

# DEMOGRAPHIC RESEARCH

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*Research Article*

**The educational gradient in young singlehood:  
The role of gender and the gender climate**

**Lonneke van den Berg**

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## **The educational gradient in young singlehood: The role of gender and the gender climate**

**Lonneke van den Berg<sup>1</sup>**

### **Abstract**

#### **BACKGROUND**

Universities are described as “waiting halls” for union formation. However, little is known about the size of the educational gradient in single living after leaving home.

#### **OBJECTIVE**

This paper examines the educational gradient in single living after leaving home in 30 European countries and the role of gender and the gender climate in each country for this gradient.

#### **METHODS**

I use data from the European Social Survey, supplemented with data from the OECD and European Values Study for the contextual measures. Predicted probabilities for single living are compared across educational groups, genders, and countries. Using random slope models with an interaction between education and the gender climate, I examine whether the educational gradient is larger in less gender-egalitarian countries.

#### **RESULTS**

The results show, on average, a positive educational gradient in single living after leaving home. However, there is substantial variation in its size. First, the gradient is larger among women. Second, there are cross-national differences in the size of the gradient and gender differences in the gradient. The cross-national variation depends on the gender climate in the country. Among women, the educational gradient is smaller in countries with a higher women’s labor force participation.

#### **CONCLUSION**

The results show that stratification in single living after leaving home is especially prominent among women in less gender-egalitarian countries.

#### **CONTRIBUTION**

The article presents a comprehensive overview of the educational gradient in single living after leaving home by gender and country, demonstrating the importance of the gender climate.

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## 1. Introduction

There is a rise in single living after leaving home; nowadays more than half of the young people in Europe first live with a roommate or alone instead of with a partner (Billari and Liefbroer 2010; van den Berg and Verbakel 2021). Educational expansion is regarded to be one of the main explanations for this rise (Esteve et al. 2020). Higher-educated individuals have long been considered to be more likely than lower-educated individuals to be single during young adulthood because of the function of universities as “waiting halls” that delay the transition to adulthood (Blossfeld and Huinink 1991; Brückner and Mayer 2005). Moreover, higher-educated individuals are generally forerunners of new demographic behaviors, such as single living (Billari and Liefbroer 2010: 66).

Despite the emphasis on the role of education for singlehood, empirical research has studied educational differences in single living after leaving home only indirectly. The literature on union formation shows that higher-educated individuals form unions later in life (Goldstein and Kenney 2001; Kalmijn 2013; White and Rogers 2000; Wiik 2009). However, this literature treats singlehood as the default and does not differentiate between singles inside and outside the parental home. The latter is included in the literature on leaving home, which shows that higher-educated individuals are less likely to leave home with a partner (Billari and Liefbroer 2007; Blaauboer and Mulder 2009; Mulder and Hooimeijer 2002; Schwanitz, Mulder, and Toulemon 2017). However, this literature compares leaving home without a partner to staying in the parental home rather than comparing it to leaving home with a partner. Hence it is not possible to disentangle single living after leaving home from the likelihood of leaving home. This paper expands on these two previous lines of research by putting single living after leaving home to the forefront.

Findings from research on the educational gradients in other family behaviors (e.g., fertility and divorce) suggest that a gender perspective is warranted (Bellani, Esping-Andersen, and Nedoluzhko 2017; Esping-Andersen and Billari 2015; Härkönen and Dronkers 2006; Kalmijn 2013; Lesthaeghe 2010, 2014; Torr 2011). These studies found a larger educational gradient among women; in particular, higher-educated women adopt more progressive family behaviors (Esping-Andersen and Billari 2015; Lesthaeghe 2010, 2014). A gender perspective is relevant for single living after leaving home because higher-educated women may be better able to overcome gendered barriers to singlehood, such as gendered family norms and women’s financial dependency (Oppenheimer 1997). As the gender climate in a country shapes these barriers, the gender-contingent educational gradient in single living after leaving home may vary across different gender climates. I approach the gender climate as gendered contextual opportunities and constraints for living in singlehood, including both gender equality (i.e., gender differences in outcomes, such as the female labor force participation rate) and gender equity (i.e., perceptions of fairness

between men and women, such as gendered family norms) (Arpino, Esping-Andersen, and Pessin 2015; McDonald 2000).

The questions central in this paper: To what extent is there a gender-contingent educational gradient in single living after leaving home and is this gradient dependent on the gender climate in the country? My main aim is to depict the magnitude of this gradient and to show the role of gender and the gender climate. I study this question using data of the European Social Survey (ESS) of 2006 and 2018–2019 for 30 European countries.

This paper makes two contributions. First, it contributes to the literature on social stratification in the transition to adulthood (Billari, Hiekel, and Liefbroer 2019) by studying a relatively understudied phenomenon, single living after leaving home. Research on this topic is relevant because it is increasingly common and there may be certain benefits to this living situation, such as having time to invest in skills, social relations, and career (Arnett 2007; Beckmeyer and Jamison 2022; Klinenberg 2012; Rosenfeld 2007). Particularly among women, a hiatus from traditional family roles could offer opportunities to focus on economic independence and nonfamilial roles (Domínguez-Folgueras and Castro Martín 2008). If there are certain benefits to single living after leaving home, differences between educational groups imply not only that higher- and lower-educated individuals have different experiences during young adulthood but also that these experiences amplify inequalities later in the life course.

Second, this paper extends prior work on the role of the gender climate for educational differences in partnering later in life (e.g., marriage, lifelong singlehood, divorce) and family formation more generally (Bellani, Esping-Andersen, and Nedoluzhko 2017; Esping-Andersen and Billari 2015; Härkönen and Dronkers 2006; Kalmijn 2013; Torr 2011). These studies have shown that the educational gradient in several demographic behaviors is the largest among women in less gender-egalitarian countries. This study is one of the first to examine whether this is also the case for single living after leaving home.

The next section discusses the theoretical background on educational differences in single living after leaving home and the role of gender for these differences. This is followed by a description of the data and analytical strategy. The results start with the findings for analyses on the educational gradient by gender across Europe and per country, followed by the findings for analyses on the role of the gender climate. Finally, I discuss the findings and ideas for future research.

## 2. Theoretical background

### 2.1 Defining single living after leaving home

This study focuses on single living in the first living situation after leaving home. Single living during this phase is generally seen as a temporary state between the parental home and family formation (Régnier-Loilier, Beaujouan, and Villeneuve-Gokalp 2009). Single living after leaving home indicates whether people set up their first household outside of the parental home together with a partner or as singles. By focusing on the first living situation, I study single living before separation or divorce could have occurred. Distinguishing single living after leaving home from singlehood in young adulthood more generally (including singlehood after separation) is preferable because separation rates differ strongly across countries and educational groups (Härkönen and Dronkers 2006) and the experiences of separated individuals are different from those of never-partnered individuals (e.g., Verbakel 2012).

In early demographic work on singlehood, all never-married individuals were defined as single. As cohabitation became increasingly common and started to replace marriage (Sobotka and Toulemon 2008), this definition changed (Roseneil 2006). I follow the current standard in the literature by defining all individuals who are married or cohabiting in their first living situation as living together in a couple after leaving home, and I define all individuals who are not married or cohabiting as single living after leaving home. The single living category consists of several groups: individuals without a partner who live alone, individuals who live apart together (LAT), and individuals who live with roommates other than parents or a partner. I restrict couples to individuals who cohabit or are married in the first independent living situations because partners who live in the same household share the responsibilities and experience the rewards that come with sharing a household. Individuals who LAT have a separate household and a stronger sense of agency than cohabiting couples (Duncan and Phillips 2010; Roseneil 2006). Research on LAT relationships generally excludes young adults – the group of interest in this paper – because LAT relationships are likely to be temporary during this life phase (Duncan and Phillips 2010; Haskey 2005). LAT relationships during young adulthood are distinct from LAT relationships later in life, such as LAT relationships among single parents or seniors (Régnier-Loilier, Beaujouan, and Villeneuve-Gokalp 2009). My definition of singles is not confined to those living alone, because any living situation without a partner or parents generally implies more independence, agency, and freedom (Clark et al. 2017).

