, such as the political instability after September 2001; and the entry of new, low-cost competitors into the global trade market, such as China, which led to more opportunities, but also to greater uncertainty (Jenkins, 2010; Brown et al., 2017). Moreover, these decades were punctuated by two periods of economic recession: one in the early 1990s, and the "Great Recession" of the late 2000s. The section that follows provides a description of the major trends in youth occupational precariousness, unemployment rates, and atypical employment, which are important features of employment precariousness in the UK and worldwide.

Trends in unemployment

Figure 2-2 shows that during the recession of the early 1990s (specifically, in 1993), youth unemployment (ages 18–24) peaked at around 15%. The period that followed this shock, which lasted until 2007, was known as the "Great Moderation" (Stock and Watson, 2002), and was characterised by economic expansion and stability. Youth unemployment declined steadily from 13%–14% in the mid-1990s to around 9% in 2004. From 2004 onwards, youth unemployment again started to increase slightly (Bivand, 2012). After 2007, following the start of the Great Recession, youth unemployment returned to the mid-1990s levels for those aged 18–24, and was even higher for those aged 16–17 (Bell and Blanchflower, 2009). During this period, unemployment rates for prime-aged workers were less affected by the Great Recession because firms froze their hiring processes, which led to older workers remaining employed while young adults struggled to find a job (Gregg and Wadsworth, 2011). Moreover, unemployment may have been underestimated, as some

⁹ Enrolment rates refer to youth aged 20 or under.

young adults might have sheltered in full-time education (ibid.) or become NEETs. Indeed, the share of people aged 16–24 who were not in education or in employment or training increased from around 13.4% in early 2008 to 16.9% in 2011 (Powell, 2018). However, Figure 2-2 shows that during the post-Great Recession period, youth unemployment rates returned to pre-Recession levels by 2015 (Herz and Van Rens, 2020)¹⁰.



Figure 2-2: Youth unemployment rate in the UK, by age group (1992-2010)

Despite the major fluctuations outlined above, it is important to note that the youth unemployment rates in the UK have been equal to or even lower than the rates in other advanced economies. Moreover, during the Great Recession, the increases in youth unemployment rates were more limited than those witnessed in other contexts (Herz and Van Rens, 2020).

Source: own graphical representation from ONS (2022a) data

¹⁰ This analysis excludes the period during and after the outbreak of Covid-19, when GDP plummeted and unemployment rose dramatically (Allas et al., 2020).

Trends in temporary employment

Another trend that emerged among young adults during the Great Recession was the increasing trend in temporary employment, which plateaued in 2015, and declined thereafter (Choonara, 2019). Many scholars have attributed the increase in atypical employment between the 1990s and the 2000s to globalisation (Green, 2017). Others have also pointed out that this process had started before the 1990s, during the Thatcher era (Furlong et al., 2017). Figure 2-3 shows that part-time employment is the most common type of atypical employment (around 25%), followed by full-time self-employment (around 13-14%). However, neither part-time employment nor self-employment is necessarily an insecure form of employment, as in the UK, part-time employment is generally direct and permanent, and self-employment is often full-time and continuous (Rubery, 1989). The prevalence of "pure" forms of precarious employment, i.e., temporary contract employment, is lower (around 6-8%). However, among youth, temporary employment is more prevalent. According to Matsaganis et al. (2014), in the first decade of the 2000s in the UK, around 13% of employees aged 15–24 and around 6% employees aged 25–29 were in temporary employment. These figures are, however, relatively low compared those of other European countries, as the average share of temporary contract employment in the EU in this period was around 30-40% among employees aged 15-24, and was around 20% among employees aged 25-29.

According to Rubery (1989), this trend in the UK may be explained by the lower necessity of British firms to create temporary employment due to the relatively low costs of firing, which renders formally permanent jobs de facto temporary. The loose rules around firing in neoliberal economies have been attributed to the demands of employers to maintain a certain degree of control and flexibility in their decision-making (Gallie, 2009). The low diffusion of temporary employment may thus be explained by the presence of several precarious forms of atypical employment that are hardly identifiable (also Choonara, 2019).

Temporary contract employment is not the only form of precarious work that has become more widespread, as informal and casual work – the so-called "gig economy", or "bogus self-employment" – has also increased, alongside involuntary part-time employment and short-time and zero-hours contract employment¹¹ (Choonara, 2019a; Datta et al., 2019). However, as was explained before, assessing their diffusion is difficult given that these forms of work are very hard to detect through traditional data sources.

¹¹ A zero-hours contract is a form of employment in which the employer has the flexibility to determine the number of hours worked by the employee, or whether the employee works at all.





Source: own graphical representation from ONS (2022) data

2.2.3.2 Financial precariousness

Financial precariousness refers to the financial and wealth resources available to the individual. In the UK, three financial trends have been identified that have been particularly negative for young adults in the last three decades: namely, trends in earnings and income, savings, and welfare benefits.

Trends in earnings

Low-paid jobs have been common in the UK since the 1990s. Figure 2-4 shows that compared to selected OECD countries, the UK has a constant and high incidence of low-paid work, which is similar to that in the US. Thus, while the unemployment rates are low in the UK, job quality is often poor. In 1999, the UK government introduced a National Minimum Wage (NMW). While this measure increased wages for all workers over age 18 (the NMW does not apply to workers aged 16–17), it also contributed to the persistent stagnation of wages in the lowest tail of the earnings distribution (Machin, 2011). The Great Recession hit wages hard. In 2020, before the start of the Covid-19 pandemic, only the wages of youth aged 18–21 had returned to their pre-Great Recession levels (ONS, 2019a).



Figure 2-4: Incidence of low pay for selected OECD countries

Source: OECD (2021a) (

Note: countries selected based on the availability of Esping-Andersen classification data

Blundell et al. (2020) showed that the increase in low-paid jobs in the UK has strongly affected new labour market entrants in recent cohorts. According to these authors, the cohorts who entered the labour market for the first time after the 2000s have been paid less than those who entered before this decade. Moreover, these young people were also found to be more likely than previous cohorts to be low-paid five years after their labour market entry, thereby creating the grounds for a "low pay, no pay" cycle (Stewart, 1999).

A direct consequence of the increasing wage disparity between the younger and the older generations is a divide in household incomes, as shown in Figure 2-5, which refers to the 2010s. During this period, young adults aged 22-30 experienced a greater decrease in real median household income than older adults aged 31-59. This increasing disparity may be attributable to greater differentials in earnings, but also to taxation policies without a redistributive goal. The disadvantage of the younger adults is even more evident when housing costs are subtracted, which may be due to the increase in housing precariousness (addressed in section 2.2.3.3).



Figure 2-5: Real median household income between 2007–08 and 2014-2015, by age group

Source: Belfield et al (2016)

Note: BHC=before housing costs AHC=after housing costs

Trends in savings

Recent public opinion data indicate that a lack savings is a potential source of financial precariousness among young adults. Compared to previous generations, current generations of young people are having more difficulties saving to meet long-term financial goals, to build assets, to protect against risk, to avoid debt, or to buy their own house (Rudgard, 2016; Peachey and Palumbo, 2018). According to Green (2017), there has been a long-term reduction in the level of savings of UK families. OECD data show that in the 30 years prior to 2019, the household savings ratio¹² in the UK did not return to 1990s levels (OECD, 2021b). After stabilising in the 2000s, this ratio declined after the Great Recession, from 2010 onwards. This trend is not in line with the EU average, which remained fairly stable, even after the Great Recession.

According to the ONS (2018a), in the post-Great Recession period, more than half of Britons aged 22–29 had no savings at all, up from around 40% in the pre-crisis era. Recent studies have shown that indicators of people's financial capability – i.e., of their ability to manage and take control of their finances – worsened between the 1990s and the 2000s (Taylor, 2009), and that young adults could not count on the buffering effects of protective factors, such as savings, during financial shocks (Brown et al. 2017).

¹² "The net household saving rate represents the total amount of net saving as a percentage of net household disposable income. It thus shows how much households are saving out of current income and also how much income they have added to their net wealth" (OECD, 2021b).

The most common reasons why young Britons are not saving are that they cannot afford to save because they have: high housing expenses and living costs; low-paid, unstable work; and high debt loads, including debt from tuition fees (Dolphin, 2012). As their savings levels are low, youth are increasingly relying on their parents' resources, the "bank of Mum and Dad"; and thus delay leaving the parental nest (Berrington et al., 2009). While continuing to live with their parents can help young adults save, it may also undermine the process of family formation, which represents one of the main reasons why young Britons save in the first place (Atkinson and Kempson, 2004). According to a poll conducted by the Institute for Public Policy Research (IPPR) on a sample aged 16–29, the lack of sufficient financial resources and opportunities have led many of today's British young adults to worry about their ability to meet their current and future financial needs, and have increased their subjective precariousness. Moreover, most of the respondents declared that they do not believe they are going to be better off than their parents (Bradley 2012; Dolphin 2012), especially if they are unemployed (Bradley, 2012) or low-educated (Green, 2017).

Trends in welfare benefits

Since the 1980s, welfare benefits have been progressively cut, and access to them has been restricted for young adults (Wakeling et al., 2015). This trend has become more pronounced in the post-Great Recession period, with the implementation of austerity policies (ibid). Berrington et al. (2017) reported that there has been a progressive process of disconnection between the ages at which certain events are allowed in the UK, such as marrying or leaving school, and the ages at which young adults can access welfare benefits. They also argued that the benefit amounts provided to younger youth (up to age 21 or 25) are generally lower than those provided to older youth, which suggests that young adults often have to rely on private funding to become financially independent. For example, the Job Seeker Allowance, i.e., unemployment benefits, are not accessible to youth under age 18 (due to the increase in the age of compulsory education), and are provided in lower amounts up to age 25.

The cuts in housing benefits have also contributed to the increasing conviction that young adults are becoming more and more dependent on their family of origin, as well as to increasing housing precariousness (illustrated in section 2.2.3.3) (Rugg et al., 2011; Berrington and Stone, 2014). The Single Room Rate, introduced in 1996, capped the housing benefits accessible to young adults aged 25 or under to the amount necessary to cover the cost of one room within a shared apartment (Wilson, 2014), and thus reduced young adults' access to a self-contained apartment. This measure was then extended in 2012 to cover adults up to age 35 (ibid.). The aim of the Bedroom Tax was to reduce

benefits to working-age social tenants considered to be consuming too much housing space (Gibb, 2015).

2.2.3.3 Housing precariousness

Housing precariousness is another dimension that significantly characterises the British context, and that has affected Britons across different generations since the 1970s. Housing was at the forefront of the neoliberal agenda of the Thatcher government, which implemented policies aimed at privatising public housing, extending homeownership, and liberalising the mortgage market (Robertson, 2017). The consequences of these policies included exacerbating inequalities between public renters and homeowners, decreasing the amounts of newly built social housing, and increasing housing prices (ibid). While the New Labour government later tried to restore access to more affordable housing, the housing market in the UK remained very complex, characterised by residualised social housing, expensive homeowning, and an increasingly large private rental sector (ibid).

These changes had important consequences for the living arrangements of young adults, which typically consist of solo living or sharing with age peers or partners (details in section 1.1.4). In the 1970s and the 1980s in the UK, the transition from the parental home to independent living was supported by generous housing benefits, an adequate public housing system, and affordable private renting (Berrington and Stone, 2014). However, the progressive marginalisation and selectivity of social housing, which mostly targeted the "poorest poor" with no employment and low income (Hills, 2007), caused more young adults to rent privately (Kemp, 2011). While the proportion of households who were renting privately was around 29% in 1991, this share had grown to 48% in 2009–2010, and the share of households who were renting publicly changed from 9% to 16% over this period (ibid.).

In addition to being increasingly pushed into the private rental market, young adults were also progressively pushed out of homeownership in the 1990s and the 2010s. During these two decades, homeownership rates plummeted across all age groups, especially among people in their twenties and thirties (Figure 2-6). According to Cribb et al. (2018), the decrease in homeownership rates was primarily caused by the increase in the house-price-to-income ratio: i.e., the ratio between housing prices and household incomes. This means that housing prices increased much faster than average household incomes, thereby creating housing unaffordability.



Figure 2-6: Homeownership rates Britons aged 25–44 over 1996–2016, by age group

Source: Cribb et al. (2018)

The current British debate on housing is largely focused on the conditions of the private rental market, especially due to the emergence of the so-called "Generation Rent": that is, a generation characterised by increases in private renting, and decreases in homeownership and in access to social housing (McKee et al., 2019). Private renting is currently considered a poor-quality, expensive, and unstable form of living, since it is usually based on short-term leases, rather than on long-term, open-ended leases (Berrington and Stone, 2014). Thus, the pervasiveness of private renting could affect the ability of young adults to settle down (Hoolachan et al., 2017; Tocchioni et al., 2020). This situation differs from that of other countries, such Germany, where the renting system is highly regulated (Berrington and Stone, 2014). This trend, along with the other trends in precariousness highlighted in this section, could help to explain the large shares of young adults who are living with their parents, which have risen steadily since the 2000s. The details of this trend are illustrated in section 1.1.4.

2.2.3.4 Subjective precariousness

As was highlighted in section 2.2.3.2, a survey from the IPPR showed that the inability of today's young Britons to adequately manage their financial resources, and their lack of labour market opportunities, have led them to feel financially insecure, and to believe that they will not be better off than their parents (Dolphin, 2012). As this report stated: "[...] some leading politicians have said publicly that the current generation of young people may be the first in modern times to fare less well than the preceding one, and no doubt this sentiment has been picked up by young people themselves [...]". However,

when Furlong et al. (2017) analysed whether young adults in marginalised positions were more likely to be pessimistic about their future, they found modest differences between their subjective feelings and those of young adults in more secure positions. The authors gave two explanations for their findings. First, they noted, what may appear to be an economically precarious condition may not actually be precarious. For instance, some temporary jobs could be well-paid and have a strong work-based identity (Bradley, 2005). Second, it could be the case that young adults think about something else when they are asked about their future, and that economic precariousness is seen as an intrinsic part of the existence of youth (Arnett, 2000).

Furlong et al. (2017) supported the "boiled frogs hypothesis"; meaning that subjective precariousness has not changed to the same extent as objective precariousness. Indeed, objective precariousness has increased gradually since the 1960s, which suggests that young adults have had time to internalise these changes, and to develop sets of beliefs that are more consistent with the current characteristics of the British liberal employment and welfare regime (market economy, free trade, primacy of private sector), rather than with the standard employment relationships that were more common in the post-WWII decades (Hall et al., 2015). These authors also rejected the idea of a "democratisation of insecurity" (Brown et al., 2003: p.108), as suggested by Standing (2011), which argues that everyone is theoretically insecure and uncertain.

A complementary explanation of subjective precariousness rests on arguments that are the opposite of those made by Furlong et al., and posits that objective precariousness, especially precarious employment, has never increased in the UK. According to this perspective, the "narrative of precariousness" was developed by journalists and academics who happen to be in fields in which short-term jobs are common (Doogan, 2001; Fevre, 2007; Choonara, 2019b).

2.2.3.5 Occupational, financial, housing and subjective precariousness throughout the thesis

In this thesis, the occupational, financial, housing, and subjective domains were all used in selecting the indicators to represent economic precariousness, which are presented in Figure 2-1. Chapters 1 and 2 focused on all of the considered domains, although they did not use the exact same number of indicators. Chapter 3 relied on the occupational domain only, because it was the most suitable area to investigate the research question of interest. In the overall thesis, an occupational domain was operationalised with at least one of the following indicators: activity status; individual occupational class; temporary employment; and, finally, parental occupational class. While there is not a specific section on occupational class in this UK background, the aim of using

individual occupational class was to capture the potential disadvantage of performing an intermediate or a routine/semi-routine job, compared to being in a high-ranked occupation (a trend mentioned in section 2.2.3.1). *Parental* occupational class is assumed to have a different meaning from individual class: i.e., it represents the economic resources an individual has access to during his or her childhood or adolescence, and it highlights the ongoing availability of these resources.

The financial domain consists of at least one of the following markers: savings, labour income, and means-tested benefits; whereas the housing domain refers to housing tenure. Finally, the subjective domain refers to an individual's perceptions his or her financial situation in the current and the following year. All these aspect are, then, related to an actual or expected partnership dynamic, in line with the thoretical literature described in the next section.

2.3 Theories relating economic resources to partnership dynamics

The frameworks that focus on how family dynamics could be affected by socioeconomic changes and global-level phenomena – e.g., globalisation, economic crises, and female labour force participation (listed in section 1.2) – rely on a series of micro-level theories regarding the relationship between economic resources and partnership dynamics. This "macro-micro" link is in line with the principle of the life course theory, which argues that changes at the micro level could generate social changes at the macro level (Riley, 1979; Coleman, 1990).

While operating within a life course approach, this thesis relied on a series of microlevel theories in the empirical chapters to study the relationship between economic resources and partnership dynamics. Many of these theories were developed in the US, even though most of them were investigated in other contexts as well, including in Europe and the UK. While the UK and the US are often considered together because they are both liberal regimes with low levels of intergenerational mobility (Blanden et al., 2005; Sigle-Rushton, 2010), they are also different in a number of ways. First, cohabitations tend to be more unconscious (a "slide" as defined by Smock et al., [2005a]) and unstable in the US than in they are the UK and in Europe as a whole (Seltzer, 2004). Moreover, in Europe, cohabitation for economic reasons is less common than it is in the US (Perelli-Harris et al., 2014; Di Giulio et al., 2019), although it does exist (Hiekel et al., 2014b). Finally, differences by race constitute an important field of research in the US, but are less investigated in Europe or the UK (Seltzer, 2004), even though the UK also has an important literature on ethnicity (e.g., Hannemann and Kulu, 2015). The following section will review these theories in a roughly chronological order, starting from the 1970s–1980s until today. The theories described specifically deal with the role of economic resources in partnership dynamics, and are not the more general theories that also apply to other topics (which are mentioned in the relevant chapters, if necessary).

2.3.1 Specialisation theories

Between the 1960s and the 1980s, the literature on the relationship between economic factors and union formation was largely dominated by the New Household Economics, especially Becker's work. Becker's most noteworthy theoretical framework is the specialisation theory, which explains how the presence of economic resources could positively contribute to union formation¹³. According to Becker, men and women decide to enter a marriage if the gains¹⁴ obtained by this joint investment are higher than those obtained from remaining single. The maximisation of the gains from marriage are achieved through a complementary relationship in which one spouse is specialised in household production, and the other in labour market tasks. Moreover, in this relationship, the spouses are assumed to have positively sorted on non-substitutable attributes: i.e., education, property income, etc. (Becker et al., 1977).

In the *Treatise on the Family* from 1981, Becker argued that the couple specialisation is likely to be gendered, in line with the functionalist theories developed by Parson and Bales in the 1950s (Parsons and Bales 1955: p.164). Therefore, it is assumed that men specialise in labour market activities and women specialise in domestic activities because the former have a comparative advantage in performing labour market tasks and the latter have an advantage in domestic production (Chiappori and Lewbel, 2015). According to Becker, the large-scale entry of women into higher education and the labour market, and the decline in men's wages (Oppenheimer, 2005), may have disrupted this equilibrium in the second half of the 20th century, and caused a reduction of women's gains from marriage, and an increase in women's gains from dissolution (Ruggles, 1997; Oppenheimer, 2000). However, it is not clear whether Becker would predict that specialisation is an optimal strategy for couples in which both partners are economically precarious (Oppenheimer, 1997b). Following Becker et al. (1977), the partners would probably split up, as they would lack certainty, which is an essential condition for the continuation of the relationship (Becker et al., 1977).

¹³ Even though marriage was the normative way to enter coresidential relationships at the time, Becker (1974) explicitly remarked that he was not making a distinction between types of unions; e.g., consensual unions and marriage.

¹⁴ Gains are "Household-produced commodities are numerous and include the quality of meals, the quality and quantity of children, prestige, recreation, companionship, love, and health status (Becker, 1974: p. 302)".

Over the years, Becker's theory has been used to analyse the mechanisms underlying any kind of partnership (Schnor, 2015), even though marriage and cohabitation have different features. Above all, marriage implies a formal economic commitment, while cohabitation does not (Nock, 1995; Berrington et al., 2015). Therefore, it is reasonable to hypothesise that Becker's theory could apply to cohabiters who conceive of cohabitation as a "prelude to marriage" – i.e., as a step uniquely conceived to achieve marriage (Heuveline and Timberlake, 2004) – because the partners are already anticipating the marital commitment. However, Becker's theory would hardly apply to cohabiters who are testing their relationship or are using cohabitation as an alternative to marriage, as they do not yet plan to make a marital commitment.

2.3.2 Oppenheimer's theory of marriage timing and trends towards homogamy

The American sociologist Oppenheimer (1988) developed her theory in the late 1980s, when women's participation in higher education and the labour market, along with dual-earner couples, had become well-established in the US (Stanfors and Goldscheider, 2017). Oppenheimer (1988) argued that women's greater financial independence, derived from increased employment and education, led to a postponement of marriage, because women have more resources to dedicate time to collecting information about their potential future partner in order avoid a mismatch, and a future dissolution (Becker et al., 1977). Oppenheimer (2003) suggested that cohabitation in an integral part of this new equilibrium within the couple, because it can serve as a prelude to marriage that can be used to verify that the partners are well-matched before they achieve financial stability, and to avoid the expenses that marriage implies (also Sassler 2004).

In contrast to Becker, Oppenheimer argued that a dual-earner relationship should be preferred to a more specialised one, because pooling resources together serves as insurance against potential financial losses. In her opinion, specialisation increases the risk of dissolution because it does not provide cohesion for a partnership, and it makes the couple more vulnerable to the risk of job loss (Oppenheimer, 1997a). Therefore, the increasing importance of women's economic resources, alongside the rise in cohabitation, should also come as a relief for men, especially for economically precarious men, since they no longer have to bear the burden of providing for the family by themselves.

It appears that Oppenheimer's theory has indeed been confirmed, as recent studies on assortative mating have shown that women now tend to marry later and form homogamous unions; that is, they tend to form a partnership with a man with a similar degree of education and economic prospects (Blossfeld, 2009; Van Bavel, 2012; Klesment and Van Bavel, 2017). The increase in homogamous unions has been linked to the

disappearance of structural constraints preventing men and women from meeting in the employment and educational systems, and to the increased acceptance of women with higher economic potential and resources (Hou and Myles, 2008; Eggebeen and Hawkins, 2016). The expectation that the resources of both members of the couple are of equal importance is becoming an integral part of contemporary partnering behaviour.

As a consequence of these changes, men have also started to compete for women with strong economic prospects, as women did for men in the past (Kalmijn, 1994); and women have also started to increasingly marry downward (hypogamy) (Esteve et al., 2016). However, female hypogamy still remains relatively rare (Kowalewska and Vitali, 2020). Couples in which the woman is the main breadwinner (in terms of economic resources) tend to be very heterogeneous and the result of both negative and positive selection. On the hand, such partnerships may arise because of economic necessity, especially during unfavourable times in the business cycle (Vitali and Arpino, 2016). On the other hand, hypogamous partnerships may involve a female partner who is high-educated, high-earning, childless, and older than her partner (Khamis and Ayuso, 2021). For the US, Schwartz and Gonalons-Pons (2016) and Ishizuka (2018) did not find that, respectively, married and unmarried female breadwinner couples are more likely to dissolve their relationships today than they were in the past. However, these findings were not supported by Holland and Vitali (2017) for the same context.

2.3.3 Socioeconomic differences in the types and timing of coresidential unions

The Second Demographic Transition (SDT), illustrated in section 1.2, hypothesised that most educated women would prefer cohabitation, and, consequently, nonmarital childbearing, both for ideational reasons and because of the lower opportunity costs of cohabiting. However, while this argument was valid for the 1970s and 1980s, when cohabitation started to become widespread, the empirical findings now show that this gradient has either become nonsignificant, or has even reversed. It has been argued that a major source of discrimination by socioeconomic background is whether cohabitation becomes a long-term practice and includes nonmarital childbearing. According to recent empirical studies in both the US and Europe, couples with low socioeconomic status – i.e., low education or social class and poor economic resources – follow a "pattern of disadvantage" (POD), or "diverging destinies" (DD). Compared to their more affluent counterparts, they are more likely to choose to cohabit rather than to marry, and tend to engage in nonmarital childbearing (both within couples and as lone parents) (Perelli-Harris et al., 2010; McLanahan and Jacobsen, 2015; Vignoli et al., 2016; Lappegård et al., 2018; Mikolai et al., 2018).

Pattern of disadvantage

Perelli-Harris et al. (2010) argued that the ideational explanations of the SDT were appropriate for describing the social and economic changes in the post-WII period (i.e., the increase of female education and labour force participation, the spread of secularised values, and contraception). However, they were not suitable explanations for later decades, and especially from the 1980s onwards, when the increase in uncertainty greatly exacerbated socioeconomic inequalities. The pattern of disadvantage was assumed to be caused by low-SES individuals (in the case of this paper, low-educated individuals) being less able than high-educated groups to cope with the instability of their economic resources, which resulted in these individuals having a lower risk of turning their relationships into stable marriages, and, consequently, of having children within marriage.

Diverging destinies

In the US context, McLanahan (2004), and later McLanahan and Jacobsen (2015), made an argument similar to that of the POD, pointing out that the changes described by the SDT privileged the most educated and advantaged women more than the least educated and advantaged women. McLanahan argued that the union outcomes and fertility patterns of these two groups of women tend to diverge, which she called "diverging destinies". The advantaged destiny, which results in a gain in resources, is followed by the most educated women, who tend to be successfully employed, to postpone marriage and childbearing, and to have their children later. The disadvantaged destiny, which results in a loss of economic resources, is followed by the least educated women, who tend to divorce or engage in nonmarital childbearing, either as single mother, a cohabiting partner, or a separated partner; and tend to have low SES. This divergence involves not only women but also their children, thereby signalling the potential for different outcomes due to socioeconomic inequalities. According to this perspective, the drivers of these disparities are the re-emergence of the feminist movement, new birth technologies, changes in labour market conditions, and changes in welfare state policies. The DD highlights that among single mothers, means-tested benefits could discourage union formation because they can be obtained only in absence of a partner.

Härkönen (2017) showed that diverging destinies for single mothers are present not only in the US, but also in Europe, with considerable variation according to the country. Moreover, in countries such as the UK, the US, Finland, and Germany, this gradient involves not just the low-educated, but also the middle-educated. Recent evidence reported by Cherlin (2021) for the US indicated that there has been an increase in nonmarital childbearing among high-educated women as well.

The Economic Bar to Marriage

The economic bar to marriage is defined as a set of multiple markers of economic success, including earnings, employment, and assets, that couples use to decide whether they are ready for marriage (Edin and Kefalas, 2011; Gibson-Davis et al., 2018; Ishizuka, 2018). This bar can prevent couples from marrying, because the partners believe that only those couples who have overcome these barriers should marry (Gibson-Davis et al., 2018). Thus, marriage is no longer seen as the starting point for achieving a set of economic goals, but as the destination. According to the recent literature, the perception of such bars to marriage is not equally diffused across socioeconomic classes, as it appears to be most common among low-income or low-educated couples (McLanahan, 2004; Perelli-Harris et al., 2010).

The entry into a cohabitation should not be subject to this bar, and should instead be more fluid and less formal than the entry into marriage, as cohabitation requires fewer resources to establish (Schneider, 2017; Gibson-Davis et al., 2018; Schneider et al., 2019). However, whether this is found to be the case depends on the context in which the study is conducted. According to Jalovaara (2012), in Finland, which is a more gender-egalitarian society, the socioeconomic factors that affect the entry into a first union, regardless of whether it is a marriage or a cohabitation, are similar. However, they seem to be slightly more pronounced for marriage.

2.3.4 Differences in timing and norms in partnership dynamics across SES

Socioeconomic differences may also occur in the timing of union formation. In the 1990s, Bergstrom and Bagnoli (1993) argued that men enrolled in higher education are more likely to postpone entry into marriage in order to achieve higher levels of education and career success, which would make them a more appealing partner; while more precarious men with poor career prospects tend to seek a coresidential relationship earlier. Whereas in earlier decades this explanation would have applied to marriage as the most diffused way to enter a coresidential union, this gradient is now likely to characterise cohabitation.

This assumption of the heterogeneous timing of union formation fits the British context well (Ermisch, 2003). An important framework formulated in this context is the "fast track vs slow track" approach, which argues that low-SES young adults are more likely to enter a first coresidential union (and, in general, adulthood) earlier than high-SES young adults (Jones, 2002; Côté and Bynner, 2008).

The harsher economic conditions that young Britons are experiencing today are likely to disrupt the fast track of those from a disadvantaged background (details in section 2.3.3) who live in their parental home for longer (Côté and Bynner, 2008; Berrington and Stone, 2014). Berrington et al. (2015) argued that another potential reason for this trend is that high-SES Britons tend to follow the social norm of perceiving the transition to adulthood as being a sequence of demographic events that need to be performed in a rigid and precise order. Marriage is, therefore, seen as a precondition for starting a family, and follows the completion of education, entry into the labour market, and an eventual cohabitation. Meanwhile, this order tends to be less standardised for low-SES young adults, who are more likely to experience childbirth within a cohabitation, or to skip one or more education or employment milestones.

2.3.5 Family economic stress model (FESM)

The family economic stress model posits that when partners are under economic stress, the quality of the relationship is more likely to deteriorate, which may, in turn, lead to marital instability (Conger et al., 2010). The role of economic stress was originally studied within married couples but it is nowadays analysed within cohabiting couples

Economic stress can, for example, stem from having a low income, an absent or unstable employment, or high debt levels; or from experiencing a negative macroeconomic shock. When economic stress is a subjective indicator, it is defined as economic strain (Price et al., 2010). Partners who experience economic strain may be expected to see a decline in their mental health, (e.g., anger, depression, anxiety), which could somatise into physical symptoms. These developments are likely to have effects on the interactions between the partners; e.g., more frequent disputes, increased hostility, and decreased supportiveness and warmth (Price et al., 2010). These conditions can lead to lower relationship quality, which may, in turn, affect the stability of the relationship (Kinnunen and Feldt, 2004; Dew, 2007, 2011). The validity of this model has been successfully tested in a variety of contexts and welfare regimes (Conger et al., 2010).

The effects of economic stress on relationship quality may also depend on the gender of the partner having economic issues, since it would require the other partner to adapt his or her role and responsibilities to the new situation. Therefore, due to the persistence of traditional gender roles, it might be the case that men's economic stress has more negative consequences on relationship quality. Some studies have confirmed this expectation (Kinnunen and Feldt, 2004; Falconier and Epstein, 2010); whereas, others have not found gender differences (Dew, 2011; Blom et al., 2019). Since relationship quality also has positive effects on the risk of marriage among cohabiters (Perelli-Harris and Blom,

2021), it is also possible that economic stress could decrease the risk of marriage. However, Dew (2011), for the US, did not find any significant relationship.

The consequences of economic stress may include poor quality parenting and partnership behaviour. Hence, children who live in financially distressed families are more likely to grow up in non-intact or cohabiting families and are therefore more likely to be socialised to have different expectations about family forms than high-SES children. These children might be less likely to expect to enter a relationship, or to be more inclined towards having a less committed living arrangement, such as a non-marital cohabitation (Amato, 1996; Amato and DeBoer, 2001).

2.3.6 Different theories across the thesis chapters

Table 2-1 shows that most of these theories predict that precariousness has detrimental effects on partnership formation and dissolution, even if the effects differ according to age, gender, type of union, and socioeconomic status. Most of these aspects are addressed in the empirical papers, although these theories will not be tested directly, but will instead form the basis of the developed hypotheses. Each chapter relies on several theories to build the hypotheses, which depend on the topic. Chapter 3 and Chapter 4 rely on most of the theories that address how current economic circumstances can shape individuals' and couples' outcomes. Chapter 5, by contrast, draws on the theories that specifically focus on the life courses that characterise individuals with different socioeconomic statuses.

	Partnership formation is more likely when:	Partnership dissolution is more likely when:	Chapters
Specialisation Theory	Women are economically precarious and men are not.	Women are not economically precarious, and men are.	3, 4
Marriage timing	Neither partner is economically precarious. This condition does not necessarily have to hold for cohabitation.	One partner is precarious, and the other does not. This condition does not necessarily have to hold for cohabitation.	3, 4
Pattern of Disadvantage, Economic bar to marriage	Neither partner is precarious. This condition does not necessarily have to hold for cohabitation	//	3, 4, 5
Different timings and norms in partnership dynamics across SES	Partners are precarious and young Partners are not precarious and older	Partners are young and precarious	3, 5
Diverging destinies	Partners are not precarious	Partners are precarious	5
Family economic stress model	Partners are not precarious	Both partners are precarious	4

Table 2-1: Theories relating economic precariousness and partnership dynamics

Source: author's own representation

2.4 Conclusions

In summary, this chapter gave an overlook of how the concept of economic precariousness will be addressed in the thesis, i.e., analysing different dimensions potentially generating economic insecurity. Motivations for proceeding this way regard the development of the concept over time, the need for disentangling potential ambiguities in the meaning of economic precariousness among youth and, finally, the suitability to describe the British context. This chapter also describes the micro-level theories relating economic resources and partnership dynamics, used in the thesis and the specific chapters where it is possible to find them.

Chapter 3 Uncertain Steps Into Adulthood: Does economic precariousness hinder entry into the first coresidential partnership in the UK?

by Lydia Veronica Palumbo, Ann Berrington, Peter Eibich and Agnese Vitali¹⁵

Summary

This study uses prospective data spanning 27 years (1991–2018) to explore the relationship between economic precariousness and young Britons' transition to a first coresidential partnership according to three dimensions: age, historical time and gender over historical time. Economic precariousness is measured using several objective and subjective indicators, such as income, employment, housing, or financial perceptions. Our results show that economic precariousness has a strong negative relationship with entering the first coresidential partnership, among those aged 20–30, but the pattern is less clear among the youngest and oldest. Objective measures are stronger or more straightforward indicators than subjective ones. Historical analyses highlight that, in recessionary periods, not employment could decrease the probability of union formation more than in non-recessionary ones. Among working women, low labour income started to be a predictor of union formation in the most recent periods. Contrarily, female not employment resulted negatively related to entering the first coresidential partnerships already in the 1990s. Labour income is the only indicator presenting a significant relationship with the first coresidential union across all the three dimensions.

¹⁵ The idea of the paper, computations and interpretations come from the first author of the paper. Coauthors gave feedback on previous versions of this paper and interpretation. The work until submission was a, however, a strong joint effort, in which co-authors gave their contribution to editing the main text and supplementary material.
3.1 Introduction

Western countries experienced significant shifts in partnership dynamics among young adults (Raley, 2000; Kiernan, 2002). The share of young individuals beginning their first coresidential partnerships – i.e. living, either married or unmarried, with a romantic partner – via marriage declined sharply, whilst the proportion cohabiting rapidly increased. In many contexts, cohabitation became the normative way of entering a first coresidential partnership. Traditional explanations for these trends include increasingly secular and liberal values or socioeconomic factors, such as increased female education and labour market participation (Van De Kaa, 1987; Corijn and Klijzing, 2001). However, in the same period, globalisation, labour market privatisation and deregulation increased young adults' economic precariousness (Kalleberg, 2018).

Increasing precariousness also postponed young adults' family formation by lengthening the time spent in education, rendering their labour market entry more unpredictable and insecure and prolonging the time required to become economically sufficient (Mills and Blossfeld, 2005). This paper deepens our understanding of the relationship between economic precariousness and entry into first coresidential partnership (otherwise referred to as union) among young adults, using the UK as a case study. We use economic precariousness as an 'umbrella term' to measure a lack of resources encompassing objective aspects of individual economic insecurity related to employment, income, housing, and subjective aspects regarding the overall economic situation.

Previous UK studies that analysed the association between economic factors and the transition to a first coresidential union (Berrington and Diamond, 2000; Ermisch and Francesconi, 2000a; Francesconi and Golsch, 2005) focused on employment aspects, without considering broader indicators such as income or housing, as in the current paper. Using a long time series of data from the British Household Panel Survey and Understanding Society (1991–2018), this paper also enriches existing evidence by comparing a variety of objective and subjective aspects and examining whether their relationships with the first coresidential partnership formation changes over age or historical periods, with different socioeconomic conditions (1991–97; 1998–2007; 2008–13; 2013–18). We will also explore potential gender differences across time.

In the absence of an agreed definition of economic precariousness, we compare different indicators, verifying whether they lead to similar conclusions and, if not, whether there is an aspect most coherently describing the hypothesised trends in partnership formation across all the considered dimensions. Finally, this paper updates previous literature, as micro-level evidence of marriage and cohabitation postponement in the UK in the last decade is scarce (except for Pelikh, 2019).

3.2 Theoretical background

Defining Economic Precariousness

The term "precariousness" has increasingly been used in the literature since the 1960s. It often involves employment deviating from the full-time, long-term, and secure jobs typical of the Fordist period (Barbier, 2002, 2011). The concept of 'précarité' had previously been developed by Bourdieu et al. (1963) and Pitrou (1978) to represent labour market vulnerability (e.g. irregular work, lack of skills, low compensation and poor career prospects) and its consequences. 'Précarité' referred to poverty, lack of savings and poor housing, with a consequent impossibility of planning for the future and a persistent sense of insecurity. Since the 2000s, this wider concept has been revived under the name of precarity (Barbier, 2011; Standing, 2011, 2014; Kalleberg, 2018; Choonara, 2019b, 2020). Precarity refers to a "generalised set of social conditions and an associated sense of insecurity, experienced by precarious workers but extending to other domains of social life such as housing, welfare provision and personal relationships" (Campbell and Price, 2016: p.315-316). In this paper, we combine the concepts of precarious work and precarity into economic precariousness, which includes objective aspects of individual economic insecurity related to employment and financial domains, housing resources, and benefits recipience, alongside subjective perceptions of the financial situation.

Economic precariousness and the UK context

The UK liberal employment regime, characterised by low employment regulation and state intervention, is unique within Europe (Gallie, 2013). Unemployment rates have been relatively low except during the economic recessions of the 1980s, 1990s and late 2000s (Bell and Blanchflower, 2010). Despite progressive flexibilization and deregulation of the labour market (Furlong et al., 2017), the presence of temporary contracts is limited. In 2012, the share of 15–24 under temporary jobs was around 15%, against 42% in the EU27 (Matsaganis et al., 2014). Hence, the youth unemployment rate and the share of temporary contracts, i.e. two indicators typically used internationally to measure youth precariousness, are low compared to the EU average. Yet, insecure jobs and economic uncertainties remain (Furlong et al., 2017; Leonard and Wilde, 2019). Permanent contracts hide other types of precariousness (Rubery, 1989), including short- and zerohours contracts (Datta et al., 2019) and low pay (Mcknight et al., 2016). This employment precariousness is often accompanied by restricted welfare support consisting of highly conditional unemployment benefits and means-tested benefits which were reduced in availability and value, due to government austerity measures (Sealey, 2014).

Economic precariousness also relates to the increased difficulties young Britons have saving, e.g. for long-term purposes such as buying their own home, or for precautionary reasons (Dolphin, 2012). The Office for National Statistics (2018) reports that the share of Britons aged 22–29 with no savings rose from around 40% before the Great Recession to 53% thereafter. Finally, housing has also become considerably more uncertain over time (Leonard and Wilde, 2019). Traditionally, Britain has been characterised by early home-leaving, supported by affordable social housing and welfare benefits. However, there has been a progressive marginalisation of social housing and a greater dependency on (increasingly expensive) private renting and reductions in the value of housing benefits due to austerity (Berrington and Stone, 2014). Thus, in the UK, youth economic precariousness has increased due to both increased employment precariousness and wider precarity.

Economic precariousness and union formation

Micro-economic theorists argued that economic uncertainty reduces the economic gains to partnership formation. Maximum gains to partnership formation occur when both partners are positively sorted on non-substitutable goods, e.g. property income, or education, and are negatively matched on substitutable goods, i.e. earnings (Becker, 1981). In more practical terms, partners should enter a coresidential partnership when they have enough income or education and specialise in what they could do at their best, i.e. men paid work and women domestic one (ibid.). Oppenheimer (1988) also argued that uncertain employment, especially for men, delays partnership formation, particularly marriage, until both partners establish themselves on the labour market and collect enough economic resources.

In a more recent study, Mills and Blossfeld (2005) found empirical evidence that economic uncertainty arising from globalisation, e.g. low pay or occupational class, undermined young adults' ability to commit to family formation. Moreover, employment and temporal uncertainty, e.g. flexible or short-term hours contracts, destabilised young adults' long-term prospects, thereby discouraging partnership formation.

Contemporary studies also highlight the importance of considering subjective perceptions of economic precariousness (Kreyenfeld, 2015; Bernardi et al., 2019; Vignoli et al., 2020; Bolano and Vignoli, 2021). For instance, Vignoli et al. (2020) theorised anticipatory effects as imaginaries that could affect individuals' "narrative of the future", i.e. their plans towards realising a particular behaviour in the medium or long term.

Consequently, young adults would refrain from entering a union under economically uncertain conditions, because their current situation and ignorance about the future would discourage them from committing themselves for the time ahead.

However, the relationship between economic resources and first partnership formation is not always negative. For instance, cohabitation can be a suitable living arrangement for precarious young couples wherein they can get to know each other while solving their uncertainties, and before making the higher-level commitment of marriage (Oppenheimer, 2003). Therefore, in contexts where cohabitation has become normative as the first coresidential union, the association between economic precariousness and partnership formation could be positive. Qualitative research in the US supported this idea, suggesting that some couples are pushed into forming a partnership by "economic necessity" to pool economic resources and halve living expenses (e.g., Sassler and Miller, 2017). Similarly, Friedman et al. (1994) argued that entering a partnership and parenthood could be a suitable "alternative" career for women aiming to reduce their economic uncertainty.

Differences according to age

We expect that the association between economic precariousness and union formation varies by age. Using the General Household Survey, Beaujouan and Bhrolcháin (2011) demonstrated that there had been a significant postponement of first partnership formation, particularly marriage, in Britain, over the years. However, young adults from socio-economically disadvantaged backgrounds are likely to continue to form their first partnerships at younger ages (Berrington and Diamond, 2000), leading commentators to describe a "fast track" and a "slow track" transition to adulthood (Jones, 2002; Bynner, 2005). Socio-economically disadvantaged individuals may seek a coresidential union early in life for several reasons: normative ages for family formation are younger for these groups, and often a pregnancy precedes their first coresidential union transition (Berrington and Diamond, 2000); disadvantaged youth tend not to be enrolled in higher education and do not postpone partnership formation due to role incompatibility between being a student and family formation (Bhrolcháin and Beaujouan, 2013). Additionally, they may seek to cope with economic instability by pooling their resources with their partner (Sassler and Miller 2017) or finding meaning in their life through family (Friedman et al., 1994). We hence expect a positive association between economic precariousness and union formation at younger ages.

Instead, youth forming a first union in their mid- and late-twenties are likely to have achieved secure employment after attending higher education or after spells of precarious employment (Blossfeld and Huinink, 1991). They represent more attractive partners than precarious individuals of the same age (Ermisch, 2003). Hence, we expect a negative association between economic precariousness and union formation for youth in their midand late-twenties.

Singletons who never partnered before their thirties are often economically precarious individuals lacking the resources to attract or move in with their partners (Berrington and Diamond, 2000). However, they also include highly-educated, career-oriented people intentionally postponing the first union formation, those waiting to marry directly, or having a strong preference for singlehood (Jalovaara, 2003; Blossfeld, 2009; Sassler et al., 2010). Thus, we expect the relationship between economic precariousness and first-union formation to be still negative for older youth, although the association may be weaker in this case.

Hypothesis 1 (H1): Economic precariousness increases the probability of union formation among the younger youth. It decreases the probability of union formation among those in their twenties and, to a lesser extent, thirties.

Changes over historical time – economic recessions

The UK economy has undergone phases of expansion, stability, and recession over the last 30 years. We identified four historical periods based on trends in youth unemployment and key political events. 1991–97 began with a downturn in 1993, followed by a recovery (Bell and Blanchflower, 2010), and ended when Labour Party won the general election. 1998–2007 saw general economic stability, although youth unemployment started to moderately increase from 2004 (Bivand, 2012), alongside temporary, low-skilled and low-paid jobs (Furlong et al., 2017). 2008–13 was characterised by the Great Recession, whilst 2013–18 saw some economic recovery.

Most literature argues that recessions are associated with lower rates of family formation, as individuals avoid making commitments (e.g. partnerships and fertility) during economically insecure periods (Cherlin et al., 2013; Goldstein et al., 2013; Comolli, 2017). Since resources such as earnings, savings or housing are more uncertain, an economic recession would raise the economic level needed to pursue life commitments or be self-independent (Ranjan, 1999). These obstacles would also be subjective, as individuals' insecure perceptions would deteriorate (Kreyenfeld, 2015; Comolli and Vignoli, 2019; Guetto et al., 2021). Young economically precarious individuals would be likely to have fewer economic means to face such a sudden and long-term shock. Therefore, they would be less likely to meet the necessary bar to make family commitments (Watson and Mclanahan, 2011) and would be more inclined to forego or revise their plans to enter a union, especially marriage (Sobotka et al., 2011). Moreover, as less attractive partners,

they would also be less likely to be selected on the partnership market. During economic recovery, rates of partnership formation should return to their original level as couples catch up with their partnership formation (Sobotka et al., 2011).

Cohabitation is often seen as an affordable alternative to marriage during periods of uncertainty (Oppenheimer, 2003; Schneider, 2017). However, since recessions hinder young adults' self-independence, both forms of partnership are likely to be discouraged (Stone et al., 2011). In sum, we suggest that the relationship between economic precariousness and partnership formation will be stronger during recessions than economic stability or expansion.

Hypothesis 2 (H2): Economic precariousness decreases the probability of union formation in periods of economic recession (e.g. 2008–13) more than in periods of economic stability or expansion.

Changes over historical time - gender differences

The economic role of women changed dramatically since the 1980s, when female education and labour market participation started to increase (ONS, 2013). Many working women postponed their first union partly to establish their careers before family formation, partly because, having gained economic independence from their family of origin, they could prolong the search for the most suitable partner (Schwartz, 2013). At the same time, globalisation and deindustrialisation changed the nature of men's jobs, reducing their ability to provide for a family (Sironi and Furstenberg, 2012). Thus, over time, women's economic resources may have become more important for union formation (Oppenheimer and Lew, 1995; Blossfeld and Timm, 2003; Sweeney and Cancian, 2004; Van Bavel, 2018), with today's men considering women's resources an important characteristic for a potential partner (Buss et al., 2001; Blossfeld, 2009). Increasingly, women enter a first union with someone of a similar age, and with similar or fewer economic resources (Klesment and Van Bavel, 2017). Therefore, it is likely that the association between economic precariousness and first union formation for women has become more similar to men's over the last three decades.

Hypothesis 3 (H3): For men, economic precariousness decreases the probability of partnership formation throughout the examined historical periods. For women, the association between precariousness and union formation becomes negative and stronger over time.

3.3 Data and Methods

Data and sample

We pooled individual-level data from the British Household Panel Survey and its successor - the UK Household Longitudinal Study (UKHLS). Both surveys interview respondents approximately each year, but, differently from BHPS, the field work for UKHLS ranges 24 months (Understanding Society, 2022). BHPS has 18 waves (1991–2008); while our UKHLS dataset comprises nine waves (2009/10–17/18). BHPS started with a representative sample of 5,500 randomly selected British households. Subsequent boosts include those for Welsh, Scottish, and Northern Irish subsamples. UKHLS comprised around 40,000 households at the start, later boosted by two ethnicity boosts to represent the increasing proportion of ethnic minorities, especially second and third-generation immigrants (Platt and Nandi, 2020). Both surveys tracked individuals from original households, even when they left to form a new one. Children born to original households became full respondents when they turned 16 and are referred to here as the "rising 16s".

Individuals entering the sample should have been full-respondent original sample members (OSMs) with valid information for at least two consecutive waves, aged 18–34, and not have experienced a co-residential partnership. We excluded full-time students from the sample since most students (70%) did not have a paid job and had zero income, thereby rendering the meaning and measurement of precariousness for students different from working young adults. We followed our sample of 6,782 single respondents who had never had a coresidential partnership until they transition to the first coresidential union between a given wave *t* and the following t + 1. Since wave interviews for each individual occur approximately at one-year distance, we will refer to the interval (t, t + 1) as person-year¹⁶. The sample corresponds to 20,688 person-years. of which 60% joined aged 18–21. All boosts from both surveys were included, meaning that the sample developed in terms of geographical coverage and ethnic composition, especially when there was the shift from BHPS to UKHLS (details presented in the Analysis A1 of the Appendix A, p. 227).

Outcome

Direct marriage and cohabitation were combined into one event (forming a coresidential partnership) due to the selectivity and rarity of direct marriage in recent

¹⁶ The assumption is reasonable since 80% of the weighted person years (77% unweighted) were interviewed between 11 and 13 months and 90% between 10 and 14 (the same percentage for unweighted).

periods (82.2% of 1,910 of the valid events were cohabitations). However, we also computed additional analyses where cohabitation and direct marriage were competing risks, which are shown in the results section. The median age of union formation among those entering their first union was 24 for men and 23 for women¹⁷.

Indicators of economic precariousness

Indicators of economic precariousness were chosen to reflect our definition, encompassing aspects beyond precarious work, subjective indicators and factors relevant to the UK context, such as housing. Indicators had to be available across most waves of BHPS and UKHLS. Technical details on how the indicators and the more complex control variables were constructed are presented in Analysis A1 in the Appendix A, p. 227. Occupational class and contract type were used to represent the employment domain. In the first variable, not employed, i.e. out of labour force, were contrasted with workers in routine/semi-routine, intermediate and managerial/ professionals. In the second, they were contrasted with those in temporary or permanent jobs.

The financial domain consisted of labour income tercile (based on usual gross labour income), means-tested benefits and savings. For labour income, the most precarious category consisted of non-earners, the intermediate of low earners (first tercile, the lowest) and the least precarious of medium-high earners (second and third tercile). Non-earners included those out of labour force, and self-employed with negative income. Not saving money and receiving means-tested benefits were considered precarious conditions since they signalled either the presence of low income or the impossibility of accumulating resources to plan for the long term. In UKHLS, savings questions were asked biennially, starting from the second wave onwards. Therefore, we imputed the missing observations using the value from the previous wave. Receiving means-tested benefits was a binary variable indicating whether the respondent received the welfare benefits listed in section A1 of the Appendix A (p. 227).

The housing domain was represented by the respondents' housing tenure (living with parents, independently as homeowners, renters from a public institution or a private landlord). Whilst our reference category, i.e. coresidence with parents, is normative, among those in their early twenties in the UK, it indicates a more disadvantaged status from the mid-twenties (Stone et al., 2014). Living in rented accommodation, particularly private renting, is considered the most insecure status for family formation (Tocchioni et

¹⁷ Median age refers to the observation before the occurrence of the event.

al., 2020). In models excluding housing tenure a binary variable indicating current coresidence with parents was included.

Subjective indicators capture short- and long-term economic insecurity. Perceived current financial situation was based on the question "*How well would you say you yourself are managing financially these days*?". The original five-category variable was recoded into good/doing alright ("good"); getting by; and quite difficult/difficult ("bad"). Financial expectations were based on the question "*Looking ahead, how do you think you will be financially a year from now, will you be…*". Answers categories were: "worse", "the same", or "better off".

Other covariates

Our hypotheses explore how the relationship between economic precariousness and first partnership is moderated by age, gender and historical period. Age was captured by a quadratic polynomial, consistent with past research (Steele, 2005). Gender was included as a binary variable, whilst historical period included four categories, as described earlier: 1991–97; 1998–2007; 2008–13; and 2013–18. We defined these periods based on survey waves to account for the rescaling of weights (see below). This caused an overlap in the last two periods (waves 2012/13 and 2013/14).

We controlled for other individual sociodemographic characteristics which may confound the relationship with union formation. As with the main covariates, details on their construction are provided in analysis A1 of Appendix A. Parental occupational class, based on the three categories of the National Statistics Socioeconomic Classification (NS-SEC), was included as a control for socioeconomic background. As discussed in the theoretical background, class differences are agued to persist in the normative age of partnership formation, so this variable was interacted with age. Educational qualifications and religion were included to capture more secular and liberal attitudes towards partnership formation. Education was coded as low (no qualifications); medium, advanced and high. Religion status indicated whether or not the individual belonged to a religion. We captured the changing ethnic composition of the population of young Britons by including a variable indicating self-reported ethnicity, coded as White British/Irish; Bangladeshi; Pakistani; Indian; Other Asian; African; Caribbean; Others. We included a covariate indicating geographical location, coded as: London, elsewhere in England; Wales; Scotland; Northern Ireland. We also introduced a binary indicator of the presence of biological children in the household. As a robustness check, we undertook further analyses inserting women's pregnancy status (or partners', in the case of men), whose findings are in the section on sensitivity analyses.

Analytical Strategy

We ran separate analytical models for each indicator of economic precariousness to identify the extent to which these different measures could characterise the relationship between economic precariousness and partnership formation. This approach allowed comparing the trends described by indicators, identifying the one most coherently associated with the relationship of interest across all the three dimensions and avoiding problems of high collinearity, since some of these indicators were highly correlated.

To ensure the correct comparison across the models, analyses were performed on the same sample having valid data on all the measures of precariousness in each wave (a missing category was allowed for individual controls only). Discrete-time logistic regression was used to estimate the relationship between the indicators of economic precariousness and the probability of entering a first coresidential union between a given year *t* and the following, t + 1, conditional on being never-partnered in year *t* (Singer and Willett, 2003). This probability is also known as hazard, i.e. h_{t+1} . The model was specified as follows (in the analyses of direct marriage and cohabitation as competing risks, the link function was multinomial logit):

 $logit(h_{t+1}) = \alpha_i(t) + X_i(t) + Z_i(t)$ (1.1)

where $X_i(t)$ represented the time-varying indicators of economic precariousness, $Z_i(t)$ key individual controls and $\alpha_i(t)$ the baseline logit hazard function, i.e. age. Therefore, if an individual entered a coresidential union in 2000, the relevant covariates were measured approximately in 1999 (the previous wave). Youth were censored when lost to follow-up or reached age 34 (details on interval censoring, including intermittent nonresponse, are in analysis A2 of the Appendix A (p. 231).

Analyses were weighted using longitudinal weights for full respondents (Kaminska and Lynn, 2019). Longitudinal weights corrected for differential nonresponse or possible overrepresentation of the included boosts (e.g. ethnic minorities), and gave a full weight to the OSM. The applied weights were measured concurrently with the event, at time t + 1. Weights were re-scaled to have an even representation of the observations across the pooled waves (UKHLS Support Forum, 2013)¹⁸.

When testing H1, the effect of precariousness over age was assumed nonproportional by including an interaction between $\alpha_i(t)$ and the covariates representing precariousness. For H2, we included two-way interactions between precariousness indicators and historical periods. In H3, we expanded the latter to consider a three-way interaction between the indicators of precariousness, historical period, and gender. For H2

¹⁸ The base for the rescaling is represented by the average of the weights across the waves in the subset of never-partnered individuals.

and H3, interactions between age and the indicators of precariousness remained but were considered as controls. Analyses were carried out through the software Stata (StataCorp, 2019b).

To facilitate the interpretation of the results, we presented, for each category of the indicators of economic precariousness, the predicted annual probabilities of entering a first coresidential partnership between year *t* and *t* + 1, conditional on having never experienced a coresidential relationship in *t* (StataCorp, 2019a). Apart from the covariates involved in the interaction of interest, other covariates values were kept at their mean value. We adjusted the width of the confidence intervals of the means estimates of the predicted probabilities in line with Goldstein and Healy (1995) to correctly conclude that the means estimates were significantly different at the 5% level if their confidence intervals did not overlap completely (see also Bellani et al. [2021]). The intervals were centred on the prediction and graphed with width 2 * 1.39 * σ , equivalent to 83%–84% confidence level¹⁹.

To study H1, we examined the sign, the strength and the magnitude of the predicted probabilities of the least precarious categories and the more precarious ones. To address H2 and H3, we used t-tests for differences in the magnitude of effects across historical periods (details in analysis A8 Appendix A, p.250). The reference period for H2, where we explored the effect of economic recessions, was 2008–13. For H3, where we explored longer-term historical changes in the effect of gender, the reference period was the earliest: 1991–97.

Despite our choice of a separate approach, since the indicators were interrelated, we performed an exploratory factor analysis (EFA) to understand whether the indicators measured aspects of the same concept and whether an index could be used as an alternative to our approach. The EFA was based on a polychoric correlation matrix using an oblique rotation.

3.4 Results

Distribution of variables and their correlation

Table 3-1 shows the distribution of the indicators of economic precariousness. 74% of the total weighted person-years comprise permanent workers, confirming the low diffusion of temporary employment in the UK. Only 17% of the person-years concern not employed. The majority of the sample does not claim means-tested benefits (82% of person-years), whilst two-thirds of the sample report a good financial situation, and over

¹⁹ Results are equivalent using both levels.

half expect to be better off in the future. Roughly half the sample saves money. Possible explanations on why the share of economically precarious person-years is relatively low are a few. First, many young adults exit precariousness as they age, e.g. because they enter the labour market. Second, as we will discuss in the results, precarious individuals tend to be selected into early partnership formation, whilst those with more resources – the highly educated and career-oriented – tend to delay partnership formation. Thirdly, analyses of attrition patterns within the survey show that young adults who are not employed, temporary workers, non-savers, or feeling negative about their perceived financial situation are more likely to be lost to follow-up (Table A 6 in Appendix A²⁰).

²⁰ To corroborate this claim, we also ran analytical models (here not shown).

	Unweighted person-years	Weighted person-years (%)	Unweighted events (%)	Weighted events (%)
Occupational class		<u> </u>		
Managerial	4,678	23.86	12.68	13.81
Intermediate	3,821	20.20	10.63	11.33
Routine	8,136	39.35	8.21	9.14
Not employed	4,053	16.59	5.92	7.30
Contract type				
Permanent	14,625	73.97	10.37	11.27
Temporary	2,010	9.44	7.46	8.90
Not employed	4,053	16.59	5.92	7.30
Income tercile				
2 nd & 3 rd tercile	11,057	57.52	11.82	12.65
1 st tercile	5,537	25.74	6.45	7.34
Not earner	4,094	16.74	5.94	7.28
Savings				
Yes	9,894	49.35	10.02	10.86
No	10,794	50.65	8.49	9.93
Means-tested				
benefits				
Not MTB	16,472	82.17	9.63	10.68
MTB	4,216	17.83	7.61	9.04
Housing tenure				
Living with parents	15,018	74.00	8.04	9 .10
Owners	1,540	7.38	13.96	15.01
Private renting	2,782	13.87	12.83	14.26
Public renting	1,348	4.75	9.50	11.85
Financial perceptions				
Difficult/quite difficult	1,941	8.84	7.83	9.03
Getting by	5,106	24.60	9.24	11.13
Good	13,641	66.56	9.41	10.26
Financial				
expectations				
Worseoff	1,585	7.48	14.07	15.85
The same	8,501	38.73	8.52	9.83
Better off	10,602	53.79	9.05	10.02
Total	20,688	100.00	9.22	10.39

Table 3-1: Descriptive statistics of the covariates indicating precariousness

Source: own computations from BHPS and UKHLS

Unweighted person-years refer to observations having a valid forward-lagged weight and event

The distribution of control variables is shown in Table A 1 in Appendix A. The mean age of the entire sample (23.4), alongside the one of women's (23.1) and men's (23.6) subsamples, is close to the median age at union formation for both genders. Few individuals have no qualifications (5%), with most having intermediate education. Most young individuals come from professional and managerial class backgrounds (40%), but there is a consistent share of individuals from intermediate (24%) and routine (29%). The sample predominantly lives in England (including London, 85%) and is White British/Irish, with the largest ethnic groups being Pakistani, Indian and Caribbean (2-3%).

The results from a polychoric correlation matrix (provided in the analysis A4 of the Appendix A, p. 239) show that the measures representing employment and financial domains are highly correlated (0.7-0.8), except for savings (0.4), mainly because the not employed constitute a common category in the employment and income domains variables. Moreover, 63% of those receiving means-tested benefits are not employed. Corresidence with parents and financial expectations are not highly correlated with other indicators and represent stand-alone concepts.

3.4.1 Economic Precariousness and Entry into First Coresidential Partnership

In unadjusted analyses, the annual probability of forming a first coresidential partnership is consistently lower among economically precarious (Figure 3-1). On average, each year, 7% of the not employed form the first partnership, compared to 9% of routine workers, 11% of those in intermediate occupations, and 14% of professionals and managers. Those on temporary contracts are less likely to form a partnership (9%) than those on permanent contracts (11%), whilst low-earner workers are less likely to form a union (7%) than high-earning employees (13%). Those receiving means-tested benefits are slightly less likely to form a partnership (9%) than those not receiving benefits (11%). Savers have a similar probability to non-savers. Those living outside the parental home in either homeownership or private renting are significantly more likely to form a partnership (14-15%) than living with parents (9%).

Regarding subjective measures, we find different results according to whether the feeling regards current or future economic circumstances. We do not find statistically significant differences for the former, even though those getting by present an equal or higher transition probability than both those feeling a good or a difficult financial situation. Yet, financial expectations provide an unanticipated result, as those expecting a worsening financial situation in the subsequent year present roughly 4.2% higher probability of entering a first coresidential union than those expecting to be better off (10%) or the same (9.8%).



Figure 3-1: Predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

^b Models represent bivariate associations, i.e. are not controlled for individual socioeconomic characteristics.

Source: own weighted computations from BHPS and UKHLS (1991-2018)

Figure 3-2 shows the results for age, gender and historical time (from model (c) in Table 3-2). Results for continuous age are graphed using two-unit intervals. The probability of forming the first coresidential partnership peaks in the mid-20s and steadily declines across historical periods, among both men and women.





^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

^b Labels next to each marker represent the estimated mean of the predicted annual probabilities.

^c We used the estimated probabilities from the model containing income tercile as indicator of economic precariousness (Table 3-2), provided that results change very little, compared to the other models.

d Results are controlled for respondent's gender, age, historical period, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value. **Source: own weighted computations from BHPS and UKHLS (1991–2018)**

Figure 3-3 tests H1, which argues that the probability of union formation is increased by economic precariousness among younger youth and decreases among those in their twenties and thirties. Full model results are presented in Table 3-2, whereas the predicted probabilities are shown in Table A 2. H1 is broadly confirmed from the twenties to the early thirties. Several indicators show that youth being most economically precarious are significantly less likely to form a coresidential partnership than the least precarious. Similar trends, albeit insignificant, are found in the oldest ages; whereas, evidence on the youngest consists of differences whose strength and direction rely on the considered indicator.