## **2.2 An educational gradient in single living after leaving home**

Large differences in the transition to adulthood between educational groups persist (Billari, Hiekel, and Liefbroer 2019; Ní Bhrolcháin and Beaujouan 2013). In the case of single living after leaving home, there are several reasons to expect differences between higher- and lower-educated individuals.

First, educational groups differ in their family views. The literature on the Second Demographic Transition (SDT) describes an ideological shift toward more individualistic values and a stronger focus on adult self-realization (Lesthaeghe 2010; Van De Kaa 1987). Educational expansion is regarded to be partially responsible for this trend (Lesthaeghe 2010) because higher-educated individuals have more postmodern values and are more accepting of diverse family forms (Lesthaeghe and Surkyn 1988; Liefbroer and Billari 2010; Pongracz and Spéder 2008). In a similar vein, according to the “self-development imperative” (Hamilton and Armstrong 2009: 593), higher-educated individuals postpone family formation to first focus on their own development (Arnett 2007; Rosenfeld 2007). In line with these theories, Billari, Hiekel, and Liefbroer (2019) show that compared to their counterparts from lower socioeconomic backgrounds, young adults from higher socioeconomic backgrounds more often have the intention to leave the parental home and less often have the intention to form a union within the next three years.

Second, norms concerning family formation differ between educational groups. Student life is often seen as a time of role exploration and communal living (Ford, Rugg, and Burrows 2002; Stone, Berrington, and Falkingham 2011), incompatible with living with a partner (Blossfeld and Huinink 1991; Domínguez-Folgueras and Castro Martín 2008). Liefbroer and Billari (2010) provide evidence for the existence of such norms in the Netherlands: Compared to lower-educated individuals, higher-educated individuals are more likely to disapprove of living together with a partner in the first living situation after leaving home.

Finally, educational groups differ in the costs of single living after leaving home. As educational credentials offer some security, higher-educated individuals face fewer risks concerning “individualized” biographies than lower-educated individuals (McMunn et al. 2015). Indeed, previous research suggests that higher-educated young people leave the parental home earlier because of having a higher earning potential and more financial resources (Ford, Rugg, and Burrows 2002; Mulder and Hooimeijer 2002).

In line with these different theories, previous literature shows that higher-educated individuals are more likely to leave home without a partner than lower-educated individuals (Billari and Liefbroer 2007; Mulder and Hooimeijer 2002; Schwanitz, Mulder, and Toulemon 2017). Moreover, previous literature on union formation shows that educational expansion has delayed marriages (Blossfeld and Huinink 1991) and that higher-educated individuals form unions at later ages (Kalmijn 2013). Although these studies provide

evidence for the existence of an educational gradient in similar events, they do not show to what extent single living after leaving home depends on the level of education.

### **2.3 A gender-contingent educational gradient**

The educational gradient in single living after leaving home may differ between men and women for several reasons. First, there is a “relational imperative” for women to have a serious romantic relationship (Hamilton and Armstrong 2009). Single living is considered a departure from this norm. Although this norm exists for both lower- and higher-educated women, the norm that student life should be a time of less serious relationships (Rosenfeld 2007) may cancel out the relationship imperative among higher-educated women.

Second, the gender revolution has been slower in the private sphere than on the labor market, and men’s adaptation to the gender revolution (e.g., their contribution to housework and child care) has been lagging behind (Bianchi et al. 2000; England 2010). Hence women may view having a(n opposite-sex) partner to be in conflict with their future plans and career development (Bellani, Esping-Andersen, and Nedoluzhko 2017). As the focus on career is the strongest among higher-educated women, especially these women may opt for singlehood instead because they may expect high costs of early family formation (Blossfeld and Huinink 1991; Dykstra and Poortman 2010; Esping-Andersen and Billari 2015). In line with this view, women students state that they delay having a serious relationship in order to focus on their self-development and career (Hamilton and Armstrong 2009).

Finally, although women’s increasing earning capacity has given them the choice of singlehood (Carr 2002; Oppenheimer 1997), lower-educated women are still the least likely to be financially independent of all groups (US: Danziger and Ratner 2010; Europe: Sironi 2018). Hence women with few educational credentials may be less likely to have the means to live in singlehood after leaving home.

These explanations all focus on opportunities for singlehood rather than on opportunities to partner. The latter has received attention in the literature on lifelong singlehood, typically defined by not having lived together or been married by age 40. This literature finds a reversed educational gradient among men compared to women: higher-educated women are more likely to be lifelong singles than lower-educated women, while lower-educated men are more likely to be lifelong singles than higher-educated men (Dykstra and Poortman 2010; Esteve, García-Román, and Permanyer 2012; Wiik and Dommermuth 2014). According to the marriage market literature, this can be explained by educational expansion among women. As there are more higher-educated women than higher-educated men, higher-educated women and lower-educated men have the most difficulty finding a partner at their level of education. However, this theory is less relevant for single living after leaving home. Research has shown that the impact of the marriage



market is negligible in young adulthood and only starts to be relevant around age 30 (Corti and Scherer 2021). As young people are further from the normative age at which they are expected to partner, they perceive more opportunities to be single or to prolong singlehood than do singles later in life (Corti and Scherer 2021; Kislev 2019; Wrosch and Heckhausen 1999). Moreover, previous research shows that both men and women who are enrolled in education are less likely to leave home to live with a partner than men and women who are no longer in education (Blaauboer and Mulder 2009; Schwanitz, Mulder, and Toulemon 2017). Hence a reversed educational gradient is also not expected among men.

#### **2.4 The role of the gender climate**

As the norms and opportunities for lower-educated women to live in singlehood are guided by the gender climate in a country, the size of the gender-contingent educational gradient in single living after leaving home may depend on the country's gender climate.

The previous sections assume that young adults live in a society that upholds male-breadwinner norms and practices: It is expected that women's economic independence is smaller and that norms surrounding family life are gendered. In such a society, higher-educated women face particular negative consequences of partnering and may more often deviate from gendered family patterns than lower-educated women (Fuwa 2004; Hook 2006). Moreover, lower-educated women have fewer opportunities for single living because of their limited labor market participation in such a society. In more gender-egalitarian societies, the demographic behavior of lower-educated women is more similar to that of higher-educated women. In those societies, the barriers to singlehood decrease for all women; gendered family norms are less strong and women's economic independence grows (Bellani, Esping-Andersen, and Nedoluzhko 2017; Esping-Andersen and Billari 2015; Lesthaeghe 2010). As lower-educated women face the highest barriers to singlehood in less gender-egalitarian countries, they may especially be more likely to live in singlehood after leaving home if these barriers are lowered.

In line with these theoretical considerations, previous research suggests that the educational gradient in singlehood – either through separation or never marrying – is the largest among women in the least gender-egalitarian societies (Kalmijn 2013; Ono 2003; Pessin 2018; Sandström and Karlsson 2019; Torr 2011). Higher-educated women are described as forerunners, adopting demographic behaviors that involve “less family” when these behaviors are still uncommon (Esping-Andersen and Billari 2015; Härkönen and Dronkers 2006; Lesthaeghe 2010). Findings from the literature on leaving home also show that human capital is less important for a woman's living situation in more gender-egalitarian countries. Whereas the positive effect of income on leaving home without a partner is twice as large among women than among men in southern countries, there is no

effect of income on leaving without a partner among men and women in northern countries (Iacovou 2010).

A more recent line of research on the role of family formation behaviors suggests a U-shaped relationship between family formation (fertility and union formation) and gender egalitarianism, also called the multiple-equilibrium framework (Bellani et al. 2017; Esping-Andersen and Billari 2015; Lesthaeghe 2010). In this framework, the educational gradient is the smallest in not only the most gender-egalitarian societies but also in the least gender-egalitarian societies. The educational gradient in family formation is expected to also be small in the least egalitarian countries because abstaining from family formation is impossible for all women in those countries. In this study, however, the focus is on a linear rather than nonlinear effect of gender egalitarianism because single living after leaving home is often temporary, the marriage market literature applies less to this phenomenon, and it is more accepted than lifelong singlehood (e.g., Kislev 2019).

### 3. The current study and hypotheses

The current study sets out to examine the educational gradient in single living after leaving home in relation to gender and the gender climate using data from 30 European countries. In the first part of the analyses, I examine the size of the educational gradient and differences in the gradient by gender. I examine whether the gender-contingent educational gradient found for other family behaviors also exists for the first living situation outside of the parental home. This gradient is expected because of differences between higher- and lower-educated individuals in family values, norms, and financial means. As these differences are larger among women and some even pertain only to women, it is expected that the gradient is larger among women. I summarize the expectations at the micro-level as follows:

*Hypothesis 1: There is a positive educational gradient in single living after leaving home.*

*Hypothesis 2: The positive educational gradient in single living after leaving home is larger among women than among men.*

Next, by examining the role of the gender climate in a multilevel framework, this study tests whether the gender climate in a country moderates the effect of education on single living after leaving home. My expectation is that the barriers to singlehood are lower if countries are more gender egalitarian (i.e., have less traditional gender norms and higher female labor force participation). As lower-educated women face the highest barriers to

singlehood, the gender climate may be particularly important for whether they live in singlehood after leaving home. I summarize the expectations at the macro-level as follows:

*Hypothesis 3: The gender difference in the size of the educational gradient in single living after leaving home is expected to be smaller in countries that have more gender-egalitarian norms.*

*Hypothesis 4: The gender difference in the size of the educational gradient in single living after leaving home is expected to be smaller in countries that have higher female labor force participation.*

## 4. Methods

### 4.1 Data and sample

I used pooled data from the ESS, round 3 (2006, edition 3.7) and round 9 (2018, edition 2.0).<sup>2</sup> These rounds included the Timing of Life module, which contained retrospective questions about the timing of life events. The following 30 countries were included in my study: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Croatia, Hungary, Ireland, Italy, Lithuania, Latvia, Montenegro, the Netherlands, Norway, Poland, Portugal, Russia, Serbia, Spain, Sweden, Switzerland, Slovenia, Slovakia, Ukraine.

The starting sample for the first set of analyses on gender and country differences in the educational gradient consisted of 85,233 individuals born between 1930 and 1999. As the outcome depended on when people left the parental home and moved in with a partner, I excluded individuals who (a) did not provide information about whether or when they left the parental home ( $n = 3,581$ )<sup>3</sup>; (b) had not yet left the parental home ( $n = 10,643$ ); (c) did not provide information about whether they ever lived together with a partner ( $n = 91$ ); (d) did not provide information about when they moved in with a partner ( $n = 722$ ); or (e) reported an improbable age at leaving home with a partner ( $n = 205$ ). Next I dropped individuals who had missing information on their level of education ( $n = 45$ ). This led to a final sample of 69,746 individuals from 30 countries.

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<sup>2</sup> I use the European Social Survey rather than the Generations and Gender Survey because of its larger scope. By pooling two waves, I have information for 30 countries and 69,746 individuals. Most importantly, my sample includes multiple southern countries (e.g., Portugal, Spain) that are not included in the Generations and Gender Survey.

<sup>3</sup> Missing information on age at leaving home or moving in with a partner was more common among older cohorts. Individuals from these cohorts may have more trouble remembering when these events happened.

For the analyses on the role of the gender climate, I used data on gender-egalitarian norms from the European Values Study (EVS), rounds 2 to 4 (EVS 2020), and on labor market participation of women from the OECD, 1990 to 2010 (OECD 2021). As I have information for these measures from the 1990s onward, I restricted the second set of analyses to individuals born between 1972 and 1992 – individuals who were around 18 years old at the time of measurement. For the analyses on the role of gender-egalitarian norms, there is a final sample of 18,201 individuals from 28 countries (excluding Lithuania and Croatia). For the analyses on women’s labor market participation, there is a final sample of 16,876 individuals from 24 countries (excluding Bulgaria, Cyprus, Croatia, Montenegro, Russia, and Ukraine). These countries were excluded from the analyses because they did not participate in EVS round 2 or 4, or the OECD did not provide information for women’s labor market participation for these countries between 1990 and 2010.

## **4.2 Variables**

### **4.2.1 Individual measures**

The dependent variable is single living after leaving home in the first independent living situation. This variable is based on retrospective questions about which year the individual left home for the first time for three months or more and in which year the individual first lived together with a partner. If partner formation occurred in the same year or preceded leaving home, I coded the individual as not living in singlehood after leaving home. If the individual never cohabited or started cohabiting at least a year after leaving home, I coded the individual as living in singlehood after leaving home. Hence the singlehood category consists of all individuals who are not cohabiting or married to a partner in the first living situation outside the parental home. Additional descriptive analyses show that for both lower- and higher-educated individuals, the median length of singlehood is about five years. My measure for singlehood is conservative because it is possible that individuals initially were single but moved in with a partner later in the same year. As there is no information about the month in which individuals made these life course transitions, it is not possible to account for this possibility. The Generations and Gender Survey (wave 1, version 4.3) includes information about the month of life course transitions. A check with these data showed that 89% of the individuals who moved in with a partner in the same year as leaving home did so before or in the same month as leaving home. For the other 11%, the average number of months in singlehood was 3.4. This check suggests that few singlehood episodes were missed by my measure of singlehood and that the singlehood episodes that were missed were short.

My definition of single living after leaving home is a combination of the age at leaving home and the age at union formation. Hence a higher percentage of single living after leaving home may imply that this group left home earlier, formed unions later, or both. I did not disentangle these two events because the decisions for these events are made simultaneously with the decision to live in singlehood after leaving home; one may leave home early because of a wish to live in singlehood (and vice versa) or form a union early because of a wish to not live in singlehood (and vice versa).

The main independent variable is educational attainment. This variable is based on EISCED, a harmonized seven-category variable based on ISCED-97 (Schneider 2009). I recoded this variable into three levels: lower education (ES-ISCED I and II – less than lower secondary or lower secondary education), middle education (ES-ISCED IIIb and IIIa – upper secondary education), and higher education (ES-ISCED IV, V1, and V2 – advanced vocational and tertiary education). In round 3 of the EVS, educational attainment was measured with a four-category variable. The only difference between the seven- and the four-category educational measures is the grouping of individuals who have completed a postsecondary, nontertiary education. A check with individuals who have information on both measures suggests that most of them (75%) belong to the higher education level. Hence all individuals with postsecondary, nontertiary education ( $n = 153$ ) are coded as higher educated.

The second independent variable of interest is gender. I coded gender as a binary variable, with men as 1 and women as 0.

I included birth cohort as a control variable. I coded birth cohorts in groups of ten years, starting with 1930. In total, seven birth cohorts were included in this study: 1930–1939, 1940–1949, 1950–1959, 1960–1969, 1970–1979, 1980–1989, and 1990–1996.

#### **4.2.2 Contextual measures**

Two contextual measures were included as measures of countries' gender climate. Please note that the scales were aggregated to the country level in general, not by education level.

First, I included a scale for gender-egalitarian values from the EVS, rounds 2 to 4 (1990–1993, 1999–2001, 2008–2010) (EVS 2020). The scale was based on three items about a woman's role in homemaking: being a housewife is equally satisfying as working for pay; preschool children suffer if their mother works; what women really want is a home and children. I focused on these items because these relate most closely to norms about possible costs of partnering for women.<sup>4</sup> Respondents scored these items on a four-point Likert scale (strongly disagree, disagree, agree, strongly agree). A lower score corresponds

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<sup>4</sup> A robustness check with other gender or family norms measures, such as "A woman has to have children to be fulfilled," did not improve the scale and yielded similar results.

to less gender-egalitarian views. The Cronbach alpha for this scale was 0.60. There may be a social desirability bias in the answers to these items, and gender values are often inconsistent with gender practices, in particular in conservative countries (Bühlmann, Elcheroth, and Tettamanti 2010; Kjeldstad and Lappegård 2014). Hence this scale is not suitable for research comparing countries' levels of support for gender equality as an outcome (Constantin and Voicu 2015). However, gender values scales on the basis of items as used in the current study are metric invariant and are suitable for testing country differences in support for gender equality as a predictor of theoretically relevant concepts (Constantin and Voicu 2015). Hence the scale is suitable for the purpose of this study – examining the role of the gender climate in the country as a moderator of the effect of education on single living after leaving home. Moreover, the inconsistencies between practices and values may be less relevant for this study because the focus is on the first independent living situation rather than outcomes, such as divorce, that occur after having had experience with gender practices in a couple setting. I used only responses for individuals from the cohorts studied in the contextual analyses (i.e., 1972 to 1992), who were around age 18 in the interviews, because family values have substantially changed, and the views of older generations about gender and family life may not reflect the behavior and views of the younger generations studied in these analyses.