Differences peak in the mid-twenties when the proportion forming a first coresidential partnership among the least precarious is roughly double that among most precarious (Figure 3-3). In this age interval, those beginning a union on permanent contracts are 14% each year, and those in managerial classes or high-earners 15%. Instead, the figure is around 7% for those not employed and slightly higher for low-earners. In this age range, those working on a temporary contract or in intermediate or routine classes are closer in behaviour to the least precarious group, suggesting that not all the precarious traits of a job potentially discourage partnership formation. With regard to these indicators, differences are generally insignificant at ages 32-34 apart from those between low-earners and medium-high earners. At age 18, differences between the least precarious categories and the non-managerial classes or the not employed are null. In contrast, temporary employees and low-earners are negative but statistically insignificant (p > 0.10).

The means-tested benefits indicator supports H1. At age 18, those on meanstested benefits have a higher probability of forming a first partnership than non-recipients (8% vs 5%, p = 0.05). However, patterns reverse at later ages up to the thirties, when differences become insignificant. For the savings indicator, no significant differences are found at young ages. Still, at older ages, those saving show a higher tendency to form a first partnership than those not saving.

Results for housing tenure are mixed. Among the youngest ages, those living independently in public rented accommodations are the most likely to form a partnership (16%); whereas, in the twenties, when overall rates of first coresidential partnership formation are at their highest, those living independently as homeowners are the most likely (16–17%). From the thirties, rates of first partnership formation are highest for those living in private-rented accommodations (12%) and lowest for the select group who remains in the parental home (3%).



Figure 3-3: Predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness, over age

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

 $^{\rm C}$ Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

Source: own weighted computations from BHPS and UKHLS (1991–2018)

^b Results are controlled for respondent's gender, historical period, level of education, co-residence with parents, presence of children, geographical a rea, ethnicity, religion and parental class. Covariates a rekept at their mean value.

Respondents describing themselves as "getting by" financially present a similar predicted probability of forming the first coresidential union as those perceiving a good financial situation, except for youngest ages, in which this probability is significantly higher. Contrarily, those feeling a "difficult" financial situation present lower probabilities of first partnership formation, among those in their twenties. However, confidence intervals are large due to the limited sample size of this group. In contrast, financial expectations show that never-partnered individuals expecting to be worse off in the following year have a higher predicted probability than individuals expecting to be better off or about the same, especially in the mid-20s, where the differences between the first and the second two categories amount to around 9-10%.

When we consider marriage and cohabitation as competing risks (Figure A 1 and Figure A 2), results on the relationship between economic precariousness and the probability of entering the first cohabitation resemble the already-described relationships (most of the events are cohabitations). However, compared to the opposite conditions, saving and having "good" financial perceptions are predictors for direct marriage, relative to remaining single, but not for cohabitation. In contrast to cohabitation, living independently from parents is not associated with direct marriage, suggesting that direct marriage often coincides with the exit from the parental home. Those living independently from the parental home in social housing are less likely to marry directly than coresiding with parents.

3.4.2 Changes over historical time - economic recessions

Our second hypothesis, H2, explores whether the effect of precariousness has become significantly more pronounced in 2008–13, i.e. around the Great Recession, compared to other periods. Figure 3-4 plots the predicted annual probabilities for each category of economic precariousness in each historical period, which are shown in Table A 4. Since age is fixed at the sample average, we see that the least precarious categories present a higher predicted probability of entering the first coresidential union than the more precarious ones (consistent with H1). However, our interest concerns whether these differences increase in 2008–13, compared to other periods. The results of formal t-tests are shown in Figure A 12 in Appendix A.

Measures from the financial and employment domain are the only ones presenting systematic differences across all the considered periods. In 1998–2007, the not employed/non-earners present a transition probability around 8%–9%, whereas permanent workers and high-earners around 13–14%. In 2008–13, these contrasts increase by 3-4% (p < 0.05). The categories "not employed-managerial" and "benefits recipients-nonrecipients" also present similar differences but with a p-value around 0.1.

Moreover, in 2013–18, permanent workers, high-earners or receiving meanstested benefits present a higher transition probability than their counterparts. In 2008–13, these differences tend to be 2–3% larger (0.05 =). We find similar trends with asimilar magnitude also when contrasting the same categories in 1991–97 and 2008–13,albeit insignificant (<math>p > 0.1), probably due to the larger confidence intervals in the first period. We also find some differences in homeownership in 1991–97 and 1998–2007, but not in 2013–18. In sum, only some trends of contract type and labour income give significant support to H2.

When marriage and cohabitation are analysed as separate events (Figure A 3 and Figure A 4), results resemble the ones for cohabitation and the ones for direct marriage are less intelligible, due to its rarity after the first period.



Figure 3-4: Predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness, over historical period

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

^b Results are controlled for respondent's gender, age, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

 c Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the re sults.

Source: own weighted computations from BHPS and UKHLS (1991–2018)

3.4.3 Changes over historical time – gender differences

Figure 3-5 and Figure 3-6 present our findings for H3, arguing that, over time, women's association between economic precariousness and union formation has recently become negative and men's has remained constantly negative (predicted probabilities are in Table A 5). The results of formal t-tests are in Figure A 13 and Figure A 14 of the Appendix A. To enhance the visualisation of the three-way interaction, we graph the results separately by gender and fix age at each subsample mean. Men not employed and on low-income present a lower probability of forming a first coresidential union than their counterparts across all the considered historical periods (even though differences are not always significant at the 5%, e.g. in 1991–97). Moreover, occupational class appears less discriminatory in the most recent period than in the early-1990s (p < 0.05).

Women show a negative relationship between being not employed and the reference outcome in the most recent periods and the first one but insignificant in 1998–2007. For women, indicators for occupational class and income appear to support H3. In 1991–97, the differences between women in routine and intermediate occupations or earning low income and their least economically precarious counterparts were small, whereas, in 2013–18, they become negative and significant, increasing by 9% (p < 0.05). Trends similar to not employment regard means-tested benefits among both genders.

Finally, the association between living independently as homeowners and first partnership formation tends to increase over time for both genders. Subjective measures do not fit H3, as women present slight variation over time and men a sudden change in financial expectations in the most recent period that is hard to interpret. In sum, H3 is only confirmed by some results for the labour income and occupational class indicators (this last one only for women), but there is no systematic evidence in its support.



Figure 3-5: Men's predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness, over historical period

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). The refore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

^b Results are controlled for respondent's age, level of education, coresidence with parents, presence of children, geographical a rea, ethnicity, religion and parental class. Covariates are kept at their mean value.

 $^{\rm c}$ Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

Source: own weighted computations from BHPS and UKHLS (1991–2018)



Figure 3-6: Women's predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness, over historical period

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

^C Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

Source: own weighted computations from BHPS and UKHLS (1991–2018)

^b Results are controlled for respondent's age, level of e ducation, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value. Covariates are kept at their mean value.

Control variables are associated with partnership formation in ways expected by the literature and their effect does not alter according to which measure or specification of economic precariousness is used (Table 3-2). Medium and high education levels are related to a higher risk of entering a first union than low. This result is statistically significant across models among the high-educated; whereas, it is not significant, in some models, for medium education. Compared to the rest of England, living in London or Northern Ireland is negatively associated with the risk of entering a first coresidential partnership; whereas, those living in Wales and Scotland do not show significant differences. As shown by the multinomial results (Table A 3), the finding for Northern Ireland is related to the lower risk of non-marital cohabitation, which is a less popular option in this region (ONS, 2019). The multinomial model also reports that being part of an ethnic minority, rather than being White British, is related to a higher risk of transition into direct marriage and a lower one into cohabitation (apart from the Caribbean community). Being religious is also related to a higher risk of transition into a direct marriage, relative to remaining single, and a lower one of entering a cohabitation (albeit not significant). The presence of biological children is positively related to the risk of direct marriage and negatively to cohabiting, even though this latter result is not statistically significant. Finally, having a parental background that is different from managerial or professional is related to a lower risk of transition into direct marriage, but not cohabitation.

Table 3-2: Odds ratios from discrete-time logit models relating the likelihood of entering a first coresidential union between t and t+1 to indicators of precariousness interacted with age

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Likelihood of	Likelihood of	Likelihood of	Likelihood of	Likelihood of	Likelihood of	Likelihood of	Likelihood of
	entering a	entering a	entering a	entering a	entering a	entering a	entering a	entering a
	first	first coresidential	first coresidential	first coresidential	first	first	first	first coresidential
	coresidential	partnership in	partnership in	partnership in	coresidential	coresidential	coresidential	partnership in
	partnership in	(t,t+1)	(t,t+1)	(t,t+1)	partnership in	partnership in	partnership in	(t,t+1)
	(t,t+1)	Contract	Income	Means-tested	(t,t+1)	(t,t+1)	(t,t+1)	Housing
	Occupational	type	tercile	benefits	Savings	Financial	Financial	tenure
	class					perceptions	expectations	
Age (centred at age 24)								
Age	1.08**(0.03)	1.06**(0.02)	1.064**(0.0181)	1.07**(0.02)	1.08**(0.02)	1.08**(0.02)	1.06**(0.02)	1.08**(0.02)
Age squared	0.97**(0.00)	0.98**(0.00)	0.98**(0.00)	0.98**(0.00)	0.98**(0.00)	0.98**(0.00)	0.98**(0.00)	0.97**(0.00)
Occupational class*Age squared (ref.								
managerial)								
Intermediate	0.90(0.09)							
Routine	0.82+(0.08)							
Not employed	0.47**(0.07)							
Intermediate*Age	0.99(0.03)							
Routine/semi-routine*Age	0.99(0.03)							
Not employed*Age	0.92*(0.03)							
Intermediate*Age squared	1.01(0.01)							
Routine/semi-routine*Age squared	1.01(0.01)							
Not employed*Age squared	1.02**(0.01)							
Contract type * Age squared (ref.								
permanent)								
Temporary		0.86(0.14)						
Not employed		0.52**(0.07)						
Temporary*Age		1.04(0.03)						
Not employed*Age		0.93*(0.02)						
Temporary*Age squared		1.00(0.01)						
Not employed*Age squared		1.01**(0.01)						
Income tercile *Age squared (ref. 2 nd								
or above)								
1st			0.64**(0.07)					
Not earner			0.47**(0.07)					
1st*Age			0.96(0.02)					
Not earner*Age			0.93*(0.0263)					
1st*Age squared			1.00(0.01)					
Not earner*Age squared			1.01*(0.01)					
Means-tested benefits *Age squared								
(ref. not recipient)								
R. receives MTB				0.59**(0.07)				
R. receives MTB*Age				0.93**(0.02)				
						1		1

R. receives MTB*Age squared				1.02**(0.00)				
Savings*Age squared (ref. yes)								
R. does not save					0.92(0.07)			
R. does not save *Age					0.96*(0.02)			
R. does not save *Age squared					1.00(0.00)			
Financial perceptions *Age squared								
(ref. good)								
Getting by						0.99(0.10)		
Difficult/ quite difficult						0.88(0.14)		
Getting by*Age						0.96*(0.02)		
Difficult/quite difficult*Age						0.95(0.03)		
Getting by*Age squared						1.01(0.00)		
Difficult/quite difficult*Age squared						1.00(0.01)		
Financial expectations *Age squared								
(ref. better off)								
The same							0.99(0.087)	
Worse off							2.63**(0.32)	
The same*Age							1.00(0.018)	
Worse off*Age							1.04(0.03)	
The same *Age squared							1.00(0.01)	
Worse off*Age squared							0.98**(0.01)	
Housing tenure *Age squared (ref. co-								
residence with parents)								
Owners								1.42*(0.21)
Privaterenting								1.11(0.11)
Public renting								1.17(0.23)
Owning*Age								1.00(0.06)
Private renting*Age								0.93**(0.03)
Public renting*Age								0.88**(0.03)
Owning*Age squared								1.00(0.01)
Private renting*Age squared								1.02**(0.01)
Public renting*Age squared								1.02*(0.01)
Coresidence with parents (ref. no)								
Yes	0.71**(0.05)	0.70**(0.05)	0.71**(0.05)	0.68**(0.05)	0.70**(0.05)	0.70**(0.05)	0.68**(0.05)	
Ethnicity (ref. White British and Irish)								
Bangladeshi	0.87(0.16)	0.87(0.160)	0.84(0.159)	0.85(0.16)	0.91(0.17)	0.91(0.16)	0.92(0.17)	0.92(0.16)
Pakistani	1.52*(0.29)	1.53*(0.290)	1.60*(0.307)	1.44+(0.28)	1.46*(0.28)	1.46+(0.28)	1.50*(0.30)	1.40+(0.28)
Indian	0.83(0.21)	0.85(0.223)	0.85(0.224)	0.82(0.22)	0.85(0.22)	0.84(0.22)	0.86(0.22)	0.82(0.21)
Other Asian	0.58+(0.17)	0.57+(0.170)	0.60+(0.178)	0.56+(0.17)	0.56+(0.17)	0.57+(0.17)	0.58+(0.17)	0.57+(0.17)
African	0.48**(0.14)	0.48**(0.133)	0.49*(0.139)	0.47**(0.13)	0.46**(0.13)	0.47**(0.13)	0.46*(0.14)	0.42**(0.13)
Caribbean	0.73(0.19)	0.72(0.195)	0.72(0.202)	0.71(0.19)	0.66(0.19)	0.67(0.19)	0.65(0.20)	0.67(0.19)
Other and mixed	1.16(0.20)	1.14(0.199)	1.14(0.195)	1.13(0.20)	1.13(0.20)	1.12(0.20)	1.14(0.20)	1.13(0.20)
Historical period (ref. 1991-1997)								
1998–2007	0.82*(0.07)	0.82*(0.0666)	0.82*(0.0680)	0.82*(0.07)	0.83*(0.07)	0.83*(0.07)	0.84*(0.07)	0.83*(0.07)
2008–13	0.68**(0.06)	0.67**(0.0598)	0.68**(0.0615)	0.66**(0.06)	0.66**(0.06)	0.66**(0.06)	0.65**(0.06)	0.66**(0.06)

2013–18	0.65**(0.06)	0.64**(0.0563)	0.66**(0.0583)	0.64**(0.06)	0.64**(0.06)	0.64**(0.06)	0.64**(0.06)	0.64**(0.06)
Educational level (ref.low)								
Intermediate	1.27(0.25)	1.27(0.252)	1.252(0.251)	1.35(0.27)	1.39+(0.27)	1.39+(0.27)	1.36(0.27)	1.40+(0.28)
Advanced	1.32(0.26)	1.33(0.266)	1.286(0.259)	1.42+(0.28)	1.46+(0.29)	1.46+(0.29)	1.43+(0.28)	1.48*(0.29)
High	1.50*(0.30)	1.57*(0.315)	1.477+(0.301)	1.66*(0.33)	1.71**(0.34)	1.72**(0.34)	1.66*(0.33)	1.76**(0.35)
Missing	1.28(0.59)	1.30(0.589)	1.269(0.579)	1.34(0.61)	1.40(0.62)	1.41(0.63)	1.42(0.64)	1.44(0.66)
Gender (ref. men)								
Women	1.35**(0.09)	1.36**(0.089)	1.40**(0.09)	1.37**(0.09)	1.37**(0.09)	1.37**(0.09)	1.37**(0.09)	1.38**(0.09)
Living with biological children (ref. no)								
Yes	1.10(0.18)	1.09(0.17)	1.19(0.20)	1.11(0.19)	0.88(0.14)	0.87(0.14)	0.85(0.14)	0.88(0.16)
Religious status (ref. R. belongs)								
R. does not belong to a religion	0.94(0.06)	0.93(0.063)	0.93(0.063)	0.94(0.06)	0.94(0.06)	0.94(0.06)	0.93(0.06)	0.93(0.06)
Missing	0.22*(0.14)	0.22*(0.14)	0.22*(0.14)	0.22*(0.14)	0.23*(0.15)	0.22*(0.14)	0.23*(0.15)	0.23*(0.15)
Geography (ref. England, excepted								
London)								
London metropolitan area	0.73**(0.07)	0.73**(0.073)	0.72**(0.072)	0.72**(0.07)	0.72**(0.07)	0.73**(0.07)	0.72**(0.07)	0.75**(0.08)
Wales	0.84(0.11)	0.840(0.11)	0.84(0.11)	0.83(0.11)	0.84(0.11)	0.83(0.11)	0.84(0.11)	0.83(0.11)
Scotland	1.10(0.09)	1.09(.093)	1.11(0.09)	1.11(0.09)	1.10(0.09)	1.11(0.09)	1.11(0.09)	1.10(0.09)
Northern Ireland	0.70**(0.09)	0.692**(0.08)	0.697**(0.08)	0.69**(0.09)	0.69**(0.09)	0.69**(0.09)	0.70**(0.09)	0.69**(0.09)
Missing	1.46(0.99)	1.48(0.99)	1.45(0.97)	1.56(1.01)	1.57(1.01)	1.52(1.00)	1.60(1.04)	1.59(0.95)
Parental class*Age squared (ref.								
managerial)								
Intermediate	0.96(0.10)	0.939(0.01)	0.96(0.09)	0.95(0.10)	0.94(0.10)	0.94(0.10)	0.95(0.10)	0.93(0.09)
Routine/semi-routine	0.96(0.11)	0.93(0.11)	0.93(0.11)	0.94(0.11)	0.91(0.11)	0.91(0.11)	0.93(0.11)	0.90(0.11)
Never employed	0.88(0.20)	0.86(0.20)	0.87(0.20)	0.84(0.19)	0.77(0.17)	0.76(0.17)	0.77(0.17)	0.75(0.16)
Absent parent (or missing)	0.57(0.34)	0.56(0.33)	0.55(0.33)	0.58(0.34)	0.56(0.33)	0.57(0.34)	0.59(0.35)	0.60(0.38)
Intermediate*Age	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.02(0.02)	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.01(0.02)
Routine*Age	0.99(0.02)	0.99(0.02)	0.99(0.02)	0.99(0.02)	0.99(0.02)	0.98(0.02)	0.98(0.02)	0.98(0.02)
Never employed*Age	0.96(0.04)	0.96(0.04)	0.96(0.03)	0.96(0.04)	0.96(0.03)	0.95(0.03)	0.95(0.03)	0.95(0.04)
Absent parent (or missing)*Age	0.94(0.09)	0.94(0.09)	0.94(0.09)	0.94(0.09)	0.94(0.09)	0.93(0.09)	0.94(0.09)	1.00(0.09)
Intermediate*Age squared	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)
Routine*Age squared	1.01(0.00)	1.01(0.01)	1.01+(0.00)	1.01(0.00)	1.01+(0.00)	1.01+(0.00)	1.01+(0.00)	1.01*(0.00)
Never employed * Age squared	1.01(0.01)	1.01(0.01)	1.01(0.01)	1.01(0.01)	1.01+(0.01)	1.01+(0.01)	1.01+(0.01)	1.01+(0.01)
Absent parent (or missing)*Age squared	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.01(0.02)	1.00(0.02)

Source: own unweighted computations from BHPS and UKHLS

(a)Standard error in parentheses

(b)P-values: ** p<0.01, * p<0.05, + p<0.1 (c)Compared to the event, covariates are lagged by one-year (d)N=20,688 person-years

3.4.4 Factor analysis

The EFA confirms that some of our indicators can be considered aspects of the same latent factor, economic precariousness, besides co-residence with parents and financial expectations (details in Analysis A4, p. 239– Appendix A). The factor loadings were highest for contract type, income, class and means-tested benefits (>0.7); and moderate for financial perceptions and savings (0.5), in line with the correlation matrix. When we introduce this index within the regression model (1.1) (Figure 3-7), we find results that are broadly in line with the financial and employment indicators, especially the ones regarding not being employed. The composite index of economic precariousness does not relate to the transition to a first coresidential union in young and older ages (panel a); whereas, later on, the higher the value of the index (more precarious), the lower the likelihood of union formation. We also find that the differences between precarious and less precarious individuals are more pronounced in the most recent periods than in the less recent ones, especially in 2008–13 (panel b). Differences between genders appear minimal (panel c).



Figure 3-7: Predicted annual probabilities of entering a first coresidential partnership from a model containing an index of precariousness

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant at, at least, the 95% level of confidence;

^b The index of precariousness is computed through an exploratory factor analysis performed on a polychoric matrix with oblique rotation (see Analysis A4 in Appendix A for details).

^c Results are controlled for respondent's gender, age, historical period, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

Source: own weighted computations from BHPS and UKHLS (1991–2018)

3.4.5 Limitations and Sensitivity analyses

We follow with a series of practical limitations of our study and how we tried to address or control for them. Firstly, to verify whether the results hold even if we put several indicators in a single model, we computed a model containing all the measures except for with the factor analysis. The magnitude of the relationships resembles the ones of the models considering the indicators of precariousness independently (see Analyses A3a and A3b, p.232 and 236, in the Appendix A).

Moreover, another limitation consists of left truncation, since some individuals joined the sample at different ages. To verify whether this could bias the results through

sample selection, we restricted our analyses to those who entered the panel before age 19. The results computed up to age 28 seem to overall confirm the ones already presented (Figure A 7).

Our analyses did not consider whether the respondents had a non-coresident romantic partner with whom they wish to move in, since the information about living-apart-together (LAT) couples was only collected from wave 3 of UKHLS. Therefore, we were not directly addressing whether the individual prefers singlehood in that specific moment. In a robustness check, we tested H1 on those UKHLS respondents who were in a LAT relationship at time t and intended to form a coresidential union in the following three years (see Analysis A7, p. 248). Despite the relatively small sample (N=2,177), patterns are consistent with H1, especially the ones on employment and income measures (Figure A 10 and Figure A 11).

Further, we combined unemployed individuals with homemakers or long-term sick into one "not employed" category, which represents those who are out of the labour force. Additional sensitivity analyses examined whether there were any differences between them. No substantial differences were found (Figure A 8). We also controlled for whether the immigrant boosts – first in 2009 and second in 2014 – could disrupt some of the patterns witnessed for the historical period, due to immigrants' higher propensity to marry directly. When we removed one boost per time, no differences were found in our conclusions. When we removed both boosts, historical periods differences between non-and the high-earners were similar in magnitude but no longer significant.

Another limitation was that the Great Recession happened to coincide with the change from BHPS to UKHLS. Therefore, the widening relationship between precariousness and first partnership formation in the employment and financial domains, during the Great Recession, could be the result of seaming effects between the two surveys. Checks using only the BHPS component still highlight the presence of this disruption on financial and employment indicators between the second and the third period. Nevertheless, we cannot exclude that this finding may result from an increase in the share of unemployed during the recession rather than a causal link.

Lastly, using a model whose covariates were lagged by one year compared to the outcome did not entirely resolve reverse causality, as people might anticipate entry into coresidential relationships by changing their economic position and leading to a potential overestimation of the relationship of interest. Therefore, since the events preceded by a pregnancy were more common in young ages (Table A 12), we explored whether the transition to a first coresidential partnership could result from anticipating a new birth. Although we verify a strong and positive relationship between experiencing a conception

and entry into partnership, all results concerning the relationship between economic precariousness and partnership formation are robust (Table A 13 and Figure A 9).

We also highlight other, more theoretical, limitations. First, differential nonresponse could be an issue, as some of the precarious categories are more likely to be lost at follow-up. Thus, we would be likely to overestimate the relationship between precariousness and the first coresidential partnership formation. However, we argue that differential nonresponse could be a severe problematic only if we lost those economically precarious individuals who were more likely to form a union, which appears unlikely. Moreover, the use of longitudinal weights should also account for differences in the likelihood of responding according to specific characteristics. Second, the type of data (yearly panel) could lead to problems of interval censoring (or, intermittent nonresponse). Whilst we partly sorted out this issue for UKHLS, it was less easy with the BHPS. Analysis A2 (p. 231) presents how we dealt with these issues. Third, since the average number of observations per individual was limited (five times), we did not construct measures of persistency for all the indicators. However, since previous studies in the broader family demography literature have highlighted the importance of persistency (Ciganda, 2015; Busetta et al., 2019), further research in this sense needs to performed.

3.5 Discussion

This paper investigated the association between economic precariousness and the entry into first partnership in the UK, across three main dimensions: age, historical time, and gender. Economic precariousness was defined as a lack of economic resources potentially generating insecurity in a number of different domains: employment (occupational class and contract type), financial (labour income, means-tested benefits, and savings), and housing (tenure). We also considered subjective measures, i.e. one's perceptions towards the current and the future financial situation. The use of multiple separate indicators was motivated by the lack of a unique definition of precariousness in the literature (Campbell and Price, 2016) and allowed achieving two different goals. One aimed to describe the direction and strength of the trends followed by each indicator while analysing the hypotheses. Our indicators never support our hypotheses fully, i.e. they never go in the same direction all together, thereby confirming that they represent different aspects of precariousness necessitating different interpretations. The second objective sought to understand whether there is one aspect best suited to describe the hypothesised relationship between economic precariousness and partnership formation across all the considered dimensions.

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We find that the association between economic precariousness and the first coresidential union formation varies over age, consistent with previous British literature (Berrington and Diamond, 2000). In their late teens, youth with no employment, receiving means-tested benefits, renting from a public or private institution, feeling or expecting a difficult financial situation, show a similar or a higher likelihood of entering their first coresidential union than their most advantaged counterparts. Therefore, some results support the literature on the presence of a "fast track" accelerating the partnership formation of the most disadvantaged young Britons (Jones, 2002; Bynner, 2005). However, not all the considered indicators fit this explanation: very young adults with low labour income or on a temporary contract have a lower risk – albeit statistically insignificant – of forming the first coresidential union than their accelerated route (O'Reilly et al., 2009; Roberts, 2011).

Objective economic precariousness discourages partnership formation among youth in their 20s and early-30s, when the likelihood of union formation is highest; whereas, first unions at later ages are fewer, more selected and weakly associated with economic factors. Up to the early-30s, those not in the labour force, low-earners, meanstested benefits recipients and those living with parents present a significantly lower probability of union formation than workers in permanent or managerial occupations, medium-high earners, not receiving means-tested benefits and homeowners. Despite the critical role played by income, savings are not associated with union formation. However, additional analyses show that this result is driven by cohabitations, while savings remain an important correlate for direct marriage, confirming previous literature (Oppenheimer, 2003).

Results on subjective indicators are more mixed, suggesting different mechanisms regulate individuals' subjective and objective spheres. Current financial perceptions are weakly associated with union formation, as there is only a trend suggesting that those feeling a difficult financial situation, rather than a good or "getting by" one, decreases the probability of forming a first coresidential partnership. Again, the multinomial model distinguishing between cohabitations and marriages shows that the overall results resemble those for entry into cohabitations. Feeling a difficult financial situation is more strongly related to entry into direct marriage than for cohabitation, suggesting that direct marriage epitomises a more long-term financial commitment in the UK (Berrington et al., 2015). Financial expectations present a strong relationship with union formation but, counterintuitively, those expecting to be economically worse off in twelve months have the

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highest predicted probability of forming a first coresidential partnership in the following year. We attribute this result to an anticipation effect of future expenses, consistent with frameworks arguing that individuals foresee the consequences of their actions before their occurrence (Bernardi et al., 2019; Vignoli et al., 2020).

The empirical findings show that British men and women have postponed marriage and cohabitation over time (Pelikh, 2019b). Regarding our second hypothesis, the evidence highlights one trend only: not employed and non-earners tend to have an even lower likelihood of partnership formation than their most advantaged counterparts, during the period around the Great Recession (2008–13), compared to less economically turbulent ones (1991–97; 1998–2007; 2013–18). One explanation could be that, in recessionary periods, these economically precarious youth found it harder to reach the necessary threshold to be self-sufficient and take lifelong commitments (Ranjan, 1999; Sobotka et al., 2011; Watson and Mclanahan, 2011). These findings strictly reflect the results for cohabitation, thereby highlighting that recessions could discourage also this partnership type.

We also investigated whether the relationship between economic precariousness and first union has strengthened over time for women, whilst remaining the same for men. The only findings actively supporting the hypothesis regard income and occupational class: among young working women, earnings and occupational class appear more important predictors of partnership formation in more recent years (Oppenheimer et al., 1997; Kalmijn, 2011). For men, the relationship tends to remain stable and negative, especially for low income. These trends also fit the evidence of the increasing proportion in homogamous and female-hypogamous couples regarding education, employment or earnings (Esteve et al., 2016). However, other indicators do not align with this argument, e.g. not employment seems negatively related with partnership formation for both genders also in the 1990s, contrary to the traditional specialisation model supporting males' breadwinner role (Becker, 1981). Previous British evidence using BHPS also highlighted that women might delay the partnership formation under economically precarious circumstances (Francesconi and Golsch, 2005). Probably, the educational expansion and labour market participation started in the 1980s in the UK could have already promoted a more active role of women's employment in the partnership formation already in the 1990s.

In conclusion, objective measures still appear a more immediate tool to capture potential inequalities in current economic resources while forming the first coresidential partnership. However, we would not discourage the use of subjective measures, even though we found mixed results. Further research needs to be undertaken to examine how

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they interact with objective measures. Finally, we have shown that it is possible to create an index of economic precariousness which has a straightforward and significant association with partnership formation. However, we caution against using an index as it obscures the particular form of economic precariousness which is most important.

Regarding the second objective, we suggest, based on these results, that, for the UK at least, labour income is the indicator most coherently describing the hypothesised relationship between economic precariousness and the first partnership formation across all the considered dimensions: age, gender and historical period. First, it appears to capture both the strengthening of this relationship during recessions and the increasing importance of women's economic resources in recent times. Second, labour income discriminates more in detail between economically precarious and not economically precarious in their twenties and thirties than other indicators. For instance, not only non-earners are less likely to enter a first coresidential union than medium-high earners, but also low-earners. Labour income is, however, less suitable for identifying those who take a "fast-track" transition to adulthood in their teenage years, which is better captured by other indicators such as housing and means-tested benefits. Nevertheless, it also has an important property at the youngest ages: it allows understanding when an economically precarious condition i.e. earning low labour income, could represent an impediment to union formation in this age range.

Overall, findings stress that financial independence remains an important marker for the establishment of an independent life course among young adults in the UK. The importance of income for young adults' transition to first partnership has clear policy implications, for example in terms of policies relating to minimum living wages and affordability of housing. Next steps could be to collect evidence from other contexts to spotlight potential differences and peculiarities according to welfare regimes or socioeconomic conditions

Chapter 4 Do couples face economic barriers to marriage? Understanding the contribution of men's and women's economic precariousness on first cohabitation outcomes in the UK, 1991-2019

by Lydia Veronica Palumbo, Ann Berrington and Peter Eibich²¹

Abstract

Over the past 30 years, marriage rates have plummeted in the UK. The age at first marriage rose dramatically, and cohabitation is now the normative way of entering the first coresidential partnership among young adults. Simultaneously, youth precariousness has increased in the labour market, especially due to the increasing prevalence of low wages, temporary jobs and unemployment. The question arises whether couples' economic precariousness has contributed to the decline in marriage, and if so, whether there are differences by gender and historical periods. Using cohabiting couple dyads, we explore the relationship between different markers of young couples' economic precariousness, both objective and subjective, and the likelihood of marriage and partnership dissolution between 1991 and 2019. Findings show that, across all the considered indicators, cohabiting couples with both economically precarious partners have a lower likelihood of marriage and the higher one of dissolution, relative to remaining in the cohabitation, than the opposite arrangement (i.e., both partners not economically precarious). This trend is present also for couples where at least one economically precarious partner is present, especially if male. However, some differences exist between subjective and objective indicators. We also find a moderation effect of historical period.

²¹ The idea of the paper, computations and interpretations come from the first author of the paper. Coauthors gave feedback on previous versions of this paper and interpretation.
4.1 Introduction

Youth economic precariousness has increased considerably over recent decades in the UK. The presence of three economic recessions in the 1980s, in the 1990s and the late 2000s, furthered young people's economic uncertainty (Bell and Blanchflower, 2010; Jenkins, 2010). Consequences entailed increased youth unemployment, declining wages and rising housing costs for both renting and buying a home. Moreover, since the economic downturn of 2008, government austerity measures have led to significant welfare benefit cuts (Green, 2017). Even though fewer young Britons are unemployed than in other European countries, working conditions in the UK labour market are often insecure, with many workers having zero or short hours contracts and low wages. Thus, the disadvantages for young people in the British context seem to accumulate from different areas of individuals' lives (Gallie and Vogler, 1990; Green, 2017; Leonard and Wilde, 2019). Moreover, young adults in Britain tend to feel financially insecure and less confident about their future than their parents (Dolphin, 2012). Thus, subjective measures of precariousness are likely to be as meaningful as traditional objective ones, such as occupational status.

Simultaneously, the age at first marriage in the UK has risen steeply. In 1991, the mean age at first marriage was 27.5 for men and 25.5 for women; while 25 years later, the mean age was 33.4 for men and 31.5 years for women (ONS, 2016). Cohabitation has overtaken marriage as the normative way of entering a first coresidential partnership among young couples, with the percentage living together before first marriage having risen from 61% in 1990-1994 to 78% in 2004-2007 (Beaujouan and Bhrolcháin, 2011). Cohabiting partnerships in the UK have become longer in duration, but long-term cohabitation remains relatively rare, with partners either marrying or splitting up.

There is reason to hypothesise a link between the increase in economic precariousness in the UK and the outcomes of first cohabitations – i.e., either marriage or dissolution – for young individuals (Francesconi and Golsch, 2005; Mills and Blossfeld, 2005) given the considerable instability of their economic resources (Aassve et al., 2013). Recent findings suggest that marriage may be becoming more selective in Britain, with young adults facing economic precariousness choosing to continue to cohabit rather than to marry (Berrington and Stone, 2015). Marriage represents a long-term commitment that is difficult to maintain without adequate economic resources (Oppenheimer, 1988), whereas cohabitation may be viewed as a more appropriate living arrangement to deal with economic uncertainty (Oppenheimer, 2003). However, the evidence suggests that British cohabiters with insecure economic circumstances face a higher risk of separation than those in less precarious circumstances (Ermisch, 1997; Ermisch and Francesconi, 2000a;

Boheim and Ermisch, 2001), even though there are studies arguing that this result may be due to selection problems (Crawford et al., 2013). Thus, economic precariousness may represent both a trigger to dissolution and a barrier to marriage.

Despite the significant shifts in partnership formation patterns and the concomitant increases in economic struggles among young Britons over recent decades, no previous study has examined how couples' economic resources have shaped cohabitation outcomes, especially the transition to marriage or dissolution, over the past 30 years in the UK. This study moves beyond existing British research by focusing on heterosexual cohabiting couples and identifying whether the man's or the woman's economic circumstances are more important for cohabitation outcomes.

In the European literature, there has been an increase in the number of studies analysing couples' economic and educational characteristics, with many noting that the increase in couples' education and employment homogamy is shifting the equilibria within couples (Van Bavel, 2012). Most of these European studies have analysed marriage outcomes, i.e., divorce (Jalovaara, 2003; Hansen, 2005; Cooke and Gash, 2010), while fewer have focused on cohabitation outcomes (Kalmijn et al., 2007; Lyngstad and Jalovaara, 2010). By contrast, a considerable number of US analyses on the relationship between economic resources and cohabiting partnerships' outcomes have been conducted since the 1980s (Becker, 1974b; Oppenheimer, 1988; Smock and Manning, 1997; Saver and Bianchi, 2000; Sassler, 2004; Smock et al., 2005b; Stanley et al., 2006; Sassler and Miller, 2017; Ishizuka, 2018). Despite the similarities between the US and the UK (Sigle-Rushton, 2010), cohabiters' socio-economic characteristics, their levels of union stability, and the meanings they assign to cohabitation differ between the two country settings (Seltzer, 2004; Perelli-Harris et al., 2014; Di Giulio et al., 2019). In the US context, cohabitations tend to be more unstable, shorter, and closely related to disadvantage (ibid.). Moreover, cohabiting unions in the US are generally characterised by more marked racial and ethnic differences and shorter durations than those in the UK (Seltzer, 2004).

Unlike the US literature, British studies analysing coresident couples' outcomes have mostly focused on separation, and have mainly considered married unions rather than cohabiting ones. For example, there is an extended literature on the role of economic resources, especially men's (un)employment, on marital dissolution (e.g., Berrington and Diamond, 1999; Chan and Halpin, 2002; Cooke and Gash, 2010; Doiron and Mendolia, 2012); while fewer studies have also analysed separation among cohabiters (Ermisch and Francesconi, 2000b; Boheim and Ermisch, 2001; Blekesaune, 2008). Some of the studies that took cohabiters into account date back to the 1990s (Ermisch and Francesconi, 2000a,

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2000b; Berrington, 2001)²²; studied cohabitation outcomes in the UK by considering women and men separately (Francesconi and Golsch, 2005); or did not use a couple perspective²³ (Boheim and Ermisch, 2001; Blekesaune, 2008). However, we are interested in analysing couple's partners together to understand whether a specific distribution of resources within a couple predicts better the transition into a marriage or dissolution than others.

This paper analyses the association between several dimensions of economic precariousness, both objective and subjective, and the likelihood of marriage or separation among opposite-sex couples in the UK who are in their first cohabitation. We focus on first-time cohabitations because these couples should have less stable economic resources than mature couples. As highlighted in Chapter 2 and Chapter 3, we decided to use more than one indicator because this broad definition of precariousness is the one that is considered to adapt to the context the most and because there is currently neither an agreed-upon definition of economic precariousness in the literature (Campbell and Price, 2016) nor a precise indicator used to measure it (Vosko et al., 2009).

We aim to contribute to the understanding of the relationship between economic precariousness and first cohabitation outcomes among young British couples in several ways. First, using rich prospective household-level data from the British Household Panel Survey (BHPS) and Understanding Society (UKHLS) allows focusing on men's and women's characteristics simultaneously, which, in turn, enables us to use the couple-dyad, rather than the individual, as our unit of analysis. Moreover, an advantage of using prospective data instead of retrospective data is that it allows us to observe the couple's characteristics from the beginning of the partnership until the occurrence of the event or the end of the observational period. Thus, we can include time-varying indicators of socioeconomic status, rather than relying only on general time-invariant measures of socioeconomic position, such as education level. Second, we consider a multidimensional operationalisation of economic precariousness and use both objective and subjective indicators, since the latter indicators represent a key dimension in studies of economic uncertainty. Third, since our data cover three decades, spanning from 1991 to 2019, we consider a historical perspective in our analysis. As we mentioned above, to our knowledge, no study on British cohabiting couples' outcomes has considered such a long and diverse historical period.

²² Pelikh (2019b) is an exception, but only focused on parental SES, and not on current economic circumstances.

²³ They used separate covariates for men and women, and, eventually, an indicator to verify whether the indicators "agreed".

Thus, in this paper, we address the following research questions: *Have the* outcomes of first cohabitations, in terms of the risk of separation and marriage, changed over the past 28 years? What is the relationship between economic precariousness and the outcomes of first cohabitations? And, do these relationships differ if we consider different dimensions of economic precariousness? We also explore the differences in first cohabitation outcomes by gender: *Does economic precariousness in the male and the female partner have an equally important association with the outcomes of first cohabitations*? Finally, we also investigate the following questions: Does economic precariousness have a cumulative effect within couples? And how have these relationships changed over historical time?

4.2 Theoretical background and hypothesis

4.2.1 Historical trends in outcome of the first cohabitation in the UK (H1)

Cohabitation was, initially, a short-lived phase in the marriage process, and thus usually preceded a marital union, and did not compete with it (Sobotka and Toulemon, 2008). Partners might have co-resided briefly in anticipation of their wedding (prelude to marriage); in order to test the readiness of their relationship before marrying (trial marriage); or to overcome a lack of economic resources (Kiernan, 2002). With time, cohabitation has also become an established long-term alternative for marriage, and is thus seen as a separate relationship type and an appropriate setting for childbearing (Perelli-Harris et al., 2019).

Beaujouan and Bhrolcháin (2011) found that, compared with their counterparts in the 1980s, fewer British cohabiters in the 2000s married, and a larger share dissolved their union within the first five to 10 years of the start of the relationship. Beaujouan and Bhrolcháin (2011) also added a cohort perspective to this period evidence, showing that among Britons born in the 1970s, the overall proportion of those who have ever entered a first partnership, either as a marriage or a cohabitation, is similar to that of previous generations, but the likelihood of marrying has declined significantly (Beaujouan and Bhrolcháin 2011). This result suggests that more individuals entering a first cohabitation have separated, have cohabited for a long time before marrying, or have chosen cohabitation as a steady alternative to marriage. While the evidence for the cohorts born in the 1980s and 1990s is still scarce, scholars have hypothesised that these trends would continue among these generations as well (Berrington and Stone, 2015; Pelikh, 2019b).

H1: Over the 1991-2019 period, the likelihood of marriage has decreased, while the likelihood of separation has increased among those in their first cohabiting partnership in the UK.

4.2.2 Economic precariousness and first cohabitation outcomes in the UK: a gender-neutral hypothesis (H2)

The likelihood of partners to experience a separation or a marriage has been argued to differ according to the couple's characteristics, including economic ones. Becker's specialisation theory argued that individuals enter a relationship, mostly marriage, if their expected economic gains from it are higher than those from remaining single (Becker, 1974). By contrast, if the expected economic gains from the relationship are lower, the risk of dissolution increases. The extent of these economic gains from marriage depend both on the partners' economic resources, and on how these resources are distributed within the household. According to Becker, couples in which the partners specialise in domestic or labour market activities, should have the largest gains from marriage and the smallest gains from dissolution (Becker, 1974). Conversely, couples in which both partners are specialised in labour market activities are more likely to split up because they would not be efficient and partners would compete with each other (ibid.). Likewise, couples where both partners have poor resources are also more likely to separate, as they experience a high degree of uncertainty (Becker et al., 1977).

Differently from the specialisation theory, theories developed from the 1980s onwards reflect the increasing number of dual-earner couples in Western countries, including the UK (McDowell, 2013). Oppenheimer (1997) highlighted the role of economic resources in the decision to transition to marriage, as marriage is a long-run relationship requiring substantial investments. Contrary to Becker, she argued that the economic resources of both partners are equally important for entering a marriage, and that specialisation is a strategy that is considered too risky to ensure that the family's well-being is maintained over time (Oppenheimer, 1997). Oppenheimer (2003) also argued that this pattern is even more salient for cohabitation, as this living arrangement allows economically precarious partners – e.g., young adults not yet established in the labour market – to enter a coresidential relationship more affordably and flexibly than by marrying, and to postpone entry into marriage until they accumulate enough economic resources.

More recent studies for both the US and Europe have supported both theories regarding the importance of economic resources for entering marriage. The US literature, and to a lesser extent the European literature, has recognised the existence of an "economic bar to marriage" that hinders entry into marriage for economically precarious

partners (Kravdal, 1999; Edin and Kefalas, 2011; Gibson-Davis et al., 2018; Ishizuka, 2018; Schneider et al., 2019). This bar may take the form of earnings (Watson and McIanahan, 2011), assets (Gibson-Davis et al., 2018), or job characteristics (Schneider et al., 2019). Similarly, the literature has also recognised the existence of a "pattern of disadvantage" in Western countries, which suggests that couples with low socio-economic status are less likely to convert their cohabitation into marriage, and are more likely to present non-marital childbearing (Perelli-Harris et al., 2010).

Other studies have also reported that cohabiters with low economic resources might decide to co-reside without being married in order to pool resources and make ends meet (Vignoli et al., 2016; Sassler and Miller, 2017). Therefore, economic precariousness in the partners would not necessarily lead to a dissolution of the union (Oppenheimer, 2003). However, given that cohabitation involves a lower commitment than marriage and is more easily dissolved under unfavourable conditions (Berrington et al., 2015), the couple may face a higher risk of dissolution when one of the two partners is experiencing economic precariousness. This thesis is also corroborated by the Family Economic Stress Model, which states that a lack of resources – e.g., employment, earnings, or assets (Price et al., 2010) – is associated with lower relationship quality, and, consequently, with greater instability (Conger et al., 1994).

The existing research on the British context supports the evidence that the transitions to marriage or dissolution are vulnerable to the lack of current economic resources (financial surprises: Boheim and Ermisch, 2001; social class and education: Berrington, 2001b; employment: Francesconi and Golsch, 2005; various sources: Ermisch and Francesconi, 2000a). These findings should also apply to young cohabiters, whose resources are generally more exposed to the risk of economic shocks. Thus, following these studies, a cohabiting couple may be expected to have greater relationship stability if both partners are contributing to the household than if at least one of the partners is economically precarious (Owen, 1987).

H2: Couples in which neither partner is economically precarious have a higher risk of marrying and a lower risk of dissolution than an arrangement in which at least one partner is economically precarious. Couples in which both partners are economically precarious have the lowest predicted probability of marrying and the highest probability of dissolving the relationship, among the considered arrangements.

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4.2.3 The relationship between the man's and the woman's economic precariousness and the outcomes of the first cohabitations in the UK (H3)

The hypothesis outlined above may differ if we decide to adopt "gender lens". In Western countries, the large-scale entry of women into the labour force in the 1970s and the consequent rise in their earnings have increased their economic resources within the household. Simultaneously, the rigid male breadwinner model, which was prevalent up to that time, has relaxed, with dual-earner couples becoming the norm (McDowell, 2013). Following these changes, both theoretical and empirical studies have tried to explain the effects of different allocations of economic resources between men and women over the years on family dynamics.

Despite its initial gender-neutral assumptions, Becker's specialisation theory argued that a couple's likelihood of remaining together is higher if the partners have a gendered division of labour; i.e., if the man is specialised in labour market activities and the woman is specialised in domestic activities (Becker, 1981). It has also been argued that even when women are in the labour force, their earnings should contribute less to the household than men's (Parsons et al., 1956). This strict division of gender roles was understood to respect biological gender differences and reduce the competition between the partners. It was further argued that if women were more engaged in the labour force, their economic resources would increase, their gains from marriage would be lower, and their likelihood of either forming a union would decrease and the one of experiencing a dissolution would increase. Therefore, following these theories, in a male-breadwinner setting, we expect to find that the male partner's economic status is considered more important than the female partner's; whereas the woman being in paid work, and thus having her own economic resources, increases the risk of dissolution and decreases the risk of marriage.

These theories are, however, representative of a female-breadwinner setting that does not reflect the female educational expansion and increasing labour market participation in the second half of the 20th century, which rendered women's economic resources increasingly important within a household (Sayer and Bianchi, 2000; Van Bavel, 2012). Oppenheimer (1977) suggested that if a woman increased her contribution to the household it would stabilise the relationship because her economic resources could offset her partner's rising economic uncertainties (Oppenheimer et al., 1997; Kalmijn, 2011). Hence, the increasing acceptance of women contributing economic resources to the household may derive from a shift in men's preferences, whereby men are selecting higher-educated female partners with considerable economic potential (Oppenheimer and Lew, 1995; Blossfeld, 2009). While this risk-sharing mechanism should be particularly important among young cohabiters, whose resources are still quite uncertain and whose gender

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ideologies are mostly gender-equal (Kalmijn et al., 2007), there is evidence that women's increasing economic resources may have led to this mechanism becoming more important within marriage as well (Sweeney, 2002). Consequently, following more recent developments in family demography, both men's and women's economic resources would be expected to affect the likelihood of marriage or dissolution among cohabiters.

However It is important to highlight that, even though women's economic resources are likely to be as important as men's nowadays, and assortative mating has become normative (Blossfeld, 2009), the perpetuation of ideologies ascribing the role of the sole or primary provider to men may still render couples in which the woman has more resources than the man hardly acceptable (Gonalons-Pons and Gangl, 2021). Therefore, this couple type would be expected to have a higher risk of dissolution and a lower risk of marriage than the opposite arrangement (Kowalewska and Vitali, 2020).

In the UK, the growing diffusion of cohabitation among young individuals may have rendered marriage a more selective type of institution involving couples with a stronger financial commitment to the relationship and more traditional views (Berrington et al., 2015). Thus, cohabiters selecting into marriage might attribute more importance to men's economic resources than women's. This assumption is consistent with studies finding that non-standard employment could negatively affect the transition to marriage among British cohabiting men, but not women (Francesconi and Golsch, 2005). It also fits studies highlighting the positive relationship of both partners' earnings, especially the man's, with entering a marriage (and avoiding dissolution) in the UK (Ermisch and Francesconi, 2000b).

Regarding partnership dissolution, the British literature has reported opposing evidence depending on whether marriage or cohabitation are considered. On the one hand, there is general agreement that men's economic instability, especially unemployment, could increase the risk of dissolution. On the other hand, there is more uncertainty about the role of women. Among spouses, there is evidence of a dissociation of the relationship between socio-economic status and divorce, with economically independent women married in the 1980s becoming progressively less likely to divorce than those married in the 1960s (Chan and Halpin, 2002), or having a risk of divorce that is no higher than that of economically dependent women (Cooke and Gash, 2010). Blekesaune (2008) found for the UK a significant effect of both men's and women's unemployment on the risk of partnership dissolution among both cohabiters and spouses. However, he found that men's unemployment mediates women's concerns about the current financial situation more than the reverse. In sum, assuming that women contributing to the household has become normative among couples in the UK, we acknowledge that men's resources have a stronger association with the risk of marriage and dissolution.

H3: Men's economic precariousness has a stronger relationship with the risk of marriage and dissolution than women's. Consequently, couples in which the woman is economically precarious and the man is not show a higher likelihood of marriage and a lower risk of dissolution than couples in which the man is economically precarious and the woman is not.

4.2.4 The multidimensionality of economic precariousness (H4)

The literature on the relationship between economic resources and cohabitation outcomes has often considered selected aspects of the couple's precariousness, mostly occupational traits. This approach provides only a partial view of why young couples in the UK might find it difficult to enter a marriage or why they eventually break up. There is evidence that in liberal economies, transitions from employment to unemployment are more frequent than they are in other labour market regimes. Consequently, the status of "being unemployed" should be shorter and more reversible. However, the quality of employment is often low, especially among those with lower levels of education, who are more likely to have insecure and low-paid jobs (Muffels et al., 2002; Berrington et al., 2014b). According to Gallie and Vogler (1990), Britons who are experiencing labour market deprivation – e.g., who are unemployed or insecure workers – often experience negative consequences in other areas of their lives as well, such as in their income, housing, or savings (Green, 2017; Leonard and Wilde, 2019). Thus, these individuals could have an increasing cumulative disadvantage due to their lack of resources, which may also be paired with a higher sense of insecurity.

H4: We expect that economic precariousness is a cumulative concept, and that the distribution of a couple's economic precariousness is bimodal. One mode concerns those who are not economically precarious in any considered dimension. The second mode concerns those who are economically precarious in all of the considered dimensions.

4.2.5 A historical perspective of the association between economic precariousness and the outcomes of the first cohabitation (H5)

The relationship between economic precariousness and cohabitation outcomes might also differ according to the macro-economic conditions, the welfare-state policies, and the female labour force participation rates over the considered historical period. We divided these (almost) three decades according to key periods in British history: i.e., 19911997, 1998-2008, and 2009-2019. The first period represented a phase of recovery after an economic downturn in the late 1980s and early 1990s. The second period was characterised by economic stability interrupted by a slight increase in the youth unemployment rate starting in 2004. The third historical period was marked by a worldwide economic crisis, the Great Recession, which had long-term macro-economic consequences that prevented a full recovery to pre-recession levels (Hood and Waters, 2017). Since the onset of the Great Recession, young men and women have experienced a worsening of job quality, along with elevated levels of job and employment insecurity (Karamessini and Rubery, 2013; Kuroki, 2015; Kalleberg, 2018). Persistent high unemployment and low employment rates lasted until 2015 (Herz and Van Rens, 2020). Moreover, during this period, young people were hit hard by a strict programme of austerity measures (e.g., cuts in housing benefits), which undermined their independence and exacerbated disparities (Furlong and Cartmel, 2006; Sealey, 2014; Green, 2017; Leonard and Wilde, 2019).

Along with these macro-economic circumstances, attitudes towards female labour have also developed over recent decades, as women's employment has become increasingly accepted as a source of both complementary income (i.e., as an added worker) or primary income (Zhou and Kan, 2019). Theoretically, female resources should even gain in importance within cohabiting partnerships during economic downturns, as the female partner's income can protect the family from the loss of the male partner's income (Borjas, 2015). This mechanism should be especially important if we consider that maledominated sectors are more vulnerable to economic shocks than female-dominated sectors. For instance, during the Great Recession, unemployment in the UK increased more among young men than young women (Sironi, 2018).

Therefore, we expect that couples in which at least one partner is not economically precarious would have a higher chance of staying together and eventually marrying during periods of recession than couples in which both members are economically precarious (Oppenheimer 1997). Conversely, couples in which both members are economically precarious during a recession would be more likely to break up and, if even if they remained together, to delay marriage to a period with more favourable economic conditions. During periods of economic expansion, like those that typically follow an economic downturn, the most precarious couples should have a lower likelihood of relationship dissolution due to the worsening of their economic circumstances. At the same time, they should also have a higher probability of entering a marriage that they delayed due to the previous adverse economic circumstances.

H5: We expect that the historical period moderates the effect of economic precariousness on the outcomes of cohabitating couples. Compared to a period of economic stability (1998-2008), in the period after the onset of the Great Recession (2009-2019), couples in which both partners are economically precarious should have a lower risk of marriage and a higher risk of dissolution than couples in less precarious circumstances. Conversely, these differences should narrow during a period of economic expansion (1991-1997).

4.3 Data and methods

4.3.1 Data

We performed the empirical analysis using a micro-level dataset that pooled data collected from the British Household Panel Survey and Understanding Society. The BHPS consists of 18 yearly waves covering the period between 1991 and 2008; while the UKHLS, which is still ongoing, comprises 10 waves, spanning the period from 2009/2010 to 2018/2019. In UKHLS, the fieldwork collection for each wave lasts 24 months but interviews to the same subject were collected at, approximately, one year distance (Understanding Society, 2022).

The UKHLS began when the BHPS stopped, and contains part of its sample. The BHPS started with a representative sample of about 5,500 randomly selected British households, which was boosted over the years to include Welsh, Scottish, and Northern Irish sub-samples. The UKHLS comprised around 40,000 households in its first wave, which were complemented by two ethnicity boosts. Respondents from all the boosts of both the BHPS and the UKHLS were included in the analysis. Both surveys tracked individuals from the original households, called original sample members (OSMs), even when they left to form a new household. Members of the new household, including new partners, were also temporarily part of the study. Children born to original household members became full respondents when they turned 16.

4.3.2 Sample

The sample consisted of opposite-sex cohabiting couples in which one partner was an original sample member (OSM) who was never-partnered and aged between 18 and 34 at the entry into the panel. Thus, a first-time cohabiting young couple was defined as a pairing in which at least one partner had the previously mentioned characteristics. Consequently, the OSMs included in the sample formed their first cohabitation between ages 19 and 35 in the panel. We allowed their partners to be outside of these age boundaries and to have already had previous coresidential unions²⁴. Imposing an age and partnership restriction on the sole OSM did not substantially reduce the sample size. Conversely, restricting the sample to partners who had never previously had a coresidential partnership would lower the observations substantially, since partners who had already had a union accounted for 27% couple-years; while those with missing data accounted for 15% of couple-years. Neither of the partners should have described themselves as full-time students.

The dataset was set up in a dyadic way, meaning that each couple represented one row for each year of observation (couple-years)²⁵. Each row included both men's and women's characteristics. We analysed whether these cohabiting couples transitioned from cohabitation in a given year to marriage or dissolution in the following year in the first five years of the relationship. By using only cohabitations started during the panel, we were able to identify the exact duration of the coresidential partnership and obtain time-varying information on the characteristics of interest for the cohabitation length. We identified the transition from a cohabitation to marriage or dissolution between two years from the self-defined marital status of the OSM. We recognised a dissolution through a change in the marital status of the OSM from cohabiting to not-married. Further, we controlled for changes in the identifier of partners between one wave and the next to check whether the OSM had dissolved the relationship between the two observations and then immediately re-partnered. The OSMs had to be in the sample for at least three waves, as we needed to observe their transition from being never partnered to cohabiting, and then from cohabiting to marrying or separating (or making no transition).

We followed 1,992 couples, corresponding to 4,748 (unweighted) couple-years, of which 3,660 were censored (77%), 473 dissolutions (10%), and 615 marriages (13%)²⁶. The median age at dissolution was 24 years for women and 26 for men; while the median age at marriage was 27 years for women and 28 for men^{27,28}. We chose an observational period of five years because in the panel the median duration for first cohabitations ending with marriage was two years, and the median duration for those ending with dissolution

²⁴ Not below the legal age of marriage, which is 16 years old.

²⁵ The couple-year is calculated as the distance between two consecutive waves. Using this term is appropriate. In fact, in BHPS, waves are collected yearly. In UKHLS, although the field collection lasts 24 months, individuals are interviewed at approximately one year distance (Understanding Society, 2022).

 ²⁶ Cohabiting couples with a valid forward-lagged weight (different from missing or zero) are 1,713.
²⁷ Median age refers to the observation before observing the event.

²⁸ The mean age at marriage formation is 27 for women and 29 for men. This age refers to the yearly observation before transitioning to marriage. These statistics are in line with the ones of the ONS considering the mean age at first marriage for men and women over 1991–2011 (30 for men and 28 for women)(ONS, 2011).

was one year²⁹. This finding is consistent with previous research in Britain (Ermisch and Francesconi, 2000b; Beaujouan and Bhrolcháin, 2011). Thus, including long-lasting unions would produce excessive selectivity.

We considered only the OSMs who provided a full interview while the nonresponding partners, who were either proxy interviewees or refusing to answer, were included in the analysis in the "missing" category. Nonresponse was around 3% among the OSMs, but much higher for the joining partners; i.e., 17.49% of weighted couple-years (around 5% for proxies and the rest for refusals or non-contact). For time-invariant or household-level measures, we were able to impute data for the non-responding partners (e.g., presence of children), as well as for measures available from the household grid (e.g., employment and housing tenure). For other variables, we created a missing category. According to Figure B 5, couples with non-respondents tended to present a lower risk of marrying and a higher one of dissolving the partnership than the least precarious couples (e.g. employment or savings), even though these risks are not always statistically significant.

We also analysed whether the couple's precariousness characteristics were predictors of the OSM's or the partner's noncontact or refusal to answer in the following year. As Table B 4 and Table B 5 show, being in a couple in which both partners were not employed, low earners, had bad feelings about the financial situation, lived with parents, rented from a public or private landlord or in which one of the partners had missing answers were predictors for the OSM's refusal or non-contact. Similarly, several categories of savings, financial perceptions and housing tenure were predictors for the partners' nonresponse and noncontact.

4.3.3 Measures of precariousness and couple-level approach

Five indicators were selected to represent economic precariousness based on whether they fitted well the aspects of British context described in section 2.2.3 and on whether they were available across most of the waves of the surveys. The selected indicators consisted of both objective and subjective measures. The objective indicators were employment status, income tercile, savings, and housing tenure; whereas the subjective indicators included the respondents' perceptions about their current financial situation. All of these measures representing precariousness were time-varying.

²⁹ By five years, it is intended wave observations, given that the distance between one wave and the following is approximately one year (Understanding Society, 2022), despite the fieldwork of each wave of Understanding Society being two years long.

We first categorised the variables in order to distinguish between precarious and not precarious individuals, and then rearranged them into couple dyads. Couple-dyads allowed us to operationalise these measures of economic precariousness through different degrees of severity. Couples in which neither partner was economically precarious represented the least precarious couples. Couples in which only one of the partners was economically precarious represented intermediate arrangements. Couples in which both partners were economically precarious represented the most precarious arrangement.

In terms of their occupational status, the couples were divided into both employed, in which both partners were employed; male breadwinners, in which the man worked while the woman did not; female breadwinners, in which the woman was employed and the man was not; and both non-employed. We operationalised the couples' earnings by dividing the couples into dual high earners, in which both the man and the woman had labour income above the first income tercile of the population; and dual low earners, in which both partners had labour income below the first tercile (including zero income, i.e. non-earner or non-employed). In heterogeneous couples, we divided the couples into female low-earners, in which the man earned above the first tercile and the woman earned below the first tercile; and male low-earners, in which the woman earned above the first tercile and the man earned below the first tercile³⁰. In terms of their savings³¹, the couples were divided into dual savers, in which both household members saved; female nonsavers, in which the man saved but the woman did not; male non-savers, in which the woman saved but the man did not; and non-savers, in which neither of the partners saved.

Housing tenure was used as a measure at the couple level, and referred to whether the couple owned their house, rented from a private or a public institution, or lived with their parents. Homeowners (outright or with a mortgage) were considered the least precarious category, while couples who were living with their parents or in public housing were considered the most precarious. In the UK, homeownership represents a less precarious category than private renting, whereas public renting is viewed as more precarious (Berrington and Stone, 2014).

Regarding financial perceptions, the original question was: "*How well would you say you yourself are managing financially these days? Would you say you are* ...". Potential answers were: living comfortably, doing all right, just about getting by, find it quite difficult, find it very difficult. We considered that the first two answers as belonging to the category

³⁰ Terciles were computed within each wave.

³¹ Data on savings were collected only in waves 2,4,6,8, and 10 of the UKHLS. Values in waves 1,3,5,7, and 9 were imputed from the previous wave. If values from previous wave were not available, we assigned this value to missing. Note that the savings question was not asked to the IEMB boost in wave 6 of the UKHLS.

"optimistic", while the latter three answers to the category "pessimistic". The couple-dyad was, therefore, split into optimistic, i.e., both partners had a positive perception of their financial situation; pessimistic, i.e., both partners had a negative perception of their financial situation; male-optimistic, i.e., the man had positive feelings and the woman had negative feelings about their financial situation, and female-optimistic, i.e. the opposite arrangement. We will refer to those couples or individuals who had negative feelings about their financial situation as subjectively precarious.

We created a missing category for couples in which at least one partner did not have a valid observation, i.e., was non-contacted, refused to answer, or gave a proxy interview. The measures for housing tenure and employment showed a low number of missing values since they were also available for proxies and enumerated individuals; that is, those who were present in the household but did not give a full interview or a proxy interview. The measure for savings was not present for non-respondents or proxies, which signalled a higher number of missing values. Statistics will be shown in the results section 4.4.

4.3.4 Couple's controls

Control variables were included based on the past literature that analysed either couples' separation or marriage. Our aim was to operationalise most of these additional variables from a couple's perspective. We operationalised the couple's age based on the woman's and the man's age at the beginning of the union. Age was divided into four categories: 18-21, 22-25, 26-30, and 31 or older. We controlled for the previous coresidential relationships of the male or the female partner. The dummy for education controlled for whether both of the partners in the couple were high-educated (that is, had a bachelor's degree or equivalent); whether the man in the couple was high-educated, but the woman was not, and vice versa; and whether neither of the partners was high-educated.