Second, I included an indicator from the OECD (2021) on the percentage of women who were active in the labor market – women's labor force divided by the total women's working-age population (aged 15 to 64). I used the total women's working population because this may shape the expectations women have regarding their own (future) labor market activity.

I aggregated these measures to the country level using several strategies to match the country-level estimates as closely as possible to individuals' contextual situations in young adulthood. First, I aimed to account for fluctuations over time by focusing only on individuals born between 1972 and 1992. Individuals were matched to the OECD data in the year they were 18 years old (i.e., 1990 to 2010). The EVS data were matched to individuals as follows: data collected in 1990 to 1993 were matched to individuals born in 1972 to 1981; data collected in 1999 to 2001 were matched to individuals born in 1982 to 1986; and data collected in 2008 to 2010 were matched to individuals born in 1987 to 1992. I used the situation at age 18 because around that age, individuals start the decision-making process regarding the choice for single living after leaving home. Second, I accounted for different participation rates by birth year across countries by first matching individuals to the contextual situation in the year in which they were 18 years old and then aggregating this measure to the country level. If individuals from a certain birth year were overrepresented in a certain country, the gender climate estimates for that year also weighed more in the final aggregated measure for that country. The difference between countries in

participation rate per birth year was small. The average birth year ranged from 1978 (Bulgaria) to 1981 (Lithuania).

### **4.3 Descriptive statistics**

Table 1 provides the descriptive statistics for the measures by country. Overall, there are more higher-educated (37.1%) and middle-educated (39.1%) than lower-educated individuals (23.8%) in the data. This distribution differs substantially between countries. For example, 54.9% of the Norwegian individuals in the sample are higher-educated, compared to 18.8% of the Italian individuals. These differences in broad lines reflect the actual differences in educational attainment between countries. For example, OECD (2022) statistics also show that the percentage of individuals with tertiary education is the highest in Russia, Norway, and Ireland and is low in Italy and Hungary. Women are overrepresented in almost all countries. As I estimate the analyses separately for men and women, this overrepresentation does not distort the findings. Individuals from the 1990s cohort are included in only some countries, dependent on whether the country participated in round 9 of the ESS. As a robustness check, I have done the analyses without the 1990s cohort in all countries. This robustness check yielded similar results. The descriptive statistics show that the two indicators of the gender climate capture different aspects. For example, Latvia and Poland score low on the gender-egalitarian values scale but relatively high on women's labor force participation. Scandinavian countries score high in terms of gender-egalitarian values and women's labor force participation.

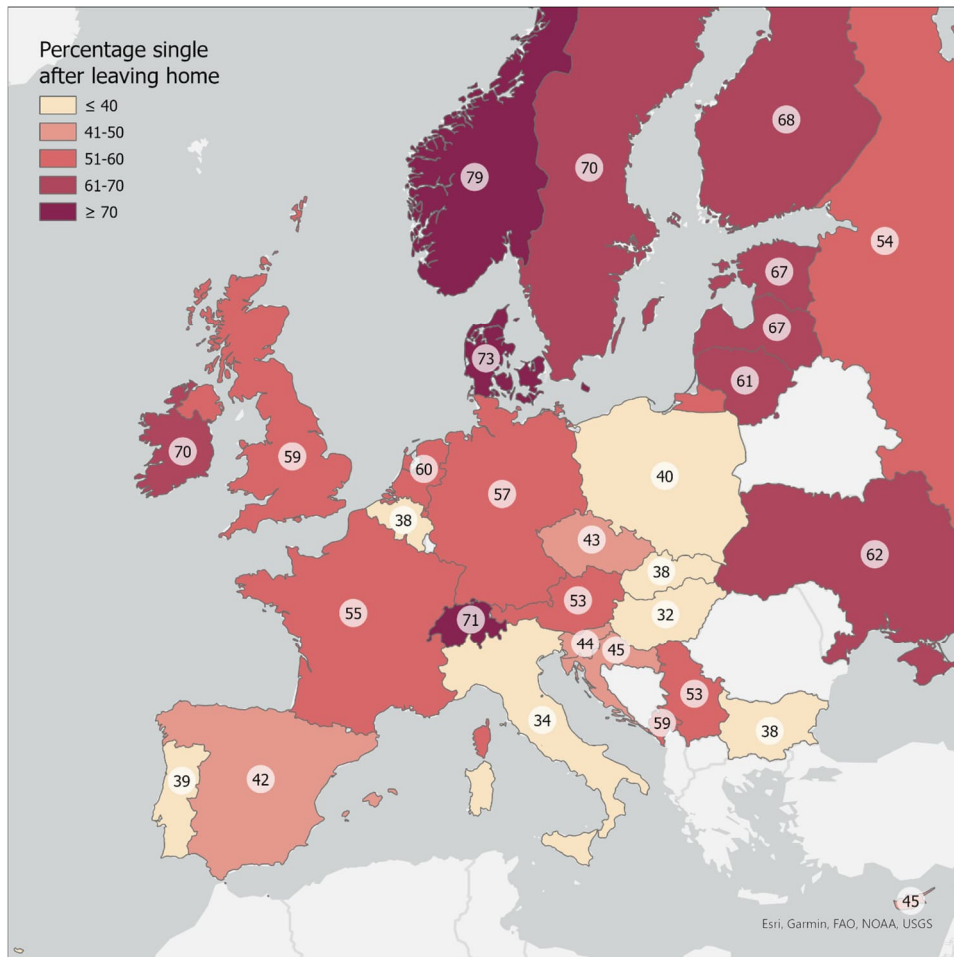
Figure 1 shows a map with country averages of the outcome, single living after leaving home. The map shows that single living after leaving home varies greatly across countries. On average, it is more common in northern countries (e.g., Finland, Sweden) than in southern countries (e.g., Portugal, Italy). This division is in line with findings from previous studies (Billari and Liefbroer 2010).

**Table 1: Descriptive statistics**

	Individual measures												Contextual measures		
	Education level			Man	Birth cohort							N	Gender-egalit. norms	LFP women	N
	Low	Middle	High		1930s	1940s	1950s	1960s	1970s	1980s	1990s				
Austria	0.154	0.613	0.234	0.444	0.086	0.154	0.197	0.232	0.155	0.128	0.048	3,778	2.169	50.4	1,082
Belgium	0.274	0.322	0.404	0.473	0.110	0.144	0.202	0.227	0.162	0.114	0.040	2,832	2.343	46.7	773
Bulgaria	0.268	0.476	0.256	0.340	0.138	0.227	0.237	0.178	0.149	0.054	0.017	2,251	1.963		398
Switzerland	0.187	0.441	0.372	0.463	0.107	0.161	0.190	0.215	0.192	0.106	0.040	2,788	2.340	57.6	768
Cyprus	0.301	0.362	0.337	0.466	0.134	0.173	0.216	0.197	0.161	0.097	0.023	1,438	2.340		357
Czech Republic	0.048	0.606	0.346	0.420	0.052	0.149	0.195	0.200	0.201	0.152	0.052	1,825	2.163	51.1	638
Germany	0.074	0.509	0.417	0.495	0.115	0.155	0.212	0.222	0.150	0.106	0.039	4,213	2.397	47.7	1,032
Denmark	0.170	0.366	0.464	0.495	0.135	0.225	0.206	0.203	0.164	0.068		1,299	2.719	73.0	266
Estonia	0.147	0.381	0.472	0.431	0.125	0.154	0.190	0.175	0.167	0.137	0.053	2,811	2.072	61.3	848
Spain	0.510	0.165	0.329	0.482	0.103	0.125	0.182	0.236	0.208	0.113	0.033	2,627	2.453	39.7	783
Finland	0.210	0.357	0.433	0.484	0.112	0.186	0.194	0.173	0.162	0.123	0.050	3,183	2.454	63.2	897
France	0.227	0.455	0.338	0.459	0.108	0.175	0.189	0.198	0.182	0.107	0.041	3,493	2.286	48.6	940
Great Britain	0.353	0.175	0.472	0.449	0.121	0.177	0.171	0.210	0.169	0.119	0.032	3,916	2.486	54.4	1,096
Croatia	0.229	0.537	0.234	0.402	0.128	0.180	0.205	0.170	0.192	0.094	0.033	2,429			
Hungary	0.168	0.593	0.239	0.370	0.059	0.139	0.221	0.197	0.168	0.146	0.070	1,372	2.070	45.5	658
Ireland	0.290	0.199	0.511	0.443	0.091	0.153	0.178	0.200	0.215	0.132	0.031	3,023	2.361	43.8	1,023
Italy	0.460	0.352	0.188	0.476	0.094	0.164	0.188	0.217	0.190	0.107	0.040	1,901	2.214	38.5	532
Lithuania	0.249	0.289	0.462	0.283	0.090	0.177	0.239	0.204	0.119	0.097	0.074	1,517		52.3	330
Latvia	0.134	0.256	0.610	0.317	0.091	0.175	0.215	0.195	0.141	0.122	0.061	804	1.933	51.2	202
Montenegro	0.147	0.564	0.289	0.398	0.053	0.118	0.207	0.192	0.202	0.137	0.091	736	2.274		247
The Netherlands	0.326	0.281	0.394	0.475	0.098	0.170	0.188	0.229	0.179	0.101	0.036	3,044	2.479	49.6	805
Norway	0.117	0.334	0.549	0.535	0.073	0.150	0.190	0.213	0.188	0.129	0.057	2,713	2.648	65.6	811
Poland	0.267	0.471	0.262	0.443	0.099	0.154	0.234	0.173	0.185	0.115	0.031	2,050	1.999	56.6	593
Portugal	0.641	0.169	0.190	0.394	0.158	0.201	0.172	0.191	0.178	0.079	0.022	2,388	2.307	50.9	564
Serbia	0.231	0.515	0.255	0.413	0.086	0.165	0.231	0.187	0.160	0.111	0.060	1,366	2.089		367
Russia	0.157	0.291	0.553	0.387	0.166	0.165	0.209	0.180	0.176	0.105		1,589	2.418	59.7	380
Sweden	0.201	0.378	0.421	0.497	0.107	0.198	0.179	0.192	0.164	0.120	0.042	3,032	2.461	68.5	815
Slovenia	0.180	0.541	0.279	0.434	0.113	0.176	0.204	0.203	0.172	0.099	0.033	2,020	2.293	52.3	524
Slovakia	0.130	0.687	0.183	0.436	0.093	0.179	0.238	0.193	0.179	0.101	0.018	1,938	2.233	51.9	516
Ukraine	0.123	0.252	0.624	0.373	0.199	0.187	0.209	0.163	0.167	0.074		1,347	2.064		286
Overall	0.238	0.391	0.371	0.444	0.109	0.168	0.199	0.202	0.173	0.111	0.039	69,723	2.311	52.9	18,201



**Figure 1: Probability of living in singlehood after leaving home, by country**



Data source: ESS, round 3 and round 9; own calculations.

## 4.4 Analytical strategy

I first estimated random effects multilevel logistic regression models with individuals clustered in countries.<sup>5</sup> In these models, I tested Hypotheses 1 and 2 concerning the overall educational gradient and the interaction effect between education and gender. I used predicted probabilities to assess the size of the effects because the log odds and odds ratios of interactions are biased by the size of unobserved heterogeneity in logistic models (Mize 2019; Mood 2010; Mustillo, Lizardo, and McVeigh 2018). Hence the coefficient of interactions in logistic regression analyses does not reflect the size or even direction of the effect of the interaction (Mize 2019). By estimating predicted probabilities, I followed the current methodological standard to circumvent these biased estimates. Next, I estimated the predicted probabilities for single living after leaving home by gender and education for each of the 30 countries. These estimates show whether the educational gradient is similar for women and men from different European countries. Finally, I tested Hypotheses 3 and 4 concerning a larger educational gradient among women in less gender-egalitarian countries by estimating interactions between two indicators of the gender climate in the country and education in random effects multilevel logistic regression models with individuals clustered in countries. I ran these models separately for men and women. I included a random slope for education in these analyses to estimate the cross-level interactions. Failure to include a random slope violates model assumptions and would lead to an overly optimistic prediction of the main effect of education and the cross-level interaction effects (Heisig and Schaeffer 2019).

I included design weights in all analyses. These weights are recommended in light of differences in the likelihood of being selected into the sample.<sup>6</sup> For this study, they are particularly important because individuals who lived alone were overrepresented in some countries, as the sample selection process in these countries was based on addresses.

## 5. Results

### 5.1 Multilevel results

I first estimated a multilevel logistic regression model with individuals nested in countries to examine the overall educational gradient among men and women in Europe. I discuss the predicted probabilities for education and gender on the basis of marginal effect estimations (Figure 2) rather than the logistic regression analyses (appendix, Table A-1).

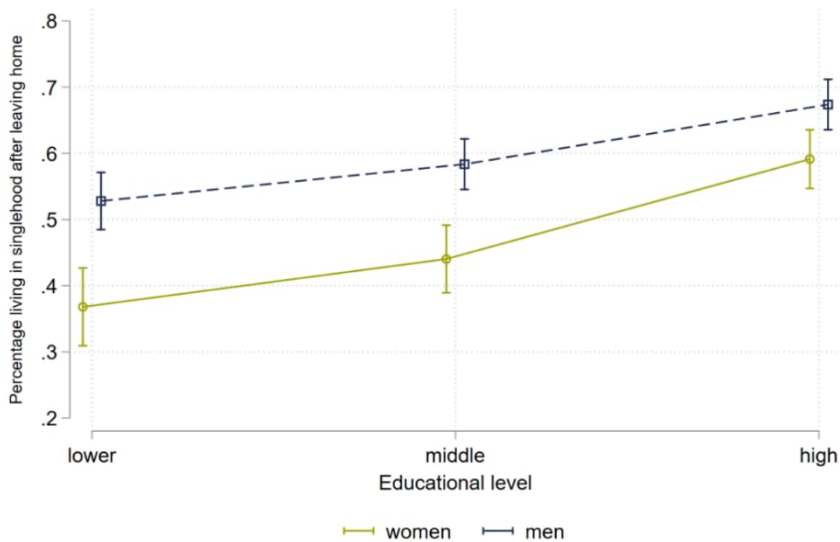
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<sup>5</sup> The statistical code used in this paper is available on the author's website.

<sup>6</sup> [https://www.europeansocialsurvey.org/docs/methodology/ESS\\_weighting\\_data\\_1\\_1.pdf](https://www.europeansocialsurvey.org/docs/methodology/ESS_weighting_data_1_1.pdf), accessed November 2022.

Figure 2 shows that there is an educational gradient in single living after leaving home in Europe: higher-educated individuals are more likely to live in singlehood after leaving home than lower-educated individuals. This is in line with Hypothesis 1. In support of Hypothesis 2, the findings show that this educational gradient is larger among women. Whereas the difference in single living after leaving home was 22.3 percentage points among women (36.8% lower-educated, 44% middle-educated, 59.1% higher-educated), this difference was 14.6 percentage points among men (52.8% lower-educated, 58.4% middle-educated, 67.4% higher-educated). These results suggest that single living after leaving home is common but that the majority of lower- and middle-educated women still move in with a partner upon leaving the parental home. Viewed from another perspective, these results imply that the gender gap in single living after leaving home is substantially smaller (8.3 percentage points) among higher-educated individuals compared to lower-educated individuals (16 percentage points). I controlled for cohort in these analyses. From birth cohort 1980 onward, individuals are more likely to be single after leaving home than individuals from the 1930s cohort. Whereas 54% of the young adults in the 1930s cohort are single after leaving home, that is the case for 63% of the young adults in the 1990s cohort.