We also included a variable indicating whether the couple had shared biological children. We further included a control for religion (both were religious, one partner was not religious, neither was religious).³² The additional categories referred to whether there were

³² Questions about religion status were asked in specific waves only. Questions about religion were asked to all respondents in UKHLS in waves 1, 4, 8 (and only to the ethnicity boosts in the others), and in BHPS in waves 1, 7, 9, 11, 13, 14,15,18. Values have been imputed considering those of the last wave available. If values from last wave were not available, we imputed with the first observation available, assuming religious status to be hardly changeable. Whilst it was possible to impute 99% of values for OSM, partners still presented 30% missingness.

children in the household who were the biological children of only one of the partners (i.e., were not shared biological children). We controlled for the historical period in which each of the interviews was conducted: i.e., 1991–1997, 1998–2008, or 2009–2019³³. In robustness checks, we also constructed dyadic measures for the couple's parental class³⁴ and health status.

4.3.5 Analytical approach

To analyse the first hypothesis, we used the cumulative hazard functions of the probability of experiencing marriage or dissolution when these two outcomes were considered competing events. To test the other hypotheses, we performed an event-history analysis using discrete-time models; specifically, multinomial logits. The models analysed the conditional risk of a first-time cohabiting couple experiencing a marriage or dissolution at time t + 1, given that it had not experienced either of these events at time t. Marriage and partnership dissolution were treated as competing events (Oppenheimer 2003). If we define the event type r = (cohabitation, marriage) and h_{t+1ij} ^(r) the conditional risk of the event r, the discrete time model we are using is the following (Berrington and Diamond, 2000; Steele, 2005):

$$h_{t+1ij}^{(r)} = \Pr(y_{t+1ij} | y_{t,i,j} = 0) = \log\left(\frac{p_{tij}^{(r)}}{p_{tij}^{(0)}}\right) = \alpha^{(r)} D_{tij}^{(r)} + \beta^{(r)} x_{tij}^{(r)}$$
(1.1)

 $\alpha^{(r)} D_{tij}^{(r)}$ represents the baseline hazard function, which consists of the time elapsed since the beginning of the cohabitation up to five years. The baseline hazard was represented by two dummy variables: one category for 0-2 years and one category for 3-5 years. Couples were removed from the sample once they experienced an event, and were treated as censored if they were still cohabiting at the end of the observational period. $x_{tij}^{(r)}$ represent the couple's characteristics, which include the indicators selected to represent economic precariousness and the controls. Both the baseline hazard and the covariates for economic precariousness and couple's controls were measured at time t, i.e., were lagged by one year with respect to the event. To consider the complex survey structure, we clustered observations within the primary sample units (postcode address)³⁵. Analyses

³³ The survey year of the OSM was considered;

³⁴Questions about parental class were not asked from waves 2–7 of the BHPS onwards and were not posed again to those who entered during this period.

³⁵ This procedure is suggested by the ISER and requires the STATA command *svy* (Knies 2014; Taylor 1998).

were weighted through longitudinal weights dated in t + 1 when the event of interest could occur³⁶ and appropriately rescaled so that all of the waves would be equally represented in the analysis (Kaminska and Lynn, 2019).

For each measure of economic precariousness, we computed a separate model (also including the couple' controls). Our reasons for using one model for each measure instead of only one model containing several measures were twofold. First, since there is no agreed-upon definition of the term economic precariousness in the literature, we aimed to compare the trends described by the objective and subjective indicators. Second, we wanted to avoid a lack of parsimony and problems of potential correlation (for instance, according to the Spearman rho, income tercile and employment present a correlation equal to 0.43). However, since one of our hypotheses, H4, also addressed the issue of the accumulation of economic precarious traits, an analysis keeping the various measures in a unique model was also performed.

The results are presented through the predicted annual probabilities of marrying or dissolving the relationship in a given year t + 1 for specific couple arrangements in terms of economic precariousness in t (to soften the language, we will mostly refer to them as probabilities) (StataCorp, 2019b). Apart from the covariates representing precariousness, which were fixed at a given value, other covariates were kept at their mean value. Using predicted probabilities also allowed us to consider the magnitude and notice the trends of the differences in the probabilities more intuitively than just observing the relative risk ratios. We focused on the average annual predicted probabilities of transitioning to marriage and dissolution, as these were the outcomes of interest of our hypotheses. However, we also computed the predicted probabilities of continuing to cohabit in Figure B 4 in Appendix B.

When interpreting the predicted probabilities, a sole comparison of confidence intervals at the 95% level of confidence would be too conservative, as it would detect probability differences at the 1% level only (Cumming and Finch, 2005). Thus, we graphed the confidence intervals through the Goldstein-Healy (GH) correction for the pairwise comparison of a group of means (Goldstein and Healy, 1995), so that the non-overlapping

³⁶ Longitudinal weights considered only the original sample members (OSMs), and not the temporary sample members (TSMs); meaning that considering the proxy respondents or imputing data on the partners' characteristics would not require a weight adjustment for partners' nonresponses. Weights allowed us to correct for selection and differential nonresponse probabilities among the OSMs, and already accounted for partners' nonresponses, attrition, and different boosts within the sample.

confidence intervals would signal a significant difference in the mean estimates of the predicted probabilities at the 5% level³⁷.

4.4 Results

4.4.1 Descriptive results

Table 4-1 shows the descriptive statistics concerning the distribution of the measures of economic precariousness. Apart from the savings categories, the couple type in which neither of partners is economically precarious or owns his/her house is larger than the other samples. The couples' employment measure is highly skewed towards couples in which both partners are employed, which account for 81% of the weighted couple-years. Male-breadwinner couples also represent a consistent share, at 11%. Couples in which both partners are unemployed and female-breadwinner couples together account for only 7% of couple-years.

In terms of income tercile, the largest shares of couples are dual high-earner couples or couples in which the man out-earns the woman (together accounting for 63% of couple-years). Although the distribution of the variables is less disproportionate than employment, female high-earners couples represent only 6% of couples. In terms of perceptions of the current financial situation and housing tenure, we also see a concentrated distribution towards the least precarious couples; that is, those who are optimistic and homeowners (representing, respectively, 48% and 55% of couple-years). Couples' savings is the most equally distributed measure among all of those considered. Female-saver couples account for 14% couple-years and male-saver couples account for 12% of couple-years; whereas savers account for 25% of couple-years and non-savers account for 28% of couple-years.

The distribution of the events signals that couples in which neither of the partners is economically precarious have the highest number of marriages and the lowest number of dissolutions. Conversely, couples in which both partners are economically precarious have the lowest number of marriages and the highest number of dissolutions. However, for some indicators, this share is equal to that of heterogeneous couples, which suggests that the most economically precarious couple type sometimes has patterns similar to those of heterogenous couples.

³⁷ Confidence intervals are centered on the prediction and graphed with the following width: $2^*1.39^*\sigma$. Note that this procedure is not adjusted for potential error type I due to multiple comparison.

According to the descriptive statistics of control variables in Table B 1 in Appendix B, women who are under age 30 at the beginning of the relationship represent 91% coupleyears in the sample; whereas men who are aged 30 or less at the beginning of the relationship account for 83% of the couple-years. The age gap between partners is in line with the one generally displayed within general populations, since it is mostly concentrated within the interval (-1,1) (Figure B 1 in Appendix B) (Gustafson and Fransson, 2015). A descriptive analysis of the age at which the cohabitation is formed (Figure B 2) shows that individuals who enter a cohabitation at a younger age are more likely to dissolve the relationship than individuals who enter the relationship at a higher age.

Most of the couples in the sample include a partner who had never been partnered before the current cohabitation (58%) and is childless (75%). Couples in which at least one partner has a bachelor's degree represent 42% of the sample, while couples in which both partners have less than a bachelor's degree account for 44% of the sample. Couples in which neither partner is religious account for over 40% couple-years. Only 10% couples-years are represented by those couples where both were religious. In both cases, however, couples in which at least one partner has a missing observation account for a third of couple-years or above³⁸.

Regarding the covariates used for robustness checks, couples in which both partners are from wealthy backgrounds (high social classes) represent only 11% of the sample. The couples in which the female partner is pregnant account for 9% of the sample. The share of couples in which both partners have a bad/fair health status is low (around 4%).

³⁸ The high level of missingness is due to either partners' non-response or partners who entered in waves in which the question was not asked (therefore, rendering impossible to impute the value of the last wave available. This missingness is, instead, minimal for OSMs.

Table 4-1: Descriptive statistics for the measures of economic precariousness within the sample

	Unweighted couple-years	Weighted proportion	Proportion of dissolutions	Proportion of marriages
		(% of all couple-	within each	within each
		years)	category	category
			(% of all couple-	(% of all couple-
			years)	years)
Employment status				
Both employed	3,796	0.81	0.09	0.15
Female breadwinner	166	0.03	0.23	0.06
Male breadwinner	538	0.11	0.13	0.11
Both unemployed	198	0.04	0.13	0.06
Missing	50	0.00	0.23	0.03
Income tercile				
Both high earners	1,521	0.35	0.07	0.18
Female high earner (male low earner)	282	0.06	0.09	0.12
Male high earners (female low earner)	1,231	0.27	0.09	0.12
Both low earners	948	0.19	0.13	0.11
Missing	766	0.12	0.14	0.13
Savings				
Both savers	1,072	0.25	0.06	0.22
Female savers	595	0.14	0.11	0.12
(male not saver)				
Male savers	511	0.12	0.08	0.18
(female not saver)				
Both not savers	1,251	0.28	0.12	0.10
Missing	1,319	0.21	0.12	0.11
Perceptions of				
the current financial				
situation				
Optimistic couples	2,197	0.48	0.07	0.17
Maleoptimistic	333	0.10	0.12	0.13
(female pessimistic)				
Female optimistic	465	0.08	0.16	0.11
(male pessimistic)				
Both pessimistic	680	0.15	0.12	0.11
Missing	1,073	0.18	0.13	0.12
Housing tenure				
Owners	2,425	0.55	0.06	0.19
Living with parents	223	0.04	0.17	0.07
Public renting	618	0.12	0.12	0.09
Private renting	1,446	0.27	0.15	0.08
Missing/Other living arrangements	36	0.00	0.05	0.08
Total couple-years	4,748	4079		

Source: weighted couple-years from BHPS and UKHLS data

Historical trends in the outcome of the first cohabiting partnership (H1)

The cumulative hazard functions (CHF) in Figure 4-1 show that, compared to the least recent historical period (1991-1997), in the most recent decades (i.e., 1998-2019), there has been a consistent decline in the five-year risk of marriage and a stable level of the risk of dissolution, such that the risk of dissolution has even exceeded the one of marriage in the first two years of the relationship. This result could be attributable to cohabiting couples being more likely to delay marriage in the most recent periods than in the most distant ones.

The differences are, however, less pronounced when we compare the 1998–2008 and the 2009–2019 periods. By the end of the five years, the difference between the cohabitations ending with a marriage and with a dissolution has decreased by around 5 percentage points only, mostly due to a decrease in the risk of marriage. By the end of the observation period, the hazard of marriage is still above that of cohabitation, and does not equal or exceed it, as other evidence suggests (Beaujouan and Bhrolcháin, 2011). Therefore, this result fulfils our expectations only partially because the outcome of separation has increased very slightly over the historical periods, contrary to the prediction of H1.







b) 1998-2008 0.6 0.5 0.4 0.3 0.2 0.1 0 2 3 5 n 1 4 Marriage — Dissolution (C) 2009-2019 0.6 0.5 0.4 0.3 0.2 0.1 0 2 3 4 5 6 1 Marriage
Dissolution -----Source: own weighted computations based on BHPS and UKHLS data Note: the program to compute the CHFs is provided by Measure Evaluation (2022) These results differ from those reported in the recent analyses of Chao et al. (2020) and Beaujouan and Bhrolcháin (2011). Since we are taking a "crude" period

perspective, it could be the case that these estimates suffer from period effects, as the outcomes of a union formed in one historical period could lead to an event in the following period. We have performed a supplementary analysis investigating the cumulative hazard of cohabitations according to the period when they started. Figure B 3 in Appendix B shows that five years after the beginning of the relationship, 63% of unions formed in 1991–97 have ended in marriage and 16.5% have ended in dissolution; whereas for the unions formed in 1998-2008, these shares are around 40% and 33%, respectively. For the first

cohabitations formed in 2009–2014/2015³⁹ (wave 6), the proportion ending in dissolution is higher than the share ending in marriage over the entire period of observation. Therefore, the results suggest that for the recently formed couples, the risk of dissolution has exceeded the risk of marriage, consistent with the trends hypothesised by previous studies.

4.4.2 What is the relationship between couples' economic precariousness and the outcomes of first cohabitations? (H2) Is economic precariousness of the male or the female partner equally important in influencing the outcomes of first cohabitations? (H3)

Figure 4-2 (p.118) shows the predicted annual probabilities of transitioning to a marriage or a dissolution in the year following the interview, depending on the distribution of economic precariousness within the couple. Numerical estimates are presented in Table B 2 in the Appendix B (the model from which estimates are derived is presented in Table B 3). As is shown in Table 4-1, the sample size for some couple arrangements is limited, which could translate into large confidence intervals of the point estimates; e.g., for the female-breadwinner or both-unemployed couples. Consequently, even though we have used the Goldstein and Healy (1995) correction to verify whether the differences in the predicted probabilities are significant at the 5%, we also highlight the qualitative patterns while commenting on our analyses.

In line with H2, the cohabiting couples in which both partners are economically precarious have a lower predicted probability of entering a marriage and a higher one of dissolving the union in the subsequent year than the cohabiting couples in which neither partner is economically precarious. There are clear patterns showing that couples in which both partners are not employed, are low earners, are non-savers, or are pessimistic about their financial situation have, in a given year, a significantly lower predicted probability of transitioning to marriage and a higher one of dissolving the relationship in the subsequent year, than couples with the opposite characteristics. All of these differences are statistically significant at the 5% (savings, financial perceptions and housing tenure) and 10% level (employment and earnings). This pattern is also observed for housing tenure, which is the only measure that does not display a gendered division⁴⁰. The couples who own a house have a higher predicted probability of transitioning to marriage and a lower probability of dissolving the union in the following year than those who are renting from a private or public institution or are living with one of the partner's parents. Therefore, H2 is confirmed

³⁹ The reason for considering cohabitations started up to wave 6 is to allow for a window of observation of at least four years.

⁴⁰ Only a limited share of couples consisted of men and women who did not have a joint mortgage or rental contract.

when couples in which both partners are either precarious or not precarious are compared. The conclusions on heterogeneous couples are less straightforward since the results are not always in line with the expected trends. This suggests that, within couples, the economic precariousness of one partner may matter more than that of the other, most likely depending on gender. An exploration that considers the gender of the economically precarious partner, which is the focus of H3, follows.

Figure 4-2 investigates how being a heterogeneous couple relates to the outcomes of the first cohabitation for each considered indicator. Panels (a), (b), and (c) show the results for the couples' distribution of employment, earnings, and savings by gender. Panel (a) shows that female-breadwinner couples have the highest predicted probability of dissolution (15%⁴¹). When this probability is compared with that of the both-employed arrangement (5%), the results are statistically significant at the 1%. Female breadwinner couples also present a higher predicted probability of dissolution than male-breadwinner and both-unemployed couples (9%), which, in turn, show a significantly higher probability of dissolution than the both-employed couples (0.05 . It is important to noticethat, even though these differences are sizable, it is difficult to find results that are statistically significant at the 5% when heterogenous couples or couples where both partners are economically precarious are compared, mostly due to the large confidence intervals characterising the mean estimates. The only difference that results marginally significant is the one between male and female-breadwinner couples $(p \sim 0.1)$. Overall, these results suggest that both men's and women's unemployment increase the risk of dissolution, although men's unemployment appears more strongly associated with this risk than the one of women.

Female-breadwinner couples also show the lowest predicted probability of transitioning to marriage, alongside both-unemployed couples (6%). This probability is lower than that of the both-employed (14%, p < 0.01) and the male-breadwinner couples (11%, p = 0.14). The difference in the probability of marrying between the male-breadwinner and the both-employed couples is smaller than the one witnessed with other arrangements and is not statistically significant at any conventional level, which suggests that the man's unemployment alone would be sufficient to lower the risk of marriage.

Panel (b) shows the predicted probabilities for the indicator of earnings. The highest probability of dissolution is shown by those couples in which both partners are low earners (9%). This predicted probability is slightly higher than the one of couples in which both partners earn above the first income tercile (6%, p = 0.08) and in which at least one

⁴¹ The percentage refers to the probability; whereas, the p-value to the test of the differences in probabilities.

partner earns above the first income tercile (7%, p > 0.1). In terms of the risk of marriage, female high-earner, male high-earner and both low-earner couples have a significantly lower predicted probability of marrying than couple arrangements in which both partners earn above the first income tercile. All of these probabilities range between 9% and 12%, with female high-earners presenting the lowest probability of marrying. Even though there is a trend suggesting that female high-earner couples have a lower predicted probability of marrying than male high-earner couples, this trend appears more contained than the one witnessed for heterogenous couples in terms of employment. These results would suggest that a difference in earnings between the male and the female partner would be less detrimental for the risk of marriage and dissolution than a difference in occupation.

Panel (c) analyses the predicted probability for the savings pairings in terms of the risk of dissolution. Couples in which both partners are non-savers have the highest probability of dissolving the union (9%). This probability differs significantly from the pairing in which both partners save (6%). In couples in which only one partner lacks savings, the probability of dissolution is 8%. As there are no significant differences between these couples and either dual-non-saver couples or dual-saver couples, the idea that there is a gender dimension in these probabilities must be rejected. In terms of marriage, female-saver couples and non-saver couples are significantly less likely to enter a marriage than male-saver couples (10% vs. 19%, p < 0.05). The marriage probability of male-saver couples that a man's lack of savings would be more detrimental for the risk of marriage than a woman's.

Panel (d) shows the probability distribution for financial perceptions. In terms of marriage, male-optimistic couples (i.e., the man has positive feelings about the current financial situation, but the woman does not) have a lower predicted probability of entering a marriage than other couple arrangements. Although male-optimistic couples present lower predicted probabilities than female-optimistic couples, these differences are, however, limited and not statistically significant. In terms of dissolution, all of the couple arrangements in which at least one partner has negative feelings have a significantly higher predicted probability of separating than couples in which neither partner has negative feelings. However, male-optimistic couples have by far the highest predicted probability of disrupting the relationship (14%), which is higher than that of the female-optimistic couples and of both-pessimistic couples (around 9-10%). However, as in the case of employment, these differences denote sizable trends but not statistically significant. These results suggest that both men's and women's concerns about the current financial situation are important, but women's concerns tend to present a stronger relationship than men's with cohabitation outcomes, especially with the risk of dissolution.

In conclusion, some of our results align with our gender hypothesis, H3, which predicts that the couples in which the male partner is economically precarious and the woman is not have a lower probability of marrying or a higher probability of separating than the opposite arrangement. In terms of dissolution, objective measures show that these trends are present for employment, but are much less pronounced for earnings and savings. The subjective measures show that current financial perceptions still have sizable effects, but they are the opposite of the expected effects and the results on employment. In fact, couples in which the man perceives the couple's financial situation as positive but the woman does not have the highest predicted probability of dissolution, which suggests that the subjective and the objective sphere may operate differently by gender. In terms of marriage, the gendered trends are visible for employment and savings (the latter one is the only statistically significant trend), but are less pronounced for earnings and financial perceptions. The largest and the strongest (in terms of significance) differences between different couple arrangements are found for the effects of savings, which results the dimension that most distinguishes marriage trends by gender.

Results shown in Table B 6 (Appendix B), which reports the estimates from a model containing all of the measures, confirm the intuitions from the univariate approach. Savings and homeownership still have a significant association with the likelihood of marrying and separating, relative to continuing to cohabit, once all of the dimensions of economic precariousness are controlled for. Compared to their least economically precarious counterparts, the couple arrangements that have a significant relationship with the relative risk of dissolution are non-homeowner couples, female-breadwinner couples, male-optimistic couple and, to a lower extent, female-optimistic couples.



Figure 4-2: Predicted annual probabilities of marriage or dissolution according to different sources of couple's precariousness within the first five years of the relationship^{(a)(b)(c)}

Source: own weighted computations from UKHLS and BHPS

(a) In the analytical models, the baseline hazard is represented by the duration of the relations hip. The fitted models from which we calculate the probabilities contains as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religious status. Other covariates are kept at their mean value.

(b) Abbreviations refer to gender: F=Female, M=Male; Measures of precariousness: E=Employed NE=Not employed; A=Earnings ab ove population's first tercile, B=Earnings equal or below population's first tercile; S=saver NS=Not saver; P=Positive perceptions, N=Negative perceptions; L/parents=Living with parents; Public/R=Renting from a public institution; Private/R = Renting from a private landlord. For instance, E/E=Employed/Employed; M/E,F/NE=Male employed, Female unemployed. 118 (c) Cis adjusted through the Goldstein-Healy procedure to perform a pairwise comparison of a group of means.

4.4.3 Does economic precariousness accumulate from different areas of couples' lives? (H4)

To investigate H4, we plot how many economically precarious aspects (or traits) the couples have (Figure 4-3). A precarious couple is defined as one in which both members are economically precarious. The reason for doing so is that, given the results in H3, judging a priori whether a heterogeneous couple arrangement (one partner is precarious and the other is not) is economically precarious is not straightforward⁴².

The score could span from zero (the couple is precarious in none of the considered traits) to five (the couple is precarious in all of the considered traits). Contrary to the predictions of H4, Figure 4-3 shows that there is no substantial accumulation of economically precarious traits in the cohabiting couples. Rather, there is evidence of an accumulation of non-precarious traits only. The figure reports that the share of couples in which both partners are precarious in at least four of the considered aspects is very small (around 6%). By contrast, the relative frequency of the pairings in which at least one partner is precarious in none of the considered indicators is around 37%. According to Figure B 7, when an individual has only one precarious trait, it is most often having no savings or not owning a house. The least frequent precarious characteristic is unemployment, which characterises mostly couples with four or more precarious traits.

⁴² An analysis by gender is contained in Appendix B, p. 271.

Figure 4-3: Distribution of economic precarious aspects at the couple level (a trait is considered economically precarious at the couple level when both partners are economically precarious)



Source: own weighted computations from UKHLS and BHPS data

Similar conclusions to those presented in Figure 4-4 are drawn from a multinomial logistic model in which we introduced the cumulative measure of economic precariousness. Figure 4-4 shows that having one or more precarious traits is associated with a higher probability of separating and, especially, lower probability of marrying. The width of the confidence intervals increases as the number of precarious traits increases (the confidence intervals for marriage at the fifth trait even cross zero), which highlights the rarity of having several precarious traits⁴³. A change in the dissolution and marriage risk occurs when precarious traits shift from zero to one. No substantial change in the dissolution risk can be observed when moving gradually from two to five traits, which indicates that having one economically disadvantaged trait is sufficient to significantly affect this probability. By contrast, further decrease in the probability of marriage is observed when shifting from three to five precarious traits, thereby suggesting that the entry into marriage from a cohabitation appears more sensitive to the increase in the number of precarious traits than the risk of dissolution.

Even though each trait has been demonstrated to reflect potential disadvantage, housing and savings appear the characteristics for which the disadvantage is diffused the most (Figure B 7), and, therefore, appear better indicators to use when seeking to identify partnership differentials in the broader population. This observation is confirmed in the

⁴³ The sample under "extreme" precariousness is, however, quite small. Only 5 couples possessed all economically precarious traits and dissolved and only 2 married.

results of the unique model containing all the indicators of precariousness, which were commented while analysing H3.





Source: own weighted computations from UKHLS and BHPS data Note: Cis adjusted through the Goldstein-Healy procedure to perform a pairwise comparison of a group of means.

4.4.4 Does the relationship between economic precariousness and cohabitation outcomes vary by historical period? (H5)

To verify the role of the historical period as a moderating factor, we add to our original multinomial model a term of interaction between the couple's precariousness and the historical period (sample size is shown in Table B 7). Given the difficulty of judging the economic precariousness within heterogeneous couples (see H4), in this analysis, we consider a couple to be precarious only if both members are economically precarious. First, the coefficient for historical period in Figure B 3 signals that, compared to the least recent period, in the most recent decades, the relative risk of marriage has decreased, whereas the risk of dissolution has increased (albeit the coefficient is not always statistically significant).

Figure 4-5 (p. 123) shows the probabilities of marrying or of separating of couples in which both partners are economically precarious and couples in which at least one partner is not economically precarious. Some trends show the presence of an increasing difference in the predicted probability of the outcomes of the cohabitation across historical periods. For marriage, this trend exists for all of the measures apart from financial perceptions; whereas for dissolution, this trend is present for employment, earnings, and financial perceptions. However, it is important to highlight that the confidence intervals for the first period are very large, meaning that the sample size of couples in which both partners are economically precarious, especially unemployed, is small in this period. Overall, these trends suggest that there is an increasing likelihood of delaying marriage and a separating under uncertain economic conditions from the beginning of the 2000s onwards.



Figure 4-5: Predicted annual probabilities of marrying or dissolving the relationship between couples with both precarious partners and those with, at least, one not precarious partner, by historical period (a)(b)(c)

Source: own weighted computations from UKHLS and BHPS

- (a) Abbreviations refer to measures of precariousness: E=Employed NE=Not employed; A=Earnings above population's first tercile, B=Earnings equal or below population's first tercile; S=saver NS=Not saver; P=Positive perceptions, N=Negative perceptions; O=Owning; Not O=Not owning. For instance, One P=At least one with positive feelings towards the current financial situation; Both N=Both with negative feelings.
- (b) Predicted probabilities are derived from a discrete-time multinomial model, whose baseline hazard is represented by the relationship length. This model contains the following control variables: the age of the female and male partner at the beginning of the union; historical period; partner's previous relationship; the presence of biological children, religious status. In the computations of the predicted probabilities, other covariates are kept at their a verage value.
- (c) C is a regraphed through the Goldstein-Healy procedure for the comparison of a group of means.

4.4.5 Control variables

To investigate the effects of couples' controls, we refer to the coefficients shown in Table B 3, which are the outputs of the multinomial regression. Couples who are cohabiting beyond the second year have a higher likelihood of marrying and a lower likelihood of separating, relative to continuing to cohabit. The last coefficient results, however, not statistically significant. The age of the woman at the beginning of the union has a negative relationship with the relative risk of experiencing a dissolution in the following year and a positive relationship with the risk of transitioning to marriage. Conversely, the man's age at the beginning of the union is positively related to the relative risk of marriage, whereas, it has a more uncertain pattern on the risk of dissolution.

Couples in which one of the partners has already had a union have a higher relative risk of dissolution the following year than couples in which neither partner was previously in a union. This trend has a larger magnitude if the re-partnered individual is a woman. Compared to childless couples, those with shared biological children have a lower risk of dissolution and marriage, although these results are either not statistically significant or significant at the 5% (in the case of employment). The effect of the presence of non-biological children has, instead, a more uncertain sign, regardless of the parent's gender. However, the effects are never significant, which suggests that other characteristics, e.g. age at the beginning of the relationship, might better capture this association. Finally, religion and education do not appear strong predictors for neither marriage nor dissolution. However, it is important to notice that, for these covariates, missing categories have a significant effect on both the cohabitation risks, thereby suggesting that missingness may hide important underlying characteristics.

4.4.6 Robustness checks

As a robustness check, we computed models on full-informative observations with valid responses for all of the covariates representing precariousness (graphical results in Figure B 8). The reduction in the weighted sample size represents around 30% of the original sample⁴⁴, including missing values. The results are, however, very similar to the ones already obtained. We also computed a model for couples with never-partnered partners only (graphical results are in Figure B 9). The reduction in sample size represents almost 40% of the original weighted sample. While these models report trends similar to those computed in previous models, they show a reduction in the units of observations and

⁴⁴ The loss is slightly higher than the missing observations presented in Table 4-1 because it refers to the unweighted missing values.

provide estimates with bigger effects and larger confidence intervals. It is, however, interesting to notice that, in both cases, male optimistic couples presented a significantly higher predicted probability of dissolution than the opposite arrangement (whereas it was not significant in the main analysis).

We also control for the pregnancy status (results not shown), but do not find differences in the effect of precariousness on couple arrangements. Introducing pregnancy status does not have an effect on the relative risk of marriage, but it significantly lowers the relative dissolution risk. However, this variable does not change the relationship between the covariates representing economic precariousness and the outcomes. Neither parental class nor health status is shown to have a significant relationship with the relative risk of marriage or dissolution, or to modify previous results. Finally, we evaluated the possibility of introducing a covariate for gender attitudes, which is a question asked in selected waves of both surveys. However, after imputing values in the way we did for religion, the two covariates resulted moderately correlated (0.5), which is the reason why introduced only one of them. The reason for choosing religious status over gender attitudes was that the latter was considered a changeable characteristic (Schober, 2013) and, therefore, less apt to be imputed.

4.5 Discussion

In this paper, we added empirical evidence on the relationship between the outcomes of the first cohabitation and the economic precariousness of young British cohabiting couple-dyads using long-term prospective data spanning three decades; i.e., from 1991 to 2019. We also looked at whether this relationship differed by the gender of the economically precarious partner. Moreover, since our data cover a long timeframe, we explored whether the outcomes of the first cohabitations in the sample had changed across historical periods. Even though the economic precariousness of young Britons has risen in recent years (Furlong et al., 2017; Green, 2017), recent empirical studies on the relationship between economic precariousness and cohabitation outcomes are scarce in the British context. Moreover, the few existing studies rarely considered cohabiting couples, were mainly focused on the 1990s, and measured dissolution as the sole outcome. However, this topic should be framed in broader terms by considering the role of the partners' economic circumstances in cohabitation in the UK, whether it has been changing by gender or across historical periods, and whether it is aligned with the major theories explored so far.

First, the descriptive findings only partly confirmed our first hypothesis, which predicted a decrease in the cumulative probability of marriage and a decrease in the

cumulative probability of dissolution. Over the years, the divergence between the proportion of cohabitations ending in marriage or dissolution strongly declined, mostly due to fewer unions ending in marriage, but also because there was no increase in the number of unions ending in dissolutions and, therefore, highlighting the higher number of unions still cohabiting after five years. However, the hypothesis was confirmed when using an approach that was less subject to ageing and period effects, and when investigating the cumulative probability of marriage and dissolution by period of union formation. The results demonstrated that first cohabitations that started in the 2010s were more unstable than those that started in the 1990s and the 2000s, in line with recent British evidence (Pelikh, 2019b; Chao et al., 2020).

Overall, the results on the relationship between the selected measures of economic precariousness and the outcomes of the cohabitation, which are the topic of our second hypothesis, appear to be consistent with the idea that economic barriers may be discouraging couples from entering a long-term and financially committed relationship like marriage. Couples in which neither partner was economically precarious – i.e., the partners were working, had earnings beyond the first income tercile, were saving, owned their own house, and felt positive about their financial situation - tended to have a higher probability of marrying and a lower probability of splitting up than the couples in which both partners were economically precarious. Therefore, marriage appears to be a selective institution, in the UK, that is accessible mainly to those couples who achieve a series of economic standards, and are thus ready for this type of commitment (Cherlin, 2004; Ishizuka, 2018). In line with earlier evidence, cohabitation in this context would be a more spontaneous setting that couples can use to resolve uncertainties, including economic ones; gather new information about the partners' economic potential; and signal economic success before entering into higher-order commitments such as marriage (Ermisch and Francesconi, 2000b). Our results on dissolution are in line with the Family Economic Stress Model, which argues that couples who lack economic resources have a higher likelihood of separation due to economic stress, and, possibly, to the deterioration in their relationship quality (Conger et al., 1990, 1994; McLoyd, 1990). This interpretation also fits the idea that cohabitation allows young couples to confirm partners' economic potential and to end poor matches with no basis for a long-term commitment (Oppenheimer, 2003). Overall, these findings fit previous evidence on the British context, which suggests that a lack of economic resources is related to a higher risk of separation (e.g., Francesconi and Golsch, 2005).

Our findings on the gendered division of economic precariousness, i.e., on the distribution of resources between the male partner and the female partner, only partially confirm the third hypothesis. The patterns found for all the indicators are not always coherent with each other and the detection of statistically significant differences is often

hindered by the presence of large confidence intervals. With regard to marriage, couples in which the woman was not saving or was not employed while the man was had a higher probability of transitioning to marriage than the opposite arrangement, which suggests that some couples selecting into marriage still follow the male-breadwinner perspective based on the stereotype that breadwinning is a "masculine" activity while domestic tasks are "feminine" (West and Zimmerman, 1987; Goldscheider et al., 2015). These findings would also fit the "poor man's marriage" hypothesis, suggesting that cohabitation, rather than marriage, would be an appropriate setting for men who have not yet establshed themselves on the labour market or who have poor economic potential (Oppenheimer, 2003; Kalmijn, 2011). However, these gender differences seemed more limited for earnings, which suggests that men's precariousness affects the transition to marriage only when the man does not provide basic resources (i.e., has a zero wage) or a long-term perspective (i.e., has no savings).

Finding a gendered dimension for dissolution was also not trivial. On the one hand, the indicators for earnings and savings did not support the evidence that couples in which the man was precarious had a sizably higher probability of dissolution than the couples in which the woman was precarious. This finding would be in line with the literature arguing that women's economic resources have progressively gained in importance and would be equally detrimental for the risk of dissolution as men's (Blossfeld, 2009). On the other hand, there were clear trends (albeit not significant) for employment status and financial perceptions suggesting that female breadwinner couples and male-optimistic couples would facilitate the risk of dissolution more than the opposite arrangements.

The result on employment would emphasise women's low opportunity cost in remaining with an unemployed partner, probably due to his lower trustworthiness or attractivity. This explanation would be in line with traditional and more recent literature (Parsons, 1949; Becker, 1981; Dew, 2011). However, this reasoning would apply to "extremely precarious" men only (e.g. jobless), less to those having some resources, albeit poor (e.g. low earners). The result showing that male-optimistic couples had the highest probability of separating (and the lowest one of marrying), which was the opposite of the result found for objective measures could point to a different way of perceiving economic precariousness by gender. It may also represent spill-over effects within couples, meaning that the man's objective economic precariousness would increase the woman's financial concerns, making her more dissatisfied with the couple's financial situation. The latter explanation is in line with the findings of the UK literature using BHPS data. Blekesaune (2008) showed for the UK that the relationship between the male partner's unemployment and the couple's risk of dissolution is likely to be mediated by the female partner's dissatisfaction with the financial situation. Blom and Perelli-Harris (2021) also argued that

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men's unemployment is negatively associated with women's happiness about the relationship, especially if it is a long-term one.

Apart from explanations in terms of gender roles, another motivation for gender differences in the cohabitation outcomes could be the distinct timing of union formation by gender. In fact, men and women enter their cohabitations at different ages (as discussed in 4.4.1) and, as demonstrated in Chapter 3, the effect of precariousness is stronger at later ages than in younger ones. Therefore, since men within couples are, on average, older than women, it could be that their economic precariousness matters more than the one of women for outcomes of the cohabitation.

Contrary to our fourth hypothesis, the results did not show that economic precariousness was cumulative. In fact, the share of couples in which both partners were precarious in all of the dimensions was very small (2%). The absence of an accumulation of economic precariousness at the couple level could be attributable to selection into a union, as individuals who are not precarious and are more economically established may be more likely to enter their first coresidential union (as shown in Chapter 3). Moreover, these characteristics may also indicate that the couples in which neither partner was economically precarious had become normative over this historical period. This finding supports Oppenheimer's argument that cohabitation is an institution that benefits from both partners contributing to the household economics and sharing the risk of potential economic difficulties (Oppenheimer, 2003).

The absence of an accumulation of precariousness also implied that the probability of marriage and dissolution decreased significantly even if the couple had only one economically precarious trait (although the marriage risk presented further decrease among those couple with four or five precarious traits). A more detailed analysis of the frequency of precarious traits within couples, as well as a model containing all the indicators of precariousness, suggested that the most suitable indicators for signalling a future transition to marriage and dissolution were housing and savings (this latter one only for marriage), which are the indicators that most clearly show that the couple has the basis for a long-term commitment.

Finally, our fifth hypothesis also tried to understand whether the long period covered by our data could shed light on potential changes in the relationship between economically precarious couples and the outcomes of their cohabitation. We do not observe all the trends that we have hypothesised. On the one hand, as anticipated, we find that the marriage differences between the most precarious couples and the other arrangements were lower in the 1990s than in the 2000s (although the estimates for the first period present large confidence intervals). On the other hand, contrary to the expectations, we do not find that those in the 2010s have larger differences than those in the 2000s. A less clear trend was found for dissolution, since only a few measures showed that economically precarious couples (financial perceptions and employment) had a slightly higher risk of dissolving the relationship in the most recent period. Overall, the results are probably suggesting that that the secular changes in attitudes and in the norms regulating partnerships in recent years have made the most economically precarious cohabiting couples increasingly likely to delay or forego marriage under economically uncertain conditions. This relationship is, however, "absolute" and does not seem to deteriorate during periods of economic crisis.

Our study has limitations. First, some of our measures had a highly skewed distribution towards the normative category, given that for some categories – e.g. femalebreadwinner or both-unemployed couples – the sample size used to perform the analyses was small. Consequently, some of our results highlighted only some trends that need to be verified further with more extended data, e.g., by reintroducing couples who were formed outside the sample or by including the re-partnered (also given that the findings highlighted similar trends between the main analysis and the robustness check containing only never partnered). One reason for the large differences in the size of the categories of some indicators could be that, given the context, these arrangements reflected a particular and selected phenomenon. Another reason could be that the entry into union is already selective in terms of economic characteristics, as demonstrated by Chapter 3 and as mentioned earlier in this discussion. These findings would, therefore, underline the importance of using models accounting for selection into a union, when data regarding the economic characteristics of both partners before the entry into union are available.

Second, lagging our variables by one year before the event took place ruled out endogeneity issues deriving from measuring the association between economic precariousness and cohabitation outcomes simultaneously, but it could not completely rule out anticipation effects. This reasoning would especially apply to marriage, for which a certain amount of economic resources is required. For instance, we cannot exclude the possibility that some couples might have preferred to wait to commit themselves, e.g., the purchase of a joint home (Holland, 2012), until after marriage. Therefore, our analysis has provided only a partial view of the dynamics of the relationship between housing and marriage formation. However, as highlighted by Schneider (2011), the process of anticipation would still associate marriage with an institution requiring economic resources, and with the necessity of putting individuals in the most appropriate conditions to experience it. Our findings would, therefore, still be important for policymakers wishing to promote marriage or to lower the instability of unions, which are the most frequent context of childbearing.

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Despite these limitations, our efforts to deal with a complex dataset and provide long-term longitudinal evidence about the role of economic precariousness in the outcomes of British cohabiting couples represent an important contribution to the recent British literature on family dynamics. In conclusion, we showed that economic resources are an important aspect to consider when analysing the union transitions of young adults in the UK, and that couple-level operationalisation could shed light on important aspects of the interactions between partners. Considering different dimensions of precariousness, both objective and subjective, would also help us in understanding and reflecting on the different characteristics of the transition from cohabitation to marriage or dissolution.

Chapter 5 Parental socioeconomic status and young adults' partnership expectations: do family structure and educational aspirations mediate this relationship?

by Lydia Veronica Palumbo, Ann Berrington and Peter Eibich⁴⁵

Abstract

Since the mid-20th century, ideological and socioeconomic explanations have been raised to motivate the changes in young adults' partnership behaviours in Western countries, i.e., the increasing postponement and retreat from marriage, accompanied by the rise in alternative living arrangements than marriage, such as cohabitation and singlehood. However, adopting alternative living arrangements than marriage, as well as a fast timing of union formation, was recently associated with paths of socioeconomic disadvantage. Researchers have carefully examined how individual socioeconomic circumstances shape differences in partnership behaviours. However, they have not equally focused on the mechanisms through which early-life conditions, especially parental socioeconomic status (SES), could influence young adults' lifelong expectations, thereby guiding their actions towards a specific behaviour well before its realisation. Using data from the British Household Panel Survey and Understanding Society, we analyse whether the relationship between parental SES (occupational class) and young Britons' marriage, cohabitation, singlehood and marital age expectations, is mediated by family structure and educational aspirations during adolescence.

Our results show that, compared to those whose parents work in managerial and professional occupations, young Britons whose parents were in routine occupations or unemployed, during their adolescence, were less likely to expect to enter a marriage or more likely to expect "lifelong cohabitation" or "lifelong singlehood" than a life course with both marriage and cohabitation. They are also more likely to be uncertain about their expected age at marriage and about rejecting marriage. Using KHB decomposition, we find that being raised in a lone parent family significantly mediates the effect of parental occupational class on marriage expectations, "lifelong cohabitation vs premarital cohabitation" and, finally, "uncertainty about marital age vs. later marriage" (20-30%). On the contrary, other forms of living arrangement, e.g. cohabiting families, and educational aspirations present a lower percentage mediated.

⁴⁵ The idea of the paper, computations and interpretations come from the first author of the paper. Co-authors gave feedback on previous versions of this paper and interpretation.

5.1 Introduction

Since the second half of the 20th century, young adults' partnership dynamics in Western countries have changed dramatically. Marriage rates have declined due to young adults either temporarily delaying marriage or completely replacing it with other living arrangements. Consequently, although marriage is still the most common type of union, the paths leading to it have become more diverse and non-linear than in the past (Elzinga and Liefbroer, 2007). In several countries, cohabitation and other living arrangements, e.g., singlehood or living-apart-together, have become more prevalent and have contributed to either avoiding or delaying marriage (Sobotka and Toulemon, 2008), albeit with differences at both the country (Perelli-Harris et al., 2014) and the regional level (Klüsener et al., 2013). In the Nordic countries and in France, marital and nonmarital cohabitation and childbearing have become almost indistinguishable (Jalovaara, 2012a); whereas in other countries, like in the US, cohabitations are still more unstable and "unconscious" than marriages (Smock et al., 2005b; Di Giulio et al., 2019). In some Western European countries, such as in the UK, cohabitation has become the normative way to enter the first coresidential partnership, even though long-term cohabitation is less common, and a married couple with children is still the most frequent couple type (Berrington et al., 2015). Therefore, in these countries, a life course that includes both (mostly premarital) cohabitation and marriage has become normative, and has substituted the direct marriage pathway; i.e., transitioning to marriage without cohabiting.

In the 1980s, the Second Demographic Transition theory attributed country differences in the diffusion of alternative partnership behaviours to ideational and cultural factors (Lesthaeghe and Van de Kaa, 1986). However, focusing on nonmarital childbearing, Lappegård et al. (2018) found that while ideological and cultural changes could explain differences in the adoption of alternative living arrangements across countries, other factors could account for differences within countries, including socioeconomic status. Socioeconomic status (SES), which is often operationalised through income, education, or occupational class, refers to "one's access to economic and social resources and the social positioning, privileges, and prestige that derive from these resources" (Duncan et al., 2015: p.534). Therefore, SES could help to explain the pattern observed in Europe and the US, whereby low-SES individuals, in contrast to their high-SES counterparts, tend to cohabit longer or even permanently, and often have children while cohabiting, rather than transitioning to marriage (e.g., EU: Perelli-Harris et al., 2010; US: Ishizuka, 2018). Similarly, economic disadvantage could explain why some people remain single at ages usually characterised by coresidence with a partner (e.g., US: McLanahan, 2004; EU: Bellani et al.,

2017; UK: Jamieson et al., 2009; Berrington, 2017; Wasoff et al., 2018; Finland: Jalovaara and Fasang, 2017), and the timing of partnership behaviours (Axinn and Thornton, 1992; Côté and Bynner, 2008; Mooyaart and Liefbroer, 2016).

Along with individual SES, parental SES also appears to play a critical role in young adults' partnership behaviours. On the one hand, parental SES is likely to be related to the economic resources available to young adults in the present, which can help them navigate the increasingly insecure transition to adulthood, including the process of partnership formation (Schoeni and Ross, 2005; Côté and Bynner, 2008). On the other hand, parental SES may be associated with specific family behaviours that a young person is exposed to in childhood and adolescence, and which can, in turn, determine the economic resources and schemas the person has access to as a young adult (Johnson-Hanks et al., 2011). It has been argued that parental SES influences not only children's behaviours, but also their expectations, and thus creates a potential selection effect into specific partnership dynamics well before their occurrence (Axinn and Thornton, 1993; Willoughby, 2010). Therefore, studying socioeconomic differentials in expectations regarding family transitions is important because these expectations may indicate the likelihood that individuals will select into situations of vulnerability and social exclusion in the future.

Despite the importance of these expectations, a detailed study on the role of parental SES in young people's expectations about family transitions is missing in the literature (except for Manning et al. (2019)). Scholars have paid more attention to the role of parental SES in young people's behaviours (Brons et al., 2021; Koops et al., 2021) or attitudes (Axinn and Thornton, 1993), or to the association between of young adults' expectations and factors other than parental SES (e.g., ethnicity: Berrington (2020); general determinants: Manning et al., (2007, 2014), variation over time: Carroll et al. (2007); Willoughby et al., (2012)). Therefore, the first aim of this paper is to explore the association between parental SES and the expectations of young adults (ages 16-21) regarding partnership transitions, i.e., entry into marriage or cohabitation, and their timing. We also investigate potential differences in ranking the probability of experiencing one union type above the other or of seeing lifelong singlehood as a likely option. The context of analysis is the UK, a country that is particularly suitable as a case study because it has low intergenerational mobility (Goldthorpe, 2016), and because of the availability of high-quality long-run prospective data from the British Household Panel Survey (BHPS) and Understanding Society (UKHLS).

The second aim of the paper is to investigate whether potential socioeconomic differences in young adults' expectations about partnership transitions can be explained by

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two mechanisms dating back to their adolescence (ages 10–15). The first analysed mechanism refers to the family structure a young person experienced during adolescence, a channel that is often used to explain how parental socioeconomic status can influence youth outcomes (Mclanahan and Percheski, 2008; Duncan et al., 2015). The second mechanism concerns the educational aspirations a young person expresses during adolescence, as these aspirations could be a mediating channel between parental SES and family outcomes (Brons et al., 2021). As this latter channel has, to our knowledge, never been tested before, this investigation is highly explorative. We are able to apply this empirical approach spanning two temporal dimensions (young adulthood and adolescence) because of the panel structure of the analysed surveys, which provide data on the same young individuals over an extended period of time. This is an innovative empirical contribution, as most previous research on this topic relied on survey data that do not provide direct information on respondents' early-life conditions.

To achieve these aims, we set out to answer the following three research *questions: (1) What is the relationship between parental SES and young adults' expectations about the type and the timing of their partnership transitions (marriage, cohabitation, and their combinations) in the UK? (2) To what extent is this relationship mediated by the parental family structure or the educational aspirations of a young person while he or she was growing up? (3) And, do these relationships differ by gender and across historical time?* In the theoretical background, we first review the literature on the relationship between individual SES and partnership behaviours. Then, building on this individual-level literature review, we examine how parental SES could influence young adults' expectations for partnership transitions, and the potential mechanisms that underlie this relationship. Next, we look at the reliability of expectations and the concept of parental SES. Finally, we provide new empirical evidence to answer our research questions, and discuss these findings.

5.2 Theoretical background

5.2.1 Individual socioeconomic gradient characterising marriage and cohabitation

It has been observed that the timing of partnership formation, as well as the partnership types adopted throughout the life course, differ across socioeconomic groups. Two closely related mechanisms of these associations that have been identified in the literature are economic circumstances and social norms. Regarding the former, American authors have argued that cohabiters with inadequate resources fail to meet an economic "bar to marriage"; i.e., a series of economic standards that, if they are not met, prevent or

discourage an individual from entering into a long-term and financially committed relationship, such as a marriage (Gibson-Davis et al., 2005; Perelli-Harris et al., 2012; Ishizuka, 2018). If a cohabitation is not converted into marriage for a prolonged period of the partners' lives, it could become a "lifelong cohabitation". Among the barriers to marriage that have been concretely described and tested are the earnings, employment, financial assets, institutional benefits, and/or material wealth a couple needs to sustain a long-term and financially demanding relationship such as marriage – or, in the short term, to afford a "proper wedding" (Edin and Kefalas, 2011; Gibson-Davis et al., 2018; Ishizuka, 2018; Schneider et al., 2019). The legal system may also institutionalise the bars to marriage by better protecting the economic resources of married than cohabiting couples (e.g., through inheritance or tax laws), which could, in turn, make this living arrangement more appealing to wealthy individuals (Perelli-Harris and Gassen, 2012).

Quantitative and qualitative research has shown that economic resources and high SES are also positively associated with marriage formation in the UK, whereas cohabitation is a living arrangement that is less selective in terms of socioeconomic status (Ermisch and Francesconi, 2000a; Smart and Stevens, 2000; Jamieson et al., 2002; Pelikh, 2019b). Although economic security does not appear to be the primary factor that discourages couples from marrying, the accrual of adequate financial resources as the relationship progresses is considered an asset that renders the decision to marry less risky (Devasahayam, 2003; Jamieson et al., 2003; Lewis, 2006).

The second mechanism that may explain socioeconomic differentials in the likelihood of choosing cohabitation over marriage is that of social norms, which could influence the attitudes and the narratives through which individuals have imagined their lives since childhood (Swidler, 1986; Smart, 2007). This explanation is very common in the UK literature. For instance, Berrington et al. (2015) argued that high-SES Britons are more likely than their low-SES counterparts to perceive the transition to adulthood as a more traditional sequence of milestones: i.e., that marriage is a precondition for starting a family that follows the completion of education, entry into the labour market, and a potential period of cohabitation. The authors observed that this order is less standardised for low-SES couples, who are more likely to postpone or forego marriage under economically precarious conditions, and to experience nonmarital childbearing.

These explanations also account for why the age of entry into a relationship tends to be higher for advantaged than for disadvantaged individuals. Before the widespread diffusion of cohabitation, an early age at union formation often coincided with an early marital age. Today, however, an early age at union formation is more compatible with an early age at first cohabitation, which has substituted early marriage (Brons et al., 2021).

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5.2.2 Individual socioeconomic gradient characterising lifelong singlehood

Several trajectories may lead to singlehood - i.e., to not living with a coresident partner – at later ages (Demey et al., 2013). Some trajectories do not exclude the possibility of forming a coresidential partnership earlier in life, which then ends due to separation, divorce, or the death of the partner. Another potential path to singlehood later in life is lifelong singlehood, which is often defined as having never entered a coresidential partnership by an age usually associated with having lived with a partner at least once, such as by age 40 (Bellani et al., 2017). As the normative behaviour is to enter a coresidential partnership at some point in life (Jamieson et al., 2003), only a small share of the population experience lifelong singlehood (Bellani et al., 2017). There is, however, evidence that lifelong singlehood is becoming more common (Sobotka and Toulemon, 2008). Apostolou (2017) provided an evolutionary explanation for lifelong singlehood: i.e., that it results from a U-shaped socioeconomic gradient involving high- and low-SES individuals. In the first case, lifelong singlehood can be seen as the involuntary final stage of an initial temporary delay during which the individual was seeking to become a more successful and attractive partner by, for example, pursuing higher education or consolidating his or her labour market position. Women and older youth in particular are argued not to benefit from this behaviour. In the second case, lifelong singlehood can be seen as the result of low attractiveness, especially due to having a low income, being unemployed, or being in poor health (Demey et al., 2013). While it has been observed that this path applies to men in particular (Spreitzer and Riley, 1974), this may no longer be the case, given the increase in hypogamy among women; i.e., partnering downwards (Esteve et al., 2016; Van Bavel et al., 2018).

The British literature has reported evidence of a negative selection into lifelong singlehood: i.e., low-SES singles are likely to be socioeconomically disadvantaged, especially if they are living alone during working ages. Thus, compared their partnered counterparts, lifelong singles tend to be less economically active, have poorer health, and have less secure housing arrangements (Smith et al., 2005; Demey et al., 2013; Wasoff et al., 2018).

5.2.3 Parental SES and children's partnership expectations

Given that expectations reflect future behaviours – or, at least, a potential path towards future behaviours (Carroll et al., 2007) – and partnership behaviours differ by socioeconomic groups, we expect to observe socioeconomic differences in young adults' expectations about forming a coresidential union, and especially about the type and timing of such a union. The theory of conjunctural action provides an insightful framework for understanding how the socioeconomic status of the parents could influence their children's expected and actual behaviours (Johnson-Hanks et al., 2011). According to this framework, individuals with a common socioeconomic background are likely to share the same social structure; i.e., a set of schemas and resources connecting a group of individuals, and leading them to common behaviours (Sewell, 2005). Schemas are important intervening mechanisms that represent, filter, and interpret stimuli from the real world with the aim of shaping a behavioural response (Johnson-Hanks et al., 2011). By contrast, both material and nonmaterial resources can serve as either constraints or incentives for a specific behaviour (Sewell, 2005; Johnson-Hanks et al., 2011). The social structure determines behaviours, together with human agency; i.e., individual adaptation to changing circumstances (Sewell, 2005).

Since expectations represent what an individual believes will happen in the future based on the experiences he or she has collected up to that moment (Bohon et al., 2006), we would expect to observe that parental SES is an important social structure that influences the formation of young adults' expectations regarding partnership transitions. Indeed, young adults generally lack direct experience of certain events or conditions, such as having their own socioeconomic position or being in a stable coresidential partnership (Johnson-Hanks et al., 2011). As young people grow older and enter adulthood, parental influence should diminish, because they are able to evaluate the likelihood of specific life events based on their own experience (Smetana, 2011).

The theory has described several mechanisms through which parental socioeconomic status could affect young people's expectations regarding partnership transitions. One direct mechanism is that parental SES generally determines the economic resources available to young adults (e.g., finances) in the present. Thus, young adults may be more likely to expect to marry if their parents have adequate economic resources than if their parents are economically disadvantaged. According to Thornton et al. (2007b), high-SES parents can assist grown-up children in clearing the "economic bar to marriage"; e.g., paying for the wedding or covering the couple's mortgage costs. The role of current parental resources should be less central for expectations regarding cohabitation, because cohabitation is less selective than marriage in terms of economic resources (Berrington and Diamond, 2000). Moreover, the increase in cohabitation may have shifted the expectations of young adults regarding the expected age at marriage (Brons et al., 2021). Whereas in the past, young people with low-SES parents would be more likely than those with high-SES parents to expect to marry early; today, they may expect to marry later, and to cohabit for longer.

Differences in the allocation of parental economic resources may also determine young adults' expectations of ever partnering, as the financial resources of high-SES

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parents should cause their children to be more optimistic about the possibility of forming and maintaining a coresidential partnership in the future. High-SES parents can easily assist young adults with paying the rent or tuition fees or financing their living expenses (Kennedy et al., 2003; Schoeni and Ross, 2005; Cepa and Furstenberg, 2021), even after they have completed school or while they are working (Kennedy et al., 2003). Second, their parents' financial resources may give these young adults the opportunity to prolong their unpartnered status in order to boost their attractiveness by completing their education and establishing themselves on the labour market (Oppenheimer, 1997b; Aassve, 2003). Even though this last mechanism could lead to singlehood for a certain period of time, it is unlikely to lead to lifelong singlehood in the UK context (as outlined in section 5.2.2).

The parents' current economic situation is not the only way that parental SES could influence young adults' expectations. Following the theory of conjunctural action, parental SES may trigger specific mechanisms in their children during childhood or adolescence, which could, in turn, have repercussions for the children's expectations during young adulthood. The mechanisms explored in this paper refer to "family structure socialisation" and "academic socialisation" (Figure 5-1), which are considered to be among the most important channels through which socioeconomic status affects children's outcomes (D'Addio, 2007; Duncan et al., 2015). Our aim is not to exhaustively explain this relationship, as there could be other indirect mechanisms that underlie it. The explanation of each mechanism in sections 5.2.3.1 and 5.2.3.2 consists of one part that examines whether parental SES influences individuals' family structure and educational aspirations during childhood or adolescence (purple arrows in Figure 5-1), and a second part that clarifies why these "early-on" conditions influence individuals' expectations (blue arrows in Figure 5-1).





Source: author's graphical representation

5.2.3.1 Family structure socialisation

In contexts like the UK and the US, compared to children from advantaged backgrounds, children from disadvantaged backgrounds would be more likely to grow up in an alternative living arrangement than in a family in which both parents are present and married; e.g., in a cohabiting, single-headed, or step-parent family, often following a couple separation (Kiernan et al., 2011). This gradient is, however, more pronounced in the US than in the UK (ibid.). An extensive body of literature has argued that having experienced a non-traditional family structure and parental partnership instability in childhood increases the likelihood of having a non-normative living arrangement during adulthood, and of entering a coresidential union early in life (e.g., single parents: McLanahan and Bumpass,1988; Graefe and Lichter, 1999, Wu and Martinson 1993; cohabiting parents: Reed, 2006; divorced parents: Amato, 1996; Amato and DeBoer, 2001; divorce: Kiernan and Cherlin, 1999; Hobcraft and Kiernan, 2001; lifelong singlehood: Spreitzer and Riley, 1974).

One likely explanation for this finding is that children learn about social norms (social learning) from their family of origin, both directly and indirectly (Bandura, 1979). On the one hand, parents can directly influence children's attitudes towards a specific arrangement by instilling in them their values and norms (Axinn and Thornton, 1993). Since cohabiting or lone parents are theorised to be more open to these living arrangements than committed parents in a normative married relationship, their children should also be more

likely to adopt this lifestyle than children who grow up with married parents (Smock et al., 2013). On the other hand, children may be socialised indirectly through their observations of parental behaviour, which should teach them what kinds of behaviours to adopt, and how to build and preserve relationships (ibid). Therefore, it seems plausible that children raised in an alternative living arrangement are more likely than children raised in a married couple household to choose such an arrangement in adulthood (Amato, 1996; Amato and DeBoer, 2001).

5.2.3.2 Academic socialisation

According to the international and the UK literature, children with high-SES parents generally have higher aspirations to go to college or university, which we define here as educational aspirations, than children with low-SES parents (Sandefur et al., 2002; Wigfield et al., 2007; Berrington et al., 2016). Moreover, compared to low-SES parents, high-SES parents should be more likely to dedicate their material and nonmaterial resources to socialise their children academically (Hill and Tyson, 2009; Benner, 2011); i.e., to instil in them positive beliefs and behaviours that influence their school-related achievements (Taylor et al., 2004). For instance, high-SES parents typically offer their children the activities and home environment necessary to improve their school performance and to feel motivated to continue their studies (Becker, 1981; Becker and Tomes, 1986). These parents also tend to actively discuss their plans for their children's academic future (Berrington et al., 2016), and to pass on their cultural capital (DiMaggio, 1982; Bourdieu, 1977).

The development of aspirations to go to college or university during childhood or adolescence is likely to influence a young adult's expectations about his or her partnership transitions. Compared to their counterparts who had low aspirations to attend college or university, young adults who had higher educational aspirations should be more likely to expect to have a successful career (Easterlin, 1987), and, therefore, to accrue the resources needed to clear the economic bar to marriage in their future. Consequently, they should be more likely to expect to marry at some point in their life, than their disadvantaged counterparts. Conversely, the more modest educational aspirations of low-SES individuals should lead them to have lower or more uncertain expectations about marriage than high-SES individuals, and to have higher expectations of cohabiting or remaining single.

Having had higher educational aspirations may also affect the expected timing of union formation. Advantaged young adults should expect to form a union later because they anticipate spending a longer period of time in education (Brons et al., 2021), and being a student still considered to be less compatible with being in a coresidential union (Mills and Blossfeld, 2005). However, as we noted in section 5.2.1, with the increase in cohabitation,

the expected age at marriage may have changed for low-SES individuals, who may now expect to marry later in life, or not at all.

5.2.4 How reliable are young adults' expectations?

In the mid-1990s, studies of expectations and intentions were more common in the field of fertility than in the field of partnerships (Liefbroer et al., 1994). Recent research has examined short- and long-term expectations regarding partnership transitions (e.g., Carroll et al., 2007; Manning et al., 2007, 2014, 2019; Gassanov et al., 2008; Willoughby, 2010), although cohabitation is less studied than marriage (Manning et al., 2019). Moreover, most of these studies were conducted in the US, except for Berrington (2020) in the UK and Liefbroer et al. (1994) in the Netherlands. Longitudinal studies performed in the US have reported that young adults' expectations, or intentions, are generally considered to be a reliable predictor of partnership behaviours (Liefbroer et al., 1994; Willoughby, 2014). Marriage expectations have been found more reliable than cohabitation expectations during young adulthood (Willoughby, 2014; cross-sectional: Manning et al., 2019). This discrepancy is probably due to the lower planning associated with cohabitation (Nock, 1995; Berrington, 2020).

Studies that follow adolescents up to the realisation of their partnership transitions in adulthood are rare (Willoughby, 2014 analyses of young adulthood), whereas longitudinal studies that focus on the characteristics of expectations alone are more common. Young adults' expectations are not static, but tend to develop over age (Thornton et al., 2007a), and to depend on the changes in young adults' circumstances, including their economic circumstances (Gassanov et al., 2008; Willoughby, 2010). The literature has also reported that young adults' expectations regarding life events tend to be extreme – i.e., either overly optimistic or overly pessimistic (Weinstein, 1980; Fischhoff et al., 2000) – especially when the expected event is pleasant, such as partnering (Liefbroer et al., 1994); or negative, such as death (Fischhoff et al., 2000).

Thus, while some caution is needed when interpreting research findings on expectations, studying expectations is still valuable, because an expectation is not merely a forecast of an event. Carroll et al. (2007) pointed out that marriage expectations tend to reflect marital horizons; i.e., a person's outlook on or approach to marriage given his or her current situation. Consequently, studying young adults' expectations for marriage is crucial for understanding why the life trajectories – and, consequently, the behaviours – of young adults differ. Different subgroups of the population based on, for example, ethnicity (Berrington, 2020) or socioeconomic characteristics (Manning et al., 2019) may have different marital horizons. This vision is consistent with the "narrative framework", which considers expectations as the building blocks of narratives used by individuals to make

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decisions regarding life events, such as family formation (Beckert and Bronk, 2019; Vignoli et al., 2020).

5.2.5 Parental SES: Different measures and different meanings

Following Duncan et al. (2015), the most important measures of parental SES in the literature are income, poverty, wealth, education, and occupation. The first three measures are purely financial in nature, whereas the latter two reflect a more extended concept. Both income and poverty are flow indicators over the family's life cycle, and are not considered reliable long-term indicators for parental SES; whereas wealth, such as savings or housing, is a stock measure that reflects a family's longer-term prospects. The most commonly used measures of parental SES are parental education and occupation, both of which are indicators for human capital. Education is related to higher cognitive skills, more prestigious employment, and higher earnings; whereas occupational classifications that place similar jobs in a single category extend the concept of human capital to include other characteristics, such as skills or employment relationships, and thus represent a more "permanent" measure of parental resources than income due to their lower variation.