**Figure 2: Probability of living in singlehood after leaving home, by education level and gender**

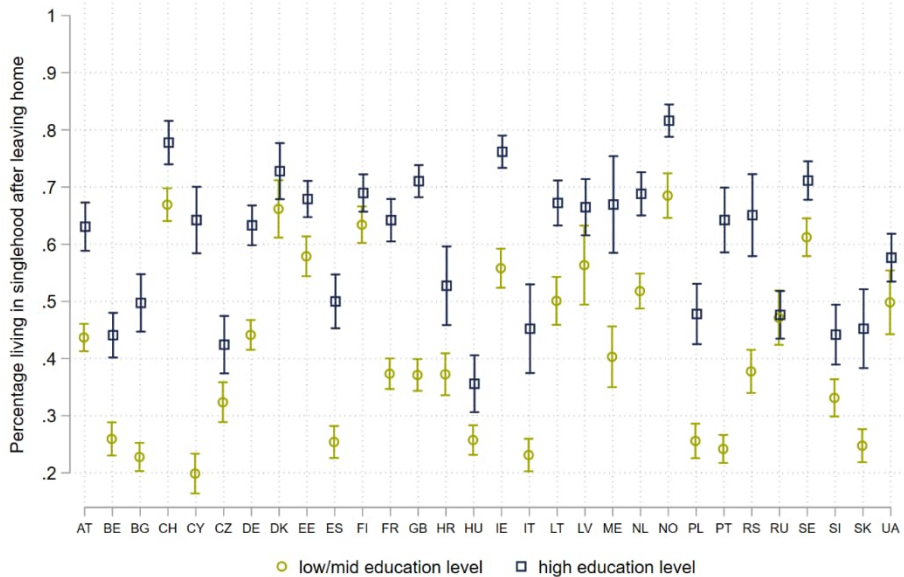


Data source: ESS, round 3 and round 9; own calculations.

## 5.2 Differences between countries

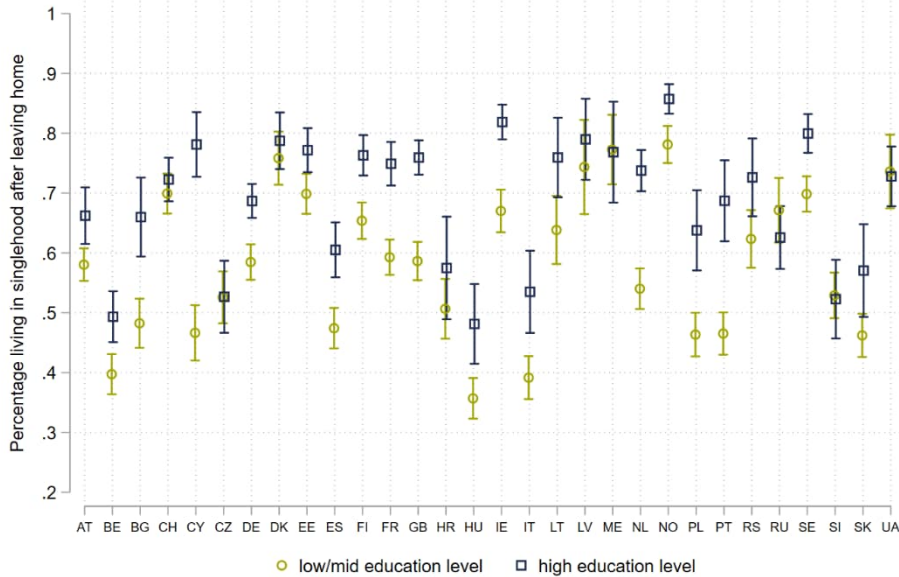
The previous results show the gender-contingent educational gradient for Europe in general. However, this gradient may differ between European countries. In Figure 3a (women) and Figure 3b (men), I show the predicted probabilities for singlehood after leaving home among lower/middle- and higher-educated individuals based on the marginal effects of education for each country. In light of cell sizes, lower- and middle-educated groups were grouped together. This grouping did not substantially affect the results, as the differences between lower- and middle-educated individuals are relatively small. The country-specific absolute and relative differences in singlehood between lower- and higher-educated individuals can also be found in the appendix (Table A-2). Several conclusions can be drawn from these figures.

**Figure 3a: Probability of living in singlehood after leaving home among women, by education level and country**



Data source: ESS, round 3 and round 9; own calculations.

**Figure 3b: Probability of living in singlehood after leaving home among men, by education level and country**



Data source: ESS, round 3 and round 9; own calculations.

First, the figures illustrate that there is an educational gradient in single living after leaving home in almost all European countries. Countries differ in the size rather than the existence of an educational gradient. Whereas there is no or only a small gradient (below 5 percentage points) in several countries (Czech Republic, Denmark, Latvia, Montenegro, Russia, Slovenia, Switzerland, Ukraine), the gradient is 31 percentage points in Cyprus and more than 15 percentage points in several other countries (Bulgaria, France, Great Britain, the Netherlands, Poland, Portugal).

Second, countries differ in the existence and size of gender differences in the educational gradient in singlehood. With some exceptions, gender differences in the gradient are larger in eastern and southern countries and smallest in Nordic countries. In 26 out of 30 countries (exceptions: Finland, Hungary, the Netherlands, Sweden), there is a larger educational gradient among women than among men. There are diverse patterns in these countries. For example, while the educational gradient is larger among women compared to men in both Denmark and Bulgaria, the size of the gradient differs strongly between the two countries – it is small among men and women in Denmark while it is large

among men and women in Bulgaria. In 8 of these 26 countries, the difference in the gradient between men and women is larger than 10 percentage points. The gender difference in the gradient is largest in Montenegro.

These figures demonstrate that even though single living after leaving home is common in most countries, it is still relatively uncommon among lower-educated women. Moreover, they show that patterns differ greatly. The percentage of women who live in singlehood after leaving home is less than 30% among lower-educated women in 9 out of the 30 countries (Belgium, Bulgaria, Cyprus, Hungary, Italy, Poland, Portugal, Slovakia, Spain), while the percentage of men who live in singlehood is more than 30% in all countries. Similarly, at least 70% of the higher-educated women live in singlehood after leaving home in six countries (Denmark, Ireland, Great Britain, Norway, Sweden, Switzerland), while this is the case for higher-educated men in 16 countries (Cyprus, Denmark, Estonia, Finland, France, Great Britain, Ireland, Latvia, Lithuania, Montenegro, the Netherlands, Norway, Russia, Sweden, Switzerland, Ukraine).

### **5.3 The role of the gender climate**

There arises a question about whether these large country differences in the educational gradient in single living after leaving home relate to the gender climate in the country. I studied the role of gender-egalitarian norms and women's labor force participation for women (appendix, Table A3a) and men (appendix, Table A-3b). Lower- and middle-educated individuals were grouped together. As a robustness check, I estimated models including a quadratic measure of the gender climate indicators, because research on fertility shows that the effect of gender egalitarianism on family formation is quadratic (Esping-Andersen and Billari 2015). The BICs and AICs of the different models suggest that the model without the quadratic measure is the preferred model.

I first discuss the role of gender-egalitarian norms. Individuals are more likely to be single after leaving home in countries with more gender-egalitarian norms. This is the case for both women and men. Even though the norms are only concerned with expectations about a woman's role in the household and career, they may be related to a man's chance of singlehood as indicators of levels of individualization and women's partnering behavior. The predicted probabilities per level of gender egalitarianism can be found in Table 2. This table shows that a one standard deviation increase in the gender-egalitarian norms scale compared to the mean of this scale increases the probability of single living after leaving home among women by 6.5 percentage points (from 52.4% to 58.9%), whereas it increases the probability among men by 3.7 percentage points (from 65.3% to 69.0%). Figure A-1 (appendix) illustrates this gender difference in the relation between gender-egalitarian norms and singlehood.

The intra-class correlation (ICC) indicates the correlation between observations within the same cluster. The ICC in Model 1 (Table A-3a) of 0.078 implies that 7.8% of the variation in single living among women is at the country level; there is reasonable variation across countries in singlehood. The ICC is reduced by 32% among women (0.078 to 0.053) and by 26% (0.050 to 0.038) among men between Model 1 and Model 2 in Table 2. These reductions show that including gender-egalitarian norms substantially decreases the cross-national variation in single living after leaving home. In other words, country differences in gender-egalitarian norms explain some of the country differences in single living after leaving home.

The interaction between being higher-educated and gender-egalitarian norms was added in Model 3 (Table A-3). The findings indicate that, in contrast to Hypothesis 3, the relation between gender-egalitarian norms and single living after leaving home is similar for higher- and lower/middle-educated individuals. An increase in gender-egalitarian norms increases the chance of living in singlehood for individuals from all education levels to a similar extent.