While these measures were previously considered to be interchangeable (Lazarsfeld, 1939), more recent studies have noted the different roles of these components in measuring social origins. Bukodi and Goldthorpe (2013) discussed the different effects of parental class, education, and status in the UK on educational attainment (although the reasoning is likely to be extended to other outcomes). According to these authors, these measures overlap to some extent. However, when each measure is controlled for the others, they assume different meanings. In the context of social origins, parental education can be seen as representative of parents' educational resources, a concept that is closely associated with the path of academic socialisation; whereas status tends to characterise parents' social contacts and networks. Both concepts would, respectively, fit Bourdieu's concepts of cultural and social capital (Bourdieu et al., 1977). Finally, parental (occupational) class, which groups occupations with similar employment regulations and relations (Chan and Goldthorpe, 2016), represents parents' income security; i.e., their short-term income stability and long-term income prospects (similar to Bourdieu's concept of economic capital).

While parental education is used worldwide to measure parental SES and children's outcomes (McLanahan, 2004; Mooyaart and Liefbroer, 2016), the concept of class is often studied in the UK. Blanden et al. (2018) examined the differences in the effects of parental education and occupation on several adult outcomes in the US and the UK, and found that education was a better measure of social origins in the US than in the UK, due to its higher returns. By contrast, class was found to be a better indicator of social origins in the UK, most likely because the UK has high levels of occupational stratification

(Williams, 2017) and low levels of intergenerational mobility (Goldthorpe, 2016). Indeed, it has been shown that even when they are able to move up to a higher class, young adults from working-class backgrounds in the UK still tend to experience a penalty in terms of earnings (Williams, 2017), income (Blanden et al., 2007; Blanden and Macmillan, 2011), poverty (Blanden and Gibbons, 2006), educational outcomes (Stopforth et al., 2020), and educational aspirations (Berrington et al., 2016).

5.3 Hypotheses

Based on the literature and the arguments reported above, we formulate specific hypotheses about the relationship between partnership expectations and parental socioeconomic status. The first hypothesis regards marriage and cohabitation as separate outcomes. We expect to observe socioeconomic differences in rates of marriage, but not in rates of cohabitation, as most young Britons now start their relationships with cohabitation. *Therefore, we posit that young Britons with low-SES parents are less likely to expect to marry in their life than their counterparts with high-SES parents, but also that there are no socioeconomic differences in young adults' cohabitation expectations (H1).*

However, we expect to find differences in young adults' lifelong expectations regarding partnership types. We therefore assume that young Britons with low-SES parents are more likely to expect to experience lifelong cohabitation or singlehood, relative to having a life course that includes both cohabitation and marriage, than their counterparts with high-SES parents; and that these young adults have lower expectations of directly marrying (H2).

We also anticipate observing differences in the expected timing of marriage formation. To formulate this hypothesis, we consider that cohabitation has replaced marriage as the normative way to enter the first coresidential union and that low-SES individuals have the option of entering a cohabitation and prolonging the duration of this living arrangement. *Therefore, we posit that, among the young adults with an intention to marry, those with low-SES parents are more likely to expect to have a higher or more uncertain marital age than those with high-SES parents (H3).*

Finally, we formulate two hypotheses regarding the mechanisms of the transmission of parental socioeconomic status. *First, we expect to find that living during adolescence in an alternative family arrangement, rather than with their married parents, mediates the relationship between parental SES and young adults' partnership expectations, even if not completely (H4). Second, we expect to observe that individuals' educational aspirations during adolescence partly mediate the relationship between parental SES and their partnership expectations in young adulthood (H5).*

5.4 Data and methods

5.4.1 Data

Our data were drawn from the British Household Panel Survey (BHPS) and Understanding Society (UKHLS). The outcome variables refer to young adults' expectations for marriage and cohabitation and expected age at marriage (details in section 5.4.3), which were included in a rotational module, called the "young adults' module", asked to those respondents aged 16–21. The questions on marriage and cohabitation expectations were asked in wave 12 (2002), wave 13 (2003) (Northern Irish sample only)⁴⁶, and wave 17 (2007) of the BHPS; and in wave 2 (2010/2011), wave 3 (2011/2012), wave 5 (2013/2014), wave 7 (2015/2016), and wave 9 (2017/2018) of the UKHLS. The other outcome variable under study in the young adults' module referred to the age at marriage, and was asked in wave 4 (2012/2013), wave 6 (2014/2015), wave 8 (2016/2017), and wave 10 (2018/2019). For our analysis, we also used data on the young adults that were collected when they were aged 10–15 (11-15 in the BHPS). These data were available only if the families of the young adults answered the questionnaire before they turned 16, because they were invited to fill in the "youth questionnaire". Moreover, when these young adults were aged 10–15, they were defined as "rising 16s".

5.4.2 Sample

The sample consists of the rising 16s who gave at least one valid answer to the questions in the young adults' module, and to the question on educational aspirations in the youth questionnaire (details in section 5.4.4). Therefore, young adults who entered the survey after age 16 and had a valid answer on expectations were not part of the sample, because they provided no valid information on their educational aspirations in the youth questionnaire. If the individual answered the question on educational aspirations more than once, we selected the earliest observation available to minimise a possible overlap with information collected at age 16⁴⁷.

All respondents were considered, including those included in the regional boosts in the BHPS and the ethnic boosts in the UKHLS. However, the Northern Irish sample data from wave 13 onwards were not included because the respondents were not observed

 ⁴⁶ Since a condition for being part of the sample is having valid information from the youth questionnaire, this wave is discarded. In fact, the Northern Irish sample is introduced in wave 13 for the first time.
 ⁴⁷ For this reason, 81 person-waves giving an answer on cohabitation and marriage expectations while being aged 15 were discarded from the sample.

before age 16. The entire sample consists of 6,585 individuals⁴⁸. Of these individuals, 3,400 gave more than one answer to the questions regarding marriage and cohabitation expectations, with 1,849 having two observations, 1,286 having three observations, and 265 having four observations (corresponding to 11,439 weighted person-waves). Among those who gave a first valid answer, more than 60% had an age equal to or below 21 at their last observation. Some individuals were living in the same household, most likely as siblings (on average, 15.1%)⁴⁹. The sample providing information on the age at marriage was smaller than the sample providing information on respondents' expectations regarding family formation, because the former information was surveyed in fewer waves. As 4,933 individuals answered these questions, there were 8,269 weighted person-waves (including those who answered "don't know" or gave a proxy interview or a non-valid answer).

5.4.3 Dependent variables

The dependent variables were based on the young adults' responses to questions about their expectations. We focused on questions regarding the family transitions of young adults; that is, entry into marriage or cohabitation and expected age at marriage. The young adults were asked about their marriage and cohabitation expectations in the form of subjective probabilities. The text introducing the questions was as follows: "On a scale from 0% to 100%, where 0% means 'No chance of happening' and 100% means 'Totally likely to happen', please tell me how likely it is that the following events will happen in your life in the future. If any of the following events have already happened, just let me know". Regarding the family transitions, young adults were specifically questioned about their likelihood to "marry at some time" ⁵⁰ or to "live unmarried with a partner". Marriage and cohabitation expectations were analysed both separately and jointly.

If the young adults had already experienced the event, they were given the value of 100 (certainty). During the panel, 207 young adults experienced a cohabitation, and 49 experienced a marriage. If we had dropped these observations, we would have underestimated the relationship between socioeconomic status and expectations. Following the literature on expectations, we considered those who answered "don't know" as answering 50⁵¹. This value can represent a moderate event probability, or it can be a sign of

⁴⁸ We refer to observations with a valid weight; i.e., that were different from zero or had no missing values.

⁴⁹ We computed the percentage of siblings in the sample by checking the difference between the person identifiers and the household identifiers for each wave (since the household identifiers changed in each wave).

⁵⁰ Since wave 5 of the UKHLS, the text is "marry (or form a civil partnership) at some time".

⁵¹ Of the respondents, 1.76% answered "don't know" for marriage expectations and 2.56% answered "don't know" for cohabitation expectations. The share who answered 50 was 12.74% for marriage

uncertainty, equivalent to "don't know" (Fischhoff and De Bruin, 1999). This type of uncertainty is called epistemic uncertainty, and is generated by the absence of a precise probability of the event distribution in people's minds (Hurd, 2009). Epistemic uncertainty was the key concept underlying our decision to combine marriage and cohabitation expectations⁵². Before joining the two types of expectations, we defined the expectations strictly below 50 as "low"; the expectations strictly above 50 as "high"; and, finally, the expectations equal to this value as "uncertain".

If we used all of the potential combinations of the expectations, there would be nine groups, some representing a tiny sample size, e.g., (f) and (g) in Table 5-1, due to the skewness of the expectations distribution (see section 5.6.1). To avoid an excessive reduction of the sample size in certain cells, we combined some categories. The final variable consisted of five categories: high expectations for both marriage and cohabitation; high expectations for marriage and low or uncertain expectations for cohabitation; high expectations for cohabitation and low or uncertain expectations for marriage; low expectations for both marriage and cohabitation; and uncertain expectations for both types of partnerships. Therefore, we assumed that uncertainty was associated with a negative attitude towards forming a certain kind of partnership (Jodl et al., 2001; Johnson and Hitlin, 2017). It could be argued that the first four categories reflect the following scenarios: "premarital cohabitation", "direct marriage", "lifelong cohabitation", and "lifelong singlehood". However, it is important to highlight that this classification was not inferred. As the young adults did not indicate their expectations regarding the sequential order of marriage and cohabitation, we could not determine whether they had completely ruled out the possibility of experiencing a potential outcome by stating that it was unlikely, or whether they were simply less sure about the occurrence of a particular event.

Category	Unweighted person-waves	Weighted person-waves (%)
(a) Cohabitation and marriage	1,116	10.09
expectations equal to 50		
(b) Both above 50	5,483	50.86
(c) Both below 50	574	4.96
(d) Cohabitation equal to 50,	1,008	9.08
marriage above or equal 50		

Table 5-1: Distribution of all of the possible combinations of the categories of expectations using 50 as the threshold to indicate low, high, and uncertain expectations

expectations and 13.28% for cohabitation expectations. These two ways of answering were likely to be interchangeable as ways to express uncertainty, because the respondents were not offered "don't know" as an a priori answer (it was filled in by the interviewer if the young adult declared that he/she did not know).

⁵² Alternatively, we could have chosen a simple relative measure stating which expectation was higher between the two, but this choice would have neglected the absolute value, which is crucial in a distribution very skewed towards high values, and mainly concentrated at specific values (as shown in the results section).

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(e) Marriage equal to 50, cohabitation above 50	639	6.06
(f) Cohabitation equal to 50, marriage below 50	231	2.10
(g) Cohabitation below 50, marriage equal to 50	251	1.83
(h) Cohabitation below 50, marriage above 50	1,681	10.79
(i) Marriage below 50, cohabitation above 50	456	4.23

Source: own computations from BHPS and UKHLS (person-wave=11,439)

We also explored the young adults' expectations regarding the age at marriage. The text of the question was the following: "*At what age do you want to get married?*" Individuals who did not want to get married or those who were uncertain were considered in two separate categories. The respondents in the immigrant and ethnicity boost introduced in wave 6 (IEMB) were not asked this question, and were given (-10) as a value. The outcome, i.e., age at marriage, was continuous. However, we treated it as discrete due to the presence of respondents who answered that they did not want to get married or did not know the exact age at which they expected to marry (although we could not exclude the possibility that they were referring to marital age in general). Finally, we also created a category for respondents who gave a non-valid answer (but had a valid interview). The young adults who expressed a valid value for marital age were divided into two groups depending on whether they indicated a desire to marry before age 25 (the modal age) or after age 25.

5.4.4 Independent variables

All three key independent variables were measured at the first valid observation on the question on educational aspirations in the youth questionnaire, at ages 10 to 15. Therefore, we generically referred to these variables as measured during the "individual's adolescence". We had two reasons for measuring all three variables at the first interview in the youth questionnaire. First, questions about educational aspirations were asked in the youth questionnaire only, and we wanted the indicator for parental SES and the mediators to be measured simultaneously. Second, we wanted to avoid shrinking the sample by limiting our observations to respondents who entered at a particular age. Indeed, if we had restricted our sample to those respondents who had an observation at the earliest age possible, we would have had to rely on 18% of the sample (Table 5-2).

Age	Unweighted person waves (N)	Unweighted person-waves (%)
10	1,162	17.65
11	1,955	29.69
12	1,021	15.50
13	905	13.74
14	774	11.75
15	768	11.67

Table 5-2: Distribution of individuals according to when they first joined the sample

Source: own unweighted computations from BHPS and UKHLS (person-waves=11,439)

Parental occupational class during adolescence

The indicator selected to represent parental SES, during adolescence, was parental occupational class, which was chosen for two reasons based on the description provided in section 5.2.5. First, it was considered closer to the definition of economic precariousness investigated in this thesis (Chapter 2), which was focused on economic resources. Second, it was considered to well-fit the relationship with expectations, which are projections of the future since it the most suitable indicator to represent the persistency and the transmissibility of these economic resources over the years in the British context.

Class was operationalised through the National Statistics Socio-Economic Classification (NS-SEC), which is based on the Erikson-Goldthorpe class schema (EGC) aggregating individuals into classes according to the type of occupation⁵³, its employment relations, and its conditions. This classification goes beyond the sole employment type and the necessary skills to perform it to include the work situation (income security and prospects for economic advancement) and labour market situation (system of authority and control at work) (Pevalin and Rose, 2002). What distinguishes this occupational classification from other sociological classifications (e.g., EGC) is its empirical validation (ibid.). Table C 1 in Appendix C shows the structure of this classification. It is conceived as an eight or five-class classification that can be reduced also to three ranked categories (example for the different occupations within each class are provided in Figure C 1 in Appendix C).

Our variable for parental occupational class consisted of three ranked categories. The most advantaged class, corresponding to a high-SES, was represented by those whose parents were employed in a managerial or professional occupation; whereas the least advantaged, corresponding to a low-SES, entailed those whose parents were in a routine, semi-routine or lower supervisory occupation. We also included an in-between category representing those whose parents were working in intermediate occupations. To classify the

⁵³ Based on the Standard Occupational Classification (SOC).

long-term unemployed parents, we considered the respondent's last occupation, if available⁵⁴. The respondents who were living with a dominant parent whose class was never-employed were merged with those who were living with a dominant parent with a routine/semi-routine occupation. The resulting class was called the "least advantaged".

We followed a dominance approach, which is quite common in the literature (Erikson, 1984). The highest category of occupation was taken irrespective of the gender of the parent. We called the parent on whom the parental class was based the "dominant parent".⁵⁵ If a step-parent was present in the household alongside a biological parent, the occupational class of the biological parent was considered. If both parents were absent, the young adult was not included the analysis because it was not possible to determine the respondent's parental class (238 person-waves).

Apart from the NS-SEC, other classifications were available to measure class in both the BHPS and the UKHLS. Pure sociological classifications, such as the Goldthorpe scheme or the Cambridge Scale, were discarded because the NS-SEC was considered more reliable, since it has been empirically tested (Pevalin and Rose, 2002). Conversely, pure statistical measures, such as the Registrar General's Social Class (RGCS), the Socioeconomic Groups (SEG), or Social Grade Scheme, were not considered because of their lack of theorisation (ibid.). Pure occupational classifications, such as the International Standard Classification of Occupations (ISCO) or the Standard Occupational Classification (SOC) (referring to the UK alone), were also not used because they were considered reductive, since they do not provide information on long-term employment conditions (ibid.).

Educational aspirations and family structure during adolescence

To operationalise educational aspirations, we used the aspirations to go to college or university reported in the first available observation in the youth questionnaire (which is also the time at which parental occupational class and family structure were measured). Both the surveys provide this information, although the question was posed differently. On the one hand, the BHPS asked this question from wave 4 onwards. Between wave 4 and 11, we relied on an indicator generically asking whether the person wanted to

⁵⁴ We could also have combined the long-term unemployed and the never employed, as indicated in the original classification of Pevalin and Rose (2002). However, we used this alternative method to distinguish mothers who had never worked from those who did. This distinction would be particularly important in the case of single mothers, as those who had never been employed might have represented a significantly disadvantaged group.

⁵⁵ Since we only have a broad three-way categorisation, if both parents belonged to the same class, we assigned the parental class of both parents. Our approach was simpler than the one used by Erikson, as we had only three ranked general categories. In the original approach, there was a possibility of distinguishing the dominant parent, even when both parents belonged to the same NS-SEC class.

leave school at age 16 or go to sixth form or college (*yplvsc*). In waves 12–18, we used an indicator asking specifically about university and college aspirations (*yp2uni_bh*)⁵⁶. In UKHLS, the question on college/university aspirations was a filtered question asked to all youth aged 10–15 (*yplvsc2do*). Youth were first asked whether they wanted to leave school or not (i.e., stay at school or college to do A levels / Highers, get an apprenticeship, do some other form of training, do something else). If they did not, they were asked whether they wanted to go to college or university (*yp2uni*). The final indicator signalled whether youth expressed a positive intention of going to college/university or a negative one (including uncertain⁵⁷).

Since both the BHPS and the UKHLS are household surveys, we identified the characteristics of the family type in which the individual was living when she or he first answered the question on educational aspirations in the youth questionnaire. The most frequent typology was living with married parents (as shown in a more detailed way in section 5.6.1). Other family typologies were living with cohabiting parents, living with only one parent (lone-parent family), and residual categories of family arrangements, such as living with grandparents or not living with a parent or a relative. To operationalise family structure, we decided to compare the normative type of living arrangement, i.e., a nuclear family with married parents, to the other types mentioned above. To avoid having groups that were too small, we did not distinguish between biological and nonbiological parents, especially cohabiters. Indeed, our computations showed that 60% of the parents who were cohabiters during the respondents' youth or adolescence were in step-families (544 personwaves), compared to only 9.7% of the married parents (754 person-waves). However, we performed a sensitivity analysis to verify whether this different specification of family structure could have changed the results, and reported the findings in section 5.6.7.

Individual controls

We also introduced independent variables to control for important sociodemographic characteristics. We considered the respondents' current employment status, distinguishing between whether they were employed, unemployed, inactive, or students. When information was lacking, we also included a missing category. Following the standard definition, we classified those who did not have a job but were actively looking for one as unemployed. In contrast, we classified those who did not have a job and were not looking for one as inactive. Students were identified using the self-defined employment status.

 $^{^{56}}$ This question was asked to youth aged 13–15 in wave 12 -14; whereas, it was posed to all the sample aged 11-15 in the subsequent waves.

⁵⁷ In waves 1,2,3,4,5,7,10 of UKHLS, missing values were considered as "don't know" because the category "don't know" was not present. Instead, the category "missing" presented a very similar percentage to the uncertain in other waves.

We also included an indicator for age, which was dichotomised into those who were below and above 20 years old; gender; and foreign status, i.e., whether the person was or was not born in the UK (we also kept one category for the missing information). We also added a categorical variable that checked the historical period in which the interview took place. The categories for the historical period were before 2010 (the BHPS waves collected in 2002 and 2007); between 2010 and 2013 (the UKHLS waves collected starting in 2010, 2011, and 2013); and, finally, after 2013 (the waves collected starting in 2015 and 2017).

Furthermore, we considered the respondent's religious affiliation. The respondent was classified as not religious, Christian, Muslim, Jewish, member of an Oriental faith (e.g., Buddhist, Sikh, or Hindu), or member of another faith. The question on religion was not asked in all the BHPS and UKHLS waves we considered in our analysis⁵⁸. We filled in the missing information with the data collected in the waves before the respondent answered the question on expectations⁵⁹. A variable measuring self-rated health was also introduced, as some young adults may have had health-related concerns that undermined their prospects of forming a partnership in the future. The variable was measured on a scale ranging from one (very good) to four (bad)⁶⁰. We also included two variables indicating whether the respondent was living with no siblings, up to two siblings, or more than two siblings; and whether he or she had children.

5.5 Analytical strategy

5.5.1 Multivariate linear regression (OLS regression)

We first used OLS regressions to analyse the relationship between parental class and marriage and cohabitation expectations. The estimated models had the following specification:

Family expectations_i =
$$\beta_0 + \beta_1 * parental class_i + \gamma * z_i + \varepsilon_i$$
 $i = 1, ... n$

We clustered the standard errors at the identifier level to adjust for potential heteroskedasticity due to the potential correlation of repeated observations within the same individual (StataCorp, 2021). The OLS regression models, as well as all of the following

⁵⁸ The waves of the BHPS in which the question was asked were 1, 7, 9, 11, 14, and 18. The waves in which the question was asked of the whole sample in the UKHLS were 1,4, and 8.

⁵⁹ We could not fill in all observations because of missing values on the type of religion, and because not all the young adults answered the question on religion before expressing their expectations.

⁶⁰ The variables originally consisted of five categories, but were then recoded to allow for a harmonization of the surveys.

models, were weighted⁶¹ through cross-sectional weights rescaled to give an even representation of wave size⁶².

5.5.2 Multinomial logit regression

A multinomial logit regression modelled the relationship between the covariates and the variable combining marriage and cohabitation expectations or representing expected age at marriage. The model was specified as follows:

$$logit(\pi_j) = log\left(\frac{\pi_j}{\pi_j}\right) = \alpha_j + \beta_j X_j$$

The ratio $\left(\frac{\pi_j}{\pi_J}\right)$, also called "relative risk ratio"⁶³, relative to the probability of the occurrence of event *j* and the probability of occurrence of event *J*. In the case of expectations for partnership transitions, *J* was "premarital cohabitation" and *j* was "direct marriage", "lifelong singlehood", "lifelong cohabitation", or "uncertainty on both partnership types". For marital age, the reference category *J* consisted of individuals who expected to marry after age 25; and *j* consisted of individuals who expected to marry before age 25, individuals who did not know when they would marry (or were uncertain about marriage itself), and individuals who rejected marriage. The notation in terms of log-odds could also be substituted through a more immediate probability notation in terms of probabilities, whose formula was (Agresti, 2007: p.176):

$$\pi_j = \frac{e^{\alpha_j + \beta_j x}}{\sum_{h=1}^J e^{\alpha_h + \beta_h x}} \quad j = 1, \dots, J$$

As in the OLS case, standard errors were clustered due to a potential violation of the independence of the responses caused by the survey panel structure.

5.5.3 Mediation analysis

A mediation analysis investigates, through statistical procedures, whether a statistical relationship could be represented through a mediational model (lacobucci, 2008).

⁶¹ Because of the impossibility of performing the KHB decomposition, the survey's complex structure could not be considered.

⁶² https://iserredex.essex.ac.uk/support/issues/414

⁶³ As noted by Rabe-Hesketh and Skrondal (2012), when using software like Stata, this ratio is defined as "*relative risk ratio*".

A mediational model is defined as "a causal model in which an independent variable of interest is presumed to affect some outcome variable because, at least in part, the independent variable affects a mediator that in turn affects the outcome" (Judd and Kenny, 2010: p.117). We used mediation analysis to verify whether the relationship between parental SES (*X*) during adolescence and partnership expectations during young adulthood⁶⁴ (*Y*) could be explained by the relationship between parental SES and the mediators (*M*) of family structure and educational aspirations during adolescence, which, in turn, influenced partnership expectations. The key assumptions of a mediating model are that the causal directions are correct, there are no unmeasured variables, and there is no omitted variable bias (ibid.). For the sake of simplicity, we refer to Figure 5-2, which reported only one mediator, instead of two. However, the presence of another mediator does not change the interpretation⁶⁵. According to Baron and Kenny (1986), the basic condition for mediation is the presence of a significant total effect of *X* on *Y* irrespective of mediators (path *c* in Figure 5-2). Briefly, coefficient *c* in equation (1.1) (so far, a linear model is considered) needs to be statistically significant.

$$Y = cX + \varepsilon \tag{1.1}$$

The mediation analysis divides the total *effect* into two components: *direct and indirect*. The indirect effect represents the component of the total effect of X on Y explained through mediator(s) (Steyer et al., 2014) and is the product of two coefficients a and b from equations (1.2) and (1.3) (paths a and b in Figure 5-2). The direct effect (path c' in Figure 5-2) describes the parts of the total effect that are not transmitted through the mediators (Steyer et al., 2014). The direct effect corresponds to the c' coefficient in equation 1.3. Alternatively, the indirect effect can also be detected through the difference between the total and the direct effect, c - c' in equations (1.1) and (1.3) respectively.

$M = aX + \varepsilon$	(1.2)
$Y = c'X + bM + \varepsilon$	(1.3)

A measure for mediation that is complementary to the indirect effect is the percentage mediated, which is given by the ratio between the indirect effect over the total effect (if the mediator is categorical, the percentage mediated is computed for each mediator category). We computed the mediated percentages only for those coefficients significant at the 5% level, in line with Baron and Kenny (1986). In fact, for total effects close to zero, even

⁶⁴ Marriage and cohabitation expectations, both separately and combined, and age at marriage.
⁶⁵ When there are two mediators, one is kept as a control variable while the other is evaluated as a mediator.

statistically insignificant or modest mediation effects would result in large mediated percentages⁶⁶ (Shrout and Bolger, 2002). However, we are aware that more recent literature has argued that an approach that considers only statistically significant effects should be regarded with caution (Kenny, 2021).





Source: author's own graphical representation

Note: this figure refers to only one of the considered paths, "academic socialisation". A similar interpretation can be also assumed for the alternative path of "family structure socialisation".

The method used to perform the mediation analysis is the "Karlson-Holm-Breen" decomposition, more commonly referred to as KHB decomposition (Breen et al., 2012), which differs slightly from Baron and Kenny (1986)'s method for the computation of equation (1.3). In fact, KHB rescales the mediators by adding to the model unadjusted for mediators (1.1) the residuals of the linear⁶⁷ regression of M on X, instead of M (ibid.). This procedure is necessary to ensure a correct comparison of the total and direct effects within nonlinear models, such as multinomial logit. In fact, the inclusion of the mediators could change the coefficients of X regardless of their correlation with Y (non-collapsibility). A sufficient condition would be that the mediators are correlated with Y (ibid.). To compute the mediation analysis through the KHB decomposition, we used the user-written command *khb* in Stata (ibid.).

⁶⁶ Suppression effects occur when direct effects have the opposite sign to that of the indirect effect or other mediating mechanisms (MacKinnon et al., 2007).

⁶⁷ In the case of categorical mediators, the KHB decomposition still uses a binary linear regression (Breen et al., 2012).

5.6 Results

5.6.1 Descriptive results: The distribution of the dependent variables

5.6.1.1 Marriage and cohabitation expectations

Figure 5-3 shows that the distribution of marriage expectations is highly skewed towards values that go beyond 49, especially 50 and 100. In the literature, these points are called "focal points". By contrast, the distribution of cohabitation expectations has a much higher density at the 0-value. Individuals generally tend to focus their judgments on numbers ending in zero (tens) or in five, most likely to simplify their reasoning. The literature refers to the spike at 50 as "middle-point endorsement". It is generally considered a sign of uncertainty, equivalent to a "don't know" response (Fischhoff and De Bruin, 1999). These results clearly indicate that young adults tend to be more confident about the likelihood of marrying than about the likelihood of cohabiting.





Source: own unweighted computations from BHPS and UKHLS (Person-wave=11,439)

The dependent variable combining marriage and cohabitation expectations confirms these statistics (Table 5-3), since it shows that 50% of the weighted sample has "high" expectations towards both marriage and cohabitation ("premarital cohabitation") and

20% "high" expectations towards marriage only ("direct marriage"). Only 10% have "high" expectations for cohabitation and "low" or "uncertain" towards marriage ("lifelong cohabitation"). The rest consists of those uncertain or not expecting to partner.

COHABITATION	>50	=50	<50
MARRIAGE			
>50	Premarital Cohabitation (5,483/50.6%)	D ma (2,689	virect arriage /19.98%)
=50	Lifelong cohabitation	Uncertain on both (1,116/10.16%)	
<50	(1,095/10.27%)	Lifelong singlehood (1,056/8.99%)	

Table 5-3: Cohabitation and marriage expectations combined

Source: own weighted computations from BHPS and UKHLS

5.6.1.2 Expected age at marriage

The histogram in Figure 5-4 shows the distribution of the values of the expected age at marriage, among those who expressed a positive value (N=5,040). As Figure 5-4 shows, the distribution of marital age expectations is bimodal, meaning that two specific values are most common: i.e., 25 and 30. Those expecting an "early marriage", i.e. an expected age at marriage before 25, represented 10% of the entire weighted sample; whereas, those expecting a "later marriage", i.e. an expected age at marriage equal or above 25, represented 61.7%. These values represent critical normative thresholds for the transition to adult ages (Arnett, 2000). However, in our sample, a large percentage of individuals stated that they did not know at what age they will marry (21.7%), while smaller percentages of individuals indicate that they do not want to marry (6.1%) or had non-valid values (1.2%). For our analysis, we excluded the latter category as not particularly informative (103 person-years).





Table 5-4 verifies the internal consistency of the answers to both questions. Table 5-4 shows the cross-tabulation of marriage expectations and marital age within the subsample of respondents who answer both questions. Since individuals did not answer the two questions in the same waves, but with a one-year lag, we paired the answer on age with the answer on expectations in the previous wave. This enables us to maximise the number of matches.

Table 5-4 reports that the great majority of respondents indicating a precise marital age express a marital expectation above 75 (72.7% for "less than 25" and 59.6% for "25+"). Among those stating that they do not want to get married, 74.1% declare a lifelong marital expectation of less than or equal to 50. The most ambiguous category is "don't know", as respondents in this category declare expectations both equal to 50 (28.9%) and between 76 and 100 (39.4%). This ambiguity may have arisen because "don't know" can signal that the respondent is uncertain either about the event of marriage, or about the expected age at marriage (but not necessarily the event).

Table 5-4 Marriage expectations by expected age at marriage (weighted row percentages)

Marriage expectations	[0,25]	[26;49]	50	[51,75]	[76,100]
Age at marriage					
Less than 25	3.01	1.39	11.43	11.49	72.67
25+	3.95	4.04	13.65	18.80	59.56
No marriage	37.34	12.14	24.61	10.22	15.69
Don't know	10.28	5.51	28.92	15.85	39.43

Source: own calculation from BHPS and UKHLS (6,115 person-waves)

Source: own unweighted computations from BHPS and UKHLS (Person-waves=5,040, i.e., those who answered a numerical age)

5.6.1.3 The distribution of the key independent variables: parental class, educational aspirations, and family structure

Table 5-5 shows the distribution of parental socioeconomic class during adolescence⁶⁸. The parents in managerial and professional occupations have the highest weighted frequency in the sample (43.1%), followed by parents in the "least advantaged" occupations (34.3%) and parents in intermediate positions (22.6%)⁶⁹. Table 5-5 also shows that for the mediator on the distribution of parental family structure during young adults' adolescence, a majority of parents were married (68.2%), while smaller shares of parents were single (21.4%) or cohabiting (8.8%). Moreover, most of the young respondents indicated that they aspired to go to college or university in the future (70.5%).

Table 5-5: Distribution of the variables of interest during adolescence: Parental NS-SEC class and mediators

NS-SEC parental class	Unweighted person-waves	Weighted person-waves (%)
Managers and professionals	5,019	43.07
Intermediate	2,271	22.56
Least advantaged	3,661	34.37
Family structure		
Two married parents	7,785	68.24
Two cohabiting parents	953	8.81
Lone parents	2,518	21.44
Others	183	1.50
Educational aspirations		
No (don't know)	3278	29.53
Yes	8161	70.47

Source: own computations from BHPS and UKHLS data (person-waves=11,439)

Table 5-6 shows that most sample observations are for individuals aged 16-18 (over 65%). This age imbalance is likely generated by the sample construction, which is based on "rising 16s", who provide one or two observations at most. Consequently, for employment status, a significant majority of the observations are of students (more than 60%). However, a moderate share of respondents is employed (around 30%), while smaller yet consistent shares are unemployed or inactive youngsters (together around 10%). As expected, given the age and occupational composition of the sample, the overwhelming majority of respondents do not have children (around 98%). Most of them have one or two siblings (63.9%).

The majority of respondents in the sample have been interviewed after 2010 (almost 75% of the weighted sample), because five of the seven waves of data collection

⁶⁸ All the statistics refer to largest sample possible; that is, the one that considers the computation of the partnership expectations (not age).

⁶⁹ Within this group, parents who have never been employed during their children's adolescence represent 2.7% of the weighted sample (362 person-waves), of which single mothers account for nearly 80%.

occurred in UKHLS. Around half of respondents are women (52%), and the majority are native-born (82%). More than half of respondents report that they are not religious (60.25%). Of those who indicate that they are religious, 19.16% say they are Christian, 3.27% say they are Muslim, 1.64% report that they belong to an Oriental faith, and 0.47% say they are Jewish. Almost 90% of the interviewed young adults (87.74%) report having very good or good health.

	Unweighted	Weighted
	person waves	person-waves
Employment status		
Employed	2,588	27.63
Unemployed	484	5.15
Inactive	486	4.65
Student	6,957	61.79
Missing	94	0.78
Age group		
16-18	7647	66.61
19-21	3792	33.39
Sex		
Male	5,462	52.59
Female	5,573	47.41
Foreign status		
Born in the UK	8,886	79.51
Not born in the UK	417	2.92
Missing	2,136	17.57
Historical period		
Before 2010	1,640	25.51
2010-2013	5,460	44.62
2015-2017	4,339	29.87
Religion		
No religion	6,291	60.25
Christian	1,959	19.16
Muslim	804	3.27
Oriental	258	1.64
Jewish	31	0.47
Other	50	0.43
Missing	2,046	14.79
Number of siblings		
0	2,903	24.52
1-2	6,966	63.92
>2	1,570	11.56
Presence of biological children		
No	11,223	98.11
Yes	216	1.89
Self-rated health		
Very good	6,876	55.91
Good	3,356	32.83
Fair	884	8.50
Bad	193	2.11

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Table 5-6: Distribution of the control variables

Missing

Coresidence with parents

0.64

No	762	5.64
Yes	10,677	94.36

Source: own computations from BHPS and UKHLS (person-waves=11,439)

5.6.2 Analysis of the total effect of parental class on partnership expectations

Table 5-7 (a) presents the results from the OLS regressions relating parental class to cohabitation and marriage expectations separately (full model including controls is in Table C 2). The marriage expectations of young adults from the least advantaged parental classes are lower than those of young adults from a managerial parental class. Ceteris paribus, being in the least advantaged parental class is associated with having marriage expectations that are, on average, 5.95 points (on a scale from zero to 100) lower than being in a managerial parental class (p < 0.01). The marginal effect of the intermediate parental class is not statistically significant and is very close to zero.

Further, the results show a very modest effect of parental class on cohabitation expectations. Young adults from the least advantaged parental class present a negative nonsignificant coefficient, and those from an intermediate parental class present a positive coefficient amounting to 1.79 points over 100, which is significant at the 10% level (p = 0.054). Both coefficients are limited in magnitude. In sum, H1 seems overall confirmed: i.e., less advantaged young adults were significantly less likely than their more advantaged counterparts to expect to ever marry in their life. By contrast, only modest differences across socioeconomic classes were present in cohabitations expectations. These moderate differences denote that the intermediate class has slightly higher cohabitation expectations than the most advantaged, whereas the least advantaged slightly lower.

Table 5-7 (a): Estimated OLS coefficients from a model regressing parental socioeconomic status on marriage and cohabitation expectations separately (results on controls are shown in Table C 2)			
	(1a)	(1b)	
	Marriage	Cohabitation	
	Expectations	Expectations	
	(scale of units from 0 to 100)	(scale of units from 0 to 100)	
Parental socioeconomic class			
(ref. managerial and			
professional)			
Intermediate	0.74 (0.87)	1.79+ (0.93)	
Least advantaged	-5.95**(0.86)	-1.23 (0.83)	

Source: own computations from BHPS and UKHLS (person-waves=11,439)

Table 5-7(b): Relative risk ratios from a multinomial logit regressing parental socioeconomic status on marriage and cohabitation expectations combined (results on controls are shown in Table C 3)

	2.a	2.b	2.c	2.d
Parental socioeconomic class (ref. managerial and professional)	"Direct Marriage" vs "Premarital	"Lifelong cohabitation" vs "Premarital	"Lifelong singlehood" vs "Premarital	"Uncertain about both" vs "Premarital
	cohabitation"	cohabitation"	cohabitation"	cohabitation"
Intermediate	0.93(0.09)	1.21 (0.15)	0.85 (0.12)	1.14 (0.15)
Least advantaged	0.95(0.08)	1.68**(0.18)	2.03**(0.23)	1.86**(0.19)

Source: own computations from BHPS and UKHLS (person-waves=11,439)

Table 5-7 (c): Relative risk ratios from a multinomial logit regressing parental socioeconomic class on marital age expectations (results on controls are shown in Table C 4)

	3.a	3.b	3.c
Parental socioeconomic class (ref. managerial and professional)	"Less Than 25" vs "More than 25"	"No Marriage" vs "More than 25"	"Uncertain" vs "More than 25"
Intermediate	1.01(0.15)	1.26 (0.21)	1.08 (0.10)
Least advantaged	1.19(0.15)	1.83**(0.27)	1.34**(0.12)

Source: own computations from BHPS and UKHLS (person-waves=8,167)

 $(a)^{**} p < 0.01, * p < 0.05, + p < 0.1$

(b)Notes referred to Table 5-7(a), Table 5-7 (b) and Table 5-7 (c);

(c) The least advantaged category comprises those from "routine and semi-routine backgrounds" and "never employed".

(d) Models are controlled for gender, religion, foreign status, presence of siblings, presence of children, employment status, age, historical period, self-rated health status, and coresidence with parents.

We now investigate H2, which explores whether respondents with lower-class parent(s) had a higher likelihood of expecting to experience "lifelong cohabitation" or "lifelong singlehood", and a lower likelihood of expecting "direct marriage" relative to "premarital cohabitation", than those with higher-class parent(s). Additionally, we will also comment on the category "uncertainty about both partnership types". As we explained in section 5.5, even though we assign labels to the different categories of the dependent variables, these categories describe trends, and thus need to be considered with caution (a risk would be to overinterpret young adults' statements).

Table 5-7(b) shows the results of the multinomial logit relating parental class to the combined categories of marriage and cohabitation expectations (the full model is in Table C 3 in Appendix C). The results in model (2.a) show that being brought up in a parental class other than a managerial class is not significantly related to expecting to experience "direct marriage" relative to "premarital cohabitation". By contrast, young adults from the least advantaged background are twice as likely to expect to experience "lifelong singlehood" relative to "premarital cohabitation" as those from a managerial parental class

(RRR=2.03, p < 0.01). Compared to their counterparts from more advantaged backgrounds, they are 1.7 times as likely to expect to experience "lifelong cohabitation" and 1.9 times as likely to expect to "be uncertain about both partnership types" relative to "premarital cohabitation" (p < 0.01). Across all of the outcomes, respondents from an intermediate parental class show relative risk ratios that are lower than the ones witnessed for the least advantaged class, statistically insignificant and close to one, i.e., there is little difference between their expectations and those of respondents from managerial and professional backgrounds.

After presenting these results, we can state that H2 is mostly confirmed: young adults from least advantaged background were more likely to expect to experience "lifelong cohabitation" or "lifelong singlehood" relative to "premarital cohabitation" than their advantaged counterparts. However, contrary to our hypothesis, we found no significant differences in expectations for "direct marriage". Regarding the category "uncertainty on both types of partnership", the results indicate that respondents from disadvantaged backgrounds had more uncertain expectations to ever partner than their advantaged counterparts.

Lastly, Table 5-7(c) shows the results for the model in which the dependent variable is expected age at marriage, which tests H3 (results from the full model are in Table C 4). The category with the highest frequency is the reference group: i.e., "marital age equal to or above 25". Young adults from the least advantaged parental background are 1.19 times more likely to expect to be married by age 24 ("early marital age") than by an older age ("later marital age") as those from a parental managerial class (model 3.a). The results were, however, not statistically significant (p > 0.1), thereby indicating that differences in the expected age at marriage across parental classes were rather small.

Respondents from the least advantaged parental class also have a significantly higher likelihood of expecting not to marry or of being uncertain about their marital age relative to those wishing to marry at or after age 25 (RRRs=1.8 and 1.3, p < 0.01) (models 3.b and 3.c). Therefore, H3 is partially confirmed. On the one hand, contrary to our expectations, we do not find differences in the likelihood of expecting either an earlier or a later marriage according to parental occupational class. On the other hand, in line with our hypothesis, we find that those from the least advantaged class were more likely to be uncertain about their marital age or to expect to not marry.

5.6.3 Mediating mechanisms of parental class on partnership expectations

We now focus on H4 and H5 by performing the mediation analysis. Before reporting the percentage mediated computed through the KHB method (section 5.6.3.3), we

investigate whether the hypothesised mediators are on the "mediating path". First, we verify whether the independent variable (parental class during adolescence) relates to the mediators (family structure and educational aspirations during adolescence) (section 5.6.3.1). This path is called " $X \rightarrow M$ "⁷⁰, and corresponds to coefficient *a* in equation 1.2 in section 5.5.3. Second, we examine whether the mediators are associated with respondents' partnership expectations in young adulthood, after controlling for parental class (section 5.6.3.2). This path is called " $M \rightarrow Y$ ", and coincides with the coefficient *b* in equation 1.3 in section 5.5.3. We also evaluate the presence of complete or partial mediation by analysing the direct effect.

5.6.3.1 From parental class to family structure and educational aspirations during adolescence $(X \rightarrow M)$

Figure C 4-Figure C 6 in Appendix C show the results of linear probability models that regress parental class during adolescence on family structure and educational aspirations, also during adolescence. The models show a positive relationship between having a parent from a class different from the most advantaged and having lower educational aspirations (coefficients span from -0.05 to -0.11). Moreover, parental class is also found to be strongly related to living in a family type other than that of married parents. The coefficient of living in a lone-parent family has the largest absolute magnitude (in between 0.1-0.3). Once the validity of the path ($X \rightarrow M$) is demonstrated, we explore whether young adults' family structure and educational aspirations during adolescence are associated with their partnership expectations during young adulthood.

5.6.3.2 From family structure and educational aspirations during adolescence to partnership expectations during young adulthood $(M \rightarrow Y)$

Nested models, whose coefficients are represented graphically in Figure 5-4– Figure 5-7, show whether the mediators are related to respondents' partnership expectations, after controlling for parental class; and whether their introduction follows a reduction in the total effects explored in section 5.6.2. Each figure contains four models: (I) unadjusted for mediators (equivalent to the coefficients in Table 5-7a or relative risk ratios in Table 5-7b and Table 5-7c); (II) adjusted for educational aspirations; (III) adjusted for family structure; and (IV) adjusted for both of the hypothesised mediators. We start with Figure 5-5, which shows the results when marriage and cohabitation expectations are modelled separately. Models II, III, and IV indicate that educational aspirations and family structure

⁷⁰ The aim of the check is to explore the existence of associations, but it is indicative in nonlinear models, since the indirect effect is not exactly the product of a and b.
are significantly related to marriage and cohabitation expectations. Figure 5-5 shows that young adults who were living in a single-parent or cohabiting family during adolescence have, on average, marriage expectations that are 9.2 and 5.0 points (out of 100) lower and cohabitation expectations that are 2.2 and 2.1 points higher, respectively, than those who were residing with married parents (p < 0.05). Unlike for family structure, the effect of educational aspirations is similar for both cohabitation and marriage expectations. Young adults who did not aspire to attend college or university during adolescence have, on average, marriage and cohabitation expectations that are, respectively, 3.6 and 3.1 points lower than those who did.

When educational aspirations are introduced into the model for marriage expectations, the coefficients for parental class remain similar (model II, panel "Marital expectations"). By contrast, when family structure is introduced into this model (model III, panel "Marital expectations"), the coefficient for the least advantaged parental class is almost 1.5 points lower, which shows that, ceteris paribus, family structure explains more of the total effect of occupational class on marriage expectations than educational aspirations. When both mediators are introduced into the model, the coefficient for the routine parental class is 1.9 points lower than the coefficient for the managerial and professional class, which is equivalent to subtracting the sum of the mediated effect of family structure and educational aspirations in separate models, which suggests that the two mechanisms are independent of each other. However, as expected, the mediation is never full; i.e., the estimates in the model unadjusted for mediators are never completely driven to zero in the adjusted model. The absence of full mediation illustrates that parental class may have a direct effect (i.e., an effect on its own) on expectations, or that there might be other mediators underlying the relationship between parental class and partnership expectations, such as attitudes, that are not considered.

Even though none of the coefficients for parental class in the unadjusted model of cohabitation expectations is statistically significant at the 5% level, when the covariate for family structure is introduced alone into the model (model III), the coefficient for the intermediate class is modestly resized by 0.2 percentage points. Instead, the coefficient for the least advantaged class is 0.7 points lower than the coefficient reported in the unadjusted model, and significant at the 5% level. This shift suggests that family structure acts as a suppressor, shortly meaning that the total effect of parental class on cohabitation expectations has a negative sign, but its indirect effect (i.e., the portion of the total effect explained by the family structure) is positive⁷¹.

⁷¹ The sign of the indirect effect is positive because it reflects the following mechanism: low-SES individuals are *more likely* to select into alternative living arrangements that are related to *higher*



Figure 5-5: Coefficients from OLS regression regressing parental class on partnership expectations analysed separately, adjusted and unadjusted for mediators

Source: own computations from BHPS and UKHLS

(a) Columns show the independent variables of the nested models: socioeconomic class, family structure, and educational aspirations. Rows show the dependent variables "marriage expectations" and "cohabitation expectations".

(b) The red line refers to whether the estimates are significantly different from zero at the 5% level. Reference categories are in parentheses. The reference category for (a) family structure is "married parents"; (b) the reference category for educational aspirations is "respondent aspires to go to college/university"; and (c) the reference category for parental NS-SEC is "managerial and professional".

(c)The "unadjusted" model does not contain mediators. The "aspirations/adj." model is adjusted for educational aspirations; the "family/adj." model is adjusted for family structure and the "both/adj." model is adjusted for both family structure and educational aspirations. All the models are controlled for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status, and coresidence with parents.

(d) The category "least advantaged" combines respondents whose parental class is routine/semi-routine/lower supervisory or never employed.

cohabitation expectations. For the total effect to agree with the indirect effect, low-SES should also have, on average, higher cohabitation expectations (similar to the intermediate category).

Figure 5-6 shows the coefficients of the model in which marriage and cohabitation expectations are combined as the dependent variable. All the unadjusted models show quite sizable relative risk ratios of the coefficients of the least advantaged class on "lifelong cohabitation", "lifelong singlehood", and "uncertainty on both partnership types" relative to "premarital cohabitation". When the model is adjusted for family structure and educational aspirations, these relative risk ratios are reduced, which suggests the presence of mediation. However, they are never completely mediated, i.e., they never tend towards one (the value signalling no effect).

Figure 5-6 also shows that family structure and educational aspirations are significantly associated with partnership expectations. Compared to young adults living in a family with married parents, those in a family with cohabiting parents or a single parent have a higher likelihood of expecting "lifelong cohabitation", "lifelong singlehood", or "uncertainty about both partnership types" than "premarital cohabitation", with the first category displaying a more pronounced coefficient than the others (in some cases, the categories are also not statistically significant). The expectations for "direct marriage" present the opposite sign. Figure 5-6 shows that not aspiring to go to college, rather than aspiring to go to college, is related to higher expectations for "direct marriage", "lifelong cohabitation", "uncertainty about both partnership types" and "lifelong singlehood" (relative to "premarital cohabitation")..

Figure 5-6: Relative risk ratios from a multinomial logit regressing parental class on partnership expectations combined, adjusted and unadjusted for mediators

		Direct marriage vs	Lifelong cohabitation vs	Lifelong singlehood vs	Uncertain on both vs
Parental NS-SEC (recoded)	Int.te (ref.managerial – and professional) Least advantaged –	Premar. cohabitation	Premar. cohabitation 1.21 1.20 1.14 1.13 1.68 1.65 1.42 1.40	Premar. cohabitation 0.85 0.81 0.82 0.79 	Premar. cohabitation 1.14 1.12 1.22 1.09 1.86 1.81 1.75 1.70
Uni/college aspirations	R. not aspiring _ (ref.yes)	◆ 1.14 ● 1.15	← 1.17 ← 1.16	← 1.80 ← 1.80	+ 1.35 + 1.35
y ire	Cohabiting parents _ (ref.married)	 0.64 0.63 	2.43 2.43 2.42	1.79 1.76	≠ 1.30 ■ 1.29
Famil structu	Lone parents/s – Others –		1.72 1.72 1.72 1.72		+ 1.23 + 1.24 - 1.06 1.03
0 1 2 3 4 0 1 1 2 3 4 0 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 0 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					

Source: own computations from BHPS and UKHLS

- (a) Rows show the independent variables of the nested models: socioeconomic class, family structure, and educational aspirations, during adolescence. Columns show the dependent variables "direct marriage ", "lifelong cohabitation ", "lifelong singlehood ", and "uncertain about both partnership types", relative to "premarital cohabitation"."
- (b) The red line refers to whether the estimates are significantly different from one (no effect) at the 5% level. Reference categories are in parentheses. The reference category for (a) family structure is "married parents"; (b) the reference category for educational aspirations is "respondent aspires to go to college/university"; and (c) the reference category for parental NS-SEC is "managerial and professional".
- (c) The "unadjusted" model does not contain mediators. The "aspirations/adj." model is adjusted for educational aspirations; the "family/adj." model is adjusted for family structure and the "both/adj." model is adjusted for both family structure and educational aspirations. All the models are controlled for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status, and coresidence with parents.
- (d) The category "least advantaged" combines respondents whose parental class is routine/semi-routine/lower supervisory or never employed.

Figure 5-7 shows that, when family structure and educational aspirations are introduced into the model for the expected age at marriage, the relative risk ratios of the least advantaged parental class are modestly resized. This happens for the outcome categories indicating "uncertainty about marital age" or "no marriage". The results also show that respondents who were living in with cohabiting parents during adolescence, rather than with married parents, have a higher likelihood of rejecting marriage and a higher likelihood of expecting to marry early (at below age 25) relative to expecting to marry at age 25 or older. Furthermore, respondents who were living in a lone-parent family during adolescence have a higher likelihood of rejecting marriage or being uncertain about marriage than of expecting to have a normative marriage. Respondents who were not aspiring to go to college show a higher likelihood of predicting a non-normative marital age, of being uncertain about their marital age, or of rejecting marriage.



Figure 5-7: Relative risk ratios from a multinomial logit regressing parental class on marital age expectations, adjusted and unadjusted for mediators

Source: own computations from BHPS and UKHLS

- (a) Rows show the independent variables of the nested models: socioeconomic class, family structure and educational aspirations, during adolescence. Columns show the dependent variables "Early marriage (less than 25) ", "Don't know", "No marriage", relative to "Later marriage (25+)"
- (b) The red line refers to whether the estimates are significantly different from one (no effect) at the 5% level. Reference categories are in parentheses. The reference category for (a) family structure is "married parents"; (b) the reference category for educational aspirations is "Respondent aspires to go to college/university"; and (c) the reference category for parental NS-SEC is "managerial and professional".
- (c) The "unadjusted" model does not contain mediators. The "aspirations/adj." model is adjusted for educational aspirations; the "family/adj." model is adjusted for family structure and the "both/adj." model is adjusted for both family structure and educational aspirations. All the models are controlled for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status, and coresidence with parents.
- (d) The category "least advantaged" combines respondents whose parental class is routine/semiroutine/lower supervisory or never employed.

5.6.3.3 Percentage mediated through the KHB decomposition

The KHB decomposition calculates how much of the total effect of parental class on partnership expectations is explained by the indicators for family structure and educational aspirations during adolescence, with a detailed quantification of the share explained by each mediator category. Since we are presenting the percentage mediated (indirect over total effect), we show the decomposition only for those coefficients that differ significantly from zero at the 5% level. Therefore, we are not going to show the decomposition for the models that have cohabitation expectations (model 1.b in Table 5-7), "direct marriage vs premarital cohabitation" (model 2.a in Table 5-7), and "under age 25 vs age 25 or older" (model 3.a in Table 5-7) as their outcome. We also do not show the decomposition for the categories contrasting "intermediate vs managerial and professional" backgrounds, since most results indicate that it relates to the outcomes in a modest way and because we would like to focus on the most coherent and strongest .

Table 5-8a, Table 5-8b, and Table 5-8c show the percentage mediated by each category of family structure and educational aspirations for the coefficient "least advantaged vs managerial" when it is significant at the 5% level. Each table refers to a different model: Table 5-8a decomposes the coefficient of the unadjusted model in Figure 5-5; Table 5-8b refers to the unadjusted model in Figure 5-6; and Table 5-8c refers to the unadjusted model in Figure 5-7. All of the tables show that the share of the coefficients that is not explained by both of the hypothesised channels is still over 50% for all the outcomes, suggesting that other mechanisms explain a large part of the relationship of interest, or that the socioeconomic class has an effect on its own, or both.

The models with the highest percentage explained by both mediators are those that have as their outcome expectations for marriage (1.a), "lifelong cohabitation vs premarital cohabitation" (2.b) and "uncertainty about marital age vs marriage at age 25 or older" (3.b) (32.30%, 36.62%, and 39.66%, respectively). The mediator with the highest explanatory power across almost all models is the category of family structure that compares lone and married parents, which explains almost a third of the total effect of model (3.b), and a fifth of the total effect of models (1.a) and (2.b). The categories "cohabiting vs married parents" and "not aspiring vs aspiring to go to college" have a lower percentage mediated, ranging between 3% (lifelong cohabitation) and 11% (lifelong singlehood). The models that compare the categories "lifelong singlehood" (2.c) and "uncertainty about both partnership types" (2.d) with "premarital cohabitation", as well as "no marriage" and "marriage at age 25 or older" (3. c), have, overall, more modest mediated percentages (17.8%, 15.17%, and 22.7% respectively). For models (2.d) and (3. c), "lone vs married parents" remains the mediator with the highest percentage explained, albeit to a lesser extent (7–14%).

Table 5-8 (a): Percentage of the total effect contrasting the "least advantaged vs the most advantaged" mediated by family structure and educational aspirations for the model that has age at marriage as the outcome

	Model 1. a
	Marital
	expectations
Share of total effect due to mediators (%):	32.3
Change of total offerst mediated wis (0/).	
Share of total effect mediated via (%):	
Educational aspirations	
R. does not aspire to go to college (or is uncertain) ¹	6.50
Family structure	
Cohabiting parents ²	5.27
Lone parents	20.75
Other types of families	-0.19
Unexplained share of the total effect (%):	67.7

¹R. aspires to go to college ² Ref. married parents.

- (a) This note refers to Table 5-8 (a), Table 5-8 (b), and Table 5-8 (c);
- (b) Only the decomposition for the coefficients that are statistically significant at the 5% level is considered.
- (c) All the models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status, and coresidence with parents..

Table 5-8 (b): Percentage of the total effect contrasting the "least advantaged vs the most advantaged" mediated by family structure and educational aspirations for the model that has combined marriage and cohabitation expectations as the outcome

	Model 2. b	Model 2. c	Model 2. d
	"Lifelong	"Lifelong	"Uncertainty on both
	cohabitation"	singlehood"	partnership types"
	vs	vs	vs
	"Premarital	"Premarital	"Premarital
	cohabitation"	cohabitation"	cohabitation"
Share of total effect due	35.62	17.80	15.17
to mediators (%):			
Share of total effect			
mediated via (%):			
Educational aspirations			
R. does not aspire to go to	3.06	9.00	5.27
college (or is uncertain) ¹			
Family structure			
Cohabiting parents ²	5.82	2.73	1.40
Lone parents	25.32	7.20	8.44
Other types of families	types of families 1.40 -1.12 0.06		0.06
Unexplained share of the	64.38	82.20	84.83
total effect (%):			

¹R. aspires to go to college ² Ref. married parents

Table 5-8 (c): Percentage of the total effect contrasting the "least advantaged vs the most advantaged" mediated by family structure and educational aspirations for the model that has age at marriage as the outcome

	Model 3. b	Model 3. c	
	"Don't know"	"No marriage"	
	vs	vs	
	"25 or older"	"25 or older"	
Share of total effect due to mediators (%):	39.66	22.72	
Share of total effect mediated via (%):			
Educational aspirations			

R. does not aspire to go to college (or is uncertain) ¹	11.7	3.77
<u>Family structure</u>		
Cohabiting parents ²	-1.03	4.58
Lone parents	28.2	14.52
Other types of families	0.80	-0.16
Unexplained share of the total effect (%):	60.34	77.28

¹R. aspires to go to college ² Ref. married parents

Based on these results, H5 is confirmed only when considering specific outcomes, whereas it is not for others. Being raised in a lone-parent family rather than in a family with married parents explains a sizable share of the parental socioeconomic differences in partnership expectations for "lifelong cohabitation vs premarital cohabitation", marriage expectations, and "uncertainty about marital age vs normative marital age" (20– 30%). Lone parenthood has a more moderate role in the case of the other analysed effects, i.e., the categories indicating "uncertainty about both partnership types vs premarital cohabitation" and "no marriage vs normative marital age" (7–14%). Other types of family arrangements, including cohabiting parents, have a much smaller mediating role (between 0% and 6%).

H6 is overall not confirmed. Educational aspirations during adolescence are found to be a rather weak mediation mechanism compared to lone parenthood. However, the percentage mediated by educational aspirations for the categories "uncertainty regarding marital age vs normative marital age" and "lifelong singlehood vs premarital cohabitation" appears to be more sizable than for the other categories (around 9–11%), given the strong effects of this mediator on these outcomes (Figure 5-6 and Figure 5-7).

5.6.4 Differences in the relationship between parental class and partnership expectations by gender

Gender differences in the relationship between parental class and partnership expectations are computed through the models containing a term of interaction between parental class and gender. Figure 5-8 shows minor differences in marriage expectations, as compared to cohabitation expectations. In each parental class, young women have, on average, cohabitation expectations that are in-between 3–7 points higher than men's. Both men and women from managerial and intermediate backgrounds have, on average, significantly higher predicted expectations of ever entering a marriage in their life than those from least advantaged backgrounds. Cohabitation expectations are generally lower than marriage expectations, even though women from disadvantaged backgrounds present much lower differences in the predicted marriage and cohabitation expectations, compared to other groups. Gender differences are also present in the predicted probabilities of having a certain combination of cohabitation and marriage expectations, shown Figure C 2a and Figure C 2b in Appendix C. According to these tables, young men and women from the most advantaged background have a higher predicted probability of expecting to experience "direct marriage" and "premarital cohabitation" than those from the least advantaged background. Furthermore, both men and women from the least advantaged backgrounds have a higher probability of expecting to be in living arrangements that are different from "premarital cohabitation" and "direct marriage" than those from advantaged backgrounds. However, women from the least advantaged backgrounds have a similar probability of expecting to experience "direct marriage" and "lifelong singlehood" or "lifelong cohabitation".

When models that have expected age at marriage as the outcome are considered, young men have a higher predicted probability of being uncertain about their marital age than women, with disadvantaged men having the highest probability of being uncertain (30%) (Figure C 2c and Figure C 2d in Appendix C). Young women have higher expectations of marrying early than men across all parental socioeconomic classes. Moreover, young men from both the most advantaged and disadvantaged backgrounds tend to expect to marry at a later age than young women from the same background, even though women and men from the most advantaged backgrounds present slightly higher predicted probabilities of expecting later marriage than their respective counterparts.



Figure 5-8: Gender differences when marriage and cohabitation expectations are analysed separately

Source: own computations from BHPS and UKHLS

(a) Models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status, and coresidence with parents.
(b) Confidence intervals are graphed through the Goldstein and Healy (1995) procedure, meaning that a nonoverlapping confidence interval denotes a difference that is statistically significant at least at the 5% level.

5.6.5 Differences in the relationship between parental class and partnership expectations by historical period

Major differences by historical period become evident when marriage and cohabitation expectations are analysed separately in Figure 5-9. Respondents from disadvantaged backgrounds interviewed in the late 2000s have significantly lower marriage expectations than those interviewed in the early 2000s (76 vs 65 points). Lower differences can be seen for cohabitation expectations. Respondents interviewed in the early 2000s have, on average, higher marriage and cohabitation expectations than those interviewed in the subsequent historical period.

When we analyse whether marriage or cohabitation expectations combined differ by historical period (Figure C 3a and Figure C 3b in Appendix C), we find that all of the classes have increased expectations of experiencing other living arrangements than marriage, although this increase in more pronounced among the least advantaged. Analyses for the expected marital age cannot be performed, as marital age expectations were collected for the most recent period only.





Source: own computations from BHPS and UKHLS

- (a) Models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status, and coresidence with parents.
- (b) Confidence intervals are graphed through the Goldstein and Healy (1995) procedure, meaning that a nonoverlapping confidence interval denotes a difference that is statistically significant at least at the 5% level.

5.6.6 Individual controls

The estimated coefficients for individual controls in Table C 2, Table C 3, and Table C 4 in Appendix C are in line with the literature. We will comment on the salient ones. Compared to the employed, the unemployed or inactive have significantly lower cohabitation and marriage expectations, and higher expectations of being in living arrangements other than premarital cohabitation. In addition, they are more likely to be uncertain about marriage or to reject marriage. This suggests that not being employed may undermine expectations regarding the overall process of partnership formation. Compared to being in employment, being a student is negatively related to cohabitation expectations and expectations for early marriage, relative to later marriage. By contrast, it is positively related towards or uncertainty about marital age, relative to later marriage.

Being religious is also positively related across the models with higher expectations of marrying at earlier ages and lower expectations of cohabiting, especially for certain religious groups, such as Muslims. Being older than age 18 is also associated with higher expectations of cohabiting and of marrying at a later age. Finally, on average, respondents' health status is related to lower expectations for marriage for all of the considered levels: the worse the individual's health status, the lower his or her expectations of marrying are. However, expectations for cohabitation are negatively related to health status only when it is bad. Moreover, the worse the individual's health status, the higher his or her likelihood is of expecting to experience "lifelong cohabitation" or "singlehood", and of being "uncertain about both partnership types", than of expecting to experience "premarital cohabitation" or early marriage.

5.6.7 Sensitivity analyses

To understand whether our results could be sensitive to the grouping of individuals reporting an expectation of 50, we performed a robustness check, which consisted of allocating those expressing a value of 50 with those expressing a value above 50 instead of below 50, contrary to the current approach (Table C 5 in Appendix C). This check shows that shifting the 50-value with those expressing a value above 50 does not change the signs of the relative risk ratios and has only a slight impact on their magnitude. As a result of the shift in the 50-category, the coefficient of the intermediate parental class in the lifelong singlehood equation becomes statistically significant at the 5% level, whereas it was not significant at any conventional level with the previous specification. Nevertheless, its magnitude, in absolute terms, is similar to the one witnessed before (around 0.7-0.8). The results for the mediation analysis also led to similar conclusions.

We also performed a check using parental education during adolescence as a covariate of our model in order to disentangle the role of parental class from that of parental education, as highlighted in section 5.2.5. Parental education was operationalised as the education of the parent with the highest level of education, who did not necessarily coincide with the dominant parent for parental occupational class. The variable for parental education consisted of the following categories: low-intermediate (GCSE or less, including no qualification), advanced (A level), high (at least a bachelor's degree), or missing.

We first focus on a model on education alone to see whether the results were similar to those of parental class, and we find that they were (Table C 6a–Table C 6c in Appendix C). Then, we introduced the parental class covariate to see whether one of the two variables would change its relationship with the reference outcome (Table C 7a–Table C 7c in Appendix C). We do not find differences in how parental occupational class is associated with marriage or cohabitation expectations, apart from the coefficient of the equation "direct marriage vs premarital cohabitation", which is now statistically significant at the 10% level. The coefficients for parental education, instead, tend to change in size, and some of them are no longer statistically significant. On the contrary, when the equation for expected age at marriage is considered, the results are mixed. It appears that parental education is significantly related the outcomes "earlier vs later marriage" and "uncertainty"

towards marital age vs later marriage", whereas parental occupational class loses its predictive power. It is also important to highlight that the sign of the coefficient of parental education for the outcome "earlier vs later marriage" does not tend in the way expected by H3. In fact, those having low parental education presented expectations for a younger age at marriage, than those having high parental education. This result would be more in line with the traditional "fast vs slow track" pattern, according to which low-SES would have a younger age at marriage than those high-SES. The results for the outcome "no marriage vs later marriage" remain the same.

Finally, we made two additional checks. First, it may be the case that lone parenthood leads to never employment and not the reverse, thereby causing potential endogeneity, and undermining the assumption of correct temporality for mediation analysis. Therefore, we verified whether removing those respondents whose parents were never employed could decrease the percentage mediated by the covariate of "lone parenthood vs. two married parents". Given the low number of person-waves forming the "never-employed" class, this exclusion does not affect the results. We also checked whether distinguishing the family structure in terms of "biological parents vs step-parent family" (instead of cohabiting parents vs married parents) could change the results. We do not find a significant difference. As in the main analysis, we observe that lone parenthood is the strongest mediator, with percentages very similar to those previously found.

5.7 Discussion

Recent literature has suggested that parental socioeconomic status could determine different behaviours, including family behaviours. While some studies have underlined the importance of current parental economic resources (Schoeni and Ross, 2005), others have highlighted the role of indirect mechanisms operating since childhood, such as social norms, opportunities, or constraints (Johnson-Hanks et al., 2011). Building on this knowledge, our study is the first to examine the relationship between parental socioeconomic status of young adults (aged 16–21), here operationalised as parental occupational class, and their *expectations* regarding marriage, cohabitation, and age at marriage in the UK. The moderating roles of gender and historical period were also considered. Exploiting the rich long-run panel data of the British Household Panel Survey and Understanding Society, this paper has also tried to tease out potential explanations for this relationship, which are embedded in the young adults' adolescence, i.e., educational aspirations and family structure.

Our first result suggests that, in the wider population, both marriage and cohabitation expectations were very high, even though cohabitation expectations were more uncertain. This outcome is in line with US findings, which show that despite the increase in

cohabitation rates, cohabitation expectations are still more uncertain than marriage expectations (Manning et al., 2019). This result also contradicts the narrative of the Second Demographic Transition, which argues that young adults are retreating from marriage due to ideational changes, and suggests that either expectations of cohabiting increase as an individual ages, or that cohabitation is a less planned behaviour than marriage. However, our analytical findings indicate that specific socioeconomic groups of the young adults' population have different expectations than the majority. The results show that marriage expectations were higher for young adults from wealthier backgrounds than for those from poorer backgrounds. However, the findings also indicate that in the UK, cohabitation expectations differ modestly across socioeconomic groups, which suggests that this living arrangement has become the normative way of entering at least the first coresidential partnership (Berrington and Diamond, 2000). It is, however, worth noticing the direction of these effects, albeit modest. Compared to young adults from the most advantaged backgrounds, those from the intermediate class showed slightly higher cohabitation expectations, whereas those from the least advantaged parental class slightly lower. On the one hand, this result could point to potential differentials in future partnership behaviours between intermediate and advantaged classes, a result that would be worth investigating more deeply using larger sample sizes. On the other hand, it also could enlighten a general mistrust of the least advantaged class towards the possibility of ever partnering in their future. This last interpretation would fit the results for activity status, which showed that being inactive or unemployed, rather than employed, was related to both lower marriage and cohabitation expectations,

This explanation would also be confirmed by the results of the analysis considering marriage and cohabitation expectations as a unique outcome. In fact, after creating a categorical outcome combining both marriage and cohabitation expectations, we found that young adults from the least advantaged backgrounds were more likely than their counterparts from the most advantaged backgrounds to report expectations of experiencing "lifelong cohabitation", "lifelong singlehood", and "uncertainty about both partnership types", relative to "premarital cohabitation". These results are consistent with studies arguing that there is a perceived economic bar to marriage among the least advantaged strata of the population, which could discourage them from transitioning to a higher-order level of commitment, such as marriage (Perelli-Harris et al., 2010; Edin and Kefalas, 2011; Gibson-Davis et al., 2018). The expectations of encountering bars to marriage can emerge from both the young adult's individual situation (e.g., activity status), but also from the context in which she or he grew up. McLanahan's diverging destinies theory would be consistent with this evidence, since it argues that the adult outcomes of children from more disadvantaged

backgrounds would be affected by the poorer and more unstable environment in which they were raised (McLanahan, 2004).

The results for the expected age at marriage also confirm that young adults from the least well-off environments had greater uncertainty about entering a marriage and a higher likelihood of rejecting marriage, relative to expecting to enter a normative marriage at age 25 or older, than their counterparts from the most well-off backgrounds. Contrary to our expectations, however, we found no evidence of significant parental class differences in young adults' expectations of marrying early (before age 25) relative to marrying later (at age 25 or older). This result may indicate that the wide diffusion of cohabitation has led to young people's expectations about their age at marriage becoming more similar across socioeconomic backgrounds, rather than pushing disadvantaged young adults towards expecting to marry at a later age. However, the check performed using parental education, which is discussed later in this section, may also suggest that parental occupational class is probably not the most suitable indicator for socioeconomic status to identify differences in the expected timing for marriage.

After verifying the presence of a socioeconomic gradient characterising certain types of partnership expectations, the second aim of the paper was to explore whether there are mechanisms embedded in the young adults' adolescence that could explain this relationship. The "academic socialisation" mechanism suggests that, compared to parents from routine classes, parents from managerial classes were more likely to instil educational aspirations in their children, which may lead them to develop better economic prospects, thus facilitating marriage. The "family structure socialisation" mechanism argues that parents from less advantaged classes were more likely than parents from other classes to select into alternative living arrangements rather than into marriage, and to socialise their children within these family types.

First, we found little empirical support for the "academic socialisation" mechanism for any of the analysed outcomes. The mediated percentages were low, which shows that children's educational aspirations were only modestly affected by their parental class, and that their educational aspirations did not strongly influence the outcomes. One potential explanation for this finding is that it depends on the choice of the indicator, whose distribution was highly skewed (70% respondents aspired to go to college, and only 30% did not or were uncertain), making it difficult to find strong and sizable relationships. Second, having low educational aspirations, and, consequently, poorer economic prospects, during adolescence, was not necessarily related to expectations of overcoming the economic bar to marriage in the future. Third, the construction of this indicator could be questionable, as we relied on the first collected observation in the youth questionnaire and neglected the changeable nature of aspirations over age. Probably, an indicator capturing *current*

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educational aspirations, as the one used by Berrington (2020), would be a more reliable option to identify the path of "academic socialisation" hypothesised in the paper. Fourth, expectations and aspirations may have different underlying mechanisms: Bohon et al. (2006) reported that aspirations are more dependent on desires than reality, whereas expectations are strongly related to actual experience.

Differently from the "academic socialisation" mechanism, we found some evidence supporting the "family structure socialisation" mechanism. Lone parenthood significantly mediated the relationship between young adults' parental class and their outcomes, such as their expectations of experiencing "lifelong cohabitation" (relative to "premarital cohabitation") and "uncertainty about the expected age at marriage" (relative to "later marriage"). Therefore, it appears that young adults with lower-class parents had lower or more uncertain expectations regarding marriage than those with higher-class parents due to their higher likelihood of having grown up in a lone-parent family. In fact, compared to their counterparts living with married parents, young adults raised in a single-parent household had a lower probability of being socialised in this institution, and were therefore more likely to be more sceptical about making a binding commitment, such as marriage (Amato, 1996; Amato and DeBoer, 2001).

Our finding showing that only a small percentage of this relationship was mediated by living with cohabiting parents during adolescence, despite the strong effect of this mediator on partnership expectations, suggests that parental class was only weakly related to living with cohabiting parents during adolescence. One likely explanation for this finding is that there were too few cases of cohabiting parents in the sample to provide reliable results, which suggests that cohabitation is not the preferred living arrangement for raising children in the UK (Berrington et al., 2015). A second potential explanation is that, in the UK, unlike in the US, cohabitation is only moderately characterised by negative selection (Di Giulio et al., 2019). Despite these results, it is, however, worth noting that the unexplained component of the relationship between parental class and partnership expectations is still dominant, which gives room to hypothesise other potential mediators, such as attitudes, or a direct effect of class on expectations, e.g. the parents' current economic circumstances.

We also explored the moderating effect of gender and historical period on this relationship. The results showed that there were gender differences in expectations of both cohabiting and marrying among young adults from the least advantaged backgrounds. In fact, women from the least advantaged backgrounds presented modest differences in the marriage and cohabitation expectations; whereas men from the same background still presented sizably higher expectations towards marriage than cohabitation. One potential explanation for this evidence comes from the US literature, which has shown that low-SES

women are more inclined than men to perceive that there are economic bars to marriage. Therefore, a woman from this background may be more likely to postpone marriage until she and her partner are economically established (Edin and Kefalas, 2011). With regard to the historical period, we found clear evidence that marriage expectations were still high across the 20 years we analysed, even though there were signs of a decline in marriage expectations in the most recent period (especially among the least advantaged classes), in line with the progressive increase in the age at marriage and the falling marriage rates (ONS, 2017).

Finally, in a further analysis, we explored whether introducing parental education into the model that included class would change the results, since the two indicators are argued to represent different aspects of social origins, once they are considered in the same model (Bukodi and Goldthorpe, 2013). Parental occupational class would represent the amount and the security of parental economic resources in the long-term, whereas parental education would characterise the "educational resources" of parents (ibid.). The notion of parental "educational resources" would be a similar concept to "academic socialisation", even though parental education was not considered a mediator of parental class in this analysis, but, rather, an alternative concept describing how parents can directly transmit their cultural and social capital to their children (without having to pass through children's educational aspirations, which may be biased by their wishes).

The findings were mixed. On the one hand, parental occupational class maintained a similar effect in the regression for the expectations towards marriage or cohabitations, while parental education lost statistical significance. On the other hand, in the equation for the expected age at marriage, parental class was predictive of marriage rejection, but parental education significantly predicted that those from with less educated parents were more likely to expect an earlier marriage, or being uncertain about their expected age at marriage, relative to expecting a normative age at marriage, than those with the highest educated parents. These results might suggest that the role of parental economic resources would be key for expecting one partnership type over the other, e.g., marriage over cohabitation or to partner or not to partner. By contrast, the expected age at marriage would depend on whether parents successfully transmitted their "educational resources" to their children and stimulated their willingness to undertake a "more ordered" life-course consisting of first, completing school, then entering a first coresidential relationship and, afterwards, having children. This result would confirm the persistent presence of an expected "fast vs slow track" way of partnering, in the British context, depending on the "educational resources" of parents.

Our study has a number of limitations. First, the data did not allow us to date the mediators too far back. Because of this limitation, we can provide only a partial outlook of

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the dynamics underlying the relationship between parental class and partnership expectations. It would be ideal to exploit the advantages of panel data to obtain information on parental class, educational aspirations, and family structure for the entire childhood of a young adult, or at significant points in time. Unfortunately, this type of dynamic can only be fully covered by examining family structure using parental partnership histories, whereas information on educational aspirations is available only from the youth questionnaire. Second, it was not possible to establish the preferred sequencing of marriage and cohabitation expectations, or to ascertain whether the young adults in our sample had completely ruled out the possibility of forming a coresidential union when they expressed low expectations, especially the 50-value. The results for the age at marriage suggest that the findings for both uncertainty about and rejection of marriage could be valid. Third, the relationships found so far have been descriptive, and have not been tested through causal methods. While we believe that our three assumptions regarding the mediators were valid, there may have been some omitted variables that we could not control for, and that may have confounded the relationship of interest. Moreover, there might have been feedback loops between parental class and family structure; e.g., women who started to work in a routine class job after a divorce. However, this appears unlikely if we consider that low-SES individuals were found to be more likely than high-SES individuals to experience partnership dissolution (UK: Chan and Halpin, 2002; US: Boertien and Bernardi, 2020). Finally, problems of attrition, the relatively recent introduction of the questions on expectations, and the young ages of the respondents in the sample did not allow us to track individuals until they reached an age at which the process of partnership formation could be considered completed (e.g. 30). Indeed, for more than 60% of the sample, the last observation was at an age equal or below 21.

Our overall results have important implications for the theoretical approaches that investigate parental socioeconomic circumstances and children's outcomes, especially family outcomes, which have received considerable attention in recent years (e.g., Mooyaart and Liefbroer, 2016; Brons et al., 2021). First, our findings confirm that socioeconomic differentials in family behaviours during the life course are also present in young adults' expectations, especially regarding marriage. Second, this paper has made a start in describing the nature of these relationships by hypothesising potential mechanisms that could explain them, even though, due to the exploratory nature of the paper, these relationships remain descriptive, and are not causal. Third, this paper constitutes an important empirical contribution, as few previous studies have exploited the option of reshaping BHPS and UKHLS data to investigate two temporal dimensions, adolescence and young adulthood, in the early life course.

Our results are also important for policymakers, as they have demonstrated that expectations are a good predictor for future behaviours. Specifically, we found that expectations align with behavioural trends by socioeconomic status in the UK population, along with their potential underlying mechanisms. The identification of socioeconomic differentials could also be useful for developing early-life interventions aimed at preventing potential sources of vulnerability, and for identifying the most efficient areas of intervention, such as policies to evaluate the family structures of young adults during their childhood and adolescence. :

Chapter 6 Conclusions

6.1 Introduction

The aim of this thesis was to explore in a novel and detailed way the relationship between young adults' economic precariousness and actual and expected partnership dynamics, between 1991 and the late 2010s. Having considered the development of the term precariousness in the past literature, and specifically in the UK context, the thesis conceptualised economic precariousness in a broad sense, defining it as "a lack of economic resources across several dimensions that may generate insecurity around the present and future state of these resources". Economic precariousness was operationalised using objective indicators relating to employment, financial circumstances, and housing conditions; as well as subjective indicators. The thesis investigated the following overarching research questions to explore the relationship between economic precariousness and partnership dynamics: Are economically precarious conditions related to entry into the first coresidential partnership in the UK? Does living under economically precarious conditions associate with the outcomes of couples in their first cohabitation in the UK? Is parental socioeconomic background related to young adults' lifelong expectations about the type and the timing of their partnership transitions in the UK?

To answer these research questions, the thesis had four objectives (originally reported in Figure 1-5) based on a life course framework. The first was to examine the specific transitions to actual and expected partnership trajectories among young adults aged 16–34, and to relate these trajectories to the young adults' economic or occupational trajectories. Second, the thesis used a "linked lives" approach by analysing the economic conditions not just of individuals, but also of young couples and their parents. Third, the thesis developed new ways of conceptualising economic precariousness: e.g., as a set of multiple indicators rather than simultaneously (Chapter 3 and Chapter 4), or as the result of a process that may be explained by other mechanisms (Chapter 5). Finally, the thesis focused on potential sources of heterogeneity in the relationship between economic precariousness and partnership dynamics that have seldom been previously explored, such as historical time and gender.

6.2 Contributions to the literature

The thesis has made important contributions to the literature. First, it has contributed to the debate on the operationalisation of economic precariousness by comparing objective and subjective measures, and examining how they related to the dynamics of the formation of the first coresidential partnership. On the one hand, the thesis explored which indicators are most suitable for distinguishing between individuals who are and are not economically precarious throughout the dynamic processes that characterise young adults' coresidential partnerships in the UK. On the other hand, it also considered potential ways of aggregating the selected measures into a unique construct by using a factor analysis (Chapter 3) and an aggregation of precarious traits (Chapter 4).

A second contribution of the thesis is that it has provided an update of the previous literature on the relationship between economic resources and partnership dynamics in the UK, and additional evidence on potential changes in this relationship over a period spanning almost 30 years. This update is extremely important, as the previous evidence was limited to the 1990s (except for Pelikh, 2019). A third contribution is that it used a couple approach to explore the outcomes of the cohabiting unions. The application of a couple approach is not novel in either the UK or the international literature (Ishizuka, 2018; Nitsche et al., 2018; Busetta et al., 2019). However, the use of a couple approach to explore unions over a period of 30 years based on objective and subjective measures represents an original contribution that increases our understanding of the institution of cohabitation, and of cohabiters. The previous evidence on this topic for the UK came from Ermisch and Francesconi (2000a) and Golsch (2005), whose analyses were limited to the 1990s. Moreover, in the first of these studies, the evidence was obtained through bivariate associations rather than through analytical models; while in the second of these studies, only employment aspects were considered. By contrast, the approach adopted in this thesis considered different aspects, which allowed for reflections on the meaning of each indicator for each transition, and benefited from a reasonable sample size (even though some categories still had limited numbers).

A fourth contribution of the thesis is that it focused on lifelong expectations for the partnership process. While a large number of studies have analysed marital expectations, relatively few studies have analysed cohabitation expectations. Even though the BHPS has included questions on cohabitation expectations, almost no previous study has used these expectations as its outcomes (except for Berrington, 2020). Moreover, no existing paper has analysed cohabitation expectations with a focus on socioeconomic determinants, especially parental ones (except for Manning et al., 2019, in the US context), even though the literature has consistently reported that these expectations vary depending on early childhood conditions (Axinn and Thornton, 1993). Moreover, few previous papers have related young adults' partnership expectations to the economic resources and conditions of their parents during their childhood or early adolescence.

6.3 Key findings

6.3.1 Chapter 3: Uncertain steps into adulthood: Does economic precariousness hinder the entry into the first coresidential partnership?

Chapter 3 used prospective data spanning 27 years (1991-2018) to explore relationships between different measures of individual economic precariousness and entry into the first coresidential partnership for men and women aged 18–34. The thesis explored how these relationships differed by age and gender across this historical period. The first result was that this association varied by age, although not all of the indicators had exactly the same relationship. In the youngest and the oldest age groups, in which the individuals entering unions tended to be a more select group, the relationship between different sources of economic precariousness and partnership formation was statistically insignificant, or even positive. Thus, among teenagers, those on means-tested benefits and those living in social housing were more likely to form a partnership. Among young adults who were in their twenties and thirties, which are the normative ages for entering a first coresidential partnership, the relationships were negative for many objective indicators of occupational, financial, and housing conditions. The relationships for subjective indicators were either nonsignificant or counterintuitive; e.g., those individuals who were expecting a worsening of their financial situation in the following 12 months were more likely to enter a partnership in the subsequent year. Not having savings and financial perceptions were significant (negative) predictors of direct marriage, but not of cohabitation.

The second hypothesis explored whether the relationship between different indicators of economic precariousness and partnership formation became stronger during periods of economic recession. The analyses found little evidence in support of this hypothesis, apart from a moderate change in the indicator for those who were out of the labour force. However, because the 2008 recession coincided with the transition from the BHPS to the UKHLS, the effect could also represent a "seaming effect"; i.e., a compositional change that followed the transition from the BHPS to the UKHLS. The third hypothesis investigated whether the effect of gender changed over historical time in line with the changing role of women; e.g., in terms of women's attachment to the labour market. The results suggested that for most indicators, the effect of gender did not differ over time. However, the interaction between gender and labour income appeared to show that the only indicator that followed the

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expected trend was for labour income. On the one hand, a woman having a low income had become a potential barrier to entry into a first coresidential partnership in the 2010s, whereas it was not in the 1990s and the 2000s. On the other hand, men's earnings remained negatively related to the likelihood of entering a first coresidential partnership throughout the study period.

6.3.2 Chapter 4: Do couples face economic barriers to marriage? Understanding the contribution of men's and women's economic precariousness to first cohabitation outcomes in the UK, 1991-2019

Chapter 4 used prospective data spanning 28 years (1991-2019) to explore young British couples' economic precariousness and the outcome of the first cohabitation; specifically, marriage or separation. Economic precariousness was measured using several objective and subjective indicators in a manner similar to that used in the previous chapter. The thesis examined whether these relationships were moderated by gender or by the historical period. The results showed that marriage and dissolution risks changed according to the historical period. Cohabitations that started in the 1990s had a higher risk of ending in marriage and a lower risk of ending in dissolution within five years than those that started in the 2000s or 2010s. Moreover, cohabitations that started in the 2010s had a higher risk of ending in dissolution and a lower risk of ending in marriage. These findings confirm the results of an analysis by Pelikh (2019) using the cohort approach and the expectations of Chao et al. (2020), which indicate that there has been a greater propensity to dissolve cohabitations in the most recent years.

The second key result was that indicators of economic precariousness always showed that there has been a significant difference in the probability of marrying and dissolving the relationship between the most and the least precarious couple types. However, some indicators suggested that whether the male or the female partner was experiencing precariousness was more important for the outcome of the cohabitation. However, even though these patterns were sizable, most of them were not statistically significant (apart from savings), meaning that a larger sample size would be required to draw more precise conclusions. The male partner being non-employed and the female partner perceiving the couple's financial situation as poor seemed stronger predictors of the risk of dissolution than if the genders were reversed. By contrast, the male partner having savings and being employed appeared to be a stronger predictor of the risk of marriage than the female partner having savings and being employed (the pattern for savings results statically significant at the 5%). These results suggested that the dissolution of the first cohabitation was most often determined by the male partner's inability to provide basic household needs through his employment. A marriage transition, instead, required the male partner to provide long-term security through savings and, to a lower extent, employment.

A third key finding was that economic precariousness at the couple level was not a cumulative concept, as few couples were found to have all of the economically precarious traits. It therefore appears that the presence of just one economically precarious trait could already generate a higher risk of dissolution or a lower risk of marriage. Finally, the historical analysis showed that economically precarious couples tended to delay marriage in the most recent decades more than they did in the 1990s. The results for dissolution were less clear, as certain economically precarious traits, but not others, were found to be associated with a higher risk of dissolution.

Overall, these findings showed the importance of considering precariousness at the couple level, as the couple approach was shown to be useful for investigating the gender mechanisms underlying cohabitation outcomes, and for determining whether some couple types were more resilient than others. Moreover, the results indicated that taking subjective mechanisms into account was valuable, because it helped to answer the question of whether an objectively precarious economic situation in a couple was also related to the insecurity of one or both of the partners.

6.3.3 Chapter 5: Parental socioeconomic class and young adults' partnership expectations: Do family structure and educational aspirations mediate this relationship?

Chapter 5 used data from selected waves of both the BHPS and the UKHLS, ranging from the early 2000s to the late 2010s. This chapter studied the relationship between parental socioeconomic class (measured through NS-SEC class) and young adults' partnership expectations; i.e., union type and marital age. The relationship between parental socioeconomic class and young Britons' expectations was hypothesised as a complex mechanism explained by two paths: educational aspirations (reflecting academic socialisation) and childhood family structure (reflecting family structure socialisation). The analyses also examined whether these relationships were moderated by gender and the historical period.

Partnership expectations were found to differ according to parental occupational class. Young adults from the least advantaged background had significantly lower marriage expectations than their more advantaged counterparts. Differences were also observed when specific combinations of marriage and cohabitation expectations were combined: compared to their most advantaged counterparts, young adults from disadvantaged backgrounds were more likely to expect to experience "lifelong cohabitation" (high expectations of cohabiting and low expectations of marrying) or "lifelong singlehood" (uncertain or low expectations of both marrying and cohabiting), or to be uncertain about both partnership types, rather than to expect to experience "premarital cohabitation" (high expectations of both marrying and cohabiting).

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Furthermore, young adults from disadvantaged backgrounds were more likely to reject marriage and be uncertain about their marital age, relative to expecting to have a normative marital age.

The results suggested that some of the differences observed in the general population could be explained by family structure socialisation, but that very few of these differences could be explained by academic socialisation. Being raised in a lone-parent family rather than in a family with married parents was found to explain a large percentage of the effect of parental socioeconomic class on marriage expectations (e.g., expecting to experience lifelong cohabitation rather than premarital cohabitation, or being uncertain about the age at marriage rather than expecting to marry at a normative age), mostly because being raised in a lone-parent family rather than in a family with married parents was strongly related to these outcomes. Other potential relationships may be attributable to other mediation mechanisms (e.g., attitudes), or might reflect a persistent direct effect of parental resources.

Other results addressed the moderating effects of gender and the historical period. Both men and women from disadvantaged backgrounds were less likely to expect to marry than their advantaged counterparts. However, while there were modest differences between the marriage and cohabitation expectations of disadvantaged women, disadvantaged men still had significantly higher expectations of marrying than of cohabiting. Moreover, in the most recent historical period, young adults from the least advantaged backgrounds were less likely to expect to marry than young adults from the most advantaged backgrounds, even though the decline in marriage expectations has been much greater over time than the decline in cohabitation expectations. Finally, the findings of a further analysis using both parental occupational class and education during adolescence as indicators of socioeconomic status suggested that parental education could be a better measure than parental occupational class for capturing differences in the expected age at marriage.

6.4 Synthesis of the results across the thesis

By adopting a life course framework and by examining three different outcomes – expectations for partnership transitions, entry into the first partnership, and the outcome of the first cohabitation – the thesis provided empirical conclusions for each of its four objectives. First, the results of the empirical chapters provided insight into the relationship between young adults' economic precariousness and the overall partnership process (objective 1). The "linked lives" perspective was used to consider the roles of partners and parents (objective 2). By providing a novel operationalisation of economic precariousness through objective and subjective indicators, the results of the thesis also showed which of the indicators best captured the overall relationship between economic precariousness and partnership dynamics

(objective 3). The analysis by gender and historical period generated important conclusions about their roles in moderating the relationship between economic precariousness and partnership formation (objective 4). The discussion of the overall results will follow the order in which each objective was listed in Chapter 1.

6.4.1 Conclusions drawn from the analysis of young adults' actual and expected partnership transitions (objective 1)

6.4.1.1 Do the effects of economic precariousness on the likelihood of cohabiting or of marrying differ?

The findings did not show that the transition to a first marriage has the same relationship with economic precariousness as the transition to a first cohabitation. Chapter 3 showed that the direct transition to both marriage and cohabitation was affected by the partners' activity status, income, and means-tested benefits; whereas only the direct transition to marriage was affected by the partners' savings and financial perceptions. Thus, similar to entry into marriage, entry into a first cohabitation in the UK appeared to depend on clearing an economic bar. However, this bar seemed to be based on current economic resources (e.g., employment or income), whereas the bar to marriage also took into account more long-term resources (e.g., savings) (Kravdal, 1999; Jalovaara, 2012a).

The requirement that the partners have adequate economic resources before marrying was also found to apply to the transition from cohabitation to marriage, which suggests that the exclusivity of the marital commitment remained intact, even when it was preceded by cohabitation. This result could be explained by the observation that cohabitation has replaced marriage as the normative way to enter the first coresidential partnership (Berrington et al., 2015; Perelli-Harris and Blom, 2021). In addition, the more short-term horizon of cohabitation was reflected in the results on the risk of separation within a cohabitation. Like in a marriage (Conger et al., 1990; Blom et al., 2019), the risk of separation was higher for cohabiting couples who were experiencing economic stress. However, the economic resources that presented the clearest association with partnership dissolution were employment and financial perceptions, since couples who were heterogeneous for these measures also presented a higher risk of dissolution, relative to the least precarious couple type. This result suggested that while a low standard of living (e.g., in terms of savings or income) would not necessarily disrupt a cohabiting union, a lack of basic resources (e.g., employment) would.

From these results, two conclusions could be drawn about the nature of cohabitation in the UK. First, cohabitations were not immune to being subject to an economic bar, or to being affected by economic stress. Second, for the young adults who managed to enter a cohabitation, cohabitation seemed a suitable environment to accrue the economic resources needed to pursue a long-term commitment such as marriage. This latter conclusion was in line with Beaujouan and Bhrolcháin (2011, 2013), who defined cohabitations as short-lived "young people's marriages" that are used to resolve any uncertainties before taking on a lifelong commitment (also Ermisch and Francesconi, 2000b). However, the results of Chapter 4 on the cumulative hazard functions also showed that cohabitations have lengthened over the years, thereby denoting that cohabitations do not have only the role of short phases aimed at anticipating a marriage.

6.4.1.2 What is the role of economic precariousness in the overall partnering process of young adults?

The different transitions that characterise partnership trajectories, and their relationships with the economic and occupational domain, appear to be strongly interrelated, in line with the "life-span development" principle proposed by the life course theory. Therefore, what happens in a given transition is likely to have knock-on effects on subsequent transitions. This, in turn, suggests that it is important to analyse the different transitions characterising young adults' partnership trajectories as a continuum, as they are interrelated.

The results of Chapter 5 showed that young adults whose parents had low SES in terms of class had lower expectations of marrying than those whose parents had a high SES. While there were only minor socioeconomic differences in expectations of cohabiting, belonging to the least rather than the most advantaged class still had a negative effect. Furthermore, being unemployed or inactive, rather than being employed, was related to having lower expectations of both marrying and cohabiting. This last finding is fully in line with the results of Chapter 3 and Chapter 4, which showed that the entry into marriage or cohabitation was facilitated by financial independence and individual self-sufficiency (at least among young adults aged 20 or older). Similarly, these conditions encouraged marriage and discouraged partnership dissolution among cohabiters. Therefore, the role of economic resources in each phase of the partnering process may describe the presence of a clear "*path of success*", which implies that the young adults who entered their first coresidential union with substantial economic resources would also be the most likely to transition to marriage later on, or would, at least, be less likely to experience a dissolution of their relationship (in this case, of cohabitation).

These results formed the basis for some reflections on the validity of the main theories regarding the relationship between economic resources and partnership dynamics in the UK context. Chapter 2 highlighted that some frameworks argue that marriage is subject to the partners clearing an economic bar; i.e., to meeting a series of financial and economic requirements before entering a long-term commitment (Gibson-Davis et al., 2005). Therefore, prolonged spells of cohabitation, including nonmarital childbearing, tend to be more common among individuals with low socioeconomic status and economically uncertain conditions, and who thus follow a so-called "pattern of disadvantage" (Perelli-Harris et al., 2012). A similar reasoning has also been presented by Oppenheimer (2003, 1988), who argued that the entry into marriage is more likely to be delayed under economically uncertain conditions due to the challenges associated with collecting enough economic resources. The results from Chapter 4 indeed confirmed that having adequate economic resources greatly facilitated the entry into marriage. For example, the couples in which neither partner was economically precarious consistently had the highest risk of marrying and the lowest risk of dissolving the relationship. Chapter 5 also showed that the young adults who came from the least advantaged backgrounds or were currently jobless consistently had significantly lower marriage expectations than their counterparts from the most advantaged backgrounds or currently employed.

However, other findings did not confirm the assumption that cohabitation was a type of union that was completely independent of economic resources. First, Chapter 3 demonstrated that cohabitation was already subject to union selection in terms of *current* economic resources. Second, Chapter 4 demonstrated that economically precarious cohabiting couples generally had a higher risk of separating and a lower risk of marrying than cohabiting couples in which neither partner was economically precarious, in line with the family economic stress model. Third, Chapter 5 strengthened these claims by highlighting that young adults who were out of the labour market also had lower expectations than their employed counterparts of both marrying and cohabiting. Moreover, Chapter 5 also demonstrated that young adults from the least advantaged backgrounds had higher expectations than their advantaged counterparts of experiencing "lifelong singlehood" or of being uncertain about both partnership types", relative to experiencing "premarital cohabitation".

These results are not in line with the literature showing that the decision to cohabit is often heavily motivated by the economic needs of the partners, especially in the US (Sassler and Miller, 2017; Schneider, 2017). Instead, these results appear to support the literature arguing that cohabitation motivated by economic convenience is less frequent in the European context, including in the UK (Perelli-Harris et al., 2014; Di Giulio et al., 2019). Specifically, this evidence appears to confirm the European literature demonstrating that couples are more likely to cohabit if they have sufficient economic resources, especially in contexts where cohabitation has become normative or an established alternative to marriage (e.g., Jalovaara, 2012b; Stone et al, 2017).Overall, this evidence shows that in the UK context, economic resources represent an important determinant to consider when analysing the partnership

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dynamics of young adults, starting with their expectations during young adulthood and finishing with their behaviours.

6.4.1.3 *Is the role of timing important in determining economic precariousness and the timing of partnership formation?*

The thesis has demonstrated that the age at union formation is a characteristic that clearly distinguishes young adults who differ in their socioeconomic status and economic resources. First, Chapter 5 showed that young adults' expected age at marriage depended on the education of their parents (but not class) during their adolescence. These differences in the expected timing at union formation could also translate into differences in behaviours in the relationship between economic precariousness and coresidential partnership formation over age. As was shown in Chapter 3, economically precarious circumstances did not always preclude first partnership formation at the youngest ages, as being precarious was either not significantly related or was positively associated with partnership formation among young people in their teens. However, among more mature young adults who remained unpartnered for longer periods of time, possibly to pursue higher education or to establish themselves on the labour market, economic precariousness may have been a factor that discouraged them from entering a first coresidential partnership. It therefore appears that among people in their twenties and thirties, being financially independent and self-sufficient before starting a family and entering the partnership market was more important than it was among younger people (Bergstrom and Bagnoli, 1993; Burstein, 2007).

These findings are in line with the literature suggesting that young adults from different socioeconomic backgrounds may enter a first coresidential partnership at different speeds. It has been shown that the youngest adults may be more inclined to follow a "fast track" and to enter a partnership earlier for a variety of reasons, including because they need to pool their resources (Jones, 2002; Sassler et al., 2010; Sassler and Miller, 2017), they have different social norms (Berrington et al., 2015), or forming a coresidential union is an unplanned "slide" rather than a conscious decision (Smock et al., 2005b). By contrast, the evidence indicates that older adults are more likely pursue a "slow track", meaning that they enter their first coresidential partnership later in life, after they have finished their studies and established themselves on the labour market. Another potential reason for this "fast vs slow track" pattern could be related to the UK welfare system. Since very young adults who receive benefits in the UK often have no income or a very low income, they may see a fast transition to marriage as convenient (Roberts, 2011). Therefore, the thesis showed that the indicators with the strongest relationships with partnership formation at young ages were the indicators for means-tested benefits recipients and housing.

6.4.1.4 Are ideological or economic factors motivating the changes in family dynamics?

As was discussed in Chapter 1, changes in partnership dynamics were explained in terms of both ideological changes, e.g., the Second Demographic Transition (SDT); and macroeconomic changes that could affect individuals' occupational and economic conditions, e.g., recessions or structural changes in the economy. This thesis analysed how economic precariousness was related to the partnership dynamics of young adults in the UK, while controlling for a key proxy for the SDT, i.e., religion. The results showed that economic precariousness had its own significant effect, even after controlling for religion. Instead, the findings indicated that religion tended to be strongly associated with more traditional forms of partnering, such as direct marriage. Surprisingly, a minor and less clear effect was witnessed for the transition from cohabitation to marriage, probably due to partner's missingness (amounting to 30%).

Moreover, the thesis found that religion strongly determined partnership expectations by being positively associated with marriage expectations and negatively associated with cohabitation expectations. The different types of religion displayed coefficients of a larger magnitude than the coefficients characterising parental class or activity status, even though the coefficients for these latter variables were significant and sizable (especially in the case of the expectations for marriage). This result suggests that future partnership differentials could be determined by the presence of both individual and parental economic resources, but also by ideological factors and social norms.

Therefore, it is quite likely that both of these explanations are valid. The results reported in this thesis point to the need to merge into a unique framework and to conduct a set of analyses on the trends towards secularisation and increasing economic uncertainty, as was highlighted by Mills and Blossfeld (2013) in a more recent version of their globalisation framework.

6.4.2 Conclusions drawn from using a "linked lives" approach (objective 2)

6.4.2.1 The role of partners

The results of the couple approach used in this analysis confirmed that assortative mating has been occurring in the UK; i.e., that young adults tend to form homogamous partnerships in terms of education and occupation (Blossfeld, 2009). In fact, in Chapter 4, the majority of couples were found to have similar traits (particularly for employment), and especially to have similar "positive" traits. The finding that the share of non-economically precarious couple-years was large strongly suggested that there was selection into union mechanisms. Furthermore, couples in which neither partner was economically precarious

tended to be more stable and more likely to enter long-term committed relationships, such as marriage, than those in which both partners were economically precarious. These results would appear to fully support Oppenheimer's claims, which were highlighted in Chapter 2, about the benefits of the contributions of both partners to the household economics for resource pooling and economic risk sharing.

Chapter 4 was able to verify the presence of a "*partner effect*"; i.e., the characteristics of each partner, e.g., gender and precariousness, considered both together and separately, made their own contributions to the outcomes of the cohabitation. Among heterogeneous couples, there were some trends suggesting that men's objective economic resources were generally more important than women's for the outcome of the cohabitation. These findings are in line with the claims of the New Household Economics, which indicate that, among some couples, a gendered division of labour is still important. However, contrary to these theories, these couple types were found to be less common and to often have a marriage risk that was equal to or lower than that of non-economically precarious couples. The findings for dissolution were reversed.

6.4.2.2 The role of parental background in young adults' partnership dynamics

The role of parental background in young adults' marriage and cohabitation expectations was also found to vary. Chapter 5 showed that there were moderate differences across parental classes in young adults' cohabitation expectations, but large and significant differences in their marital expectations. When marital and cohabitation expectations were combined, young adults from disadvantaged backgrounds tended to have lower or more uncertain expectations than their advantaged peers of ever partnering, and higher expectations of experiencing "lifelong cohabitation".

These findings did not contradict those from Chapter 3, which showed a potential economic bar to cohabitation among young people in their twenties. This is because the analysis conducted in Chapter 5 was projected over the entire life course, and did not describe a contingent situation. Second, the results in Chapter 5 on the relationship between expectations and activity status were completely in line with the findings in Chapter 3, as they showed that young adults who were not employed or inactive had lower expectations of marrying and cohabiting than their counterparts who were employed. Moreover, being from the least advantaged background, rather than from the most advantaged background, was found to be negatively, albeit moderately, related to cohabitation expectations. Third, the results on parental socioeconomic status in Chapter 3 also showed that young adults from less advantaged backgrounds were less likely to enter a first direct marriage than young adults with a managerial or professional parental background. However, in Chapter 4, no differences

between these groups were found in the likelihood of entering a first cohabitation or in cohabitation outcomes.

6.4.3 Conclusions drawn from the use of a novel operationalisation of economic precariousness (objective 3)

In Chapter 3 and Chapter 4, economic precariousness was operationalised using several indicators, both objective and subjective, embedded in the UK context. This approach was selected for the following reasons: 1) there is no single definition of precariousness or single way of operationalising it; 2) in the context of analysis, economic precariousness is not easily captured through traditional data sources; and 3) capturing economic precariousness among young adults is not straightforward, as it could represent a life stage rather than an insecure condition. Table 6-1 shows the aspects analysed in Chapter 3 and Chapter 4 that were found to have the strongest relationship with each of the partnership dynamics considered. The strongest relationship implies that the indicator was able to discriminate between individuals who were and were not economically precarious in a way that was significant, sizable, and devoid of ambiguity. The aim of this analysis was to provide an answer to the first and second motivation by using several indicators to analyse economic precariousness.

The indicators considered in Chapter 3 revealed the most important predictors for forming a first coresidential partnership by age, gender, and historical period. While only activity status and low labour income were found to be valid predictors when analysing the latter dimensions (historical period and gender), several conclusions were drawn when analysing the former (age). These conclusions were both on the process of first partnership formation, as opposed to remaining single, and on the type of relationship entered. Activity status and financial measures were shown to be the important determinants for the transition to the first coresidential partnership among young adults in their twenties; whereas, housing tenure, means-tested benefits, and financial perceptions were found to be important determinants for young people in their teens. Moreover, while savings and financial perceptions were shown to be predictors for transitioning to direct marriage, housing independence was identified as a key determinant of cohabitation. These results pointed to the importance of individual independence for cohabitation and long-term financial security for direct marriage.

In Chapter 4, all of the considered indicators were found to be predictors for both marriage and dissolution when both partners were economically precarious. However, only a few of the indicators could identify potential gender and historical period differences (often with in terms of qualitative trends rather than statistically significant results). These indicators were activity status and financial perceptions for dissolution and activity status and savings for

marriage. Given the complexity of the partnering process and the wide variety of variables that may have contributed to that process, finding an indicator that was the most appropriate for assessing the overall process of first partnership formation was not straightforward. However, activity status – i.e., being employed vs not being employed – was identified as a significant predictor for both of the reference outcomes.

Moreover, activity status, alongside parental background, was also found to be an important predictor of young adults' expectations of the types and the timing of their partnerships. Therefore, it appears that among youth in the UK who were not enrolled in full-time education in their twenties, those who were jobless were less likely to form a coresidential partnership; and, once they formed a partnership, they were also less likely transition to marriage, and to remain married. This result suggests that given (or despite) the low level of unemployment, not having a job could be a marker of precariousness, and may thus be problematic for the first partnership dynamics of young adults. However, this pattern did not hold for very young adults, among whom not having a job was hardly related to the process of forming a first coresidential partnership.

Table 6-1: Indicators of economic	precariousness and t	heir predictiv	e power in the
process of first partnership format	ion	-	-

	First coresidential partnership	Entry into direct marriage	Entry into cohabitation	Entry into Marriage from cohabitation	Entry into Dissolution from cohabitation
Occupational p	recariousness				
<u>Activity</u> <u>Status</u> (employed/ not employed)	X	x	X	X	x
<u>Individual</u> <u>socioeconomic</u> <u>class</u>				Inapplicable	Inapplicable
<u>Temporary</u> <u>Contract</u>				Inapplicable	Inapplicable
Financial preca	riousness				
<u>Low</u> <u>labour</u> <u>income</u>	X	X	X		x
<u>Means-tested</u> <u>benefits</u>	X	X	X	Inapplicable	Inapplicable
<u>Savings</u>		X		X	X
Housing precariousness					
<u>Housing</u>	X		x	X	X
Subjective indicators					
<u>Financial</u> perceptions	X	x		X	X
<u>Financial</u> <u>Expectations</u>				Inapplicable	Inapplicable

Source: author's own representation

(a) X denotes the presence of an association that was significant, sizable, and devoid of ambiguity. (b) "Inapplicable" are the indicators that were considered in Chapter 3, but not in Chapter 4.

(c)Caveats are in parenthesis.

Some results also pointed to other peculiarities of the British context. First, the results on temporary work confirmed that this type of work was rarely done by young adults after their early twenties, due to the confidence intervals (Rubery, 1989; Choonara, 2019a). Therefore, precariousness seemed to be more related to having a job, rather than to the job type. Second, subjective indicators were found to be less straightforward predictors of the formation of the first coresidential partnership than objective measures. This observation was also related to the third reason why economic precariousness was operationalised through several objective and subjective indicators: i.e., that among young adults, economic precariousness could be ambiguous.

The results of this thesis showed that among youth in the UK, not entering a coresidential union was not necessarily related to current feelings of insecurity, probably due to the considerable heterogeneity that characterises youth in this phase (Osgood et al., 2005).
The British literature has offered a number of potential explanations for this finding. It has, for example, been suggested that many young people feel insecure despite their economic conditions (Standing, 2011), or that economic precariousness has so thoroughly penetrated young adults' lives that it does not make them feel insecure (Furlong et al., 2017). Remaining unpartnered was also found to have a peculiar relationship with prospective measures of economic precariousness, as the results showed that if individuals had enough economic resources, they would transition to a first coresidential partnership even if they anticipated a worsening of their financial situation. This result calls into guestion recent frameworks suggesting that feeling pessimistic about the future – in this case, about the individual's financial situation – necessarily discourages family commitments, such as the Narrative Framework proposed by Vignoli et al. (2020), or the "shadows of the future" hypothesis (Bernardi et al., 2019). Alternatively, this result could suggest that short-term measures are not suitable for use in such frameworks, and that more long-term measures need to be tested. For example, Chapter 5 confirmed that having parents who were not in the most advantaged class may have consequences for how individuals expect their life course to develop over the long term.

6.4.4 Conclusions drawn from the analysis of different moderators of the relationship between economic precariousness and partnership dynamics

6.4.4.1 Does this relationship differ by gender?

The thesis investigated whether there were gender differences in how current economic resources or parental background related to the reference outcomes. Chapter 3 highlighted the limited differences in the role of men's and women's economic resources in entry into the first coresidential partnership across all of the historical periods studied. According to the results, women's economic resources were already playing an important role in entry into a first coresidential partnership in the 1990s, although the effects were initially smaller for labour income and occupational class. The finding that other measures of women's economic precariousness, such as employment, were becoming important fit less well with Becker's specialisation theory, and was more consistent with Oppenheimer's theory of marriage timing; i.e., that women with economic resources tend to delay their entry into the first coresidential partnership until they have found a suitable partner.

However, the results for the couple dimension did not confirm that the genders overlapped completely. Before commenting on these results, it is important to notice that, given the low sample size associated with certain couple arrangements, it was possible to find mostly qualitative trends rather than statistically significant differences. Therefore, the conclusions need to be carefully tested in larger samples which could help validate them. The findings presented in Chapter 4 suggest that that the male partner's inability to provide over the long-term through savings and, to a lower extent, his joblessness were greater potential barriers to marriage than having low earnings, which indicates that the female partner's earnings may help to compensate for the male partner's potential financial deficiencies (e.g., US: Sweeney, 2002).

In terms of the risk of dissolution, there were two trends showing that the man's non-employment appeared to be more problematic than the woman's, even though the non-employment of both partners increased the risk of separation. However, the results also showed that gender differences were more limited in the case of earnings and savings, which indicates that the female partner's economic resources were less likely than her employment to disrupt the couple's equilibrium. Moreover, the woman's subjective perceptions of the financial situation was also found to be an important determinant of a cohabiting couple's dissolution risk, as the partners' dissatisfaction with their current financial situation could increase their probability of splitting up (Blekesaune, 2008).

6.4.4.2 Does this relationship differ by historical period?

The historical period has also been identified as an important dimension of analysis. As Beaujouan and Bhrolcháin (2011) highlighted, partnership behaviours have changed in the UK. All of the chapters pointed out that currently, there is an increasing tendency towards delaying partnership formation, and towards adopting alternative living arrangements, rather than getting married. Sudden macroeconomic events may have modified the constraints and the opportunities of precarious young adults on the partnership market (Oppenheimer, 2000). Chapter 3 found evidence of a trend in line with this assumption, whereby young adults who were out of the labour force were less likely to enter a first coresidential partnership in the period during and right after the onset of the Great Recession than in the preceding or the following period (this analysis was gender-neutral). We cannot, however, discard the possibility of a "seaming effect" due to the transition from the BHPS to the UKHLS. If this effect is real, it likely suggests that economically precarious young adults would be either less able to afford to enter a first coresidential partnership during recessions than they would in economically precarious times, or that they would have to settle for a less attractive partner (Sobotka et al., 2011).

The results in Chapter 3 are probably less connected to those in Chapters 4 and 5, as it analysed potential variations related to the business cycle. Chapter 5 highlighted that among the young adults from disadvantaged backgrounds interviewed in the most recent period, both marriage and cohabitation expectations declined, with the decrease in marriage expectations being especially large. By contrast, marriage and cohabitation

changed much less among young adults from advantaged backgrounds. These results are also in line with those from Chapter 4, which showed that in the more recent periods, economically precarious couples were less likely than their advantaged counterparts to marry. All in all, the results of these chapters appear to be in line with those of the literature highlighting that marriage has become more selected in the UK in recent years (Berrington et al., 2015).

6.5 **Policy implications**

The applied nature of this research may help policy-makers identify critical areas of vulnerability during the process of partnership formation, as was shown in Chapter 3 and Chapter 4. Creating decently paid jobs for young adults can help them achieve the financial independence they need to set up their own household, and can thus facilitate family formation. Consequently, in a context where underemployment, low wages, and poor career progression are becoming more prevalent, these findings should incentivise the implementation of policies aimed at reducing the precarity of young adults' lives.

Housing independence is an important determinant for entering a first cohabitation, and for entering a first marriage from a cohabitation. Government policies since the 1980s have slowed down the building of affordable public housing, and have allowed a largely unregulated private sector to flourish. These policies have resulted in overcrowded and low-quality rental options, and in skyrocketing housing prices (Berrington and Stone, 2014). Improving housing quality, along with reinstituting a policy of providing generous housing benefits, could help to boost young adults' independence, and, in turn, rates of family formation.

The results from Chapter 3 and Chapter 4 may encourage the implementation of policies promoting wealth accumulation so that individuals can feel more confident about undertaking a lifelong commitment such as marriage, if they wish to do so. It is, however, unclear whether it is the institution of marriage or the British legal system that encourages young adults to save or accumulate assets. Indeed, as marriage still provides more financial protections than cohabitation, it should attract cohabiters with adequate economic resources. In both cases, marriage may be seen as a wealth-building institution suitable for couples with sufficient assets to make a long-term commitment. Hence, in a period in which financial capability is low (Taylor et al., 2009), policies that give young adults the option and the ability to save and accumulate assets (e.g., housing) may increase marriage rates. A similar reasoning could also apply in the case of anticipation effects, since it is important to give cohabiters the hope of achieving financial stability in the future.

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This point may also open the discussion regarding cohabiters' rights, especially the Cohabitation Rights Bill, which has been under consideration since 2017. This bill proposes the extension of basic financial and inheritance rights to cohabiters. For instance, in case of separation, disadvantaged partners would receive a lump sum; and in the case of widowhood, the inheritance procedure would be streamlined (Rushton, 2020). Protecting cohabiters' financial resources is also seen as important because, as Chapter 3 demonstrated, individuals who cohabit are already selected based on their occupation or income (at least among cohabiters in their twenties).

This law would be beneficial not only for cohabiting couples, but also for their children, as it would reduce the likelihood that the children will be economically disadvantaged in the future. This point is indeed important, as the share of nonmarital childbirths has increased in recent decades. As Chapter 5 showed, a potential consequence of childhood disadvantage is its intergenerational transmission, starting with expectations, and potentially translating into behaviours. Therefore, early interventions that encourage young adults from disadvantaged backgrounds to follow a life course characterised by stable employment and stable relationships are needed to prevent selection into potential disadvantage. Another key area of policy action is the promotion of efforts to collect high-quality longitudinal data to follow individuals and potential changes in their characteristics over time.

6.6 Limitations of the thesis

6.6.1 Limitations of the theoretical approach

This work analysed some specific indicators that were chosen because the necessary data were available in most waves of the UKHLS and the BHPS, they fit within the UK context, and they were associated with partnership dynamics. However, there are other relevant aspects that were not included in the analysis, in some instances due to data availability; e.g., some aspects could be measured through both the UKHLS and the BHPS, while others could not. The first example is the number of working hours, which is probably one of the most important aspects of precariousness in the UK (underemployment and variation in guaranteed hours, e.g., zero hours contracts). Working hours were not measured because it was not possible to determine whether the number of hours worked was less than the desired number (thereby representing underemployment) across all of the historical periods. In fact, this information was provided in the BHPS, but not in the UKHLS. The large changes in some measures in the transition from the BHPS to the UKHLS were problematic, as they did not allow the BHPS to continue *key* analyses (e.g.,

hours and satisfaction with specific aspects of a job, including job security). Another limitation of the selected approach was that the indicators were only compared, rather than examined in terms of their interrelations. While this approach was in line with our aim – i.e., comparing different aspects of individual economic circumstances – the issue of the simultaneous effects of indicators needs to be considered.

6.6.2 Limitations of the empirical approach

Overall, the thesis used statistical techniques that were mainly descriptive, and not causal. Therefore, some observable and unobservable characteristics may have affected the results, even though major characteristics that could have confounded the relationship of interest were controlled for. However, even if different techniques, such as random- or fixed-effects models, had been used, these problems would not have been eliminated. In the case of random effects, the presence of unobservable variables would have still biased the results if they were correlated with the controlled characteristics, which is very likely. In the case of fixed effects, the estimates would still have been biased if there were time-varying variables confounding the relationship of interest. Moreover, both types of models would have been difficult to implement in Chapter 4, and were not particularly well-suited to the analysis in Chapter 5. Indeed, in Chapter 4, the observation spells were quite short; and in Chapter 5, the share of individuals with one or two observations only was high. Finally, endogeneity was still an issue for Chapter 3 and 4 because lagging the dependent variable by one period did not rule out potential anticipation effects. However, the potential anticipation effects were always considered, and were carefully noted.

The following paragraphs will address major paper-specific limitations. In Chapter 3, there may be a problem of sample selection; i.e., as individuals age, they become more and more selected. Since economically precarious individuals tend to form unions at earlier ages, the relationship of interest may have been overestimated. However, the first hypothesis in this paper accounted for selection, and explicitly stated that this risk is expected to change given this dynamic. If we had not interacted the covariates representing precariousness with age, we would not have noticed the presence of young adults entering their first coresidential union under economically precarious conditions, or the absence of differences between them and young adults who were not economically precarious. Moreover, several analytical checks were performed to determine whether using a pure life course approach (including only young adults who entered the panel before age 19) could have disrupted the conclusions, and the results indicate that it would not have done so. Another problem is related to attrition, which was addressed in the chapter.

Regarding Chapter 4, it is essential to acknowledge that the entry into a coresidential union may already be selective based on unobservable characteristics; i.e., the couples who entered a first coresidential union under economically precarious conditions may have already had other characteristics that did not prevent them from forming a first coresidential partnership. Therefore, economically precarious individuals who were in a union may have had a higher probability of marrying and a lower probability of separating than precarious individuals who were not in a union, which could have led to an underestimation of the effects of precariousness. However, it is not easy to model selection into a union analytically, as it is not possible to control for the partners' characteristics before they entered the union. Therefore, the strategy that was adopted controlled for most of the observable characteristics that determine entry into a union; e.g., age at entry into the union or the presence of children. Moreover, since Chapter 3 already addressed the topic of entry into the first coresidential union, Chapter 4 acknowledged some of the selection problems by, for example, commenting on the high percentage of non-economically precarious unions formed in the panel. Finally, since the focus was mainly on getting representative estimates of the population of *couples*, the selection mechanisms could be acknowledged, but were not necessarily of interest.

Chapter 5 used a combination of marriage and cohabitation expectations by considering the "50-value" as a threshold representing uncertainty. This division could be considered arbitrary, although its use was strongly motivated by the literature reporting that this value is usually observed when an individual is unsure about a particular answer. However, the "50-value" does not reliably represent uncertainty; and, indeed, it would be beneficial to ask what exactly individuals mean when they answer with the value of 50. However, we conducted quite an extended series of robustness checks, which suggested that the principal conclusions hold.

6.6.3 Data limitations

In Chapter 4, certain couple arrangements, such as female breadwinner couples, were found to be rare. This rarity may be attributable to the context and the selective attrition of certain couple types. Therefore, certain results need to be considered with caution, and be tested on a larger sample. However, these findings are in line with the theory. For instance, as Jalovaara (2003) reported for Finland and Ermisch and Francesconi (2000a) observed for Britain, couples suffer from both a lack of income and employment, especially when it is the male partner who is unemployed.

Another limitation was that yearly rather than monthly data were used. As was already reported in section 1.6 of the introductory chapter, the measures of economic precariousness used were time-varying, and were measured at each wave. Therefore,

monthly data would be too fine-grained for use in the analysis given how the data were measured. Moreover, the way in which the months of events were collected was questionable, especially for dissolutions. According to the computations performed by the author, most of the months in which individuals were interviewed coincided with the month in which the cohabitation ended, which suggests strong imputation, and would not guarantee the precision required for a monthly analysis.

6.7 Suggestions for future research

6.7.1 Further research questions that can be undertaken given the existing data

The first suggestion for a future analysis is the exploration of other sources of precariousness in the British context, which have become more prevalent in the most recent period. One example is zero-hours contracts. Before this thesis was started, data from the UKHLS on zero-hours contracts (and on-call work) were not available. The survey started to ask this question biennially from the eighth wave onwards. Some data were available from the BHPS, but the frequency of these data was extremely limited (e.g., around 20 occurrences in the overall sample for each wave). Since this question now seems to be a regular addition to the survey, it would be interesting to explore the topic further, first by profiling respondents with short-hours contracts; and then, once the sample size has grown, by analysing the potential consequences for outcomes such as mental health and partnership formation or dissolution.

A second option is to undertake further analyses of the role of financial expectations, which was examined in Chapter 3. As Bolano and Vignoli (2021) have argued, objective and subjective measures of economic uncertainty, especially prospective ones (i.e., financial expectations) should be deepened. In exploring these topics, it would be important to include interaction effects between objective and subjective measures.

Another potential area of research is the exploration of other youth expectations in the young adults' module, including of expectations regarding work and employment. Most of these questions will be asked in the incoming wave, and it would be interesting to compare responses in the pre- and the post-pandemic period. Moreover, the authors and her supervisors have requested the introduction of a module on young adults' expectations into the Covid-19 questionnaire. Although this project has not been undertaken due to sample size issues, descriptive statistics can be computed to uncover some variations in young adults' expectations between the first and the second wave.

The topic of female breadwinner couples, which arose in Chapter 4, could be investigated more thoroughly in a specific study that also includes in the panel couples who have not started their relationship, which would maximise the sample size. It would be interesting to clarify whether the results differ according to the spell of unemployment and the reason for it, and also whether it affects the mental health of children and mothers more than the reverse situation. This specific sample did not allow for the topic to be explored in this way. However, by also including older married couples and couples whose relationship started before they entered the sample, addressing this research question would be feasible, as was shown by Di Nallo et al. (2021) for a different research question.

An improved version of the mediation method presented in Chapter 5 could be applied to disentangle the different effects that being raised in different family structures could have for young adults from different socioeconomic backgrounds. In the paper, the main intent was to disentangle the role of the two hypothesised mechanisms. However, developing the research in this way could offer an interesting perspective, in line with major research conducted on the role of families in reproducing socioeconomic inequalities (Bernardi and Boertien, 2017; Boertien and Bernardi, 2020; Skopek and Leopold, 2020).

6.7.2 Additional data that could be used to further examine the research questions

Because of the limitations of the existing data, some research questions considered at the beginning of the project could not be examined. In Chapter 3, it would have been interesting to examine underemployment and potential historical variations in its effects, especially during the Great Recession. This is an aspect that has gained prominence in the UK in recent years. Therefore, the UK context seems appropriate for performing such an analysis (Bell and Blanchflower, 2018). However, data on the desired number of hours for the most recent period would be needed to conduct this analysis. While a question on the desired number of hours was asked in all waves of the BHPS, it was not asked in the UKHLS, which covers the period that is probably the most interesting to consider, as it includes the Great Recession, which led to cuts in hours. Generally, for many occupational variables, the interruption of detailed data collection at the start of the UKHLS is quite problematic. The need to maximise the sample size is understandable, as is the need to ask questions on several topics, given the heterogeneity of the sample. However, the level of detail of the questions on employment has been greatly affected.

The intergenerational transmission of family forms should be further explored, especially the transmission of nonmarital cohabitation and singlehood, even if doing so would require relying on questions on expectations. However, the Understanding Society data do not have the precision needed to investigate these dynamics. First, while these data indicate the types of events, they cannot be used to investigate the sequencing of the events. Therefore, it is not possible to determine with certainty whether individuals intend to

cohabit before or after marriage, or to cohabit without planning to marry. Second, it is often not possible to discern the meaning of young adults' cohabitation expectations, and especially of the 50-value; or whether young adults who are giving a low value are just reiterating their uncertainty, or are rejecting partnerships. Above all, there are no questions on expectations of separation or of the age at first cohabitation.

6.8 Concluding remarks

In sum, by analysing rich, long-run (almost 30 years), prospective data, this thesis has deepened our understanding of the relationship between economic precariousness and partnership dynamics, both expected and observed, among young adults in the UK. Economic precariousness has been operationalised through objective and subjective indicators, and using a "linked lives" approach (at the individual, couple, and parental level). This relationship was explored through different sources of heterogeneity, including gender and historical period, which were included in all of the papers. All in all, the results showed that economic precariousness is negatively related to the process of first partnership formation; to the outcomes of the first cohabitation; and, finally, to young adults' expectations regarding marriage and cohabitation. First, a lack of economic resources could represent a barrier to entry into a first coresidential partnership, especially among young adults in their twenties. Economic precariousness, especially in the male partner, could also represent a barrier to marriage and a trigger for dissolution among young cohabiting couples. Finally, parental socioeconomic status in terms of class could also affect young adults' expectations of ever partnering, and especially of marrying. As objective measures are generally more intuitive predictors than subjective indicators, the need to merge the two in future research should be reiterated. In light of the results, it is clear that policies that address young adults' financial and housing independence are crucial for supporting the formation and the survival of young adults' first coresidential partnerships. Moreover, policy-makers should tackle important topics like the protection of cohabiters' rights in the near future. Finally, the continuous collection of longitudinal data through large-scale surveys needs to be supported to explore new forms of precarious employment (e.g., zero-hours contracts), and to better capture evolving forms of disadvantage among young adults in the British context.