Next I examined the role of women's labor force participation. There is a positive relation between women's labor force participation and single living after leaving home among men and women. Predictions of the average marginal effects (Table 2) suggest that these effects are comparable for men and women. Compared to the mean level of women's labor force participation, an increase of one standard deviation increases the chance of single living after leaving home by 7.3 percentage points among women and by 6 percentage points among men. Adding this factor decreased the ICC by 29% (women) and 45% (men).

**Table 2: Predicted probabilities for single living after leaving home at different levels of the macro-level variables (gender-egalitarian norms and women's labor force participation)**

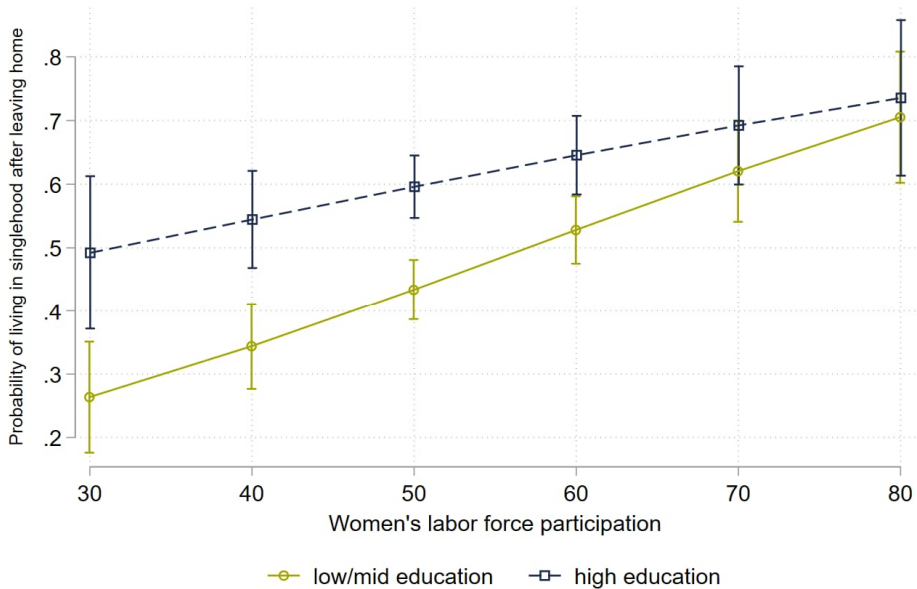
	-2 std. dev.	-1 std. dev.	0	+ 1 std. dev.	+ 2 std. dev.
Gender-egalitarian norms					
Women	39.9 [31.0] [48.7]	46.2 [40.5] [51.7]	52.4 [48.8] [56.3]	58.9 [53.3] [64.4]	64.9 [56.4] [73.4]
Men	57.4 [49.3] [65.5]	61.4 [56.7] [66.1]	65.30 [62.0] [68.6]	69.0 [63.9] [74.1]	72.5 [64.8] [80.1]
Women's labor force part.					
Women	40.4 [32.4] [48.4]	46.8 [41.0] [52.6]	53.3 [48.8] [57.7]	59.6 [54.5] [64.8]	65.7 [58.8] [72.7]
Men	51.0 [43.8] [58.2]	57.7 [53.1] [62.3]	64.2 [60.8] [67.5]	70.2 [65.9] [74.5]	75.6 [69.8] [81.4]

Note: 95% confidence intervals are in brackets.

Does the size of the educational gradient depend on women's labor force participation? The findings show that this is the case for women (Figure 4). In line with

Hypothesis 4, the educational gradient is larger among women in countries where the female labor participation rate is lower. In countries where 40% of the women are active on the labor market, the probability of single living after leaving home is 54% among higher-educated women compared to 34% among lower- and middle-educated women – a difference of 20 percentage points. The educational gradient is substantially smaller in countries where the majority of women are active on the labor market. In countries where 60% of the women are active on the labor market, the probability of living in singlehood is 65% among higher-educated women and 53% among lower- and middle-educated women – a difference of 12 percentage points. Among men, there is no interaction between women’s labor force participation and education.

**Figure 4: Women’s educational gradient in living in singlehood across countries with different levels of women’s labor force participation (in percentages)**



Data source: ESS, round 3 and round 9; own calculations.



## 6. Discussion

This paper set out to examine the educational gradient in single living after leaving home. Using data for 30 European countries, I provide some of the first empirical evidence for the magnitude of this gradient. This paper shows that the size of the positive educational gradient in single living after leaving home is substantial: 22 percentage points among women (37% versus 59%) and 14 percentage points among men (53% versus 67%). Moreover, I show that the size of the educational gradient depends on the gender climate.

The finding that there is a substantial educational gradient in singlehood after leaving home speaks to the view of universities as “waiting halls” for union formation (Blossfeld and Huinink 1991) and reflects differences in family values and norms between educational groups (e.g., Liefbroer and Billari, 2010). It forms another piece of evidence of social stratification in the transition to adulthood, which has previously been demonstrated in research on other events in this life phase (Billari, Hiekel, and Liefbroer 2019). Also, when it comes to single living after leaving home, the experiences of higher- and lower-educated individuals are “worlds apart” (Mulder and Hooimeijer 2002: 263). An avenue for future research is to explore the developmental effects of these different experiences in young adulthood. The literature on singlehood emphasizes developmental benefits, such as time for self-development and investments in career and social life (Beckmeyer and Jamison 2022; Domínguez-Folgueras and Castro Martín 2008; Klinenberg 2012; Rosenfeld 2007). Future research could examine if differences in single living after leaving home between educational groups relate to resilience and well-being later in life.

I show that lower-educated women are the least likely to live in singlehood after leaving home. The majority of lower-educated women live with a partner after leaving home. The large educational gradient among women may be the result of gender norms and gender differences in opportunities to cover the costs of single living (Carr 2002; England 2010; Ono 2003). A higher level of education may offer women the “choice of singlehood.” The finding of a large gradient among women is consistent with previous research on leaving home (Schwanitz, Mulder, and Toulemon 2017) and on singlehood later in the life course (Dykstra and Poortman 2010; Kalmijn 2013). However, the finding that there is also an educational gradient among men, albeit smaller than among women, is in contrast with the reversed educational gradient among men in lifelong singlehood (Dykstra and Poortman 2010; Kalmijn 2013). This discrepancy suggests that higher-educated men form unions later rather than not at all and that singlehood may be the desired initial living situation in young adulthood today, if it can be afforded. The difference in the findings for single living after leaving home and lifelong singlehood also underlines that these are different phenomena. Hence it is important for the still relatively small body of research on singlehood to distinguish singlehood in different phases of the life course. An avenue for future research is also to examine how singlehood develops over the life course. At what

point in the life course do lower-educated men become more likely to be single than higher-educated men?

This study uncovered large cross-national variation in the gender-contingent educational gradient in single living after leaving home. Although there is a large educational gradient in single living after leaving home in most countries, there is a small or even no gradient in other countries. Further analyses revealed the key role of a country's gender climate for these differences. Although gender norms had no moderating effect, the gradient was smaller among women in countries with a higher female labor force participation rate. The moderating role of female labor force participation for the effect of education on single living reflects findings from research on fertility, age at marriage, and divorce (Esping-Andersen and Billari 2015; Härkönen and Dronkers 2006; Kalmijn 2013; Perelli-Harris et al. 2010). A question arises as to how these different demographic behaviors are related. Is singlehood after leaving home the start of "divergent destinies" later in life (McLanahan 2004)? Does the large educational gradient in singlehood after leaving home in less gender-egalitarian countries (partially) explain why there is a larger gradient in fertility and age at marriage in those countries? Future research could examine these questions by studying differences between educational groups in their demographic trajectories after single living in the first independent living situation.

The focus in this study is on describing differences in single living after leaving home among men and women from different educational groups and countries. The large-scale retrospective data of the EVS allowed me to do this for a large number of individuals and countries. However, I was not able to distinguish the great variety in living situations within the single group (e.g., Kislev 2019). A potential avenue for future research is to examine how educational differences relate to more diverse forms of singlehood in the first living situation after leaving home. In particular, future research could examine whether there are differences between educational groups in the likelihood of being in an LAT relationship in the first living situation after leaving home, as LAT relationships are quite common among young adults (Régnier-Loilier, Beaujouan, and Villeneuve-Gokalp 2009).