Appendix A – Chapter 3

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Table A 1: Descriptive statistics of individual controls

Continuous variable			
	Mean	Std. deviation	
Age – total sample	23.4	4.16	
Age – men	23.6	4.20	
Age – women	23.1	4.09	

Unweighted person- %weighted person- % weighted	
years ^a years events	
Gender	
Male 11,021 58.09 9.12	
Female 9,667 41.91 12.15	
Historical period	
1991–97 3,404 29.41 11.98	
1998–2007 6,846 41.18 10.68	
2008–13 5,201 12.60 8.42	
2013–18 5,237 16.80 8.35	
Living with biological children	
No 19,367 95.64 10.36	
Yes 1,321 4.36 11.07	
Geographical area	
England (except London) 12,136 71.39 10.60	
London 2,496 13.51 9.20	
Scotland 1.857 5.00 8.70	
Wales 2.284 7.90 12.10	
Northern Ireland 1.874 2.10 7.10	
Missing 41 0.1 19.70	
Religion	
Religious 8.125 33.60 11.34	
Not religious 12.473 66.10 9.90	
Missing 90 0.30 1.90	
Ethnicity	
White British and Irish 17.856 91.2 10.50	
Bangladeshi 261 0.40 7.81	
Pakistani 417 1.00 13.90	
Indian 543 1.70 9.00	
Other Asian 272 0.90 7.00	
African 358 0.90 4.70	
Caribbean 470 1.40 7.30	
Other and mixed 507 2.60 10.50	
Missing 4 0.00 0.00	
Education	
Low 922 4.59 6.78	
Intermediate 6,775 36.55 9.59	
Advanced 6,831 32.08 9.41	
High 5,993 25.85 13.39	
Missing 167 0.93 7.70	
Parental class	
Managerial and professionals 7,824 39.98 11.14	
Intermediate 4,904 23.72 10.16	
Routine and semi-routine 6,085 28.70 9.96	

LT unemployed/never employed/not employed at age 14	1,675	6.81	8.72
Absent parent (or missing) (or missing)	200	0.78	8.99
Pregnancy status of the female respondent (or male r. partner)			
No	20,248	98.07	9.75
Yes	440	1.93	42.81
Total	20,688	100.00	10.36

Source: own unweighted computations from BHPS and UKHLS

^a Covariates are measured at time t. Only observations with valid weights and a valid event indicator are considered.

Table A 2: Predicted annual probabilities of entering the first coresidential partnership for each indicator of economic precariousness, at specific ages.

	Occupational class	Pred. prob.	Contract	Pred. prob.	Tercile	Pred. prob.	Means- tested benefits	Pred. Prob.	Savings	Pred. prob.	Financial perceptions	Pred. prob.	Financial expectations	Pred. prob.	Housing tenure	Pred. prob.
Age18	Managerial and professional	0.05	Permanent	0.05	2nd or above	0.06	Not MTB	0.05	Yes	0.05	Good	0.05	Better off	0.05	Living with parents	0.04
Age 18	Intermediate	0.05	Temporary	0.04	1st	0.05	MTB	0.08	No	0.06	Getting by	0.07	The same	0.05	Owners	0.06
Age 18	Routine	0.05	Not employed	0.07	Not earner	0.07					Difficult	0.05	Worse off	0.06	Private renting	0.14
Age 18	Not employed	0.07													Public renting	0.16
Age 20	Managerial and professional	0.08	Permanent	0.09	2nd or above	0.09	Not MTB	0.08	Yes	0.08	Good	0.08	Better off	0.08	Living with parents	0.07
Age 20	Intermediate	0.08	Temporary	0.07	1st	0.07	MTB	0.08	No	0.08	Getting by	0.09	The same	0.08	Owners	0.10
Age 20	Routine	0.08	Not employed	0.07	Not earner	0.07					Difficult	0.08	Worse off	0.12	Private renting	0.14
Age 20	Not employed	0.07													Public renting	0.16
Age 22	Managerial and professional	0.12	Permanent	0.12	2nd or above	0.12	Not MTB	0.11	Yes	0.11	Good	0.11	Better off	0.10	Living with parents	0.10
Age 22	Intermediate	0.11	Temporary	0.10	1st	0.09	MTB	0.08	No	0.11	Getting by	0.12	The same	0.10	Owners	0.14
Age 22	Routine	0.11	Not employed	0.08	Not earner	0.07					Difficult	0.10	Worse off	0.18	Private renting	0.14
Age 22	Not employed	0.08													Public renting	0.15
Age 24	Managerial and professional	0.15	Permanent	0.14	2nd or above	0.15	Not MTB	0.14	Yes	0.13	Good	0.13	Better off	0.12	Living with parents	0.12
Age 24	Intermediate	0.14	Temporary	0.12	1st	0.10	MTB	0.08	No	0.12	Getting by	0.13	The same	0.12	Owners	0.17
Age 24	Routine	0.13	Not employed	0.08	Not earner	0.07					Difficult	0.12	Worse off	0.23	Private renting	0.14
Age 24	Not employed	0.08													Public renting	0.14
Age 26	Managerial and professional	0.16	Permanent	0.14	2nd or above	0.15	Not MTB	0.14	Yes	0.14	Good	0.13	Better off	0.13	Living with parents	0.13
Age 26	Intermediate	0.14	Temporary	0.13	1st	0.10	MTB	0.08	No	0.12	Getting by	0.13	The same	0.12	Owners	0.17
Age 26	Routine	0.13	Not employed	0.07	Not earner	0.07					Difficult	0.11	Worse off	0.23	Private renting	0.13
Age 26	Not employed	0.07													Public renting	0.13
Age 28	Managerial and professional	0.14	Permanent	0.14	2nd or above	0.14	Not MTB	0.13	Yes	0.13	Good	0.12	Better off	0.12	Living with parents	0.11
Age 28	Intermediate	0.13	Temporary	0.13	1st	0.08	MTB	0.07	No	0.11	Getting by	0.12	The same	0.11	Owners	0.16
Age 28	Routine	0.12	Not employed	0.07	Not earner	0.07					Difficult	0.10	Worse off	0.20	Private renting	0.13

Δσe 28	Not employed	0.07													Public	0.10
<u>8</u> 0 20	Notemployed	0.07													renting	0.10
			-		a 1								- //		Tenting	
Age 30	Managerial	0.10	Permanent	0.10	2nd or	0.11	Not MTB	0.10	Yes	0.11	Good	0.10	Better off	0.10	Living with	0.09
	and professional				above										parents	
Age 30	Intermediate	0.10	Temporary	0.11	1st	0.06	MTB	0.07	No	0.08	Getting by	0.09	The same	0.09	Owners	0.13
Age 30	Routine	0.10	Not	0.06	Not	0.06					Difficult	0.08	Worse off	0.13	Private	0.12
Ū.			employed		earner										renting	
Age 30	Not employed	0.06	. ,												Public	0.09
		0.00													renting	0.00
A 22		0.00	0	0.07	2	0.00		0.07	Maa	0.00	Carad	0.07	Detter off	0.07	1 interaction	0.00
Age 32		0.06	Permanent	0.07	2na or	0.08	NOTIVITE	0.07	res	0.08	Good	0.07	Better ojj	0.07	Living with	0.06
	Managerial				above										parents	
	and professional															
Age 32	Intermediate	0.07	Temporary	0.08	1st	0.04	MTB	0.06	No	0.06	Getting by	0.07	The same	0.06	Owners	0.09
Age 32	Routine	0.07	Not	0.05	Not	0.05					Difficult	0.05	Worse off	0.07	Private	0.12
			employed		earner										renting	
Age 32	Not employed	0.05													Public	0.07
		0.00													renting	
A == 24	Managarial	0.02	Dermernent	0.04	2 m d an	0.05		0.04	Vaa	0.05	Cood	0.04	Dattar off	0.05	Living with	0.02
Age 34	Manageriai	0.03	Permanent	0.04	2na or	0.05	NOTIVITE	0.04	res	0.05	Good	0.04	Better ojj	0.05	Living with	0.03
	and professional				above										parents	
Age 34	Intermediate	0.05	Temporary	0.06	1st	0.02	MTB	0.05	No	0.03	Getting by	0.04	The same	0.04	Owners	0.05
Age 34	Routine	0.04	Not	0.04	Not	0.04					Difficult	0.03	Worse off	0.03	Private	0.12
-			employed		earner										renting	
Δσο 3/	Not employed	0.04													Public	0.05
A60 34	Notemployeu	0.04													ronting	0.05
															renting	

Source: own unweighted computations from BHPS and UKHLS

(a) Probabilities derived from models controlled for respondent's gender, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion, parental class and historical period. Other covariates kept at their mean values

(b) N=20,688 person-years



Figure A 1: Predicted annual probabilities of entering the first nonmarital cohabitation for each indicator of economic precariousness, over age

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the *95%* level of confidence;

^b Results are controlled for respondent's gender, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children. Covariates are kept at their mean value.

^c Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results. For the same reason, the representation of ages is up to 28 years old.

Source: own weighted computations from BHPS and UKHLS (1991-2018)



Figure A 2: Predicted annual probabilities of entering the first direct marriage for each indicator of economic precariousness, over age

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the *95%* level of confidence;

^b Results are controlled for respondent's gender, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children. Covariates are kept at their mean value.

^c Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results. For the same reason, the representation of ages is up to 28 years old. **Source: own weighted computations from BHPS and UKHLS (1991-2018)**

Table A 3: Relative risk ratios from discrete-time multinomial logit models relating the likelihood of entering a first cohabitation on direct marriage, relative to remaining single, between t and t+1 to indicators of precariousness interacted with age (a—h).

	(a) Likelihood	(a) Likelihood of	(b)	(b) Likelihood of	(c) Likelihood	(c) Likelihood of	(d) Likelihood	(d) Likelihood of	(e) Likelihood	(e) Likelihood of	(e) Likelihood	(e) Likelihood of	(e) Likelihood	(e) Likelihood of	(e) Likelihood	(e) Likelihood of
	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation	of entering a direct	entering a cohabitation
	Marriage	(t,t+1)	Marriage	(t,t+1)	Marriage	(t,t+1)	Marriage	(t,t+1)	Marriage	(t,t+1)	Marriage	(t,t+1)	Marriage	(t,t+1)	Marriage	(t,t+1)
	(t,t+1) (occupation al class)	(occupational class)	(t,t+1) (contract type)	(contract type)	(t,t+1) (labour income)	(labour income)	(t,t+1) (MTB)	(МТВ)	(t,t+1) (Savings)	(Savings)	(t,t+1) (Financial perceptions)	(Financial perceptions)	(t,t+1) (Financial expectation s)	(Financial expectations)	(t,t+1) (Housing tenure)	(Housing tenure)
Age	1.06(0.06)	1.07**(0.03)	1.08*(0.04)	1.06**(0.02)	1.11*(0.05)	1.06**(0.02)	1.09**(0.03)	1.07**(0.02)	1.07+(0.04)	1.08**(0.02)	1.09(0.10)	1.03(0.04)	1.07(0.05)	1.06**(0.02)	1.08*(0.04)	1.07**(0.02)
Age*Age	0.98*(0.01)	0.97**(0.00)	0.98**(0.01)	0.98**(0.00)	0.98**(0.01)	0.98**(0.00)	0.98**(0.01)	0.98**(0.00)	0.98*(0.01)	0.98**(0.00)	0.94*(0.03)	0.98*(0.01)	0.99+(0.01)	0.98**(0.00)	0.98*(0.01)	0.97**(0.00)
class (ref.																
managerial)																
Intermediate	0.72(0.19)	0.94(0.11)														
Not employed	0.24**(0.09)	0.53**(0.09)														
Int'te*Age	1.00(0.08)	0.99(0.03)														
Routine*Age	1.04(0.06)	0.98(0.03)														
Not employed*Age	0.93(0.08)	0.92*(0.03)														
Int'te*Age*Age	1.01(0.01)	1.00(0.01)														
Routine*Age*Age	1.00(0.01)	1.01(0.01)														
Not employed*Age*A	1.03+(0.02)	1.02**(0.01)														
Contract type (ref. permanent)																
Temporary			0.91(0.33)	0.85(0.15)												
Not employed			0.31**(0.10)	0.57**(0.09)												
Temporary*Age			1.04(0.06)	1.03(0.04)												
employed*Age			0.51(0.07)	0.01 (0.00)												
Temporary*Age* Age			1.01(0.01)	1.00(0.01)												
Not employed*Age*A ge			1.03*(0.01)	1.01*(0.01)												
Labour income (ref. 2 ^{nd-} 3 rd)																
1st					0.72(0.17)	0.64**(0.08)										
No labourincome					0.29**(0.10)	0.52**(0.08)										
No labour					0.88(0.07)	0.94*(0.03)										
1st*Age*Age					1.01(0.01)	1.00(0.01)										
No labour income*Age*Age					1.03*(0.01)	1.01+(0.01)										
Means-tested benefits (ref. not receiving)																
MTB							0.45**(0.12)	0.62**(0.08)								
MTB*Age							0.89+(0.05)	0.94**(0.02)								
MTB*Age*Age							1.03*(0.01)	1.01*(0.01)								
Savings (ref. yes)									0.00*(0.4.4)	0.07(0.00)						
No savings*Age									1.00(0.05)	0.96*(0.02)						
No savings*Age*Age									0.99(0.01)	1.00(0.00)						
Financial perceptions (ref.																
Good/quite good											1.39(0.69)	1.11(0.18)				
Getting by											1.24(0.64)	1.10(0.20)				
Good/quite											1.00(0.09)	1.04(0.04)				
Getting by*Age											0.93(0.09)	1.01(0.04)				

Good quite											1.05(0.03)	0.99(0.01)				
good *A go*Ago											1.05(0.05)	0.00(0.01)				
goou Age Age											1.05(0.02)	1.00(0.01)				
Getting											1.05(0.05)	1.00(0.01)				
by Age Age																
Financial																
expectations (ref.																
better off)																
The same													0.96(0.20)	1.00(0.09)		
Worse off													3.53**(1.05)	2.06**(0.29)		
The same*Age													1.03(0.06)	0.99(0.02)		
Detter offkage													1.03(0.00)	1.04(0.04)		
better off Age													1.05(0.00)	1.04(0.04)		
The													0.99(0.01)	1.00(0.00)		
same*Age*Age																
Better													0.98+(0.01)	0.98**(0.01)		
off*Age*Age																
Household tenue																
(ref. living with																
parents)																
Owners															0.50+(0.20)	1.56**(0.24)
Private renting															0.89(0.26)	1 15(0 12)
Public renting															0.31*(0.15)	1 35(0.28)
Owning*Ago															1 22(0 22)	1.00(0.05)
owning Age															1.52(0.23)	1.00(0.00)
Private															0.97(0.08)	0.93*(0.03)
renting*Age																
Public															0.95(0.17)	0.90**(0.04)
renting*Age																
Owning*Age*Age															0.97(0.02)	1.01(0.01)
Private															1.01(0.01)	1.02**(0.01)
renting*Age*Age																
Public															1.00(0.02)	1.02*(0.01)
renting*Age*Age																
Gender(ref. male)																
Female	1.42*(0.25)	1.34**(0.09)	1.45*(0.25)	1.36**(0.09)	1.46*(0.25)	1.40**(0.09)	1.46*(0.25)	1.36**(0.09)	1.46*(0.25)	1.37**(0.09)	1.46*(0.25)	1.37**(0.09)	1.46*(0.25)	1.37**(0.09)	1.48*(0.25)	1.36**(0.09)
Coresidence with	. ,	. ,	. ,		. ,	. ,	. ,		. ,		. ,	. ,	, ,	. ,	. ,	. ,
narents (ref. no)																
Voc	1 20/0 25)	0.64**(0.05)	1.26(0.25)	0 62**/0 05)	1 27(0.25)	0 65 **(0 05)	1 22(0.25)	0.62**(0.05)	1 20(0 24)	0.64**(0.05)	1 22(0 24)	0.64**(0.05)	1 22(0 25)	0.62**(0.05)		
Tels a la la la la dana	1.29(0.23)	0.04 (0.03)	1.20(0.25)	0.03 (0.03)	1.27(0.23)	0.03 (0.03)	1.23(0.23)	0.02 (0.03)	1.20(0.24)	0.04 (0.03)	1.23(0.24)	0.04 (0.03)	1.22(0.23)	0.02 (0.03)		
Ethnicity (rer.																
white/insh)																
Bangladeshi	9.05**(4.04)	0.07**(0.06)	8.91**(3.80)	0.07**(0.06)	9.11**(3.94)	0.06**(0.06)	8.62**(3.84)	0.07**(0.06)	8.77**(3.81)	0.07**(0.06)	9.04**(3.88)	0.07**(0.06)	9.76**(4.37)	0.07**(0.06)	9.08**(3.98)	0.07**(0.06)
Pakistani	9.98**(2.66)	0.17*(0.13)	9.90**(2.63)	0.17*(0.13)	10.23**(2.8	0.18*(0.13)	8.84**(2.47)	0.16*(0.12)	9.40**(2.61)	0.16*(0.12)	9.05**(2.59)	0.16*(0.12)	9.46**(2.81)	0.17*(0.13)	8.68**(2.50)	0.16*(0.12)
					2)											
Indian	5.31**(1.50)	0.04**(0.02)	5.64**(1.64)	0.04**(0.02)	5.58**(1.63)	0.04**(0.02)	5.37**(1.57)	0.04**(0.02)	5.83**(1.69)	0.04**(0.02)	5.76**(1.70)	0.04**(0.02)	5.75**(1.60)	0.04**(0.02)	5.65**(1.68)	0.04**(0.02)
Asian		,					4 0 6 (4 00)	0.40**(0.13)	2 00/1 22	0.41**(0.13)	1.98(1.21)	0.41**(0.13)	2 04/1 27)	0.42**(0.13)	1 00/1 15)	0.42**(0.13)
	2.08(1.31)	0.41**(0.13)	2.01(1.26)	0.41**(0.13)	2.08(1.31)	0.44**(0.13)	1.96(1.23)		2.00(1.22)				2.04(1.27)	· · · · · · · · · · · · · · · · · · ·	1.00(1.13)	· · · · · · · · ·
African	2.08(1.31) 2.22(1.11)	0.41**(0.13) 0.27**(0.10)	2.01(1.26) 2.14(1.05)	0.41**(0.13) 0.27**(0.10)	2.08(1.31) 2.22(1.09)	0.44**(0.13) 0.28**(0.10)	2.00(0.99)	0.26**(0.10)	2.17(1.11)	0.26**(0.10)	2.40+(1.24)	0.25**(0.10)	1.95(1.02)	0.26**(0.10)	1.77(0.95)	0.24**(0.09)
Caribbean	2.08(1.31) 2.22(1.11) 0.74(0.73)	0.41**(0.13) 0.27**(0.10) 0.72(0.19)	2.01(1.26) 2.14(1.05) 0.73(0.71)	0.41**(0.13) 0.27**(0.10) 0.72(0.20)	2.08(1.31) 2.22(1.09) 0.72(0.73)	0.44**(0.13) 0.28**(0.10) 0.72(0.19)	1.96(1.23) 2.00(0.99) 0.66(0.65)	0.26**(0.10)	2.17(1.11) 0.61(0.60)	0.26**(0.10)	2.40+(1.24) 0.70(0.69)	0.25**(0.10)	2.04(1.27) 1.95(1.02) 0.53(0.57)	0.26**(0.10)	1.77(0.95)	0.24**(0.09)
African Caribbean Other and mixed	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49)	0.26**(0.10) 0.72(0.19) 1.18(0.22)	2.17(1.11) 0.61(0.60) 0.88(0.50)	0.26**(0.10) 0.67(0.19) 1.17(0.22)	2.40+(1.24) 0.70(0.69) 0.87(0.49)	0.25**(0.10) 0.67(0.19) 1.17(0.22)	1.95(1.02) 0.53(0.57) 0.87(0.50)	0.26**(0.10) 0.66(0.19) 1.19(0.23)	1.77(0.95) 0.66(0.65) 0.90(0.51)	0.24**(0.09) 0.68(0.19) 1.17(0.22)
African Caribbean Other and mixed Missing	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00)	2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00)	1.77(0.95) 0.66(0.65) 0.90(0.51)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00)
African Caribbean Other and mixed Missing	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00)	2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00)	1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00)
African Caribbean Other and mixed Missing Education level (ref. low)	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00)	2.00(1.22) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00)	1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00)
Amcan Caribbean Other and mixed Missing Education level (ref. low)	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00)	2.00(1.22) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00)	1.38(1.13) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 4.23(0.25)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27)	2.00(1.22) 2.17(1.11) 0.61(0.60) 0.088(0.50) 0.00**(0.00) 2.07(1.11) 2.42(1.45)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00) 2.12(1.15)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.40(1.21)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27)	1.33(1.13) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(4.24)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05) 1.98(1.10)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03) 1.96(1.09)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.25)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.22(1.22)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28)	2.00(1.22) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00) 2.12(1.15) 2.20(1.21)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28)	1.08(1.12) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05) 1.98(1.10) 1.91(1.09)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26) 1.47*(0.31)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03) 1.96(1.09) 1.98(1.11)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34)	2.07(1.12) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.19(1.21)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00) 2.12(1.15) 2.20(1.21) 2.26(1.26)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34)	1.07(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.27)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40*(0.28) 1.70*(0.35)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05) 1.98(1.10) 1.91(1.09) 0.71(0.66)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26) 1.47*(0.31) 1.30(0.61)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03) 1.96(1.09) 1.98(1.11) 0.75(0.70)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63)	2.07(1.12) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.19(1.21) 0.79(0.72)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00) 2.12(1.15) 2.20(1.21) 2.26(1.26) 0.84(0.76)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66)	1.08(1.12) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.27) 0.80(0.73)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05) 1.98(1.10) 1.91(1.09) 0.71(0.66)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26) 1.47*(0.31) 1.30(0.61)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03) 1.96(1.09) 1.98(1.11) 0.75(0.70)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70)	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.72(0.19)\\ 1.18(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.28(0.27)\\ 1.34(0.28)\\ 1.59^{*}(0.34)\\ 1.35(0.63)\\ \hline \end{array}$	2.00(1.22) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.19(1.21) 0.79(0.72)	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.28)\\ 1.40(0.29)\\ 1.67^{*}(0.35)\\ 1.42(0.66)\\ \end{array}$	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00) 2.12(1.15) 2.20(1.21) 2.26(1.26) 0.84(0.76)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66)	1.05(1.12) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.27) 0.80(0.73)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97)	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05) 1.98(1.10) 1.91(1.09) 0.71(0.66)	0.41**(0.13) 0.27**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26) 1.47+(0.31) 1.30(0.61)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03) 1.96(1.09) 1.98(1.11) 0.75(0.70)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63)	2.00(1.12) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.19(1.21) 0.79(0.72)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66)	2.40+(1.24) 0.70(0.69) 0.87(0.49) 0.00**(0.00) 2.12(1.15) 2.20(1.21) 2.26(1.26) 0.84(0.76)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66)	1.07(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.27) 0.80(0.73)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00**(0.00) 1.93(1.05) 1.98(1.10) 1.91(1.09) 0.71(0.66) 0.39**(0.09)	0.41**(0.13) 0.72*(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26) 1.47*(0.31) 1.30(0.61) 0.93(0.08)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67) 0.39**(0.09)	0.41**(0.13) 0.72**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.22(1.22) 0.77(0.70) 0.40**(0.09)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08)	2.00(1.22) 2.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.12(1.15) 2.19(1.21) 0.79(0.72) 0.43**(0.10)	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.33(0.28)\\ 1.40(0.29)\\ 1.67^{*}(0.35)\\ 1.42(0.66)\\ \hline \\ 0.94(0.08)\\ \hline \end{array}$	$\begin{array}{c} 2.40 {+}(1.24) \\ 0.70(0.69) \\ 0.87(0.49) \\ 0.00 {+}(0.00) \\ \hline \\ 2.12(1.15) \\ 2.20(1.21) \\ 2.26(1.26) \\ 0.84(0.76) \\ \hline \\ 0.40 {+}(0.09) \end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78) 0.42**(0.10)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08)	1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 2.26(1.27) 0.80(0.73) 0.40**(0.09)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00*(0.00) 1.93(1.05) 1.93(1.05) 1.93(1.05) 1.93(1.05) 1.93(1.05) 0.71(0.66) 0.33**(0.09) 0.33**(0.08)	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 (0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 * (0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 ** (0.07) \\ \end{array}$	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67) 0.39**(0.09) 0.30**(0.07)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70) -0.40**(0.09) 0.29**(0.07)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07)	2.00(1.22) 0.061(0.60) 0.88(0.50) 0.08*(0.00) 2.07(1.11) 2.12(1.15) 2.19(1.21) 0.79(0.72) 0.43**(0.10) 0.31**(0.08)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07)	$\begin{array}{c} 2.40 * (1.24) \\ 0.70 (0.69) \\ 0.87 (0.49) \\ 0.00 * (0.00) \\ \hline \\ 2.12 (1.15) \\ 2.20 (1.21) \\ 2.26 (1.26) \\ 0.84 (0.76) \\ \hline \\ 0.40 * (0.09) \\ 0.30 * (0.08) \\ \hline \end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00*(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.29**(0.07)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07)	1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00*(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 2.26(1.27) 0.80(0.73) 0.40**(0.09) 0.29**(0.07)	$\begin{array}{c} 0.24^{**}(0.09)\\ 0.68(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.27)\\ 1.40^{*}(0.28)\\ 1.70^{*}(0.35)\\ 1.45(0.69)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ \end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.91(1.09) \\ 0.71(0.66) \\ \hline \\ 0.33^{**}(0.09) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.11) \\ \end{array}$	$\begin{array}{c} 0.41 ** (0.13) \\ 0.72 ** (0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 ** (0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 * (0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 ** (0.07) \\ 0.69 ** (0.06) \\ \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ 0.39^{**}(0.09)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \end{array}$	0.41 **(0.13) 0.27 **(0.10) 0.72(0.20) 1.19(0.22) 0.00 **(0.00) 1.22(0.25) 1.27(0.26) 1.52 *(0.32) 1.32(0.62) 0.93(0.08) 0.77 **(0.07) 0.68 **(0.06)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \end{array}$	0.44 *(0.13) 0.28 *(0.10) 0.72 (0.19) 1.19 (0.22) 0.00 *(0.00) 1.20 (0.25) 1.22 (0.26) 1.43 *(0.31) 1.28 (0.60) 0.93 (0.08) 0.78 *(0.07) 0.70 *(0.07)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07)	$\begin{array}{c} 2.07(1.22)\\ 0.58(0.50)\\ 0.88(0.50)\\ 0.00^{+0}(0.00)\\ \hline \\ 2.07(1.11)\\ 2.19(1.21)\\ 2.19(1.21)\\ 0.79(0.72)\\ \hline \\ 0.43^{+0}(0.10)\\ 0.31^{+0}(0.88)\\ 0.45^{+0}(0.11)\\ \hline \end{array}$	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.28)\\ 1.40(0.29)\\ 1.67^{*}(0.35)\\ 1.42(0.66)\\ \hline\\ 0.94(0.08)\\ 0.75^{**}(0.07)\\ 0.67^{**}(0.06)\\ \end{array}$	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.08)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.13(1.16) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.29**(0.07) 0.44**(0.10)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06)	$\begin{array}{c} 1.86(1.12)\\ 1.77(0.95)\\ 0.66(0.65)\\ 0.90(0.51)\\ 0.00^{*4}(0.00)\\ \hline \\ 2.14(1.17)\\ 2.26(1.24)\\ 2.26(1.27)\\ 0.80(0.73)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.42^{**}(0.10)\\ \end{array}$	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.93(1.09) \\ 0.71(0.66) \\ \hline \\ 0.39^{**}(0.09) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 *(0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 *(0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 **(0.07) \\ 0.69 **(0.06) \\ \hline \end{array}$	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.90(1.03) 1.90(1.03) 1.90(1.03) 1.90(1.03) 0.30**(0.07) 0.39**(0.07) 0.30**(0.07)	0.41 **(0.13) 0.27 **(0.10) 0.72 (0.20) 1.19 (0.22) 0.00 **(0.00) 1.22 (0.25) 1.27 (0.26) 1.52 *(0.32) 1.32 (0.62) 0.93 (0.08) 0.77 **(0.07) 0.68 **(0.06)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \end{array}$	0.44 **(0.13) 0.28 **(0.10) 0.72 (0.19) 1.19 (0.22) 0.00 **(0.00) 1.20 (0.25) 1.22 (0.26) 1.43 *(0.31) 1.28 (0.60) 0.93 (0.08) 0.78 *(0.07) 0.70 **(0.07)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07)	$\begin{array}{c} 2.00(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.19(1.21)\\ 0.79(0.72)\\ \hline\\ 0.43^{**}(0.10)\\ 0.31^{**}(0.08)\\ 0.45^{**}(0.11)\\ \hline\end{array}$	$\begin{array}{c} 0.26^{+*}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{+*}(0.00)\\ \hline \\ 1.33(0.28)\\ 1.40(0.29)\\ 1.67^{+}(0.35)\\ 1.42(0.66)\\ \hline \\ 0.94(0.08)\\ 0.75^{+*}(0.07)\\ 0.67^{+*}(0.06) \end{array}$	$\begin{array}{c} 2.40 + (1.24) \\ 0.70(0.69) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 2.12(1.15) \\ 2.20(1.21) \\ 2.26(1.26) \\ 0.40^{**}(0.76) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \end{array}$	$\begin{array}{c} 0.25^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.32(0.27)\\ 1.39(0.28)\\ 1.66^{*}(0.34)\\ 1.41(0.65)\\ \hline \\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline \end{array}$	$\begin{array}{c} 2.04(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ 2.13(1.16)\\ 2.19(1.21)\\ 2.24(1.26)\\ 0.24(1.26)\\ 0.42^{**}(0.10)\\ 0.29^{**}(0.07)\\ 0.44^{**}(0.10)\\ \hline\end{array}$	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06)	1.77(0.55) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.27) 0.80(0.73) 0.40**(0.09) 0.29**(0.07) 0.42**(0.10)	$\begin{array}{c} 0.24^{**}(0.09)\\ 0.68(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.33(0.27)\\ 1.40^{+}(0.28)\\ 1.70^{*}(0.35)\\ 1.45(0.69)\\ \hline \\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline \end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.91(1.09) \\ 0.71(0.66) \\ \hline \\ 0.39^{**}(0.09) \\ 0.31^{**}(0.11) \\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 **(0.10) \\ 0.72 (0.10) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 *(0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 **(0.07) \\ 0.69 **(0.06) \\ \hline \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{+*}(0.00)\\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ 0.39^{+*}(0.09)\\ 0.30^{+*}(0.09)\\ 0.34^{+*}(0.10)\\ \hline \end{array}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.95(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ \hline \\ 2.10(1.13)\\ 2.20(1.23)\\ 2.22(1.22)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07)	$\begin{array}{c} 2.07(1.22)\\ 0.5(1.22)\\ 0.5(1.5)\\ 0.88(0.50)\\ 0.00^{+0}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.21)\\ 0.79(0.72)\\ \hline\\ 0.43^{+*}(0.10)\\ 0.31^{+*}(0.08)\\ 0.45^{+*}(0.11)\\ \hline\end{array}$	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.67(0.19) \\ 1.17(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.33(0.28) \\ 1.40(0.29) \\ 1.67^{*}(0.35) \\ 1.42(0.66) \\ \hline \\ 0.94(0.08) \\ 0.75^{**}(0.07) \\ 0.67^{**}(0.06) \\ \end{array}$	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.09)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\end{array}$	$\begin{array}{c} 0.25^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.32(0.27)\\ 1.39(0.28)\\ 1.66^{*}(0.34)\\ 1.41(0.65)\\ \hline \\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline \end{array}$	$\begin{array}{c} 2.04(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{+4}(0.00)\\ \hline\\ 2.13(1.16)\\ 2.24(1.26)\\ 0.86(0.78)\\ \hline\\ 0.42^{+4}(0.10)\\ 0.29^{+4}(0.07)\\ 0.44^{+4}(0.10)\\ \hline\end{array}$	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.66(0.19)\\ 1.19(0.23)\\ 0.00^{**}(0.00)\\ \hline\\ 1.29(0.27)\\ 1.35(0.28)\\ 1.60^{*}(0.34)\\ 1.41(0.66)\\ \hline\\ 0.94(0.08)\\ 0.75^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\end{array}$	1.86(1.12) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.29**(0.07) 0.42**(0.10)	$\begin{array}{c} 0.24^{**}(0.09)\\ 0.68(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.27)\\ 1.40^{*}(0.28)\\ 1.70^{*}(0.35)\\ 1.45(0.69)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.94(1.09) \\ 0.71(0.66) \\ 0.39^{**}(0.09) \\ 0.34^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 1.97(0.78) \\ \end{array}$	0.41**(0.13) 0.72*(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.25(0.26) 1.47*(0.31) 1.30(0.61) 0.93(0.08) 0.78**(0.07) 0.69**(0.06)	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00*(0.00)\\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ 0.39^{**}(0.09)\\ 0.30^{**}(0.09)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ 1.924(0.75)\\ \end{array}$	0.41 **(0.13) 0.72 (0.10) 0.72 (0.20) 1.19 (0.22) 0.00 **(0.00) 1.22 (0.25) 1.27 (0.26) 1.52 *(0.32) 1.32 (0.62) 0.93 (0.08) 0.77 **(0.07) 0.68 **(0.06) 0.97 (0.16)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ 0.30^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 2.05+(0.83) \\ \hline \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07) 1.06(0.19)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70) 0.40**(0.09) 0.29**(0.07) 0.43**(0.11) 1.86(0.73)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07) 0.99(0.18)	2.07(1.22) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.12(1.15) 2.19(1.21) 0.79(0.72) 0.43**(0.10) 0.31**(0.08) 0.45**(0.11) 1.59(0.58)	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06)	2.40+(1.24) 0.70(0.69) 0.87(0.49) $0.00^{**}(0.00)$ 2.12(1.15) 2.20(1.21) 2.26(1.26) $0.40^{**}(0.09)$ $0.30^{**}(0.08)$ $0.43^{**}(0.11)$ 1.51(0.55)	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78(0.13)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.29**(0.07) 0.44**(0.10) 1.36(0.53)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13)	1.77(0.55) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.02) 0.29**(0.07) 0.42**(0.10) 1.87(0.71)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.93(1.05) \\ 1.93(1.05) \\ 1.93(1.09) \\ 0.71(0.66) \\ \hline \\ 0.39^{**}(0.09) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 1.97^{*}(0.78) \\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 (0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 * (0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 ** (0.07) \\ 0.69 ** (0.06) \\ \hline \\ 0.98 (0.17) \\ \hline \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ 0.39^{**}(0.09)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ 1.92^{*}(0.75)\\ \hline \end{array}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 2.05^{*}(0.83) \\ \hline \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07) 1.06(0.19)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00*(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70) 0.40**(0.09) 0.29**(0.07) 0.43**(0.11) 1.86(0.73)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.59*(0.34) 1.59*(0.34) 0.93(0.08) 0.76**(0.07) 0.68**(0.07) 0.99(0.18)	$\begin{array}{c} 2.07(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.21)\\ 0.79(0.72)\\ \hline\\ 0.43^{**}(0.10)\\ 0.31^{**}(0.08)\\ 0.45^{**}(0.11)\\ \hline\\ 1.59(0.58)\\ \end{array}$	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.67(0.19) \\ 1.17(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.33(0.28) \\ 1.40(0.29) \\ 1.40(0.29) \\ 1.47^{*}(0.35) \\ 1.42(0.66) \\ \hline \\ 0.94(0.08) \\ 0.75^{**}(0.07) \\ 0.67^{**}(0.07) \\ 0.67^{**}(0.06) \\ \hline \\ \end{array}$	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.20(1.21)\\ 2.2(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.08)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78(0.13)	2.34(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.29**(0.07) 0.44**(0.10) 1.36(0.53)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13)	1.87(0.5) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.22**(0.07) 0.42**(0.10) 1.87(0.71)	$\begin{array}{c} 0.24^{**}(0.09)\\ 0.68(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.27)\\ 1.40^{*}(0.28)\\ 1.70^{*}(0.35)\\ 1.45(0.69)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\\ 0.77(0.14)\\ \end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical ama (ref. ref. of	$\begin{array}{c} 2.08(1.31)\\ 2.22(1.11)\\ 0.74(0.73)\\ 0.89(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ 1.93(1.05)\\ 1.98(1.10)\\ 1.91(1.09)\\ 0.71(0.66)\\ \hline \\ 0.39^{**}(0.09)\\ 0.31^{**}(0.08)\\ 0.43^{**}(0.11)\\ \hline \\ 1.97+(0.78)\\ \hline \end{array}$	0.41 **(0.13) 0.72 **(0.10) 0.72 (0.19) 1.20 (0.22) 0.00 **(0.00) 1.22 (0.25) 1.25 (0.26) 1.25 (0.26) 1.47 + (0.31) 1.30 (0.61) 0.93 (0.08) 0.78 **(0.07) 0.69 **(0.06)	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ \\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ 0.39^{**}(0.02)\\ 0.30^{**}(0.02)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ \hline \\ 1.92^{*}(0.75)\\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.27 **(0.10) \\ 0.72(0.20) \\ 1.19(0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22(0.25) \\ 1.27(0.26) \\ 1.52 *(0.32) \\ 1.32(0.62) \\ \hline \\ 0.93(0.08) \\ 0.77 **(0.07) \\ 0.68 **(0.06) \\ \hline \\ 0.97(0.16) \\ \hline \end{array}$	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.22(0.26) 1.22(0.26) 1.23(0.60) 0.93(0.08) 0.78*(0.07) 0.70*(0.07) 1.06(0.19)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68*(0.07) 0.99(0.18)	$\begin{array}{c} 2.07(1.22)\\ 0.58(0.50)\\ 0.88(0.50)\\ 0.00^{+0}(0.00)\\ \hline \\ 2.07(1.11)\\ 2.19(1.21)\\ 2.19(1.21)\\ 0.79(0.72)\\ \hline \\ 0.43^{+*}(0.10)\\ 0.43^{+*}(0.10)\\ 0.45^{+*}(0.11)\\ \hline \\ 1.59(0.58)\\ \hline \end{array}$	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.33(0.28)\\ 1.40(0.29)\\ 1.67^{**}(0.35)\\ 1.42(0.66)\\ \hline \\ 0.94(0.08)\\ 0.75^{**}(0.07)\\ 0.67^{**}(0.06)\\ \hline \\ 0.79(0.13)\\ \end{array}$	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.2(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.09)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78(0.13)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.13(1.16) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.44**(0.10) 1.36(0.53)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13)	1.87(0.5) 1.77(0.55) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.42**(0.10) 1.87(0.71)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of IKK)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.93(1.09) \\ 0.71(0.66) \\ \hline \\ 0.39^{**}(0.09) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 1.97+(0.78) \\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 *(0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 *(0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 **(0.07) \\ 0.69 **(0.06) \\ \hline \\ 0.98 (0.17) \\ \hline \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{*}(0.00)\\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ 0.39^{**}(0.09)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ 1.92+(0.75)\\ \hline \end{array}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \end{array}$	0.44 *(0.13) 0.28 *(0.10) 0.72 (0.19) 1.19 (0.22) 0.00 *(0.00) 1.20 (0.25) 1.22 (0.26) 1.43 + (0.31) 1.28 (0.60) 0.93 (0.08) 0.78 * (0.07) 0.70 * * (0.07) 1.06 (0.19)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70) 0.40**(0.09) 0.29**(0.07) 0.43**(0.11) 1.86(0.73)	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07) 0.99(0.18)	2.00(1.22) 0.17(1.11) 0.61(0.60) 0.88(0.50) 0.00**(0.00) 2.07(1.11) 2.12(1.15) 2.19(1.21) 0.79(0.72) 0.43**(0.10) 0.31**(0.08) 0.45**(0.11) 1.59(0.58)	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.67(0.19) \\ 1.17(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.33(0.28) \\ 1.40(0.29) \\ 1.67^{*}(0.35) \\ 1.42(0.66) \\ \hline \\ 0.94(0.08) \\ 0.75^{**}(0.07) \\ 0.67^{**}(0.06) \\ \hline \\ 0.79(0.13) \end{array}$	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78(0.13)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.42**(0.10) 0.42**(0.10) 0.44**(0.10) 1.36(0.53)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13)	1.87(0.5) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.27) 0.80(0.73) 0.40**(0.09) 0.29**(0.07) 0.42**(0.10) 1.87(0.71)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) Londoc	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ 1.93(1.05) \\ 1.93(1.05) \\ 1.91(1.09) \\ 1.91(1.09) \\ 0.71(0.66) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.11) \\ 1.97+(0.78) \\ \end{array}$	0.41**(0.13) 0.72**(0.10) 0.72(0.19) 1.20(0.22) 0.00**(0.00) 1.22(0.25) 1.47*(0.31) 1.30(0.61) 0.93(0.08) 0.78**(0.07) 0.69**(0.06) 0.98(0.17)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00**(0.00) 1.90(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67) 0.39**(0.09) 0.30**(0.09) 0.30**(0.09) 0.342**(0.10)	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00**(0.00) 1.89(1.03) 1.96(1.09) 1.98(1.11) 0.75(0.70) 0.40**(0.09) 0.30**(0.08) 0.43**(0.11) 2.05+(0.83)	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07) 1.06(0.19) 0.70**(0.09)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \hline \\ \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07) 0.99(0.18)	$\begin{array}{c} 2.07(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{+*}(0.00)\\ \hline \\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 0.79(0.72)\\ \hline \\ 0.43^{+*}(0.10)\\ 0.31^{+*}(0.08)\\ 0.45^{+*}(0.11)\\ \hline \\ 1.59(0.58)\\ \hline \\ 0.82(0.21)\\ \hline \end{array}$	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06) 0.79(0.13)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.09)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ \hline\\ 0.82(0.21)\\ \hline\end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78(0.13)	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.13(1.16) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.42**(0.10) 0.44**(0.10) 1.36(0.53) 0.82(0.31)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13)	1.86(1.12) 1.77(0.95) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.42**(0.01) 1.87(0.71) 0.85(0.72)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London	2.08(1.31) 2.22(1.11) 0.74(0.73) 0.89(0.50) 0.00*(0.00) 1.93(1.05) 1.98(1.10) 1.98(1.10) 1.91(1.09) 0.71(0.66) 0.39**(0.08) 0.33**(0.08) 0.43**(0.11) 1.97+(0.78) 0.84(0.21) 1.22(0.35) 0.84(0.21) 1.22(0.35) 0.84(0.21) 1.22(0.35) 0.84(0.21) 0.84(0.2	0.41 **(0.13) 0.72 **(0.10) 0.72 (0.19) 1.20 (0.22) 0.00 **(0.00) 1.22 (0.25) 1.25 (0.26) 1.47 *(0.31) 1.30 (0.61) 0.93 (0.08) 0.78 **(0.07) 0.69 **(0.06) 0.98 (0.17)	2.01(1.26) 2.14(1.05) 0.73(0.71) 0.88(0.50) 0.00*(0.00) 1.99(1.03) 1.99(1.10) 2.04(1.15) 0.73(0.67) 0.39**(0.09) 0.30**(0.09) 0.30**(0.10) 1.92+(0.75) 0.85(0.22) 1.20(0.24)	0.41**(0.13) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16)	2.08(1.31) 2.22(1.09) 0.72(0.73) 0.87(0.49) 0.00*(0.00) 1.89(1.03) 1.96(1.09) 1.98(1.11) 0.75(0.70) 0.40*(0.09) 0.30*(0.08) 0.43**(0.11) 2.05*(0.83) 0.83(0.21) 1.20(0.25) (0.12) 0.12(0.25) 0	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 1.06(0.19) 0.70**(0.08) 0.80(0.13)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.09)\\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \hline \\ 0.84(0.22)\\ 1.20(0.24)\\ \hline \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.359*(0.34) 1.359*(0.34) 1.350.63) 0.93(0.08) 0.76**(0.07) 0.99(0.18) 0.70**(0.08) 0.70**(0.08) 0.79*(0.11)	$\begin{array}{c} 2.07(1.22)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.19(1.21)\\ 0.79(0.72)\\ \hline \\ 0.43^{**}(0.10)\\ 0.31^{**}(0.10)\\ 0.31^{**}(0.10)\\ 0.45^{**}(0.11)\\ \hline \\ 1.59(0.58)\\ \hline \\ 0.82(0.21)\\ 1.22(0.25)\\ \hline \end{array}$	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.75**(0.07) 0.67**(0.06) 0.79(0.13)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.09)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.19(0.22)\\ \end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78*(0.13) 0.70**(0.08) 0.	2.04(1.27) 1.95(1.02) 0.53(0.57) 0.87(0.50) 0.00**(0.00) 2.13(1.16) 2.19(1.21) 2.24(1.26) 0.86(0.78) 0.42**(0.10) 0.42**(0.10) 0.44**(0.10) 1.36(0.53) 0.82(0.21) 1.19(0.22)	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13) 0.70**(0.08) 0.79*(0.11)	1.87(0.55) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.29**(0.07) 0.42**(0.10) 1.87(0.71) 0.85(0.22) 1.20(0.25)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14) 0.73**(0.08) 0.78*(0.08) 0.78*(0.11)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London Wales Evolution	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ 1.93(1.05) \\ 1.93(1.05) \\ 1.93(1.05) \\ 1.93(1.00) \\ 0.71(0.66) \\ \hline \\ 0.39^{**}(0.09) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 1.97^{*}(0.78) \\ \hline \\ 0.84(0.21) \\ 1.22(0.35) \\ 1.96^{**}(0.67) \\ \hline \end{array}$	0.41 **(0.13) 0.72 *(0.10) 0.72 (0.19) 1.20 (0.22) 0.00 **(0.00) 1.22 (0.25) 1.25 (0.26) 1.47 *(0.31) 1.30 (0.61) 0.93 (0.08) 0.78 **(0.07) 0.69 **(0.06) 0.98 (0.17)	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{*}(0.00)\\ \end{array}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16) 0.71**(0.08) 0.77(0.11) 1.00(0.00)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.96(1.09) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 2.05^{*}(0.83) \\ \hline \\ 0.83(0.21) \\ 1.20(0.35) \\ 1.84^{*}(0.47) \\ \hline \\ 0.83(0.21) \\ 1.20(0.35) \\ \hline \\ \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.08) 0.70**(0.08) 0.70**(0.08) 0.80(0.12) 1.04(0.20)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \hline \\ 0.84(0.22)\\ 1.20(0.34)\\ 1.86(0.76)\\ \hline \\ 0.84(0.22)\\ 1.20(0.34)\\ \hline \\ 1.86(0.73)\\ \hline \\ \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.59*(0.34) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.68**(0.07) 0.99(0.18) 0.70**(0.08) 0.70**(0.08) 0.70**(0.11) 1.01(00)	$\begin{array}{c} 2.07(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 0.79(0.72)\\ \hline\\ 0.43^{**}(0.10)\\ 0.31^{**}(0.08)\\ 0.45^{**}(0.11)\\ \hline\\ 1.59(0.58)\\ \hline\\ 0.82(0.21)\\ 1.22(0.35)\\ \hline\\ 0.82(0.21)\\ 1.22(0.35)\\ \hline\end{array}$	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.40(0.29) 1.47*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06) 0.79**(0.08) 0.79**(0.13)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.08)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.9(0.34)\\ 1.9(0.34)\\ \hline\\ \end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78*(0.13) 0.70**(0.08) 0.70**(0.08) 0.78*(0.11) 1.00(0 0)	$\begin{array}{c} 2.04(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{+4}(0.00)\\ \hline\\ 2.13(1.16)\\ 2.19(1.21)\\ 2.24(1.26)\\ 0.86(0.78)\\ \hline\\ 0.42^{+4}(0.10)\\ 0.23^{+4}(0.10)\\ 0.23^{+4}(0.10)\\ \hline\\ 1.36(0.53)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 4.85^{+6}(0.67)\\ \hline\end{array}$	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13) 0.70**(0.08) 0.79(0.11) 1.01(00)	1.87(0.5) 0.66(0.65) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.29**(0.07) 0.42**(0.10) 1.87(0.71) 0.85(0.22) 1.20(0.35) 1.20(0.35)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14) 0.73**(0.08) 0.73**(0.08) 0.78+(0.11) 0.90(0.00)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Historical period Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London Wales Scotland	$\begin{array}{c} 2.08(1.31)\\ 2.22(1.11)\\ 0.74(0.73)\\ 0.89(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ \\ \hline \\ 1.93(1.05)\\ 1.98(1.10)\\ 1.91(1.09)\\ 0.71(0.66)\\ \hline \\ 0.39^{**}(0.09)\\ 0.34^{**}(0.09)\\ 0.34^{**}(0.09)\\ 0.34^{**}(0.11)\\ \hline \\ 1.97^{*}(0.78)\\ \hline \\ \hline \\ 0.84(0.21)\\ 1.22(0.35)\\ 1.86^{**}(0.43)\\ - 68^{**}(0.43)\\ \hline \end{array}$	0.41 **(0.13) 0.72 *(0.10) 0.72 (0.19) 1.20 (0.22) 0.00 *(0.00) 1.25 (0.26) 1.25 (0.26) 1.47 * (0.31) 1.30 (0.61) 0.93 (0.08) 0.78 **(0.07) 0.69 **(0.06) 0.98 (0.17) 0.71 **(0.08) 0.79 *(0.11) 1.00 (0.09)	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline \\ \\ \hline \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ 0.39^{**}(0.02)\\ 0.30^{**}(0.02)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ \hline \\ 1.92^{*}(0.75)\\ \hline \\ \hline \\ 0.85(0.22)\\ 1.20(0.34)\\ 1.82^{*}(0.42)\\ \hline \\ 1.82^{*}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16) $0.71^**(0.08)$ 0.79*(0.11) 1.00(0.09)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \end{array}$	0.44 **(0.13) 0.28 **(0.10) 0.72(0.19) 1.19(0.22) 0.00 **(0.00) 1.20(0.25) 1.22(0.26) 1.22(0.26) 1.24 *(0.31) 1.28(0.60) 0.93(0.08) 0.78 *(0.07) 0.70 **(0.07) 1.06(0.19) 0.70 **(0.08) 0.80(0.12) 1.01(0.08) 0.70 *=(0.77)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \hline \\ \hline \\ 0.84(0.22)\\ 1.20(0.34)\\ 1.88^{**}(0.42)\\ \hline \\ 0.84^{**}(0.42)\\ \hline \\ \end{array}$	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.72(0.19) \\ 1.18(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.28(0.27) \\ 1.34(0.28) \\ 1.59^{*}(0.34) \\ 1.35(0.63) \\ \hline \\ 0.93(0.08) \\ 0.76^{**}(0.07) \\ 0.68^{**}(0.07) \\ \hline \\ 0.99(0.18) \\ \hline \\ 0.79^{**}(0.08) \\ 0.79^{**}(0.08) \\ 0.79^{**}(0.11) \\ 1.01(0.09) \\ 0.90^{**}(0.11) \\ \hline \\ 0.79^{*}(0.11) \\ \hline \\ 0.79^{*}(0.$	$\begin{array}{c} 2.07(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{+*}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.19(1.21)\\ 0.79(0.72)\\ \hline\\ 0.43^{+*}(0.10)\\ 0.31^{+*}(0.08)\\ 0.45^{+*}(0.11)\\ \hline\\ 1.59(0.58)\\ \hline\\ \hline\\ 0.82(0.21)\\ 1.22(0.35)\\ 1.89^{+*}(0.43)\\ \hline\end{array}$	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06) 0.79(0.13) 0.70**(0.08) 0.79*(0.11) 1.00(0.09)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.2(1.26)\\ 0.30**(0.09)\\ 0.30**(0.08)\\ 0.40**(0.09)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.91**(0.44)\\ 1.91$	$\begin{array}{c} 0.25^{**}(0.10) \\ 0.67(0.19) \\ 1.17(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.32(0.27) \\ 1.39(0.28) \\ 1.66^{*}(0.34) \\ 1.41(0.65) \\ \hline \\ 0.94(0.08) \\ 0.76^{**}(0.07) \\ 0.68^{**}(0.06) \\ \hline \\ 0.78^{**}(0.07) \\ 0.68^{**}(0.06) \\ \hline \\ 0.78^{**}(0.08) \\ 0.78^{**}(0.13) \\ \hline \\ \end{array}$	$\begin{array}{c} 2.04(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{**}(0.50)\\ \hline\\ 2.13(1.16)\\ 2.19(1.21)\\ 2.24(1.26)\\ 0.86(0.78)\\ \hline\\ 0.42^{**}(0.10)\\ 0.29^{**}(0.07)\\ 0.44^{**}(0.10)\\ 1.36(0.53)\\ \hline\\ 1.36(0.53)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.85^{**}(0.42)\\ \hline\end{array}$	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13) 0.77*(0.13)	1.87(0.5) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 0.80(0.73) 0.40**(0.09) 0.42**(0.10) 1.87(0.71) 0.85(0.22) 1.20(0.35) 1.94**(0.45)	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14) 0.73**(0.08) 0.78*(0.11) 0.99(0.09) 0.29*(0.57)
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London Wales Scotland NI	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ \\ \hline \\ \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.93(1.09) \\ 0.71(1.09) \\ 0.71(0.66) \\ \hline \\ \\ 0.39^{**}(0.09) \\ 0.31^{**}(0.08) \\ 0.43^{**}(0.08) \\ 0.43^{**}(0.43) \\ \hline \\ 1.97^{*}(0.78) \\ \hline \\ 0.84(0.21) \\ 1.22(0.35) \\ 1.86^{**}(0.49) \\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 *(0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 *(0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 ** (0.07) \\ 0.69 ** (0.06) \\ \hline \\ 0.98 (0.17) \\ \hline \\ 0.71 ** (0.08) \\ 0.77 ** (0.08) \\ 0.72 ** (0.08) \\ \hline \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{*}(0.00)\\ \hline \\ \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ \\ 0.39^{**}(0.09)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ \\ 1.92^{+}(0.75)\\ \hline \\ \\ 0.85(0.22)\\ 1.20(0.34)\\ 1.82^{*}(0.47)\\ \hline \\ \end{array}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16) 0.71**(0.08) 0.72(0.11) 1.00(0.09) 0.52**(0.08)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07) 1.06(0.19) 0.70**(0.08) 0.52**(0.08)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ \hline \\ 1.86(0.73)\\ \hline \\ 0.84(0.22)\\ 1.20(0.34)\\ 1.88^{**}(0.42)\\ 1.83^{**}(0.48)\\ \hline \end{array}$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.99(0.18) 0.70**(0.08) 0.70**(0.08) 0.70**(0.08) 0.70**(0.08)	$\begin{array}{c} 2.07(1.21)\\ 0.61(2.2)\\ 0.7(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 0.31^{**}(0.10)\\ 0.31^{**}$	0.26**(0.10) 0.67(0.19) 1.17(0.22) $0.00^{**}(0.00)$ 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06) 0.79*(0.13) 0.70**(0.08) 0.79*(0.11) 1.00(0.09)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.09)\\ 0.30**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.91**(0.44)\\ 1.86*(0.48)\\ \hline\end{array}$	$\begin{array}{c} 0.25^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.32(0.27)\\ 1.39(0.28)\\ 1.66^{*}(0.34)\\ 1.41(0.65)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\\ 0.78(0.13)\\ \hline\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.52^{**}(0.08)\\ \hline\end{array}$	$\begin{array}{c} 2.04(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{**}(0.50)\\ \hline\\ 2.13(1.16)\\ 2.19(1.21)\\ 2.24(1.26)\\ 0.86(0.78)\\ \hline\\ 0.42^{**}(0.10)\\ 0.29^{**}(0.67)\\ 0.44^{**}(0.10)\\ \hline\\ 1.36(0.53)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.85^{**}(0.47)\\ \hline\end{array}$	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13) 0.70**(0.08) 0.77(0.13)	1.87(0.5) 0.66(0.65) 0.90(0.51) 0.00**(0.00) 2.14(1.17) 2.26(1.24) 2.26(1.24) 2.26(1.24) 2.26(1.27) 0.80(0.73) 0.40**(0.09) 0.29**(0.07) 0.42**(0.09) 0.29**(0.07) 0.42**(0.10) 1.87(0.71) 0.85(0.22) 1.20(0.35) 1.94**(0.48)	$\begin{array}{c} 0.24^{**}(0.09)\\ 0.68(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.27)\\ 1.40^{+}(0.28)\\ 1.70^{*}(0.35)\\ 1.45(0.69)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\\ 0.77(0.14)\\ \hline\\ 0.73^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ \hline\\ 0.73^{**}(0.08)\\ 0.52^{**}(0.08)\\ \hline\end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London Wales Scotland NI Missing	$\begin{array}{c} 2.08(1.31)\\ 2.22(1.11)\\ 0.74(0.73)\\ 0.89(0.50)\\ 0.00^{**}(0.00)\\ 1.93(1.05)\\ 1.93(1.00)\\ 1.91(1.09)\\ 0.31^{**}(0.08)\\ 0.31^{**}(0.08)\\ 0.31^{**}(0.08)\\ 0.43^{**}(0.11)\\ 1.97+(0.78)\\ \hline 0.84(0.21)\\ 1.22(0.35)\\ 1.87^{*}(0.43)\\ 1.87^{*$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 *(0.10) \\ 0.72 *(0.10) \\ 0.72 *(0.10) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 *(0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 **(0.07) \\ 0.69 **(0.06) \\ \hline \\ 0.98 (0.17) \\ \hline \\ 0.79 *(0.08) \\ 0.79 *(0.011) \\ 1.00 (0.09) \\ 0.52 **(0.08) \\ 0.52 **(0.08) \\ 1.32 (0.92) \\ \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ \\ \hline\\ \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline\\ \\ 0.39^{**}(0.09)\\ 0.39^{**}(0.09)\\ 0.39^{**}(0.09)\\ 0.39^{**}(0.09)\\ 0.42^{**}(0.10)\\ \hline\\ \\ 1.92_{*}(0.75)\\ \hline\\ \\ 0.85(0.22)\\ 1.20(0.34)\\ 1.83^{*}(0.42)\\ 1.83^{*}(0.42)\\ 1.83^{*}(0.42)\\ 1.83^{*}(0.42)\\ 1.83^{*}(0.42)\\ 1.83^{*}(0.42)\\ \hline\\ \end{array}$	0.41**(0.13) 0.27**(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16) 0.71**(0.08) 0.77**(0.08) 0.72**(0.08) 0.52**(0.08) 1.34(0.93)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43*(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07) 1.06(0.19) 1.06(0.19) 0.70**(0.08) 0.52**(0.08) 0.52**(0.08) 1.31(0.91)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \hline \\ 1.88^{*}(0.42)\\ 1.20(0.34)\\ 1.88^{**}(0.42)\\ 1.88^{*}(0.42)\\ 1.88^{*}(0.42)\\ 1.88^{*}(0.42)\\ \hline \\ 1.88^{*}(0.42)\\ 1.88^{*}(0.42)\\ \hline \\ 1.88^{*}(0.42)\\ 1.88^{*}(0.42)\\ \hline \\ 1.88^{*}(0$	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.72(0.19) \\ 1.18(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.28(0.27) \\ 1.34(0.28) \\ 1.59^{*}(0.34) \\ 1.35(0.63) \\ \hline \\ 0.93(0.08) \\ 0.76^{**}(0.07) \\ 0.68^{**}(0.07) \\ \hline \\ 0.99(0.18) \\ \hline \\ 0.79^{*}(0.11) \\ 1.01(0.09) \\ 0.52^{**}(0.08) \\ 1.42(0.94) \\ \end{array}$	$\begin{array}{c} 2.00(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{+*}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 0.79(0.72)\\ \hline\\ 0.43^{+*}(0.10)\\ 0.31^{+*}(0.08)\\ \hline\\ 1.59(0.58)\\ \hline\\ 0.82(0.21)\\ 1.22(0.35)\\ 1.83^{+*}(0.43)\\ 1.94^{+*}(0.43)\\ 1.94^{+*}(0.43)\\ 1.94^{+*}(0.45)\\ \hline\end{array}$	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.67*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06) 0.79*(0.13) 0.79*(0.11) 1.00(.09) 0.52**(0.08) 0.52**(0.08) 0.52**(0.08)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.30**(0.09)\\ 0.30**(0.09)\\ 0.30**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.91**(0.44)\\ 1.85*(0.44)\\ 1.85*(0.44)\\ 1.85*(0.44)\\ 1.85*(0.44)\\ \hline\end{array}$	$\begin{array}{c} 0.25^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.32(0.27)\\ 1.39(0.28)\\ 1.66^{*}(0.34)\\ 1.41(0.65)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\\ 0.78^{*}(0.13)\\ \hline\\ 0.78^{*}(0.11)\\ 1.00(0.09)\\ 0.52^{**}(0.08)\\ 1.37(0.93)\\ \end{array}$	$\begin{array}{c} 2.34(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{+4}(0.00)\\ \hline \\ 2.13(1.16)\\ 2.24(1.26)\\ 0.386(0.78)\\ \hline \\ 0.42^{+*}(0.10)\\ 0.42^{+*}(0.10)\\ 0.44^{+*}(0.10)\\ 0.44^{+*}(0.10)\\ \hline \\ 1.36(0.53)\\ \hline \\ 1.36(0.53)\\ \hline \\ 1.85^{+}(0.42)\\ 1.85^{+}(0.42)\\ 1.85^{+}(0.42)\\ 1.85^{+}(0.42)\\ \hline \\ 1.85^{+}(0.42)\\ \hline$	$\begin{array}{c} 0.26^{**}(0.10)\\ 0.66(0.19)\\ 1.19(0.23)\\ 0.00^{**}(0.00)\\ \hline\\ 1.29(0.27)\\ 1.35(0.28)\\ 1.60^{*}(0.34)\\ 1.41(0.66)\\ \hline\\ 0.94(0.08)\\ 0.75^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\\ 0.77(0.13)\\ \hline\\ 0.77^{**}(0.08)\\ 0.79(0.11)\\ 1.01(0.09)\\ 0.53^{**}(0.08)\\ 1.43(0.97)\\ \end{array}$	$\begin{array}{c} 1.86(1.12)\\ 1.77(0.95)\\ 0.66(0.65)\\ 0.90(0.51)\\ 0.00^{**}(0.00)\\ \hline\\ 2.14(1.17)\\ 2.26(1.24)\\ 2.26(1.24)\\ 2.26(1.27)\\ 0.80(0.73)\\ \hline\\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline\\ 1.87(0.71)\\ \hline\\ 1.87(0.71)\\ \hline\\ 0.85(0.22)\\ 1.20(0.35)\\ 1.94^{**}(0.45)\\ 1.74^{*}(0.45)\\ 1.74^{*}(0.45)\\ 1.74^{*}(0.45)\\ \hline\\ 1.87(0.71)\\ \hline\\ \end{array}$	$\begin{array}{c} 0.24^{**}(0.09) \\ 0.68(0.19) \\ 1.17(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.33(0.27) \\ 1.40^{*}(0.28) \\ 1.70^{*}(0.35) \\ 1.45(0.69) \\ \hline \\ 0.94(0.08) \\ 0.76^{**}(0.07) \\ 0.68^{**}(0.06) \\ \hline \\ 0.77(0.14) \\ \hline \\ 0.73^{**}(0.08) \\ 0.78^{*}(0.11) \\ 0.99(0.09) \\ 0.52^{**}(0.08) \\ 0.52^{**}(0.08) \\ 1.46(0.90) \\ \hline \end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London Wales Scotland NI Missing Parental class	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.11) \\ 0.74(0.73) \\ 0.89(0.50) \\ 0.00^{**}(0.00) \\ \hline \\ \\ \hline \\ \\ 1.93(1.05) \\ 1.98(1.10) \\ 1.93(1.09) \\ 0.71(0.66) \\ 0.39^{**}(0.09) \\ 0.34^{**}(0.69) \\ 0.34^{**}(0.09) \\ 0.34^{**}(0.09) \\ 0.34^{**}(0.11) \\ \hline \\ \\ 1.97^{*}(0.78) \\ \hline \\ 0.84(0.21) \\ 1.22(0.35) \\ 1.86^{**}(0.43) \\ 1.87^{*}(0.49) \\ 2.54(3.15) \\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 (0.10) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 * (0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.08) \\ 0.78 ** (0.07) \\ 0.69 ** (0.06) \\ \hline \\ 0.98 (0.17) \\ \hline \\ 0.98 (0.17) \\ \hline \\ 0.71 ** (0.08) \\ 0.79 *(0.10) \\ 1.00 (0.09) \\ 0.52 ** (0.08) \\ 1.32 (0.92) \\ \hline \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00*(0.00)\\ \hline\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	0.41**(0.13) 0.72*(0.10) 0.72(0.20) 1.19(0.22) 0.00**(0.00) 1.22(0.25) 1.27(0.26) 1.52*(0.32) 1.32(0.62) 0.93(0.08) 0.77**(0.07) 0.68**(0.06) 0.97(0.16) 0.71**(0.08) 0.79*(0.11) 1.00(0.09) 0.52**(0.08) 1.34(0.93)	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \end{array}$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43+(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.08) 0.70**(0.08) 0.80(0.12) 1.01(0.08) 0.52**(0.08) 1.31(0.91)	1.96(1.23) 2.00(0.99) 0.66(0.65) 0.87(0.49) 0.00**(0.00) 2.10(1.13) 2.22(1.22) 2.28(1.27) 0.77(0.70) 0.40**(0.09) 0.29**(0.07) 0.40**(0.09) 0.29**(0.73) 1.86(0.73) 0.84(0.22) 1.88**(0.42) 1.88**(0.42) 1.88**(0.42) 1.88**(0.42)	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.72(0.19) \\ 1.18(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.28(0.27) \\ 1.34(0.28) \\ 1.59^{*}(0.34) \\ 1.35(0.63) \\ \hline \\ 0.93(0.08) \\ 0.76^{**}(0.07) \\ 0.68^{**}(0.07) \\ \hline \\ 0.99(0.18) \\ \hline \\ 0.70^{**}(0.08) \\ 0.79^{**}(0.11) \\ 1.01(0.09) \\ 0.52^{**}(0.08) \\ 1.42(0.94) \\ \hline \end{array}$	$\begin{array}{c} 2.07(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{+*}(0.00)\\ \hline \\ 2.07(1.11)\\ 2.12(1.15)\\ 2.19(1.21)\\ 0.79(0.72)\\ \hline \\ 0.43^{+*}(0.10)\\ 0.31^{+*}(0.20)\\ 0.43^{+*}(0.10)\\ 0.31^{+*}(0.20)\\ \hline \\ 1.59(0.58)\\ \hline \\ 1.59(0.58)\\ \hline \\ 0.82(0.21)\\ 1.22(0.35)\\ 1.89^{+*}(0.43)\\ 1.94^{+*}(0.49)\\ 3.56(4.25)\\ \hline \end{array}$	$\begin{array}{c} 0.26^{**}(0.10) \\ 0.67(0.19) \\ 1.17(0.22) \\ 0.00^{**}(0.00) \\ \hline \\ 1.33(0.28) \\ 1.40(0.29) \\ 1.67^{*}(0.35) \\ 1.42(0.66) \\ \hline \\ 0.75^{**}(0.06) \\ 0.75^{**}(0.07) \\ 0.67^{**}(0.06) \\ \hline \\ 0.79^{**}(0.08) \\ 0.79^{**}(0.11) \\ 1.00(0.09) \\ 0.52^{**}(0.08) \\ 1.38(0.93) \\ \end{array}$	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.08)\\ 0.43**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.51*(0.48)\\ 2.94(3.66)\\ \hline\end{array}$	$\begin{array}{c} 0.25^{**}(0.10)\\ 0.67(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline \\ 1.32(0.27)\\ 1.39(0.28)\\ 1.66^{*}(0.34)\\ 1.41(0.65)\\ \hline \\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline \\ 0.78(0.13)\\ \hline \\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 1.37(0.93)\\ \hline \end{array}$	$\begin{array}{c} 2.34(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{**}(0.50)\\ \hline\\ 2.13(1.16)\\ 2.19(1.21)\\ 2.24(1.26)\\ 0.86(0.78)\\ \hline\\ 0.42^{**}(0.10)\\ 0.29^{**}(0.67)\\ 0.44^{**}(0.10)\\ \hline\\ 1.36(0.53)\\ \hline\\ 0.82(0.21)\\ 1.19(0.34)\\ 1.85^{*}(0.47)\\ 3.05(3.66)\\ \hline\end{array}$	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13) 0.70**(0.08) 0.77*(0.13) 0.70**(0.08) 0.73**(0.08) 0.73**(0.08) 1.01(0.09) 0.53**(0.08) 1.43(0.97)	$\begin{array}{c} 1.86(1.12)\\ 1.77(0.95)\\ 0.66(0.65)\\ 0.90(0.51)\\ 0.00^{**}(0.00)\\ \hline\\ 2.14(1.17)\\ 2.26(1.24)\\ 2.26(1.24)\\ 2.26(1.27)\\ 0.80(0.73)\\ \hline\\ 0.80(0.73)\\ \hline\\ 0.40^{**}(0.09)\\ 0.29^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline\\ 1.87(0.71)\\ \hline\\ 0.85(0.22)\\ 1.20(0.35)\\ 1.74^{*}(0.48)\\ 2.66(3.30)\\ \hline\end{array}$	$\begin{array}{c} 0.24^{**}(0.09)\\ 0.68(0.19)\\ 1.17(0.22)\\ 0.00^{**}(0.00)\\ \hline\\ 1.33(0.27)\\ 1.40^{+}(0.28)\\ 1.70^{*}(0.35)\\ 1.45(0.69)\\ \hline\\ 0.94(0.08)\\ 0.76^{**}(0.07)\\ 0.68^{**}(0.07)\\ 0.68^{**}(0.06)\\ \hline\\ 0.77(0.14)\\ \hline\\ 0.73^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.78^{**}(0.08)\\ 0.52^{**}(0.08)\\ 1.46(0.90)\\ \hline\end{array}$
Arrican Caribbean Other and mixed Missing Education level (ref. low) GCSE Adv High Missing Historical period (ref. 1991–97) 1998–2007 2008–13 2013–18 Living with bio children (ref. no) Yes Geographical area (ref. rest of UK) London Wales Scotland Ni Missing Parental class (ref. managerial)	$\begin{array}{c} 2.08(1.31)\\ 2.22(1.11)\\ 0.74(0.73)\\ 0.89(0.50)\\ 0.00^{**}(0.00)\\ 1.93(1.05)\\ 1.93(1.05)\\ 1.93(1.05)\\ 1.91(1.09)\\ 0.71(0.66)\\ 0.31^{**}(0.09)\\ 0.31^{**}(0.09)\\ 0.31^{**}(0.09)\\ 1.97^{*}(0.78)\\ 1.97^{*}(0.78)\\ 1.97^{*}(0.78)\\ 1.87^{*}(0.43)\\ 1.87^{*$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72 (0.13) \\ 0.72 (0.19) \\ 1.20 (0.22) \\ 0.00 **(0.00) \\ \hline \\ 1.22 (0.25) \\ 1.25 (0.26) \\ 1.47 * (0.31) \\ 1.30 (0.61) \\ \hline \\ 0.93 (0.06) \\ 0.78 ** (0.07) \\ 0.69 ** (0.07) \\ 0.69 ** (0.06) \\ \hline \\ 0.98 (0.17) \\ \hline \\ 0.71 ** (0.08) \\ 0.77 *(0.08) \\ 0.52 ** (0.08) \\ 1.32 (0.92) \\ \end{array}$	$\begin{array}{c} 2.01(1.26)\\ 2.14(1.05)\\ 0.73(0.71)\\ 0.88(0.50)\\ 0.00^{*}(0.00)\\ \hline \\ \\ 1.90(1.03)\\ 1.99(1.10)\\ 2.04(1.15)\\ 0.73(0.67)\\ \hline \\ \\ 0.39^{**}(0.09)\\ 0.30^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline \\ 1.92^{*}(0.10)\\ \hline \\ 1.92^{*}(0.22)\\ 1.20(0.34)\\ 1.82^{*}(0.42)\\ 1.82^{*}(0.42)\\ 1.82^{*}(0.47)\\ 2.72(3.34)\\ \hline \end{array}$	$\begin{array}{c} 0.41 **(0.13) \\ 0.72(0.20) \\ 1.19(0.22) \\ 0.00**(0.00) \\ \hline 1.22(0.25) \\ 1.27(0.26) \\ 1.52*(0.32) \\ 1.52*(0.32) \\ 1.32(0.62) \\ \hline 0.93(0.08) \\ 0.77**(0.07) \\ 0.68**(0.06) \\ \hline 0.97(0.16) \\ \hline 0.97(0.16) \\ \hline 0.71**(0.08) \\ 0.77**(0.08) \\ 0.52**(0.08) \\ 1.34(0.93) \\ \hline \end{array}$	$\begin{array}{c} 2.08(1.31) \\ 2.22(1.09) \\ 0.72(0.73) \\ 0.87(0.49) \\ 0.00^{**}(0.00) \\ \hline \\ 1.89(1.03) \\ 1.98(1.03) \\ 1.98(1.11) \\ 0.75(0.70) \\ \hline \\ 0.40^{**}(0.09) \\ 0.30^{**}(0.08) \\ 0.43^{**}(0.11) \\ \hline \\ 2.05+(0.83) \\ \hline \\ 0.83(0.21) \\ 1.20(0.35) \\ 1.83^{*}(0.43) \\ 1.83^$	0.44**(0.13) 0.28**(0.10) 0.72(0.19) 1.19(0.22) 0.00**(0.00) 1.20(0.25) 1.22(0.26) 1.43+(0.31) 1.28(0.60) 0.93(0.08) 0.78*(0.07) 0.70**(0.07) 1.06(0.19) 0.70**(0.08) 0.52**(0.08) 0.52**(0.08) 1.31(0.91)	$\begin{array}{c} 1.96(1.23)\\ 2.00(0.99)\\ 0.66(0.65)\\ 0.87(0.49)\\ 0.00^{**}(0.00)\\ \hline \\ 2.10(1.13)\\ 2.22(1.22)\\ 2.28(1.27)\\ 0.77(0.70)\\ \hline \\ 0.40^{**}(0.09)\\ 0.29^{**}(0.07)\\ 0.43^{**}(0.11)\\ \hline \\ 1.86(0.73)\\ \hline \\ 1.86(0.73)\\ \hline \\ 1.88^{*}(0.42)\\ 1.83^{*$	0.26**(0.10) 0.72(0.19) 1.18(0.22) 0.00**(0.00) 1.28(0.27) 1.34(0.28) 1.59*(0.34) 1.59*(0.34) 1.35(0.63) 0.93(0.08) 0.79*(0.34) 1.35(0.63) 0.93(0.08) 0.76**(0.07) 0.99(0.18) 0.79*(0.11) 1.01(0.08) 0.52**(0.08) 1.42(0.94)	$\begin{array}{c} 2.07(1.22)\\ 2.17(1.11)\\ 0.61(0.60)\\ 0.88(0.50)\\ 0.00^{**}(0.00)\\ \hline\\ 2.07(1.11)\\ 2.12(1.15)\\ 2.12(1.15)\\ 2.12(1.15)\\ 0.79(0.72)\\ \hline\\ 0.43^{**}(0.10)\\ 0.31^{**}(0.08)\\ 0.45^{**}(0.11)\\ \hline\\ 1.59(0.58)\\ \hline\\ 0.82(0.21)\\ 1.22(0.35)\\ 1.89^{**}(0.43)\\ 1.94^{**}(0.4$	0.26**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.28) 1.40(0.29) 1.40(0.29) 1.47*(0.35) 1.42(0.66) 0.94(0.08) 0.75**(0.07) 0.67**(0.06) 0.79*(0.13) 0.70**(0.08) 0.79*(0.13) 0.52**(0.08) 1.38(0.93)	$\begin{array}{c} 2.40*(1.24)\\ 0.70(0.69)\\ 0.87(0.49)\\ 0.00**(0.00)\\ \hline\\ 2.12(1.15)\\ 2.20(1.21)\\ 2.26(1.26)\\ 0.84(0.76)\\ \hline\\ 0.40**(0.09)\\ 0.30**(0.09)\\ 0.33**(0.11)\\ \hline\\ 1.51(0.55)\\ \hline\\ 0.82(0.21)\\ 1.9(0.34)\\ 1.91**(0.44)\\ 1.86*(0.43)\\ 2.94(3.66)\\ \hline\end{array}$	0.25**(0.10) 0.67(0.19) 1.17(0.22) 0.00**(0.00) 1.32(0.27) 1.39(0.28) 1.66*(0.34) 1.41(0.65) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.78*(0.13) 0.70**(0.08) 0.78*(0.11) 1.00(0.09) 0.52**(0.08) 1.37(0.93)	$\begin{array}{c} 2.34(1.27)\\ 1.95(1.02)\\ 0.53(0.57)\\ 0.87(0.50)\\ 0.00^{+0}(0.00)\\ \hline\\ 2.13(1.16)\\ 2.19(1.21)\\ 2.24(1.26)\\ 0.36(0.78)\\ \hline\\ 0.42^{+*}(0.10)\\ 0.29^{+*}(0.07)\\ 0.44^{+*}(0.10)\\ \hline\\ 1.36(0.53)\\ \hline\\ 1.36(0.53)\\ \hline\\ 1.85^{+}(0.42)\\ 1.85^{+}(0.42)\\ 1.85^{+}(0.42)\\ 1.85^{+}(0.42)\\ \hline\\ 1.$	0.26**(0.10) 0.66(0.19) 1.19(0.23) 0.00**(0.00) 1.29(0.27) 1.35(0.28) 1.60*(0.34) 1.41(0.66) 0.94(0.08) 0.75**(0.07) 0.68**(0.06) 0.77(0.13) 0.70**(0.08) 0.79(0.11) 1.01(0.09) 0.53**(0.08) 1.43(0.97)	$\begin{array}{c} 1.86(1.12)\\ 1.77(0.95)\\ 0.66(0.65)\\ 0.90(0.51)\\ 0.00^{**}(0.00)\\ \hline\\ 2.14(1.17)\\ 2.26(1.24)\\ 2.26(1.24)\\ 0.22^{**}(0.27)\\ 0.80(0.73)\\ \hline\\ 0.42^{**}(0.07)\\ 0.42^{**}(0.07)\\ 0.42^{**}(0.10)\\ \hline\\ 1.87(0.71)\\ \hline\\ 1.87(0.71)\\ \hline\\ 0.85(0.22)\\ 1.20(0.35)\\ 1.94^{**}(0.45)\\ 1.74^{*}(0.45)\\ 1.87^{*}(0.45)\\ 1.$	0.24**(0.09) 0.68(0.19) 1.17(0.22) 0.00**(0.00) 1.33(0.27) 1.40+(0.28) 1.70*(0.35) 1.45(0.69) 0.94(0.08) 0.76**(0.07) 0.68**(0.06) 0.77(0.14) 0.73**(0.08) 0.78*(0.11) 0.99(0.08) 0.52**(0.08) 1.46(0.90)

Routine	0.70+(0.14)	1.02(0.13)	0.65*(0.13)	0.99(0.13)	0.65*(0.14)	0.99(0.13)	0.65*(0.14)	1.00(0.13)	0.63*(0.13)	0.98(0.12)	0.62*(0.13)	0.98(0.12)	0.65*(0.13)	0.99(0.12)	0.62*(0.14)	0.95(0.12)
Unemployed	0.42*(0.17)	0.94(0.24)	0.41*(0.17)	0.92(0.23)	0.41*(0.17)	0.93(0.23)	0.41*(0.16)	0.90(0.23)	0.38*(0.15)	0.83(0.20)	0.35**(0.14)	0.83(0.20)	0.39*(0.15)	0.83(0.20)	0.39*(0.15)	0.80(0.19)
Absent parent (or	0.00**(0.00)	0.60(0.37)	0.00**(0.00)	0.59(0.36)	0.00**(0.00)	0.59(0.36)	0.00**(0.00)	0.61(0.37)	0.00**(0.00)	0.60(0.37)	0.00**(0.00)	0.60(0.37)	0.00**(0.00)	0.62(0.38)	0.00**(0.00)	0.65(0.42)
missing)/missing																
Intermediate*Age	1.16*(0.07)	0.99(0.03)	1.16*(0.07)	0.99(0.03)	1.16*(0.07)	0.99(0.03)	1.17*(0.08)	0.99(0.03)	1.16*(0.07)	0.99(0.03)	1.16*(0.07)	0.99(0.03)	1.16*(0.07)	0.99(0.03)	1.15*(0.07)	0.98(0.03)
Routine*Age	1.02(0.06)	0.98(0.02)	1.03(0.05)	0.98(0.02)	1.03(0.05)	0.98(0.02)	1.02(0.06)	0.98(0.02)	1.02(0.05)	0.98(0.02)	1.02(0.05)	0.98(0.02)	1.02(0.05)	0.98(0.02)	1.02(0.05)	0.98(0.02)
Unemployed *Age	1.10(0.12)	0.94(0.04)	1.11(0.12)	0.94(0.04)	1.11(0.12)	0.95(0.04)	1.12(0.13)	0.94(0.04)	1.11(0.13)	0.94(0.04)	1.12(0.12)	0.93+(0.04)	1.11(0.12)	0.93+(0.04)	1.12(0.12)	0.93+(0.04)
Absent parent (or	0.99(0.05)	0.94(0.09)	0.99(0.05)	0.94(0.09)	0.99(0.05)	0.94(0.09)	1.00(0.05)	0.94(0.09)	0.99(0.05)	0.94(0.09)	0.99(0.05)	0.93(0.09)	1.00(0.05)	0.94(0.09)	1.03(0.09)	0.99(0.09)
missing)*Age																
Intermediate*Age	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)
*Age																
Routine*Age*Age	1.01(0.01)	1.00(0.01)	1.02+(0.01)	1.00(0.01)	1.02+(0.01)	1.01(0.01)	1.01(0.01)	1.00(0.01)	1.02+(0.01)	1.01(0.01)	1.02+(0.01)	1.00(0.01)	1.02+(0.01)	1.01(0.01)	1.02+(0.01)	1.01(0.01)
Unemployed *Age	1.00(0.02)	1.01(0.01)	1.00(0.02)	1.01(0.01)	1.00(0.02)	1.01(0.01)	1.00(0.02)	1.01(0.01)	1.01(0.02)	1.01(0.01)	1.01(0.02)	1.01(0.01)	1.00(0.02)	1.01(0.01)	1.00(0.02)	1.02+(0.01)
*Age																
Absent parent (or	1.01(0.01)	1.02(0.02)	1.01(0.01)	1.02(0.02)	1.01(0.01)	1.02(0.02)	1.01(0.01)	1.01(0.02)	1.01(0.01)	1.02(0.02)	1.01(0.01)	1.02(0.02)	1.01(0.01)	1.01(0.02)	1.01(0.01)	1.00(0.02)
missing)*Age*Age																
Religious status											0.38**(0.07)	1.10(0.08)				
(ref. religious)																
Not religious	0.37**(0.06)	1.10(0.08)	0.37**(0.06)	1.10(0.08)	0.37**(0.06)	1.09(0.08)	0.37**(0.06)	1.10(0.08)	0.37**(0.06)	1.10(0.08)	0.37**(0.06)	1.10(0.08)	0.36**(0.06)	1.10(0.08)	0.36**(0.06)	1.10(0.08)
Missing	0.41(0.41)	0.20*(0.16)	0.40(0.40)	0.20*(0.16)	0.39(0.39)	0.20*(0.16)	0.37(0.38)	0.20*(0.16)	0.42(0.42)	0.21*(0.17)	0.39(0.40)	0.20*(0.16)	0.42(0.43)	0.22+(0.17)	0.40(0.41)	0.22+(0.17)
Constant	0.03**(0.02)	0.17**(0.04)	0.03**(0.02)	0.16**(0.04)	0.03**(0.02)	0.17**(0.04)	0.02**(0.01)	0.15**(0.04)	0.03**(0.02)	0.14**(0.03)	0.02**(0.01)	0.12**(0.04)	0.02**(0.01)	0.13**(0.03)	0.03**(0.01)	0.09**(0.02)

Source: own weighted computations from BHPS and UKHLS (1991-2018)

(a) Standard error in parentheses

(b) P-values: *** p<0.01, ** p<0.05, +p<0.1

(c) Compared to the event, covariates are lagged by one-year

(d) N=20,688 person-years.

Table A 4: Predicted annual probabilities of entering the first coresidential partnership for each indicator of economic precariousness, within specific historical periods. Other covariates were kept at their mean values.

	Occupational class	Pred. prob.	Contract type	Pred. prob.	Income tercile	Pred. prob.	Means- tested bens	Pred. Prob.	Savings	Pred. prob.	Financial perceptions	Pred. prob.	Financial expectations	Pred. prob.	Housing tenure	Pred. prob.
1991–97	Managerial and professional	0.16	Permanent	0.16	2nd or above	0.16	Not MTB	0.16	Yes	0.15	Good	0.14	Better off	0.14	Living with parents	0.15
1991–97	Intermediate	0.16	Temporary	0.15	1st	0.13	MTB	0.11	No	0.15	Getting by	0.15	The same	0.14	Owners	0.18
1991–97	Routine	0.15	Not employed	0.10	Not earner	0.09					Difficult	0.14	Worse off	0.26	Private renting	0.17
1991–97	Not employed	0.10													Public renting	0.18
1998–2007	Managerial and professional	0.14	Permanent	0.13	2nd or above	0.14	Not MTB	0.13	Yes	0.13	Good	0.13	Better off	0.12	Living with parents	0.13
1998-2007	Intermediate	0.12	Temporary	0.11	1st	0.10	MTB	0.09	No	0.12	Getting by	0.12	The same	0.12	Owners	0.16
1998–2007	Routine	0.12	Not employed	0.09	Not earner	0.09					Difficult	0.13	Worse off	0.23	Private renting	0.12
1998-2007	Not employed	0.09													Public renting	0.14
2008-2013	Managerial and professional	0.13	Permanent	0.12	2nd or above	0.13	Not MTB	0.12	Yes	0.11	Good	0.11	Better off	0.10	Living with parents	0.09
2008-2013	Intermediate	0.14	Temporary	0.10	1st	0.08	MTB	0.05	No	0.09	Getting by	0.10	The same	0.09	Owners	0.20
2008-2013	Routine	0.10	Not employed	0.04	Not earner	0.04					Difficult	0.09	Worse off	0.20	Private renting	0.14
2008-2013	Not employed	0.04													Public renting	0.10
2013-2018	Managerial and professional	0.13	Permanent	0.11	2nd or above	0.13	Not MTB	0.11	Yes	0.11	Good	0.10	Better off	0.10	Living with parents	0.08
2013-2018	Intermediate	0.11	Temporary	0.08	Low	0.06	MTB	0.07	No	0.09	Getting by	0.11	The same	0.09	Owners	0.19
2013-2018	Routine	0.09	Not employed	0.06	Not earner	0.06					Difficult	0.06	Worse off	0.16	Private renting	0.14
2013-2018	Not employed	0.06													Public renting	0.17

Source: own weighted computations from BHPS and UKHLS (1991-2018)

(a) N=20,688 person-years.

(b) Probabilities derived from models controlled for respondent's age, gender, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class.



Figure A 3: Predicted annual probabilities of entering the first nonmarital cohabitation for each indicator of economic precariousness, over historical period

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant with, at least, 95% level of confidence;

^b Results are controlled for respondent's gender, age, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children. Covariates are kept at their mean value.

^c Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

Source: own weighted computations from BHPS and UKHLS (1991-2018)



Figure A 4: Predicted annual probabilities of entering the first direct marriage for each indicator of economic precariousness, over historical period

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). A non-overlapping confidence interval means that the differences in the estimated means are statistically significant with, at least, 95% level of confidence;

^b Results are controlled for respondent's gender, age, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children. Covariates are kept at their mean value.

^c Graphs (b) and (g) are on a different scale than the others to give a better visualisation of the results.

Source: own weighted computations from BHPS and UKHLS (1991-2018)

Table A 5:. Predicted annual	probabilities of e	ntering the first	t coresidential	partnership fo	r each indicator	of economic p	precariousness with	in
specific historical periods, by	gender							

MEN	Occupational class	Pred. prob.	Contract	Pred. prob.	Labour income	Pred. prob.	Means- tested bens	Pred. Prob.	Savings	Pred. prob.	Financial perceptions	Pred. prob.	Financial expectations	Pred. prob.	Housing tenure	Pred. prob.
1991–97	Managerial and professional	0.17	Permanent	0.14	2nd or above	0.15	Not MTB	0.14	Yes	0.14	Good	0.13	Better off	0.12	Living with parents	0.12
1991–97	Intermediate	0.12	Temporary	0.12	1st	0.08	MTB	0.11	No	0.13	Getting by	0.14	The same	0.12	Owners	0.19
1991–97	Routine	0.13	Not employed	0.10	Not earner	0.10					Difficult	0.13	Worse off	0.26	Private renting	0.17
1991–97	Not employed	0.10													Public renting	0.20
1998–2007	Managerial and professional	0.14	Permanent	0.12	2nd or above	0.13	Not MTB	0.12	Yes	0.10	Good	0.11	Better off	0.10	Living with parents	0.11
1998-2007	Intermediate	0.11	Temporary	0.10	1st	0.06	MTB	0.08	No	0.12	Getting by	0.12	The same	0.10	Owners	0.15
1998–2007	Routine	0.11	Not employed	0.07	Not earner	0.06					Difficult	0.12	Worse off	0.26	Private renting	0.13
1998–2007	Not employed	0.07													Public renting	0.08
2008–13	Managerial and professional	0.12	Permanent	0.11	2nd or above	0.12	Not MTB	0.10	Yes	0.10	Good	0.10	Better off	0.08	Living with parents	0.08
2008–13	Intermediate	0.14	Temporary	0.06	1st	0.05	MTB	0.04	No	0.08	Getting by	0.08	The same	0.08	Owners	0.20
2008–13	Routine	0.08	Not employed	0.03	Not earner	0.03					Difficult	0.08	Worse off	0.19	Private renting	0.13
2008–13	Not employed	0.03													Public renting	0.07
2013–18	Managerial and professional	0.08	Permanent	0.09	2nd or above	0.10	Not MTB	0.09	Yes	0.09	Good	0.08	Better off	0.08	Living with parents	0.07
2013–18	Intermediate	0.10	Temporary	0.06	1st	0.06	МТВ	0.04	No	0.07	Getting by	0.09	The same	0.09	Owners	0.19
2013–18	Routine	0.09	Not employed	0.04	Not earner	0.04					Difficult	0.04	Worse off	0.08	Private renting	0.11
2013–18	Not employed	0.04													Public renting	0.18

WOMEN	Occupational class	Pred.	Contract	Pred.	Labour	Pred.	Means-	Pred. Prob.	Savings	Pred.	Financial	Pred.	Financial	Pred.	Housing tenure	Pred. prob.
	ciuss	probl		p. 0.0.	lincome	p.00.	bens			probl	perceptions	probl	capeetations	p. 0.0.		
1991–97	Managerial and professional	0.15	Permanent	0.18	2nd or above	0.18	Not MTB	0.18	Yes	0.16	Good	0.17	Better off	0.16	Living with parents	0.18
1991–97	Intermediate	0.20	Temporary	0.19	1st	0.18	MTB	0.11	No	0.17	Getting by	0.18	The same	0.16	Owners	0.15
1991–97	Routine	0.19	Not employed	0.10	Not earner	0.09					Difficult	0.12	Worse off	0.26	Private renting	0.17
1991–97	Not employed	0.10													Public renting	0.18
1998–2007	Managerial and professional	0.15	Permanent	0.15	2nd or above	0.15	Not MTB	0.15	Yes	0.16	Good	0.15	Better off	0.14	Living with parents	0.15
1998-2007	Intermediate	0.14	Temporary	0.12	1st	0.13	MTB	0.10	No	0.13	Getting by	0.14	The same	0.14	Owners	0.17
1998–2007	Routine	0.15	Not employed	0.12	Not earner	0.11					Difficult	0.13	Worse off	0.20	Private renting	0.13
1998-2007	Not employed	0.12													Public renting	0.17
2008–13	Managerial and professional	0.15	Permanent	0.14	2nd or above	0.15	Not MTB	0.14	Yes	0.13	Good	0.12	Better off	0.12	Living with parents	0.11
2008–13	Intermediate	0.14	Temporary	0.15	1st	0.11	MTB	0.06	No	0.11	Getting by	0.13	The same	0.10	Owners	0.17
2008–13	Routine	0.13	Not employed	0.05	Not earner	0.05					Difficult	0.10	Worse off	0.23	Private renting	0.16
2008–13	Not employed	0.05													Public renting	0.12
2013–18	Managerial and professional	0.19	Permanent	0.14	2nd or above	0.16	Not MTB	0.14	Yes	0.13	Good	0.12	Better off	0.13	Living with parents	0.11
2013–18	Intermediate	0.12	Temporary	0.10	1st	0.07	MTB	0.09	No	0.12	Getting by	0.14	The same	0.10	Owners	0.17
2013–18	Routine	0.10	Not employed	0.09	Not earner	0.08					Difficult	0.09	Worse off	0.25	Private renting	0.18
2013-18	Not employed	0.09													Public renting	0.18

Source: own weighted computations from BHPS and UKHLS (1991-2018)

(a)N=20,688 person-years

(b)Probabilities derived from models controlled for respondent's age, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Other covariates are kept at their mean values.

Table A 6 - Analysis of nonresponse

Financial precariousness

Labour income quintile

	Response	Refusal	Non-contact
No la bour income	79.29	7.31	13.41
1st tercile	82.59	6.97	10.44
2nd tercile	83.02	6.55	10.43
Total	82.49	5.81	11.70

Presence of savings

	Response	Refusal	Non-contact
Yes	86.46	5.40	7.46
No	84.70	5.50	9.16
Total	85.51	5.45	8.38

Contract type

	Response	Refusal	Non-contact
No contract	79.33	7.25	13.42
specified			
Permanent	83.21	6.06	10.73
Temporary	79.98	6.28	13.74
Total	82.02	6.34	11.63

Employment status

	Response	Refusal	Non-contact
Employed	82.80	6.07	11.12
Notemployed	79.48	7.22	13.30
Total	82.09	6.32	11.59

Household tenure

	Response	Refusal	Non-contact
Living with parents	83.81	7.13	9.06
Owners	83.25	4.29	12.46
Publicrenting	79.59	5.69	14.73
Private renting	73.67	4.11	22.22
Total	82.08	6.35	11.56

Means benefits

	Response	Refusal	Non -contact
Not MTB	82.15	6.32	11.53
МТВ	81.58	6.40	12.02
Total	82.03	6.34	11.63

Financial perceptions

	Response	Refusal	Non-contact
Positive	83.08	6.19	10.73
Gettingby/Negative	80.30	6.54	13.16
Total	82.07	6.32	11.61

Financial expectations

	Response	Refusal	Non-contact
Worse off	80.35	6.16	13.49
The same	83.69	6.17	10.14
Betteroff	81.09	6.47	12.45
Total	82.07	6.32	11.60

Controls

Age group

	Response	Refusal	Non-contact
18-21	82.15	6.97	10.89
22-25	80.94	6.42	12.64
26-30	82.08	5.80	12.12
31-35	84.85	5.04	10.11
Total	82.02	6.34	11.63

Historical period

	Response	Refusal	Non-contact
1991-1997	92.67	2.54	4.78
1998-2007	87.32	4.34	8.34
2009-2017	77.29	8.09	14.62
Total	82.02	6.34	11.63

Sex

	Response	Refusal	Non-contact
Male	82.02	6.41	11.57
Female	82.03	6.26	11.70
Total	82.02	6.34	11.63

Immigrant status

	Response	Refusal	Non-contact
Born in the UK	83.05	6.43	10.52
Not born in the UK	67.14	6.83	26.03
Missing	86.51	5.00	8.50
Total	82.02	6.34	11.63

Living with parents

	Response	Refusal	Non-contact
No	77.93	4.54	17.53
Yes	83.81	7.13	9.06
Total	82.02	6.34	11.63

Educational level

	Response	Refusal	Non-contact
Low	81.76	5.77	12.48
Intermediate	83.49	6.28	10.23
Advanced	83.14	6.78	10.08
High	79.85	6.06	14.09
Total	85.09	4.98	9.93

Analysis A1: First technical appendix : Construction of the Indicators of Precariousness and most complex controls

In this section, we aim to explain how the indicators of economic precariousness have been constructed. We also illustrate how the most complex individual controls are constructed: parental class, education, geography, ethnicity and religion.

Indicators of economic precariousness

Before describing the indicators of contract type, occupational class and labour income tercile, we point out that all the variables regarding employment precariousness contain a category for the not employed, i.e. out of the labour force. The variable on labour income included non-earners, i.e. the not employed or the self-employed with negative income (going through a loss).

Occupational class. The class of the main occupation is derived from the NS-SEC three-class classification (ONS, 2010) : managerial and professional, intermediate or routine. Those in managerial occupations include the following categories: "large employers and higher management", "higher professional", "lower management & professionals". Those in intermediate occupations entail "intermediate" and "small employers & own account". Finally, those in routine occupations concern those in "lower supervisory and technical routine" or "semi-routine" or "routine" jobs. According to the ONS, the three-NSSEC scale can be considered hierarchically. Non-routine occupations require a higher level of skills and autonomy and are advantaged in terms of employment relationships and salaries.

Contract type: Temporary or permanent. The dichotomy between temporary and permanent work was derived from the harmonisation of two variables. In waves 1–8 of BHPS workers were asked whether their job is permanent, seasonal/temporary or under a fixed-term contract. In waves 9–18 of BHPS and 19 of UKHLS they were asked whether the work was permanent or temporary. If they had a temporary contract, they were asked whether their work was seasonal, under contract for a fixed period of time or a fixed task, agency temping, casual, or not permanent in other ways. Since the numbers within some categories of temporary work were small and there were changes in the coding of these subcategories of temporary work between BHPS and UKHLS, we considered only two categories for contract type: permanent and temporary.

Labour income tercile. Labour income tercile was computed from the individual's usual labour income. This variable is present only for those employed and self-employed at the time of the interview, since it is referred to the current occupation. We chose a monthly variable because it was the only source for individual labour

income from both BHPS and UKHLS. We selected a gross measure because it was the most straightforward to include, as it had already been harmonised by the UKHLS team. Missing gross labour income data was imputed directly by ISER researchers⁷². Income from self-employment was based on respondent's reports. Tercile refers to the distribution in each wave to consider potential variations in inflation over historical periods.

Housing tenure. Respondents were classified into those living with parents and those who had already left the parental home and were homeowners, renters from a public institution, or renters from a private landlord. As a robustness check, we were able to disentangle private renters living alone from those living with an unrelated renter but no significant differences were found. The robustness check is available upon request.

Savings. Questions on whether the individual saves or not was asked in the 2nd, 4th, 6th and 8th wave of UKHLS, whilst in the BHPS it was always present. We imputed this missing information in UKHLS using the value from the previous wave. The question on savings was not asked to the IEMB sample in wave 6.

Means-tested benefits. Means-tested benefits are granted when an individual's or couple's economic resources, including income and savings, fall below certain threshold. In the analyses we did not include the benefit amount but whether the respondent was in receipt of any of the following: Income Support, National Insurance Credit, Housing Benefits, Council Tax Benefits, Rent Rebate Working Tax Credit (all waves); One parent benefit (1-16 BHPS); Unemployment Benefits (1-7 BHPS); Jobseeker's Allowance (6-18 BHPS/1-9 UKHLS); Child Tax Credit (13-18 BHPS/All waves UKHLS); Return to work credit (17-18 BHPS/All waves UKHLS); In-work credit for lone parents, employment and Support Allowance (all waves of UKHLS only); Universal Credit (from 4th wave UKHLS).

Perceptions of the current financial situation. The variable on the current financial perception ("How well would you say you yourself are managing financially these days?") has five original answer categories: living comfortably, doing alright, just about getting by, finding financial management difficult or very difficult. In the paper, we collapsed these into three: good/doing alright (labelled as "positive or good perceptions"), getting by, and difficult/quite difficult (labelled as "difficult or bad") since there were relatively few respondents who perceived a difficult or quite difficult financial situation.

⁷² More details on the imputation procedure can be found in the BHPS user manual in section III.9.1, p. A3-19.

Financial expectations. Financial expectations ("*Looking ahead, how do you think you will be financially a year from now, will you be...*") is a three-category variable and coded exactly as the possible response categories in the surveys: expect a better financial situation in the following year, the same, or worse.

Complex controls

Education. The variable on education has been formulated by considering the harmonised variable produced by the Understanding Society team on education. This variable consists of six categories: No qualification, Other qualification, GCSE etc., A-level, Other higher qualification, Degree, missing.

Low, i.e. "no qualification" (ISCED 0-1, primary education);

- Medium, i.e. "GCSE etc." and "other types of qualification" (ISCED 2-3 lower and upper secondary education);
- Advanced, i.e. A-level etc. (ISCED 4 Post-secondary non-tertiary education);

•High, i.e. "degree" and "other higher degree" (ISCED 5-8), which comprises those having at least a Bachelor's degree.

The criterion to assign "other qualification" from the original variable to the medium level was the ages at which most of these respondents (more than 76%) declared to have left school, between 15 and 17 years old, with a peak at 16, which are compatible with the GCSE exam.

Parental NS-SEC class. We used the class of the parent with the highest threeclass NS-SEC classification, regardless of whether it was the mother or the father. The individuals that joined the sample after becoming 16 years old were asked the occupation of their parents at age14. For the rising 16, we merged the first observation available on the social class of parents from the panel. When one of the parents was missing, we used information on the parent that was present in the household.

Ethnicity. The covariate on ethnicity results from collapsing a series of more detailed categories collected in both the surveys. The criteria for grouping the different categories were in terms of similarities and sample size. Categories are: White British/Irish; Bangladeshi; Pakistani; Indian; Other Asian (white Asian, Chinese, other Asian background); African (white/black African); Caribbean (white/black Caribbean); Other (any other white background; any other black background; any other mixed; Arab — mainly due to a question of sample size —; gipsy/Irish travellers— this group is also very limited in terms of sample size —).

Geography. The covariate consists of five categories: London metropolitan area; Rest of UK (North West, Yorkshire and the Humber; East Midlands; West Midlands; East of

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England; South East; South West); Wales; Scotland and Northern Ireland.

The ethnicity component represented 15% of the sample after 2009 and only the 6% in BHPS. Scotland was more represented in the BHPS rather than UKHLS (14% vs. 8%), and the reverse held for the area of London (9% vs. 16%). To account for these changes in the composition of the sample in our analysis, we used appropriate survey weights and introduced covariates to control for their effect:

Religion. This variable considers whether the respondent belong to a religion. Given that this question was not asked in each wave of the surveys, the last observation available was used (and updated whenever the interviewed person provided a valid answer). In the case the respondent joined the panel during a wave that did not ask for religious status, we considered the first answer available.

Analysis A2: Second technical appendix: How we dealt with missingness and interval censoring

Item nonresponse. We restricted the analyses to those full-respondents (i.e. no proxy or telephone respondents) having valid observations on all the variables representing precariousness. Other observations were listwise deleted. Therefore, we use a category for missing values for the control variables only (Table A1). However, the percentage of missingness is quite low and limited on all the covariates to (1% at most).

Missingness on the question on marital status whilst the interviewee is still present (e.g. refusal) in the survey is not a problem for identifying future transitions. In fact, information on the marital status is present in the "indall" file, which covers all the (non-absent) survey respondents, including enumerated ones (proxy, telephone, refusals).

Interval censoring. Interval censoring can be a problem in our investigation, especially for identifying the coresidential unions. Two types of interval censoring are particularly challenging. The first occurs between two consecutive waves: since we are dealing with yearly waves, we cannot identify in detail what happened between the two waves, including the first union formation. The other, also called intermittent nonresponse, occurs when the individual leaves the sample for one wave or more and re-enters later on without any information on what happened in the particular time frame when he/she left. The two surveys allow treating interval censoring with a different degree of precision.

BHPS does not allow sorting out the issue of interval censoring properly. In fact, BHPS provides information only on legal marriages that occurred to the individual since the last wave he took part in the panel and does not ask about cohabitations. Therefore, for this survey, we use yearly data at their face value. However, if the individual was absent for one wave or more, we did not include him/her in the analysis when he/she re-joined the sample after presenting the first interval censoring (only 285 individuals).

UKHLS allows us to code all partnership transitions that might have occurred between two waves because it asks individuals to recall complete union histories (marriage or cohabitation) since the last wave they participated in the survey. Similarly, to BHPS, we did not retain the unions with more than one wave missing (93) because we would not have valid forward-lagged longitudinal weight (the one recommended by the UKHLS team for our analysis) and covariates. However, we kept the ones occurred between two consecutive waves (201).

Analysis A3a- Multivariable model

Table A 70dds ratios from discrete-time logit models relating the likelihood of entering a first coresidential union between t and t+1 to indicators of precariousness interacted with age. Models contain all the covariates representing precariousness apart from the ones strongly correlated, which are introduced in different models (a)–(d).

	Likelihood of	Likelihood of	Likelihood of	Likelihood of
	entering	entering a	entering	entering
	a first	first	a first	a first
	coresidential	coresidential	coresidential	coresidential
	partnership	partnership	partnership	partnership
	between	between	between	between
	t and t+1 –	t and t+1-	t and t+1	t and t+1
	w/Incomo torrilo	w/ Occupational class	w/Contracttypo	w/maans tostad hanafits
	(a)	(b)	(c)	(d)
	(a)	(0)	(0)	(u)
Age (centred at 24)				
Age	1.11**(0.03)	1.09**(0.02)	1.09**(0.02)	1.09**(0.02)
Age*Age	0.97**(0.01)	0.98**(0.00)	0.98**(0.00)	0.97**(0.00)
Financial perceptions (refgood/ quite good)				
Getting by	1.08(0.11)	1.11(0.12)	1.08(0.11)	1.05(0.11)
Difficult/quite difficult	1.06(0.18)	1.13(0.19)	1.07(0.18)	0.99(0.17)
Getting by*Age	0.98(0.02)	0.98(0.02)	0.97(0.02)	0.98(0.02)
Difficult/quite difficult *Age	0.99(0.04)	0.99(0.04)	0.99(0.04)	0.98(0.03)
Getting by*Age*Age	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)
Difficult/quite difficult*Age*Age	1.00(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)
Savings (ref yes)				
No	1.01(0.08)	1.02(0.08)	1.01(0.08)	0.98(0.08)
No*Age	0.98(0.02)	0.98(0.02)	0.97(0.02)	0.97(0.02)
No*Age*Age	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)
Occupational class (ref. managerial)				
Intermediate	0.88(0.09)			
Routine	0.81*(0.08)			
Not employed	0.46**(0.07)			
Int'te*Age	0.99(0.03)			
Routine*Age	0.98(0.03)			
Not employed*Age	0.94+(0.03)			
Int'te*Age*Age	1.01(0.01)			
Routine*Age*Age	1.01+(0.01)			
Not employed*Age*Age	1.02**(0.01)			
Financial expectations (ref. better off)				
The same	0.97(0.08)	0.96(0.08)	0.95(0.08)	0.96(0.08)
Worse off	2.16**(0.29)	2.15**(0.29)	2.19**(0.30)	2.16**(0.30)
The same*Age	1.00(0.02)	1.00(0.02)	1.00(0.02)	1.00(0.02)

Worse off*Age	1.03(0.03)	1.03(0.03)	1.02(0.03)	1.03(0.03)
The same*Age*Age	1.00(0.00)	1.00(0.00)	1.00(0.00)	1.00(0.00)
Worse off*Age*Age	0.98**(0.01)	0.98**(0.01)	0.98**(0.01)	0.98**(0.01)
Housing tenure (ref. living with parents)				
Owners	1.32+(0.20)	1.33+(0.20)	1.37*(0.20)	1.45*(0.22)
Privaterenting	1.10(0.11)	1.13(0.11)	1.14(0.11)	1.18+(0.12)
Public renting	1.36(0.26)	1.41+(0.26)	1.37+(0.26)	1.44+(0.28)
Owning*Age	0.99(0.06)	1.00(0.06)	1.01(0.06)	1.00(0.06)
Private renting*Age	0.93*(0.03)	0.94*(0.03)	0.93*(0.03)	0.94*(0.03)
Public renting*Age	0.90*(0.04)	0.91*(0.04)	0.90*(0.04)	0.91*(0.04)
Owning*Age*Age	1.01(0.01)	1.00(0.01)	1.00(0.01)	1.00(0.01)
Private renting*Age*Age	1.02**(0.01)	1.02**(0.01)	1.02**(0.01)	1.02**(0.01)
Public renting*Age*Age	1.01+(0.01)	1.01(0.01)	1.01+(0.01)	1.01(0.01)
Income tercile (ref. 2nd-3rd)				
1st		0.63**(0.07)		
No labour income		0.46**(0.07)		
2nd-3rd*Age		0.96(0.02)		
No labour income*Age		0.95(0.03)		
2nd-3rd*Age*Age		1.00(0.01)		
Not labour income*Age*Age		1.01*(0.01)		
Contract type (ref. permanent)				
Temporary			0.83(0.14)	
Not employed			0.52**(0.07)	
Temporary*Age			1.04(0.03)	
Not employed*Age			0.96(0.03)	
Temporary*Age*Age			1.00(0.01)	
Not employed*Age*Age			1.01*(0.01)	
Means-tested benefits (ref. no)				
MTB				
МТВ				0.63**(0.08)
MTB*Age				0.96(0.02)
MTB*Age*Age				1.01*(0.01)
Constant	0.0796**(0.0195)	0.130**(0.0293)	0.120**(0.0260)	0.113**(0.0249)

Source: own computations from BHPS and UKHLS

^a Standard error in parentheses

^b P-value : ** p<0.01, * p<0.05, + p<0.1

^c Models are controlled for respondent's gender, historical period, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion, and parental class

^d N=20,688 person-years;

Table A 8: Odds ratios from discrete-time logit models relating the likelihood of entering a first coresidential union between t and t+1 to indicators of precariousness interacted with historical period. Models contain all the covariates representing precariousness apart from the ones strongly correlated, which are introduced in different models (a)–(d).

	Likelihood of entering a			
	first coresidential	first coresidential	first coresidential	first coresidential
	partnership between	partnership between	partnership between	partnership between
	t and t+1	t and t+1	t and t+1	t and t+1
Historical period (ref. 1991–97)				
1998–2007	0.91(0.14)	0.95(0.18)	0.88(0.12)	0.86(0.12)
2008–13	0.75(0.13)	0.68+(0.15)	0.69*(0.11)	0.66*(0.11)
2013–18	0.70*(0.12)	0.68+(0.14)	0.64**(0.10)	0.60**(0.10)
Financial perceptions (ref. good)				
Getting by	1.17(0.20)	1.16(0.20)	1.15(0.20)	1.09(0.19)
Difficult/quite difficult	1.09(0.30)	1.04(0.29)	1.04(0.28)	0.96(0.26)
Getting by *1998–2007	0.93(0.18)	0.92(0.18)	0.92(0.18)	0.93(0.18)
Getting by *2008–13	1.06(0.22)	1.02(0.21)	1.02(0.21)	1.00(0.21)
Getting by *2013–18	1.20(0.25)	1.15(0.24)	1.13(0.23)	1.15(0.24)
Difficult/quite difficult*1998–2007	1.06(0.34)	1.03(0.33)	1.05(0.34)	1.11(0.35)
Difficult/quite difficult*2008–13	1.27(0.40)	1.14(0.36)	1.17(0.36)	1.18(0.36)
Difficult/quite difficult*2013–18	0.70(0.26)	0.66(0.25)	0.66(0.25)	0.74(0.27)
Savings (ref. yes)				
No	1.01(0.12)	1.01(0.12)	1.01(0.12)	1.00(0.13)
No*1998–2007	1.01(0.15)	1.01(0.15)	1.00(0.15)	1.02(0.16)
No*2008–13	0.96(0.16)	0.96(0.16)	0.95(0.16)	0.94(0.16)
No*2013–18	0.92(0.16)	0.88(0.15)	0.88(0.15)	0.89(0.15)
Individual occupational class (ref. managerial)				
Intermediate		0.92(0.16)		
Routine		0.91(0.16)		
Not employed		0.53**(0.13)		
Int'te*1998–2007		0.87(0.17)		
Int'te*2008–13		1.27(0.28)		
Int'te*2013–18		1.00(0.23)		
Routine*1998–2007		0.88(0.18)		
Routine*2008–13		0.91(0.20)		
Routine*2013–18		0.83(0.18)		
Not employed*1998–2007		1.04(0.31)		
Not employed*2008–13		0.56+(0.18)		
Not employed*2013–18		0.87(0.28)		
Financial expectations (ref. better off)				
The same	0.94(0.13)	0.93(0.13)	0.94(0.13)	0.94(0.13)
Worse off	1.66**(0.32)	1.67**(0.33)	1.70**(0.33)	1.67**(0.33)
The same *1998–2007	1.04(0.18)	1.05(0.18)	1.04(0.18)	1.05(0.18)
The same*2008–13	0.85(0.16)	0.87(0.16)	0.87(0.16)	0.89(0.16)
The same*2013–18	0.97(0.18)	0.97(0.18)	0.96(0.18)	1.00(0.19)

Worse off*1998–2007	1.11(0.29)	1.09(0.29)	1.11(0.30)	1.08(0.29)
Worse off*2008–13	1.13(0.29)	1.15(0.30)	1.16(0.30)	1.18(0.30)
Worse off*2013–18	0.89(0.25)	0.89(0.25)	0.90(0.25)	0.91(0.26)
Household tenure (ref. living with parents)			. ,	. ,
Owners	1.22(0.25)	1.20(0.25)	1.21(0.24)	1.24(0.26)
Private renting	1.18(0.20)	1.14(0.10)	1.16(0.19)	1.18(0.19)
Public renting	1.29(0.37)	1.28(0.37)	1.28(0.38)	1.24(0.38)
Owning*1998–2007	0.96(0.26)	0.95(0.27)	1.01(0.27)	1.05(0.30)
Owning*2008–13	1.73*(0.48)	2.03*(0.52)	1.82*(0.50)	2.03*(0.58)
Owning*2013–18	1.69*(0.43)	1.85*(0.47)	1.88*(0.48)	2.08**(0.55)
Private renting*1998–2007	0.83(0.17)	0.83(0.17)	0.86(0.17)	0.84(0.17)
Private renting*2008–13	1.32(0.28)	1.38(0.29)	1.37(0.29)	1.41+(0.30)
Private renting*2013–18	1.34(0.30)	1.39(0.32)	1.43(0.32)	1.56*(0.35)
Public renting*1998–2007	0.86(0.33)	0.83(0.32)	0.84(0.32)	0.90(0.36)
Public renting*2008–13	1.12(0.40)	1.12(0.40)	1.08(0.39)	1.27(0.48)
Public renting*2013–18	1.86+(0.63)	1.82+(0.61)	1.83+(0.62)	2.29*(0.84)
Labour income (ref. 2 nd -3 nd tercile)				
1 st	0.77(0.13)			
No labour income	0.52**(0.13)			
1 st *1998–2007	0.79(0.15)			
1 st *2008–13	0.70+(0.15)			
1 st *2013–18	0.61*(0.13)			
No labour income*1998–2007	1.06(0.30)			
No labour income*2008–13	0.50*(0.15)			
No labour income*2013–18	0.82(0.24)			
Contract type (ref. permanents)				
Temporary			0.97(0.22)	
Not employed			0.56*(0.13)	
Temporary*1998–2007			0.81(0.20)	
Temporary*2008–13			0.91(0.26)	
Temporary*2013–18			0.74(0.21)	
Not employed*1998–2007			1.12(0.30)	
Not employed*2008–13			0.55*(0.16)	
Not employed*2013–18			0.93(0.27)	
Means-tested benefits (ref. no)				
MTB				0.69*(0.13)
MTB*1998–2007				0.95(0.24)
MTB*2008–13				0.53*(0.15)
MTB*2013–18				0.72(0.20)
Constant	0.12**(0.03)	0.12**(0.032)	0.12**(0.03)	0.12**(0.03)

^a Standard error in parentheses

^bP-value: ** p<0.01, * p<0.05, + p<0.1

^c Models are controlled for respondent's age, gender, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion, and parental class. ^d N=20,688 person-years.
Analysis A3b: Figures showing the results for Table A 7 and Table A 8

Figure A 5: Predicted annual probabilities of entering a first coresidential partnership in a model containing all the variables representing economic precariousness, over age



^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). The refore, a nonoverlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the 95% level of confidence;

^b Results are controlled for respondent's gender, historical period, level of education, co-residence with parents, presence of children, geographical area, ethnicity, religion and parental dass. Covariates are kept at their mean value.

 $^{\rm c}$ Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

^d Note that models for highly correlated variables (employment and financial domains besides savings) were computed separately (Table A 7).

Source: own weighted computations from BHPS and UKHLS (1991-2018)



Figure A 6: Predicted annual probabilities of entering a first coresidential partnership in a model containing all the variables representing economic precariousness, over historical period

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the 95% level of confidence;

^b Results are controlled for respondent's age, gender, level of education, co-residence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

 $^{\rm c}$ Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

^d Note that models for highly correlated variables (employment and financial domains besides savings) were computed separately (Table A 8)

Source: own weighted computations from BHPS and UKHLS (1991-2018)



Figure A 7: Predicted annual probabilities of entering a first coresidential partnership considering only those who entered the panel before age 19

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a nonoverlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the 95% level of confidence;

^b Results are controlled for respondent's age, gender, level of education, co-residence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

^c Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results. Results are truncated at age 28 because there were too few observations in ages above this threshold.

Source: own weighted computations from BHPS and UKHLS (1991–2018)

Analysis A4: Constructing an Index of Precariousness

As an alternative to examining individual indicators of precariousness, we explored how the indicators could be combined into a single index, and how this index is associated with the likelihood of first coresidential partnership formation.

Exploratory factor analysis (EFA)

We performed an EFA on the indicators representing economic precariousness using a polychoric correlation matrix (Table A 9). We computed a polychoric correlation matrix, since our variables were either binary or ordinal (in the sense that its categories represent a scale with different degree of precariousness). The only variable we dichotomised for the purpose of computation was housing tenure (living independently vs living on your own). The polychoric matrix represents the base for the factor analysis.

Table A 9: Polychoric correlation matrix

	Inco me tercil e	Contra ct type	Occupatio nal class	Mean s- tested benefi ts	Savin gs	Coreside nce w/ parents	Financial percepti ons	Financial expectati ons
Income tercile (from high to low)	1.00	0.84	0.78	0.77	0.42	-0.01	-0.46	0.03
Contract type (from permanent to unemployed)	0.84	1.00	0.83	0.71	0.39	-0.04	-0.42	0.03
Occupational class (from non-routine to unemployed)	0.78	0.83	1.00	0.62	0.33	0.11	-0.35	0.01
Means-tested benefits	0.77	0.71	0.62	1.00	0.39	-0.37	-0.43	0.00
Savings (from yes to no)	0.42	0.39	0.33	0.39	1.00	-0.05	-0.46	0.08
Coresidence with parents	-0.01	-0.04	0.11	-0.37	-0.05	1.00	0.09	0.03
Financial perceptions (from difficult to good)	-0.46	-0.42	-0.35	-0.43	-0.46	0.09	1.00	-0.11
(from worse off to better off)	0.03	0.03	0.01	0.00	0.08	0.03	-0.11	1.00

Source: own computations from BHPS and UKHLS

As already commented in the main text, we can see that variables representing the income and employment sphere are strongly related, apart from savings. With regard to subjective measures, financial perceptions present a modest correlation with the abovementioned variables (around 0.3 and 0.4); whereas, financial expectations present a correlation of zero. Living with parents also presents a minimal correlation with all the variables, excepted for the negative association with means-tested benefits (-0.37).

	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.53	2.89	0.87	0.87
Factor2	0.64	0.31	0.16	1.03
Factor3	0.33	0.35	0.08	1.11

Table A 10: Eigenvalues and explaine	d variance for each (un	rotated) factor
--------------------------------------	-------------------------	-----------------

^b Only factors with positive eigenvalues are retained.

Source: own computations from BHPS and UKHLS

After computing the matrix, we then performed the exploratory factor analysis, whose results are displayed in Table A 10 and Table A 11. To evaluate whether a specific combination of variables, i.e. a factor, explains an adequate amount of variance in the data, we used the Kaiser criterion (Hair et al., 1998). According to this rule of thumb, we should retain factors having an eigenvalue, i.e. the "amount of variance accounted for by a factor" (Hair et al., 1998: p.141), equal or above one. Table A 9 shows that there is only one (still unrotated) factor meeting the Kaiser criterion, that is Factor 1.

Table A 11 shows the factor loadings, i.e., "the correlations of each variable with the factors" (Hair et al., 1998: p.146). They resemble the results obtained for the correlation matrix. Variables having the highest loadings on Factor 1 are income tercile, contract type, occupational class and means-tested benefits (in a range between 0.8 and 0.9); whereas, financial perceptions and savings present a modest correlation (around 0.5). Coresidence with parents and financial expectations show no correlation at all. Factor 2 is mainly constituted by the variable indicating coresidence with parents; while, factor 3 by savings and financial perceptions. These conclusions have been confirmed also through a confirmatory factor analysis. One of the reasons why it is better not to select these factors, apart from the fact that they have an eigenvalue lower than one, is that they mainly consist of one or two variables, which are very few to identify a clear latent construct. Therefore, among the indicators that we selected, employment features, means-tested benefits, savings and financial perceptions appear aspects of a unique factor. Financial expectations and coresidence with parents seem to represent stand-alone constructs.

	Factor1	Factor2	Factor3	Uniqueness
Income tercile (from high to zero)	0.9	0.1	0.04	0.1
Contract type (from permanent to not employed)	0.9	0.1	0.1	0.2
Occupational class (from managerial to not employed) Means-tested	0.8	0.3	0.1	0.2
benefits	0.8	-0.3	0.1	0.2
Savings (from yes to no)	0.5	-0.07	-0.3	0.6
Coresidence w/ parents	-0.1	0.6	-0.1	0.5
Financial perceptions (from difficult to good)	0.5	0.1	0.3	0.6
Financial expectations (from worse off to better off)	-0.04	0.02	-0.2	≈1.0

Table A 11: Factor loadings on (unrotated) factors

Source: own computations from BHPS and UKHLS

Once we rotate the factors through an oblimin rotation⁷³, which assumes factors to be correlated, we obtain a factor score for each person-year in the sample. A factor score represents a composite measure whose value depends on the (rotated) loadings of a specific factor and the value of each observation (Hair et al., 1998: p.123)⁷⁴. From the factor scores of factor 1, we obtained an index of precariousness ranging from around 0.3, i.e., the least economically precarious, to 2.3, the maximum, the "most" economically precarious.

⁷³ Similar results are obtained also with a promaxand varimax rotation

⁷⁴ The method used to compute factor scores is the regression method, based on the minimising the mean squared error from the true factors (StataCorp, 2013).

Analysis A5: Sensitivity analyses

- Figure A 8 is aimed at exploring whether there are differences in the predicted probability of entering the first coresidential partners hip between those who are unemployed and those who are out of the labour market on a voluntary basis or due to health limitations.
- Figure A 9, Table A 12 and Table A 13 explore whether the pregnancy status, which is an important predictor of partnership formation, can disrupt the relationship between economic precariousness and the probability of entering the first coresidential partnership.
- Figure A 10 and Figure A 11 aim to explore whether the relationship between economic precariousness and the first coresidential partnership formation witnessed in the general population of single youth presents the same trends as the ones of a sample of living-apart-together wishing to move in together within three years. In this way, we are analysing a sample that is exposed to the event of coresidential partnership formation for sure. The check is only available for UKHLS respondents (from wave 3) and hypothesis 1 (given that the sample is asked mainly in one considered period). Therefore, the sample is quite limited (N=2,177) and representative of the most recent period. We however confirm strongly results regarding employment and income sphere. Similar evidence, even though not identical, is present for financial expectations and housing.

Non-employed divided into "Unemployed vs inactive"



Figure A 8: Predicted annual probabilities of entering a first coresidential partnership according to individual occupational class, where unemployed are divided between unemployed and inactive (i.e. not self-defined unemployed).

^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995).

A non-overlapping confidence interval means that the differences in the estimated means are statistically significant with, at least, 95% level of confidence;

^b Results are controlled for respondent's gender, age, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

^c The involuntary out of the labour market are principally represented by those who are long-term sick and homemakers.

Source: own weighted computations from BHPS and UKHLS (1991-2018)

Analysis A5b: Pregnancy status

Events preceded by a pregnancy status are indeed more diffused in young ages rather than in older ones, as explained in Theoretical background (Differences according to age).

Table A 12: Percentage of respondents who experience partnership formation who were pregnant within 12 months since last interview ⁷⁵, by age group

Age	Not pregnant (%)	Pregnant (%)
18–21	85.72	14.29
22–24	93.92	6.10
26–30	94.73	5.27
31–34	96.90	3.10

Source: own computations from BHPS and UKHLS

⁷⁵ Checks have been done also on longer and shorter distances. The results on the relationship between precariousness and partnership formation have always been robust.

Table A 13: Odds ratios from discrete-time logit models relating the likelihood of entering a first coresidential union between t and t+1 to indicators of precariousness interacted with age, pregnancy status included

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Likelihood of							
	entering a							
	first							
	coresidential							
	partnership in	partnership in	partnersnip in	partnership in	partnership in	partnersnip in	partnersnip in	partnership in
	((,(+1)	((,(+1)	((,(+1)	((,(+1)	((,(+1)	((,(+1)	((,(+1)	((,(+1)
	Occupational							
	class	Contract	Income	Means-tested		Financial	Financial	Housing
		type	tercile	benefits	Savings	perceptions	expectations	tenure
Age (centred at age 24)								
Age	1.09***(0.02)	1.07***(0.02)	1.08***(0.02)	1.07***(0.03)	1.07***(0.02)	1.07***(0.02)	1.08***(0.02)	1.11***(0.03)
Age squared	0.97***(0.00)	0.98***(0.00)	0.98***(0.00)	0.97***(0.00)	0.98***(0.00)	0.98***(0.00)	0.98***(0.00)	0.96***(0.01)
Pregnancy status (ref. not pregnant)	9.14***(1.44)	8.64***(1.31)	8.54***(1.32)	8.70***(1.32)	8.64***(1.32)	8.61***(1.32)	8.62***(1.30)	8.92***(1.29)
Occupational class*Age squared								
Intermediate	0.89(0.09)							
Routine	0.81*(0.08)							
Not empoyed	0.46**(0.07)							
Intermediate*Age	0.99(0.03)							
Routine/semi-routine*Age	0.99(0.03)							
Not employed*Age	0.94*(0.03)							
Intermediate*Age squared	1.00(0.01)							
Routine/semi-routine*Age squared	1.01(0.01)							
Not employed*Age squared	1.02**(0.01)							
Contract type *Age squared								
Temporary		0.84(0.14)						
Not employed		0.51**(0.08)						
Temporary*Age		1.03(0.03)						
Not employed*Age		0.94*(0.03)						
Temporary*Agesquared		1.00(0.01)						
Not employed*Age squared		1.01*0.01)						
Income tercile (ref. 2nd or above) *Age squared								
1st			0.64**(0.07)					
Not earner			0.46**(0.07)					
1st*Age			0.96(0.02)					
Not earner*Age			0.94*(0.03)					
1st*Age squared			1.00(0.01)					
Not earner*Age squared			1.01*(0.01)					
Means-tested benefits (ref. not) *Age squared								
R. receives MTB				0.57***(0.07)				
R. receives MTB*Age				0.95***(0.02)				

R. receives MTB*Age squared		1	.02***(0.01)				
Savings (ref. yes) *Age squared							
R. does not save				0.88(0.07)			
R. does not save*Age				0.96*0.02)			
R. does not save *Age squared				1.00(0.00)			
Financial perceptions (ref. good) *Age squared							
Getting by					0.99(0.10)		
Difficult/ quite difficult					0.83(0.14)		
Getting by*Age					0.96*0.02)		
Difficult/quite difficult*Age					0.97(0.03)		
Getting by*Age squared					1.01(0.00)		
Difficult/quite difficult*Age squared					1.00(0.01)		
Financial expectations (ref. better off) *Age squared							
The same						0.97(0.09)	
Worse off						2.11**(0.32)	
The same*Age						1.00(0.02)	
Worse off*Age						1.05(0.03)	
The same*Age squared						1.00(0.00)	
Worse off*Age squared						0.98**(0.01)	
Housing tenure (ref. coresidence with parents) *Age							
squared							
Owners							1.49***(0.21)
Private renting	 						1.16(0.12)
Public renting	 						1.15(0.25)
Owning*Age							0.98(0.06)
Private renting*Age							0.92**0.03)
Public renting*Age							0.90*0.04)
Owning*Age squared							1.00(0.01)
Private renting*Age squared							1.02**0.01)
Public renting*Age squared							1.01+(0.01)

^a Standard error in parentheses ^b P-value: ** p<0.01, * p<0.05, + p<0.1 ^c N=20,688 person-years.

e Results are controlled for respondent's age, gender, level of education, co-residence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.



Figure A 9: Predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness, over age (pregnancy status included)

^a Confidence interval are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the 95% level of confidence;

^b Results are controlled for respondent's pregnancy status, gender, historical period, level of education, co-residence with parents, presence of children, geographical area, ethnicity, religion and parental class.

^C Graphs (g) and (h) are on a different scale than the others to give a better visualisation of the results.

Source: own weighted computations from BHPS and UKHLS (1991–2018)

Analysis A7: Living-apart together

Figure A 10: Predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness in a sample of those Living Apart Together (LAT) who express an intention to move in together with their partner within the next three years (N=2,177) – wave 3 UKHLS on (excluding models on financial expectations and housing)



^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the 95% level of confidence;

^b Results are controlled for respondent's gender, age, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

Source: own weighted computations from BHPS and UKHLS (1991-2018)

Figure A 11: Predicted annual probabilities of entering a first coresidential partnership for each indicator of economic precariousness in a sample of those Living Apart Together (LAT) who express an intention to move in together with their partner within the next three years (N=2,177) – wave 3 UKHLS on (only models on financial expectations and housing)



^a Confidence intervals are graphed at the 84% level of confidence to guarantee a correct pairwise comparison of the differences in probabilities (Goldstein and Healy, 1995). Therefore, a non-overlapping confidence interval means that the differences in the estimated means are statistically significant at least, at the 95% level of confidence;

^bResults are controlled for respondent's gender, age, level of education, coresidence with parents, presence of children, geographical area, ethnicity, religion and parental class. Covariates are kept at their mean value.

Source: own weighted computations from BHPS and UKHLS (1991-2018)

Analysis A8: T-test of significance for hypothesis H2 and H3

 Figure A 12 analyses whether the differences in the predicted probabilities of entering a first coresidential union between the least precarious category and the more precarious ones, in a specific historical period, significantly differ from the ones witnessed in 2008– 13.

Example: labour income

The difference between non-earners and medium-high earners is -0.05 in 1998-2007 and -0.09 in 2008–13 (the reference period). The difference in these probabilities is, therefore, the following:

 $\Delta(not/earner - medium/high earner)_{1998-07} - \Delta(not earner - medium/high earner)_{2008-13} = -0.05 - (-0.09) = +0.04$

Figure A 12 shows whether this difference is statistically significant at the 5% level ("+" shows 10%) (method: t-test).

• Figure A 13 and Figure A 14 show whether men's and women's differences the predicted probabilities of entering a first coresidential union between the least precarious categories and the more precarious ones, in a specific historical period, differ significantly from the ones witnessed in 1991-97.

Example: labour income

The differences in the probability of first union formation between low earner women (first tercile) and medium-high earners (second tercile or more) were-0.9 in 2013-2018 and almost 0 in 1991-97 (the reference period). The difference in these probabilities is, therefore, the following:

 Δ (low earning women – medium/high earning women)_{2013–18}- Δ (low earning women – medium/

high earning women)₁₉₉₁₋₉₇= (-0.09)-0= (-0.09)

Figure A 13 and Figure A 14 show whether this difference is statistically significant at the 5% level ("+" shows 10%) (method: t-test).

As it is possible to notice, the sign of these differences strongly depends on the differences in the reference periods and in the contrasted one. Therefore, we use these graphs merely to determine which differences are significant. Therefore, we strongly suggest using these figures for this purpose or inspecting them with the help of Figure 3-4, Figure 3-5 and Figure 3-6 in the main text.



Figure A 12: T-tests on whether the differences in the first coresidential partnership transitions between the least precarious category and one more precarious one are statistically significant at the 95% level, across historical periods (reference period: 2008–13)

^a A detailed description of how these differences are computed is given at p.250. This figure is intended to be inspected together with **Figure 3-4**, as the signs of the differences strictly depend on the sign of the initial contrasts in 2008-13 and in the compared period.

b Classes graphed at the OFV level of confidence.

 $^{\rm b}$ CIs are graphed at the 95% level of confidence;

^c If intervals are above or below the red line, the differences in the probability of forming the first coresidential partnership between the least precarious category and the more precarious ones, in 2008–13, differ significantly from the ones in another historical period (95% level). "+" highlights differences that are statistically significant at the 90% level of confidence.

^d Results are controlled for respondent's gender, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children. Covariates are kept at their mean value.

Source: own weighted computations from BHPS and UKHLS (1991-2018)



Figure A 13: T-tests on whether the differences in the coresidential partnership transitions between the least precarious category and one more precarious one are statistically significant at the 95% level across historical periods (reference period: 1991–97), men

^a A detailed description of how these differences are computed is given at p.250. The figure is intended to be inspected together with Figure 3-5, as the signs of the differences strictly depend on the sign of the initial contrasts in 1991-97 and in the compared period.

^b CIs are graphed at the 95% level of confidence;

^c If intervals are above or below the red line, the differences in the probability of forming the first coresidential partnership between the least precarious category and the more precarious ones, in 1991-

97, differ significantly from the ones in another historical period (95% level).

^d Results are controlled for respondent's gender, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children. Covariates are kept at their mean value.

Source: own computations from BHPS and UKHLS



Figure A 14: T-tests on whether the differences in the coresidential partnership transitions between the least precarious category and one more precarious ones are statistically significant at the 95% level across historical periods (reference period: 1991–97), women

^a A detailed description of how these differences are computed is given at p.250. The figure is intended to be inspected together with Figure 3-6, as the signs of the differences strictly depend on the sign of the initial contrasts in 1991-97 and in the compared period.

^b CIs are graphed at the 95% level of confidence;

^c If intervals are above or below the red line, the differences in the probability of forming the first coresidential partnership between the least precarious category and the more precarious ones, in 1991-97, differ significantly (95% level) from the ones in another historical period. "+" highlights differences that are statistically significant at the 90% level of confidence.

^d Results are controlled for respondent's gender, ethnicity, level of education, historical period, coresidence with parents, religion, geographical area, parental class and presence of children.

Source: own computations from BHPS and UKHLS (1991-2018)

Appendix B – Chapter 4

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Figure B 1: Distribution of the age gap within couples

Source: own computations from BHPS and UKHLS

Initial age at union formation

Figure B 2 shows that first cohabitations formed in the late teens to early twenties are more likely to split up; while first cohabitations formed by individuals who are older than 22 years old have a much lower risk of dissolution and a gradual increase in the likelihood of marriage, especially from the second year of duration onwards. In terms of the age of entry of the partners, the trends are similar, although the partners are slightly more likely to separate when between ages 22 and 25; are less likely to break up between ages 18 and 21; and are more likely to marry and are less likely to separate between ages 31 and 35. The partners might have already had been in a coresidential partnership before their entry into the cohabitation.



Figure B 2: Cumulative incidence functions of marriage and separation for OSM and partners, by age group

Source: own computations from BHPS and UKHLS



Figure B 3: Cumulative hazard functions by period of union formation (first five years of the cohabitations are considered)





Source: own weighted computations based on BHPS and UKHLS data Note: the program to compute the CHFs is provided by Measure Evaluation (2022)

Note: only unions formed in the panel are considered; since the window of observation is five years, we consider only couple who formed their union in 2014/2015 (wave 6).

* Similar results are present also for the BHPS component only.

Initial age of the woman	
<22	0.22
22-25	0.41
26-30	0.27
31+	0.09
Missing	0.00
Initial age of the man	
<22	0.12
22-25	0.33
26-30	0.37
31+	0.17
Missing	0.00
Historical period	
1991-1997	0.25
1998-2008	0.43
2009-2018	0.32
Previous unions	
Never-partnered	0.58
Re-partnered man	0.14
Re-partnered woman	0.13
Missing	0.15
<u>Children</u>	
No children	0.75
Shared biological children	0.19
Non-shared biological children	0.06
Missing	0.00
Education	
Both are below high education	0.44
Man is high-educated, woman is below	0.09
Woman is high-educated, man is below	0.14
Both are high educated	0.19
Missing	0.13
Religion	
Both religious	0.08
Both not religious	0.38
Woman is religious, man not	0.12
Woman is religious, man not	0.09
Missing	0.33

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Covariates for robustness checks	
Parental class	
Both high	0.11
Both not high	0.29
Men high class, woman not	0.12
Woman high class, man not	0.16
Both not high class	0.32
Pregnancy status	
Not pregnant	0.91

⁷⁶ Restrictions on the sample are the following: durations between 0 and 5 years; age at the entry of OSM between 19 and 36; full respondent OSM; not last years of observations; not truncated observations; only heterosexual couples; both men and women are not self-defined students.

Pregnant	0.09
Health status	
Both good	0.60
Both fair/bad	0.04
Woman good, man fair/bad	0.10
Man good, woman fair/bad	0.13
Missing	0.13

Source: weighted couple-years from BHPS and UKHLS



Figure B 4: Predicted annual probabilities of continuing cohabiting according to different sources of couple's precariousness within the first five years of the relationship (N=4,079)

Source: own weighted computations from UKHLS and BHPS

- (a) In the analytical models, the baseline hazard is represented by the duration of the relationship. The fitted models from which we calculate the proba bilities contains as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religious status.
- (b) Abbreviations refer to gender: F=Female, M=Male; Measures of precariousness: E=Employed U=Unemployed; A=above population's first tercile, B=below population's first tercile; S=saver NS=Not saver; P=Positive perception N=Negative perceptions; L/parents=Living with parents; P/R=Renting from a public institution; Pr/R = Renting from a private landlord.
- (c) Cis adjusted through the Goldstein-Healy procedure to perform a pairwise comparison of a group of means.

(a) (b) (c) (d) (e) Employment Earnings Savings **Financial perceptions** Housing Dissolution: M/employed*F/employed 0.05**(0.01) M/unemployed*F/employed 0.15**(0.02) M/employed*F/unemployed 0.09**(0.04) M/unemployed*F/unemployed 0.09*(0.003) Marriage: M/employed*F/employed 0.14**(0.01) M/unemployed*F/employed 0.06**(0.02) M/employed*F/unemployed 0.11*(0.03) M/unemployed*F/unemployed 0.06*(0.03) Dissolution: M/abo1st tercile*F/abo1st tercile 0.06**(0.01) M/bel 1st tercile*F/abo 1st tercile 0.07**(0.01) M/abo 1st tercile*F/bel 1st tercile 0.07**(0.02) M/bel 1st tercile*F/bel 1st tercile 0.09**(0.01) Marriage: M/abo 1st tercile*F/abo 1st tercile 0.16**(0.01) M/bel 1st tercile*F/abo 1st tercile 0.12**(0.01) M/abo 1st tercile*F/bel 1st tercile 0.09**(0.02) M/bel 1st tercile*F/bel 1st tercile 0.11**(0.02) Dissolution F/saves*M/saves 0.06**(0.01) F/not saves*M/saves 0.08**(0.02) F/saves*M/not saves 0.08**(0.01) F/not saves*M/not saves 0.09**(0.01) Marriage: F/saves*M/saves 0.20**(0.02) F/not saves*M/saves 0.19**(0.02) F/saves*M/not saves 0.11**(0.01) F/not saves*M/not saves 0.10**(0.01) Dissolution: F/positive*M/positive 0.06**(0.01) F/positive*M/negative 0.14**(0.03) F/negative*M/positive 0.10**(0.02) F/negative*M/negative 0.09**(0.02) Marriage: F/positive*M/positive F/positive*M/negative 0.16**(0.01) F/negative*M/positive 0.10**(0.02) F/negative*M/negative 0.12**(0.02)

Table B 2: Predicted probabilities of entering a dissolution or a marriage according to each measure of economic precariousness (N=4,079)

Dissolution:				0.11**(0.02)	
Owners					0.05**(0.01)
L/parents					0.11**(0.03)
R/public					0.09**(0.02)
R/private					0.10**(0.01)
Marriage:					
Owners					0.16**(0.01)
L/parents					0.10**(0.03)
R/public					0.08**(0.02)
Marriage: R/private					0.08**(0.01)
Observations	4,079	4,079	4,079	4,079	4,079 ⁷⁷

Source: own computations from BHPS and UKHLS (1991–2019)

(a)Note: ** p<0.01, * p<0.05, + p<0.1

(b)These predicted probabilities are computed keeping other covariates at their average. The fitted model from which they are calculated contain as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religion.

⁷⁷ Person-years with valid weights and event indicator.

Table B 3: Relative risk ratios from a multinomial logit regressing the risk of experiencing a dissolution or a marriage, relative to remaining into the
cohabitation, on the measures of couple's economic precariousness and couple controls (N=4,079)

	Likelihood of experiencing a dissolution, relative to remaining in a cohabitation, between (t,t+1) EMPLOYMENT MODEL	Likelihood of experiencing a marriage, relative to remaining in a cohabitation, between (t,t+1) EMPLOYMENT MODEL	Likelihood of experiencing a dissolution, relative to remaining in a cohabitation, between (t,t+1) EARNINGS MODELS (b)	Likelihood of experiencing a marriage relative to remaining in a cohabitation between (t,t+1) EARNINGS MODEL (b)	Likelihood of experiencing a dissolution relative to remaining in a cohabitation between (t,t+1) SAVINGS MODEL (c)	Likelihood of experiencing a marriage relative to remaining in a cohabitation between (t,t+1) SAVINGS MODEL (c)	Likelihood of experiencing a dissolution relative to remaining in a cohabitation between (t,t+1) FINANCIAL PERCEPTIONS (d)	Likelihood of experiencing a marriage relative to remaining in a cohabitation between (t,t+1) FINANCIAL PERCEPTIONS (d)	Likelihood of experiencing a dissolution relative to remaining in a cohabitation between (t,t+1) HOUSING TENURE (e)	Likelihood of experiencing a marriage relative to remaining in a cohabitation between (t,t+1) HOUSING TENURE (e)
Duration of the union	(d)	(a)								
3rd-4th-5th year (vs. 1-2 year)	0.90(0.14)	2.06**(0.27)	0.90(0.14)	2.08**(0.28)	0.89(0.14)	1.92**(0.25)	0.94(0.15)	2.11**(0.27)	0.97(0.16)	1.90**(0.26)
Employment pairings (ref. dual earners)										
Female-breadwinner	2.93**(0.84)	0.48+(0.19)								
Male-breadwinner	1.65*(0.40)	0.79(0.18)								
Both unemployed	1.69+(0.50)	0.43+(0.19)								
Missing	3.68+(2.76)	0.18(0.19)								
Income										
Female high-earners (ref. both high earners)			1.08(0.33)	0.55*(0.15)						
Male high-earners			1.10(0.25)	0.74+(0.13)						
Both low-earners			1.40(0.30)	0.68+(0.13)						
Missing			1.06(0.39)	0.54*(0.15)						
<u>Savings</u>										
Female savers (ref. both savers)					1.33(0.34)	0.47**(0.09)				
Male savers					1.35(0.38)	0.91(0.18)				
Both not savers					1.48+(0.33)	0.47**(0.09)				
Missing					0.47*(0.15)	0.24**(0.06)				
Financial perceptions										
Female optimistic (ref. both optimistic)							1.74**(0.37)	0.79(0.17)		
Male optimistic							2.65**(0.65)	0.67(0.18)		
Both pessimistic							1.58+(0.37)	0.69+(0.15)		
Missing							0.60(0.19)	0.40**(0.10)		
Household tenure										
Living with parents (ref. owners)									2.44**(0.81)	0.64(0.22)

Public renting									1.82**(0.42)	0.48**(0.12)
Private renting									2.00**(0.34)	0.46**(0.07)
Missing									0.00**(0.00)	0.00**(0.00)
Initial age of the man										
22-25 (ref. 18<)	1.29(0.28)	1.65*(0.40)	1.24(0.27)	1.64+(0.41)	1.20(0.25)	1.72*(0.41)	1.20(0.26)	1.78*(0.43)	1.36(0.30)	1.50(0.39)
26-30	0.99(0.24)	1.57+(0.39)	0.94(0.23)	1.53(0.41)	0.89(0.22)	1.64*(0.40)	0.90(0.22)	1.68*(0.41)	1.11(0.27)	1.33(0.37)
31+	0.87(0.25)	1.51(0.41)	0.87(0.25)	1.49(0.42)	0.84(0.24)	1.47(0.40)	0.85(0.24)	1.59+(0.43)	1.01(0.28)	1.24(0.37)
Missing	1.30(1.24)	2.40(1.34)	2.11(1.54)	2.30(1.27)	2.13(1.53)	2.59+(1.41)	2.16(1.55)	2.52+(1.39)	2.18(1.51)	1.86(1.05)
Initial age of the woman										
22-25 (ref. 18<)	0.61**(0.10)	1.00(0.19)	0.62**(0.11)	0.99(0.19)	0.61**(0.11)	0.96(0.19)	0.63**(0.11)	0.97(0.19)	0.62**(0.11)	0.92(0.18)
26-30	0.43**(0.10)	1.18(0.27)	0.44**(0.10)	1.15(0.27)	0.45**(0.10)	1.14(0.26)	0.45**(0.10)	1.18(0.26)	0.45**(0.10)	1.08(0.26)
31+	0.63(0.21)	1.36(0.41)	0.65(0.22)	1.38(0.41)	0.67(0.22)	1.44(0.44)	0.65(0.22)	1.44(0.44)	0.67(0.22)	1.26(0.39)
Missing	0.13*(0.11)	0.55(0.24)	0.17*(0.13)	0.55(0.24)	0.19*(0.14)	0.61(0.27)	0.18*(0.13)	0.60(0.25)	0.19*(0.13)	0.44+(0.21)
Historical period										
1998-2008 (ref. 1991-1997)	1.67*(0.35)	0.58**(0.09)	1.68*(0.35)	0.58**(0.09)	1.78**(0.39)	0.64**(0.11)	1.89**(0.43)	0.57**(0.09)	1.52*(0.32)	0.60**(0.10)
2009-2018	1.19(0.27)	0.48**(0.08)	1.20(0.27)	0.49**(0.08)	1.77*(0.46)	0.62**(0.11)	1.52+(0.37)	0.51**(0.09)	0.95(0.21)	0.57**(0.10)
Re-partnering										
Male re-partnered (ref. both	1.09(0.23)	1.05(0.18)	1.12(0.24)	1.06(0.18)	1.15(0.24)	1.07(0.18)	1.10(0.23)	1.07(0.19)	1.01(0.22)	1.13(0.20)
never partnered)										
Female re-partnered	1.12(0.24)	0.80(0.17)	1.13(0.24)	0.78(0.17)	1.05(0.23)	0.79(0.17)	1.05(0.22)	0.80(0.17)	1.10(0.24)	0.79(0.18)
Missing	2.38**(0.48)	0.33**(0.08)	2.39**(0.49)	0.33**(0.08)	2.76**(0.58)	0.41**(0.10)	2.78**(0.59)	0.37**(0.09)	2.24**(0.46)	0.35**(0.08)
Presence of children										
Shared biological children (vs. no	0.72(0.14)	0.91(0.17)	0.83(0.15)	0.86(0.16)	0.81(0.15)	0.95(0.17)	0.83(0.15)	0.87(0.16)	0.78(0.15)	0.94(0.16)
children)										
Non shared biological children	1.04(0.30)	1.28(0.36)	1.14(0.32)	1.26(0.35)	1.12(0.31)	1.30(0.36)	1.15(0.32)	1.21(0.33)	1.05(0.28)	1.40(0.40)
Missing	0.27+(0.20)	1.25(1.37)	0.33(0.27)	1.08(1.19)	0.45(0.35)	1.38(1.44)	0.31(0.28)	1.17(1.28)	0.33(0.27)	1.24(1.41)
<u>Education</u>										
Male /High Educated (ref. both	1.15(0.28)	1.20(0.26)	1.05(0.26)	1.17(0.26)	1.06(0.26)	1.17(0.26)	1.13(0.28)	1.19(0.26)	1.03(0.25)	1.18(0.26)
not high-educated)										
Female /High Educated	0.87(0.20)	1.20(0.24)	0.84(0.20)	1.17(0.24)	0.85(0.18)	1.26(0.25)	0.86(0.19)	1.21(0.24)	0.86(0.19)	1.19(0.24)
Both HE	1.09(0.25)	1.27(0.22)	1.07(0.26)	1.16(0.21)	1.06(0.24)	1.25(0.22)	1.07(0.25)	1.29(0.22)	0.94(0.21)	1.36+(0.23)
Missing	0.28**(0.07)	0.82(0.22)	0.29**(0.11)	1.11(0.34)	0.52*(0.15)	1.60(0.47)	0.47*(0.15)	1.48(0.43)	0.29**(0.08)	0.79(0.22)
Religious status										
Both not religious	0.66(0.18)	0.65+(0.16)	0.64(0.18)	0.66+(0.16)	0.64(0.18)	0.66+(0.16)	0.63(0.18)	0.64+(0.15)	0.61+(0.17)	0.65+(0.15)
Woman is religious, man not	0.72(0.25)	1.06(0.28)	0.70(0.25)	1.06(0.28)	0.68(0.24)	1.05(0.28)	0.66(0.23)	1.04(0.26)	0.67(0.24)	1.05(0.27)
Woman is religious, man not	0.39*(0.19)	0.69(0.19)	0.39*(0.19)	0.70(0.19)	0.39*(0.19)	0.70(0.19)	0.36*(0.17)	0.71(0.19)	0.37*(0.18)	0.70(0.19)
Missing	5.67**(1.59)	3.88**(0.94)	5.57**(1.63)	4.12**(1.01)	6.64**(1.96)	4.62**(1.15)	6.19**(1.88)	4.19**(1.00)	5.24**(1.54)	3.89**(0.94)
Constant	0.07**(0.02)	0.11**(0.03)	0.07**(0.02)	0.13**(0.04)	0.06**(0.02)	0.14**(0.04)	0.05**(0.02)	0.11**(0.03)	0.06**(0.02)	0.16**(0.05)

Source: own computations from BHPS and UKHLS (1991–2019)

(a)Note: ** p<0.01, * p<0.05, + p<0.1

(b)These predicted probabilities are computed keeping other covariates at their average. The fitted model from which they are calculated contain as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religion.

	Likelihood of	Likelihood of non-	Likelihood of refusal	Likelihood of non-	Likelihood of non-	Likelihood of non-	Likelihood of refusal	Likelihood of non-	Likelihood of refusal	Likelihood of non-
	refusal b/w (t,t+1)	contact b/w (t,t+1)	b/w (t,t+1)	contact b/w (t,t+1)	contact b/w (t,t+1)	contact b/w (t,t+1)	b/w (t,t+1)	contact b/w (t,t+1)	b/w (t,t+1)	contact b/w (t,t+1)
Employment										
pairings										
Female-breadwinner	1.22(0.28)	1.16(0.22)								
(ref. dual earners)										
Male-breadwinner	1.27(0.40)	1.06(0.30)								
Both unemployed	0.81(0.30)	1.88**(0.40)								
Missing	1.37(0.85)	1.62(0.80)								
Income										
Female high-earners			0.42**(0.11)	1.39+(0.27)						
(ref. both high										
earners)										
Male high-earners			0.96(0.32)	1.51(0.40)						
Both low-earners			0.64+(0.17)	1.44+(0.30)						
Missing			0.92(0.29)	1.03(0.28)						
Savings										
Female savers (ref.					0.54+(0.20)	1.12(0.27)				
both savers)										
Male savers					1.06(0.31)	1.04(0.25)				
Both not savers					0.76(0.20)	1.15(0.23)				
Missing					0.46*(0.14)	0.58*(0.13)				
Financial										
perceptions										
Female optimistic							1.01(0.34)	1.12(0.27)		
(ref. both optimistic)										
Male optimistic							0.88(0.29)	0.91(0.22)		
Both pessimistic							1.02(0.26)	1.44*(0.26)		
Missing							1.38(0.34)	0.94(0.18)		
Household tenure										
Living with parents									1.24(0.39)	1.64+(0.43)
(ref. owners)										
Public renting									1.19(0.29)	2.40***(0.46)
Private renting									1.05(0.18)	1.80***(0.26)
Missing									0.70(0.73)	4.31**(2.10)

Table B 4: Relative risk ratios from a multinomial logit regressing the risk OSM refusal or noncontact, relative to a response, on the measures of couple's economic precariousness (N=6,063)

Source: own computations from BHPS and UKHLS (1991-2019)

- (a) Note: ** p<0.01, * p<0.05, + p<0.1
- (b) These predicted probabilities are computed keeping other covariates at their a verage. The fitted model from which they are calculated contain as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religion.
- (c) The discrepancy in the number of person-years between partners and OSMs is due to the fact that OSMs are witnessed also after the separation and before the year before the entry into union.

	Likelihood of refusal b/w	Likelihood of non- contact b/w	Likelihood of refusal b/w	Likelihood of non- contact b/w	Likelihood of refusal b/w	Likelihood of non-contact b/w	Likelihood of refusal	Likelihood of non-contact b/w	Likelihood of refusal	Likelihood of non-contact
	(t,t+1)	(t,t+1)	(t,t+1)	(t,t+1)	(t,t+1)	(t,t+1)	b/w	(t,t+1)	b/w	b/w
	EMPLOYMENT	EMPLOYMENT	INCOME	INCOME	SAVINGS	SAVINGS	(t,t+1) FINANCIAL	FINANCIAL PERCEPTIONS	(t,t+1) HOUSING	(t,t+1) HOUSING TENURE
	(a)	(a)	(b)	(b)	(c)	(c)	PER CEPTIONS (d)	(d)	TENURE (e)	(e)
Employment pairings							. ,			
Female-breadwinner	0.75(0.19)	0.93(0.11)								
(ref. dual earners)										
Male-breadwinner	1.49(0.45)	1.07(0.19)								
Both unemployed	1.48(0.41)	1.03(0.16)								
Missing	2.48(1.56)	2.64*(1.03)								
Income										
Female high-earners			0.57*(0.15)	1.08(0.13)						
(ref. both high										
earners)										
Male high-earners			1.12(0.36)	1.31(0.23)						
Both low-earners			0.76(0.20)	1.50**(0.19)						
Missing			2.87**(0.92)	7.29***(1.29)						
Savings										
Female savers (ref.					0.88(0.44)	1.04(0.16)				
both savers)										
Male savers					1.60(0.64)	1.59***(0.22)				
Both not savers					1.51(0.52)	1.28*(0.15)				
Missing					7.52***(2.39)	2.26***(0.30)				
Financial perceptions										
Female optimistic (ref.							0.96(0.52)	1.40*(0.21)		
both optimistic)										
Male optimistic							1.29(0.51)	1.16(0.16)		
Both pessimistic							1.37(0.46)	1.44**(0.16)		
							25.84***(6.39)	5.44***(0.68)		
Missing									1.20(0.40)	1.43*(0.25)
Household tenure									1.22(0.28)	1.32*(0.17)
Living with parents (ref. owners)									0.96(0.16)	1.31**(0.12)
Public renting									2.77(3.17)	2.45(1.81)
Private renting									1.12(0.95)	1.47(0.71)
Missing									1.90(0.82)	3.79***(1.37)

Table B 5: Relative risk ratios from a multinomial logit regressing the risk partner's refusal or noncontact, relative to a response, on the measures of couple's economic precariousness (N=5,504)

Source: own computations from BHPS and UKHLS (1991–2019)

(a)Note: ** p<0.01, * p<0.05, + p<0.1

(b)These predicted probabilities are computed keeping other covariates at their average. The fitted model from which they are calculated contain as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religion.



Figure B 5: Predicted annual probabilities of marriage or dissolution according to different sources of couple's precariousness within the first five years of the relationship ^{(a)(b)(c)} (N=4,079)

Source: own weighted computations from UKHLS and BHPS

- (a) In the analytical models, the baseline hazard is represented by the duration of the relationship. The fitted models from which we calculate the probabilities contains as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's religious status.
- (b) Abbreviations refer to gender: F=Female, M=Male; Measures of precariousness: E=Employed U=Unemployed; A=above population's first tercile, B=below population's first tercile; S=saver NS=Not saver; P=Positive perception N=Negative perceptions; L/parents=Living with parents; P/R=Renting from a public institution; Pr/R = Renting from a private landlord, M=missing
- (c) Cis adjusted through the Goldstein-Healy procedure to perform a pairwise comparison of a group of means.

	Risk of experiencing	(standard	Risk of experiencing	(standard
	a dissolution	errors)	a marriage	errors)
	relative to remaining in a cohabitation		relative to remaining in a cohabitation	
	between (t,t+1)		between (t,t+1)	
	MULTIVARIATE		MULTIVARIATE	
	MODEL		MODEL	
	(all variables)		(all variables)	
Housing tenure				
Living with parents (ref. owners)	2.17*	(0.72)	0.72	(0.24)
Public renting	1.48	(0.36)	0.51**	(0.13)
Privaterenting	1.84**	(0.32)	0.47**	(0.07)
Missing	0.00**	(0.00)	0.00**	(0.00)
Employment pairings				
Male-breadwinner (ref. dual earners)	1.51	(0.39)	1.05	(0.26)
Female-breadwinner	2.87**	(1.06)	0.69	(0.31)
Both unemployed	1.45	(0.50)	0.56	(0.27)
Missing	3.15	(2.32)	0.18	(0.20)
Savings				
Male savers (ref. both savers)	1.17	(0.34)	0.96	(0.19)
Female savers	1.15	(0.29)	0.53**	(0.10)
Both not savers	1.07	(0.25)	0.55**	(0.11)
Missing	0.43*	(0.15)	0.25**	(0.08)
Income				
Female high-earners. (ref. both high earners)	0.87	(0.20)	0.82	(0.15)
Male high-earners	0.83	(0.28)	0.61	(0.19)
Both low-earners	0.83	(0.21)	1.13	(0.25)
Missing	2.05+	(0.84)	1.13	(0.39)
Financial perceptions				
Male optimistic (ref. both optimistic)	2.53**	(0.64)	0.75	(0.21)
Female optimistic	1.53*	(0.33)	0.93	(0.20)
Both pessimistic	1.30	(0.35)	0.94	(0.21)
Missing	0.75	(0.31)	0.75	(0.25)

Table B 6: Relative risk ratios from a multinomial logit regressing the risk of experiencing a dissolution or a marriage, relative to remaining in the cohabitation, on the measures of couple's economic precariousness and couple controls (N=4,079)

Source: own computations from BHPS and UKHLS (1991–2019)

(a) Note: ** p<0.01, * p<0.05, + p<0.1

(b) The se predicted probabilities are computed keeping other covariates at their a verage. The fitted model from which they are calculated contain as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religion.
Analysis: Gender Analysis of the cumulation of economic precariousness

To compute the distribution, we counted all the economic precarious measures for each woman or man in the sample. The score could span from a minimum of zero (no precarious in any dimension) to a maximum of five (precarious in all the considered dimensions). The reason for presenting an initial table with individual-level statistics instead of couple-level ones regards the difficulty of judging whether a heterogeneous couple arrangement (one partner is precarious and the other not) is economic precarious or not beforehand.

The results in Figure B 6 do not show the presence of a bimodal distribution having its highest frequencies on the lowest and the highest score of economic precariousness, contrary to our expectations. Consequently, there is not a complete overlap between being precarious in one selected dimension and in another one. Most of the interviewees, both men and women, present only one dimension that is economically precarious (33.9% men and 30% women). A very small percentage is precarious in all the selected objective measures of precariousness (3.6% men and 8.5% women).

More women than men present more than two precarious aspects. 32% of women present three or more aspects of economic precariousness opposed to 23% of men. The presence of so many respondents showing few economic precarious traits (0–2) might reflect selection effects: a considerable part of those entering a cohabitation already present an adequate amount of resources. These results could lead to two other conclusions. First, young female cohabiting partners are more vulnerable to economic precariousness than men. Second, within cohabiting couples, women's precariousness is more acceptable than men's and could even be a choice of partners.





Source: own weighted computations from UKHLS and BHPS



Figure B 7: Characteristics of the cohabiting couples according to the number of precarious traits they present

Source: own computations from BHPS and UKHLS

(a) Abbreviations refer to gender: F=Female, M=Male; Measures of precariousness: E=Employed NE=Not employed; A=Earnings above population's first tercile, B=Earnings equal or below population's first tercile; S=saver NS=Not saver; P=Positive perceptions, N=Negative perceptions; L/parents=Living with parents; Public/R=Renting from a public institution; Private/R = Renting from a private landlord. For instance, E/E=Employed/Employed; M/E, F/NE=Male employed, Female unemployed.











Employmen	nt	1991-1997	1998-2008	2009-2	018	Total
At least one Employ	/ed	569	1666	6 1741	L	3976
Both not employe	d	18	85	90		193
Earnings	1991-1997	7 1998	3-2008	2009-2018		Total
At least one a bove first income tercile	425	1	222	1323		2970
Both below first income tercile	128	4	152	487		1067
Savings	1991-1997	7 199	8-2008	2009-2018		Total
At least one saver	342	9	971	941		2,254
Both not savers	179	(541	455		1,275
· · · ·						
Perceptions of	1991-1997	7 199	8-2008	2009-2018		Total

Table B 7: Tabulation of couple's economic precariousness by historical period

Perceptions of the current financial	1991-1997	1998-2008	2009-2018	Total
situation				
At least one	453	1372	1289	3114
positive				
Both negative	102	327	296	725

Housing tenure	1991-1997	1998-2008	2009-2018	Total
Owners	415	1254	835	2504
Notowners	219	863	1330	2412

Source: own computations from BHPS and UKHLS



Figure B 8: Predicted annual probabilities of continuing cohabiting according to different sources of couple's precariousness within the first five years of the relationship - only valid observations (N=2,923)

Source: own weighted computations from UKHLS and BHPS

- (a) In the analytical models, the baseline hazard is represented by the duration of the relationship. The fitted models from which we calculate the probabilities contains as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religious status.
- (b) Abbreviations refer to gender: F=Female, M=Male; Measures of precariousness: E=Employed U=Unemployed; A=above population's first tercile; S=saver NS=Not saver; P=Positive perception N=Negative perceptions; L/parents=Living with parents; P/R=Renting from a public institution; Pr/R = Renting from a private landlord
- (c) Cis adjusted through the Goldstein-Healy procedure to perform a pairwise comparison of a group of means.



Figure B 9: Predicted annual probabilities of continuing cohabiting according to different sources of couple's precariousness within the first five years of the relationship ^{(a)(b)(c)} – never partnered (N=2,291)

Source: own computations from BHPS and UKHLS

(a) In the analytical models, the baseline hazard is represented by the duration of the relationship. The fitted models from which we calculate the probabilities contains as control variables: the length of the relationship, the age of the female and male partner at the beginning of the union; historical period; dummy on whether the partner had a union before; presence of biological children; couple's education; couple's religious beliefs,. Other covariates are kept at their mean value.
(b) Abbreviations refer to gender: F=Female, M=Male; Measures of precariousness: E=Employed NE=Not employed; A=Earnings above population's first tercile; B=Earnings equal or below population's first tercile; S=saver NS=Not saver; P=Positive perceptions, N=Negative perceptions; L/parents =Living with parents; Public/R=Renting from a public institution; Private/R = Renting from a private landlord. For instance, E/E=Employed/Employed; M/E,F/NE=Male employed, Female unemployed.

(c)Cis adjusted through the Goldstein-Healy procedure to perform a pairwise comparison of a group of means.

Appendix C–Chapter 5

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Eight classes	Five classes	Three classes	
 Higher managerial, administrative and professional occupations 	 Higher managerial, administrative and professional occupations 	 Higher managerial, administrative and professional occupations 	
1.1 Large employers and higher managerial and administrative occupations			
1.2 Higher professional			
occupations			
2. Lower managerial,			
administrative and professional			
occupations			
3. Intermediate occupations	2. Intermediate occupations	2. Intermediate occupations	
4. Small employers and own	3. Small employers and own	-	
account workers	account workers		
5. Lower supervisory and technical occupations	4. Lower supervisory and technical occupations	3. Routine and manual occupations	
6. Semi-routine occupations	5. Semi-routine and routine		
7. Routine occupations	occupations		
8. Never worked and long-term	*Never worked and long-term	*Never worked and long-term	
unemployed	unemployed	unemployed	
Source: ONS (2010)			

Table C 1: Classifications of occupations according to the NS-SEC scale (eight-, five- and three-classes version)

Figure C 1: Classifications of occupations according to the NS-SEC scale (examples of occupations)

	NS-SeC class	Example occupations
1	Large employers and higher managerial and professional occupations	Directors of major organisations; officers in armed forces; senior officers in national government; clergy; medical practitioners; higher education teaching professionals
2	Lower managerial and professional occupations	Journalists, newspaper editors; musicians; nurses; paramedics; school teachers
3	Intermediate occupations	Graphic designers; medical secretaries; travel agents; ambulance staff (excluding paramedics); police officers (sergeant and below)
4	Small employers and own account workers	Farmers; hotel managers; product designers; roofers; taxi-cab drivers
5	Lower supervisory and technical occupations	Bakers; electricians; gardeners; road construction operatives; train drivers
6	Semi-routine occupations	Dental nurses; farm workers; housekeepers; scaffolders; traffic wardens
7	Routine occupations	Butchers; cleaners, domestics; furniture makers; labourers in building and woodworking trades; waiters, waitresses
8	Never worked and long term unemployed	

Source: Drever et al. (2004)

Table C 2: Estimated OLS coefficients from a model regressing parental socioeconomic class on marriage and cohabitation expectations (controls are shown)

	Marriage	Cohabitation
	Expectations	Expectations
	(scale of units from 0 to	(scale of units from 0
	100)	to 100)
	(model a)	(model b)
Parental socioeconomic class (ref. managerial and professionals)		(= 0 (0 0 0)
Intermediate	0.74(0.87)	1.79+(0.93)
Leastadvantaged	-5.95**(0.86)	-1.23(0.83)
Gender		
Female (ref. male)	1.86**(0.63)	5.89**(0.66)
Religion (ref. no religion)		
Christian	5.19**(0.89)	-2.11*(1.01)
Muslim	11.01**(2.11)	-42.13**(2.51)
Oriental	9.12**(2.22)	-29.76**(3.54)
Jewish	16.83**(3.21)	-12.38(8.90)
Others	-13.01+(7.82)	-24.49**(6.60)
Missing	1.56(1.00)	-4.13**(0.92)
Foreign status (ref. born in the UK)		
Non-native	4.92**(1.76)	0.72(2.16)
Missing	-0.72(1.03)	0.18(1.01)
Presence of siblings (ref. none)		
(0,2]	-0.30(0.87)	-2.16*(0.86)
>2	-0.70(1.34)	-4.02**(1.38)
Presence of biological children(ref. no)		
Yes	0.59(3.68)	10.47**(2.54)
Employment status (ref. employed)		
Unemployed	-4.04*(1.79)	-4.63**(1.63)
Inactive	-8.89**(1.98)	-5.98**(1.79)
Student	0.99(0.78)	-1.61*(0.82)
Missing	-2.94(2.70)	-1.40(2.73)
Age category (ref. 16-18)		
19-21	-1.52*(0.74)	2.12**(0.77)
Historical period (ref. before 2010)		
2010-2013	-7.01**(0.97)	-5.38**(1.01)
2015/2019	-6.16**(0.97)	-6.41**(1.00)
Self-rated health status (ref. very good)		
Good	-5.07**(0.77)	-0.83(0.77)
Fair	-8.48**(1.35)	-1.95(1.23)
Bad	-12.76**(2.80)	-6.51*(2.85)
Missing	-4.54(2.87)	-1.73(2.65)
Co-residence with parents		
Yes (ref. not living)	-1.66(1.59)	-5.69**(1.58)
Constant	81.35**(2.00)	78.29**(1.94)

Source: own computation from UKHLS and BHPS (11,439 person-waves)

P-values: ** p<0.01, * p<0.05, + p<0.1

	(3.a)	(3.b)	(3.c)	(3.d)	(3.e)
	"Premarital	"Direct	"Lifelong	"Lifelong	"Uncertain
	cohabitation"	Marriage"	cohabitation"	singlehood"	about both"
	(ref.)	vs (3.a)	vs (3.a)	vs (3.a)	vs (3.a)
Parental socioeconomic class (ref. anagerial)					
Intermediate		0.93(0.09)	1.21(0.15)	0.85(0.12)	1.14(0.15)
Least a dvantaged		0.95(0.08)	1.68**(0.18)	2.03**(0.23)	1.86**(0.19)
Gender (ref. male)					
Female		0.67**(0.05)	1.03(0.10)	0.81*(0.08)	0.67**(0.06)
Religion (ref. no religion)					
Christian		1.24*(0.12)	0.63**(0.08)	0.78+(0.11)	0.61**(0.08)
Muslim		15.60**(3.88)	1.05(0.47)	5.08**(1.61)	1.32(0.50)
Oriental		6.55**(1.56)	0.27*(0.15)	2.43**(0.75)	0.68(0.32)
Jewish		2.04(1.09)	0.00**(0.00)	0.03**(0.03)	0.15+(0.16)
Others		2.76*(1.41)	1.88(1.73)	3.54*(2.23)	0.31(0.34)
Missing		1.41**(0.13)	0.92(0.12)	1.04(0.14)	1.01(0.13)
Foreign status (ref. born					
in the UK)					
Non-native		0.74(0.20)	1.04(0.34)	0.97(0.18)	0.79(0.22)
Missing		1.20(0.16)	1.20(0.15)	0.96(0.09)	1.19(0.16)
Presence of siblings (ref. none)					
(0,2]		0.98(0.18)	0.97(0.28)	0.72(0.20)	0.67(0.19)
>2		0.92(0.09)	1.15(0.14)	1.14(0.15)	1.15(0.14)
Presence of biological children(ref. no)					
Yes		0.56(0.22)	1.30(0.37)	0.72(0.23)	0.58(0.26)
Employment status (ref. employed)					
Unemployed		1.31(0.26)	1.04(0.19)	1.79**(0.34)	1.46+(0.31)
Inactive		1.73**(0.32)	1.86**(0.39)	2.49**(0.53)	2.58**(0.51)
Student		1.08(0.09)	0.73**(0.07)	0.85(0.10)	0.87(0.09)
Missing		0.90(0.34)	1.24(0.51)	1.51(0.61)	1.90+(0.67)
Age category (ref. 16-18)					
19-21		0.70**(0.06)	1.12(0.11)	0.96(0.09)	0.99(0.10)
Historical period (ref. before 2010)					
2010/2013		1.28*(0.14)	1.51**(0.20)	2.16**(0.33)	1.74**(0.24)
2015/2019		1.45**(0.15)	1.33*(0.18)	2.11**(0.33)	1.56**(0.22)
Self-rated health status					
(ref. very good)					
Good		0.94(0.07)	1.45**(0.14)	1.52**(0.16)	1.38**(0.14)
Fair		1.06(0.15)	2.40**(0.36)	1.81**(0.32)	2.10**(0.32)
Bad		1.17(0.35)	2.23*(0.70)	3.37**(1.04)	2.14*(0.68)
Missing		0.72(0.22)	0.87(0.42)	0.74(0.31)	3.44**(1.04)
Coresidence with					
parents (ref. no)		4.04/0.00	0.04/0.12	4.60.(0.11)	4.04*(0.17)
Yes		1.24(0.23)	0.84(0.14)	1.60+(0.41)	1.81*(0.45)
Constant		0.23**(0.05)	0.12**(0.03)	0.04**(0.01)	0.06**(0.02)

Table C 3: Relative risk ratios from a multinomial logit regression associating parental socioeconomic status with marriage and cohabitation expectations combined

Source: own computation from UKHLS and BHPS (11,439 person-waves)

P-values:** p<0.01, * p<0.05, + p<0.1

	(4.a)	(4.b)	(4.c)	(4.d)
	Equal	Less	No	Don't
	or	Than 25	Marriage	Know
	above 25	vs.	vs.	vs.
	(ref.)	(4.a)	(4.a)	(4.a)
Parental socioeconomic class				
(ref. managerial & professional)				
Intermediate		1 01(0 15)	1 26(0 21)	1.08(0.10)
Leastadvantaged		1 19(0 15)	1 83**(0 27)	1 3/1**(0 12)
Ago catogony (rof 16, 19)		1.15(0.15)	1.05 (0.27)	1.54 (0.12)
10-21		0.54**(0.06)	1 03(0 13)	0.79**(0.06)
Beligion (ref. no religion)		0.54 (0.00)	1.05(0.15)	0.75 (0.00)
Christian		1 26(0 18)	0.5/**(0.10)	0.7/**(0.07)
Ciristian		1.20(0.18)	0.34 (0.10)	0.74 (0.07)
Muslim		4.70**(0.83)	0.19**(0.07)	0.79(0.13)
Oriental		1.94(0.97)	0.46(0.27)	0.61*(0.12)
Jewish		6.77**(4.61)	1.27(1.44)	0.62(0.47)
Others		1.32(0.93)	0.28+(0.21)	0.35+(0.22)
Missing		1.11(0.19)	0.91(0.18)	0.80+(0.09)
Foreign status (ref. born in the UK)				
Non-native		0.89(0.25)	0.68(0.29)	1.28(0.20)
Missing		0.97(0.17)	1.01(0.19)	1.16(0.13)
<u>Sex (</u> ref. male)				
Female		1.75**(0.19)	0.87(0.11)	0.61**(0.04)
<u>Wave (</u> ref. 2012/2013 – wave 4)				
2014/2015 (wave 6)		0.96(0.12)	0.50**(0.08)	1.53**(0.13)
2016/2017 (wave 8)		1.18(0.15)	0.81(0.13)	1.18+(0.11)
2018/2019 (wave 10)		1.14(0.18)	1.39*(0.23)	0.76*(0.09)
Presence of siblings (ref no siblings)				
1-2		1.24(0.17)	1.13(0.17)	0.95(0.08)
>2		1.38+(0.26)	1.03(0.26)	1.15(0.15)
Presence of biological children				
(ref.no)				
Yes		1.88+(0.67)	3.69**(1.25)	2.32*(0.79)
(ref.employed)				
Unemployed		1.11(0.27)	1.39(0.35)	1.69**(0.29)
Inactive		0.92(0.21)	2.06**(0.45)	1.58*(0.29)
Student		0.56**(0.07)	1.00(0.13)	1.27**(0.11)
Missing		1.03(0.41)	1.50(0.75)	2.62**(0.71)
Self-rated health status				
(ref. very good)				
Good		1.37**(0.15)	1.57**(0.21)	1.13(0.09)
Fair		1.41+(0.26)	2.12**(0.42)	1.09(0.16)
Bad		3.69**(1.25)	7.24**(2.45)	1.17(0.38)
Missing		0.96(0.40)	1.09(0.85)	1.64+(0.44)
Co-residence with parents (ref. no)				
Yes		0.59*(0.14)	1.08(0.29)	1.33(0.24)
Constant		0.13**(0.03)	0.07**(0.02)	0.22**(0.05)

Table C 4: Relative risk ratios from a multinomial logit regressing parental socioeconomic class with marital age expectations

Source: own computation from UKHLS and BHPS (8,026 person-waves)

P-values: ** p<0.01, * p<0.05, + p<0.1

Figure C 2a: Gender differences when marriage and cohabitation expectations are kept combined ("premarital cohabitation" excluded)



Source: own computations from BHPS and UKHLS

- (a) M=male, F=female; LlSingle="lifelong singlehood", LlCoh="Lifelong cohabitation"; DirMar="Direct marriage"; Uncert="Uncertainty about both partnership types". For instance: M/PC=Predicted probability of premarital cohabitation in the case of men.
- (b) Models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status and coresidence with parents.
- (c) Confidence intervals are graphed through the Goldstein and Healy (1995) procedure, meaning that a nonoverlapping confidence interval denotes a difference that is statistically significant at least at the 5% level.

Figure C 2b: Gender differences when marriage and cohabitation expectations are kept combined ("premarital cohabitation" only)



- (a) M=male, F=female;. For instance: M/PC=Predicted probability of premarital cohabitation in the case of men.
- (b) Models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status and coresidence with parents



Figure C 2c: Gender differences for marital age expectations ("marriage at age 25 or more" excluded)

Source: own computations from BHPS and UKHLS

- (a) M=male, F=female; EarlyMar=early marriage (Less than 25), NoMar=not marriage, DontKnow="don't know". For instance: M/EM=Predicted probability of early marriage in the case of men.
- (b) Models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status and coresidence with parents.
- (c) Confidence intervals are graphed through the Goldstein and Healy (1995) procedure, meaning that a nonoverlapping confidence interval denotes a difference that is statistically significant at least at the 5% level.





(a)M=male, F=female; LateMar=Later marriage(25+). For instance: M/LM=Predicted probability of later marriage marriage in the case of men.





Source: own computations from BHPS and UKHLS

- (a) E=early-2000s, L=Late 2000s; LlSingle="Lifelong singlehood", LlCoh="Lifelong cohabitation"; DirMar="Direct marriage"; Uncert="Uncertainty about both partnership types". For instance: M/PC=Predicted probability of premarital cohabitation in the case of men. For instance:E/LS=Predicted probability of life long singlehood in the early 2000s.
- (b) Models are adjusted for age, religion, immigrant status, gender, historical period, number of siblings, number of biological children, employment status, self-rated health status and coresidence with parents.
- (c) Confidence intervals are graphed through the Goldstein and Healy (1995) procedure, meaning that a nonoverlapping confidence interval denotes a difference that is statistically significant at least at the 5% level.

Figure C 3b: Historical differences when marriage and cohabitation expectations are kept combined ("premarital cohabitation" excluded)



(a)E=early-

2000s, L=Late 2000s; PC="Premarital cohabitation". For instance/LS=Predicted probability of premarital cohabitation in the early 2000s.

 Table C 5: Relative risk ratios from a multinomial logit regressing parental socioeconomic class on family transitions expectations combined (50 value goes with ">")

	"Direct	"Lifelong	"Lifelong	"Uncertain
	Marriage"	cohabitation"	singlehood"	about both"
	vs	vs	vs	vs
	"Premarital	"Premarital	"Premarital	"Premarital
	cohabitation"	cohabitation"	cohabitation"	cohabitation"
	(3.a*)	(3.b*)	(3.c*)	(3.d*)
Parental socioeconomic				
class				
(ref. managerial and				
professionals)				
Intermediate	0.88(0.10)	1.06(0.16)	0.71*(0.12)	1.12(0.14)
Routine and manual	0.88(0.09)	1.82***(0.24)	1.71***(0.25)	1.74***(0.17)
Employment status				
Unemployed (ref. employed)	1.32(0.30)	1.56*(0.33)	1.63*(0.38)	1.43+(0.29)
Inactive	1.80**(0.37)	2.09***(0.45)	1.94**(0.48)	2.23***(0.42)
Student				
Missing	1.16(0.12)	0.82(0.11)	0.99(0.14)	0.91(0.10)
Gender	0.83(0.32)	1.66(0.73)	0.77(0.42)	1.82+(0.63)
Female (ref. male)	0.62**(0.05)	0.99(0.11)	0.71**(0.09)	0.68**(0.06)
Religion (ref. no religion)				
Christian	1.62***(0.18)	0.55***(0.09)	0.68+(0.13)	0.63***(0.09)
Muslim	21.60***(4.32)	0.57(0.23)	4.24***(1.52)	1.06(0.37)
Oriental	9.82***(2.04)	0.45(0.24)	1.56(0.63)	0.62(0.29)
Jewish	3.73*(1.96)	0.00***(0.00)	0.06**(0.06)	0.17+(0.18)
Other	7.17***(3.52)	5.22*(3.93)	3.85*(2.64)	0.39(0.42)
Missing	1.56***(0.16)	0.92(0.14)	0.90(0.15)	0.99(0.12)
Country of birth				
Not born in the UK	1.05(0.19)	0.82(0.29)	0.89(0.30)	0.70(0.19)
Missing	0.91(0.10)	1.20(0.18)	1.13(0.19)	1.14(0.14)
Number of siblings (ref.				
none)				
1-2	1.22+(0.14)	1.01(0.13)	1.12(0.18)	1.09(0.12)
More than 2	1.46*(0.22)	1.05(0.21)	1.38(0.32)	1.23(0.22)
Presence of biological				
children (ref. no)				
1	0.28**(0.14)	1.25(0.39)	0.73(0.31)	0.56(0.24)
Age category				
19-21 (ref 16-20)	0.83*(0.07)	0.95(0.11)	1.29*(0.16)	1.04(0.11)
Historical period				
2010/2013	1.71***(0.24)	2.03***(0.35)	2.36***(0.47)	1.71***(0.23)
2015/2019	2.01***(0.28)	2.15***(0.36)	2.26***(0.45)	1.56**(0.22)
Self-rated health				
Good	1.01(0.09)	1.67***(0.19)	1.50**(0.21)	1.36**(0.13)
Fair	0.89(0.15)	2.80***(0.47)	2.01***(0.42)	1.96***(0.29)
Bad	1.54(0.50)	2.61**(0.96)	4.55***(1.51)	2.05*(0.63)
Missing	0.85(0.26)	1.43(0.72)	0.63(0.37)	3.83***(1.12)
Coresidence with parents				
Yes (ref. no)	1.03(0.25)	1.11(0.26)	1.35(0.42)	1.80*(0.44)
Constant	0.07**(0.02)	0.03**(0.01)	0.01**(0.00)	0.05**(0.01)

Source: own weighted computation from UKHLS and BHPS (11,439 person-waves)

P-values: ** p<0.01, * p<0.05, + p<0.1

Table C 6a: Estimated OLS coefficients from a model regressing parental education on marriage and cohabitation expectations separated (N=11,439)

	(1a)	(1b)			
	Marriage	Cohabitation			
	Expectations	Expectations			
	(scale of units from 0 to 100)	(scale of units from 0 to 100)			
Educational level (ref. high)					
Low	-3.40***(0.83)	-0.72(0.82)			
Advanced	1.24(0.95)	0.45(0.96)			
Missing	-1.60(3.56)	-6.69+(3.83)			

Source: own computations from BHPS and UKHLS

Note: ** *p*<0.01, * *p*<0.05, + *p*<0.1

(a) The least advantaged category comprises those from "routine and semi-routine backgrounds" and "never employed".

(b) Models are controlled for gender, religion, foreign status, presence of siblings, presence of children, employment status, age, historical period, self-rated health status and coresidence with parents.

Table C 6b: Relative risk ratios from a multinomial logit regressing parental <i>education</i> on marriage and cohabitation expectations combined (N=11,439)				
	(2.a)	(2.b)	(2.c)	(2.d)
	"Direct Marriage" vs	"Lifelong cohabitation" vs	"Lifelong singlehood" vs	"Uncertain about both" vs
	"Premarital cohabitation"	"Premarital cohabitation"	"Premarital cohabitation"	"Premarital cohabitation"
Educational level (ref. high)				
Low	1.10 (0.09)	1.49***(0.16)	1.82(0.21)***	1.39**(0.15)
Advanced	1.12(0.10)	1.05(0.14)	1.07(0.15)	1.01(0.12)
Missing	1.99*(0.66)	1.84(0.94)	1.41(0.65)	3.67**(1.59)

Table C 6c: Relative risk ratios from a multinomial logit regressing parental *education* on marital age expectations (N=8,167)

	(3.a)	(3.b)	(3.c)
	"Less Than 25"	"No Marriage"	"Uncertain"
	vs	vs	vs
	"More than 25"	"More than 25"	"More than 25"
Educational level (ref. high)			
Low	1.52***(0.17)	1.58***(0.21)	1.41***(0.11)
Advanced	1.42**(0.18)	1.17(0.18)	0.99(0.09)
Missing	2.06 (1.25)	1.90 (0.95)	1.31 (0.41)

Table C 7a: Estimated OLS coefficients from a model regressing parental education and occupational class on marriage and cohabitation expectations separated (N=11,439)

	v		
	(1a)	(1b)	
	Marriage	Cohabitation	
	Expectations	Expectations	
	(scale of units from 0 to 100)	(scale of units from 0 to 100)	
Parental socioeconomic class			
(ref. managerial and			
professional)			
Intermediate	0.59(0.95)	1.90+(1.00)	
Least advantaged	-5.70***(1.01)	-0.88(0.97)	
Educational level (ref. high)			
Low			
Advanced	-0.81(0.96)	-0.51(0.95)	
Missing	2.37*(1.00)	0.27(1.02)	

Source: own computations from BHPS and UKHLS (person-waves=11,439)

Note: ** *p*<0.01, * *p*<0.05, + *p*<0.1

(a) The least advantaged category comprises those from "routine and semi-routine backgrounds" and "never employed".

(b) Models are controlled for gender, religion, foreign status, presence of siblings, presence of children, employment status, age, historical period, self-rated health status and coresidence with parents.

Table C 7b: Relative risk ratios from a multinomial logit regressing parental education and occupational class on marriage and cohabitation expectations combined (N=11,439)

	(2.a)	(2.b)	(2.c)	(2.d)
	"Direct Marriage" vs "Premarital cohabitation"	"Lifelong cohabitation" vs "Premarital cohabitation"	"Lifelong singlehood" vs "Premarital cohabitation"	"Uncertain about both" vs "Premarital cohabitation "
Parental socioeconomic class (ref. managerial and professional)				
Intermediate	0.86(0.09)	0.77+(0.12)	1.17(0.15)	1.16(0.15)
Least advantaged	0.85+(0.08)	1.71***(0.24)	1.54***(0.19)	1.81***(0.21)
Educational level (ref. high)				
Low	1.20+(0.12)	1.42*(0.20)	1.20(0.14)	1.03(0.12)
Advanced	1.19+(0.12)	0.98(0.15)	0.92(0.13)	0.85(0.11)
Missing	2.24*(0.76)	0.94(0.44)	1.37(0.72)	2.42*(1.05)
Table C.7. Deletive rick ratios from a multinemial legit regressing nerental advection and				

Table C 7c: Relative risk ratios from a multinomial logit regressing parental education and occupational class on marital age expectations (N=8,167)

	(3.a)	(3.b)	(3.c)
	"Less Than 25"	"No Marriage"	"Uncertain"
	vs	vs	vs
	"More than 25"	"More than 25"	"More than 25"
Parental socioeconomic		S	
class (ref. managerial and			
professional)			
Intermediate	0.88(0.13)	1.24(0.22)	1.06(0.11)
Least advantaged	0.93(0.13)	1.70**(0.28)	1.15 (0.11)
Educational level (ref. high)			
Low	1.57***(0.21)	1.20(0.20)	1.32** (0.13)
Advanced	1.46*(0.22)	1.01(0.18)	0.95 (0.10)
Missing	2.10 (1.28)	1.27 (0.63)	1.13 (0.36)

Figure C 4: Coefficients from a linear probability model regressing the mediators on parental class (as well as controls) - only the sample having a valid marriage expectation is considered (N=11,439)



Source: own weighted computations from BHPS and UKHLS

(a) Models are controlled for gender, religion, foreign status, presence of siblings, presence of children, employment status, age, historical period, self-rated health status and coresidence with parents.

Figure C 5: Coefficients from a linear probability model regressing the mediators on parental class only samples contrasting the specific categories of the multinomial in Table C 3 are considered)



Source: own weighted computations from BHPS and UKHLS

(a) Models are controlled for gender, religion, foreign status, presence of siblings, presence of children, employment status, age, historical period, self-rated health status and coresidence with parents.

Figure C 6: Coefficients from a linear probability model regressing the mediators on parental class - only samples contrasting the specific categories of the multinomial in Table C 4 are considered)



Source: own weighted computations from BHPS and UKHLS

(a) Models are controlled for gender, religion, foreign status, presence of siblings, presence of children, employment status, age, historical period, self-rated health status and coresidence with parents.

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