## References

- Arnett, J.J. (2007). Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives* 1(2): 68–73. doi:10.1111/j.1750-8606.2007.00016.x.
- Arpino, B., Esping-Andersen, G., and Pessin, L. (2015). How do changes in gender role attitudes towards female employment influence fertility? A macro-level analysis. *European Sociological Review* 31(3): 370–382. doi:10.1093/esr/jcv002.
- Beckmeyer, J.J. and Jamison, T.B. (2022). Empowering, pragmatic, or disappointing: appraisals of singlehood during emerging and established adulthood. *Emerging Adulthood* online first. doi:10.1177/21676968221099123.
- Bellani, D., Esping-Andersen, G., and Nedoluzhko, L. (2017). Never partnered: A multilevel analysis of lifelong singlehood. *Demographic Research* 37(4): 53–100. doi:10.4054/DemRes.2017.37.4.
- Bianchi, S.M., Milkie, M.A., Sayer, L.C., and Robinson, J.P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces* 79(1): 191–228. doi:10.2307/2675569.
- Billari, F.C. and Liefbroer, A.C. (2007). Should I stay or should I go? The impact of age norms on leaving home. *Demography* 44(1): 181–198. doi:10.1353/dem.2007.0000.
- Billari, F.C. and Liefbroer, A.C. (2010). Towards a new pattern of transition to adulthood? *Advances in Life Course Research* 15(2): 59–75. doi:10.1016/j.alcr.2010.10.003.
- Billari, F.C., Hiekel, N., and Liefbroer, A.C. (2019). The social stratification of choice in the transition to adulthood. *European Sociological Review* 35(5): 599–615. doi:10.1093/esr/jcz025.
- Blaauboer, M. and Mulder, C.H. (2009). Gender differences in the impact of family background on leaving the parental home. *Journal of Housing and the Built Environment* 25(1): 53–71. doi:10.1007/s10901-009-9166-9.
- Blossfeld, H-P. and Huinink, J. (1991). Human capital investments or norms of role transition? How women's schooling and career affect the process of family formation. *American Journal of Sociology* 97(1): 143–168. doi:10.1086/229743.
- Brückner, H. and Mayer, K.U. (2005). De-standardization of the life course: what it might mean? And if it means anything, whether it actually took place? *Advances in Life Course Research* 9: 27–53. doi:10.1016/S1040-2608(04)09002-1.

- Bühlmann, F., Elcheroth, G., and Tettamanti, M. (2010). The division of labour among European couples: The effects of life course and welfare policy on value–practice configurations. *European Sociological Review* 26(1): 49–66. doi:10.1093/esr/jcp004.
- Carr, D. (2002). The psychological consequences of work–family trade-offs for three cohorts of men and women. *Social Psychology Quarterly* 65(2): 103–124. doi:10.2307/3090096.
- Clark, V., Tuffin, K., Frewin, K., and Bowker, N. (2017). Shared housing among young adults: Avoiding complications in domestic relationships. *Journal of Youth Studies* 20(9): 1191–1207. doi:10.1080/13676261.2017.1316834.
- Constantin, A. and Voicu, M. (2015). Attitudes towards gender roles in cross-cultural surveys: Content validity and cross-cultural measurement invariance. *Social Indicators Research* 123(3): 733–751. doi:10.1007/s11205-014-0758-8.
- Corti, G. and Scherer, S. (2021). Mating market and dynamics of union formation. *European Journal of Population* 37(4): 851–876. doi:10.1007/s10680-021-09592-2.
- Danziger, S. and Ratner, D. (2010). Labor market outcomes and the transition to adulthood. *The Future of Children* 20(1): 133–158. doi:10.1353/foc.0.0041.
- Domínguez-Folgueras, M. and Castro Martín, T. (2008). Women’s changing socioeconomic position and union formation in Spain and Portugal. *Demographic Research* 19(41): 1513–1550. doi:10.4054/DemRes.2008.19.41.
- Duncan, S. and Phillips, M. (2010). People who live apart together (LATs) – How different are they? *The Sociological Review* 58(1): 112–134. doi:10.1111/j.1467-954X.2009.01874.x.
- Dykstra, P.A. and Poortman, A-R. (2010). Economic resources and remaining single: Trends over time. *European Sociological Review* 26(3): 277–290. doi:10.1093/esr/jcp021.
- England, P. (2010). The gender revolution: Uneven and stalled. *Gender and Society* 24(2): 149–166. doi:10.1177/0891243210361475.
- Esping-Andersen, G. and Billari, F.C. (2015). Re-theorizing family demographics. *Population and Development Review* 41(1): 1–31. doi:10.1111/j.1728-4457.2015.00024.x.

- ESS (2006). ESS Round 3: European Social Survey Round 3 Data. Data file edition 3.7. Sikt - Norwegian Agency for Shared Services in Education and Research, Norway – Data Archive and distributor of ESS data for ESS ERIC. doi:10.21338/NSD-ESS3-2006.
- ESS (2018). ESS Round 9: European Social Survey Round 9 Data. Data file edition 3.1. Sikt - Norwegian Agency for Shared Services in Education and Research, Norway – Data Archive and distributor of ESS data for ESS ERIC. doi:10.21338/NSD-ESS9-2018.
- Esteve, A., García-Román, J., and Permanyer, I. (2012). The gender-gap reversal in education and its effect on union formation: The end of hypergamy? *Population and Development Review* 38(3): 535–546. doi:10.1111/j.1728-4457.2012.00515.x.
- Esteve, A., Kashyap, R., Roman, J.G., Cheng, Y-H.A., Fukuda, S., Nie, W., and Lee, H-O. (2020). Demographic change and increasing late singlehood in East Asia, 2010–2050. *Demographic Research* 43(46): 1367–1398. doi:10.4054/DemRes.2020.43.46.
- EVS (2020). *European Values Study Longitudinal Data File 1981–2008 (EVS 1981–2008)*. GESIS Data Archive. doi:10.4232/1.13486.
- Ford, J., Rugg, J., and Burrows, R. (2002). Conceptualising the contemporary role of housing in the transition to adult life in England. *Urban Studies* 39(13): 2455–2467. doi:10.1080/0042098022000027059.
- Fuwa, M. (2004). Macro-level gender inequality and the division of household labor in 22 countries. *American Sociological Review* 69(6): 751–767. doi:10.1177/000312240406900601.
- Goldstein, J.R. and Kenney, C.T. (2001). Marriage delayed or marriage forgone? New cohort forecasts of first marriage for U.S. women. *American Sociological Review* 66(4): 506–519. doi:10.2307/3088920.
- Hamilton, L. and Armstrong, E.A. (2009). Gendered sexuality in young adulthood: Double binds and flawed options. *Gender and Society* 23(5): 589–616. doi:10.1177/0891243209345829.
- Härkönen, J. and Dronkers, J. (2006). Stability and change in the educational gradient of divorce: A comparison of seventeen countries. *European Sociological Review* 22(5): 501–517. doi:10.1093/esr/jcl011.

- Haskey, J. (2005). Living arrangements in contemporary Britain: Having a partner who usually lives elsewhere and living apart together (LAT). *Population Trends* 122: 35–45.
- Heisig, J.P. and Schaeffer, M. (2019). Why you should always include a random slope for the lower-level variable involved in a cross-level interaction. *European Sociological Review* 35(2): 258–279. doi:10.1093/esr/jcy053.
- Hook, J.L. (2006). Care in context: Men’s unpaid work in 20 countries, 1965–2003. *American Sociological Review* 71(4): 639–660. doi:10.1177/000312240607100406.
- Iacovou, M. (2010). Leaving home: Independence, togetherness and income. *Advances in Life Course Research* 15(4): 147–160. doi:10.1016/j.alcr.2010.10.004.
- Kalmijn, M. (2013). The educational gradient in marriage: A comparison of 25 European countries. *Demography* 50(4): 1499–1520. doi:10.1007/s13524-013-0229-x.
- Kislev, E. (2019). *Happy singlehood: The rising acceptance and celebration of solo living*. Oakland: University of California Press. doi:10.1525/9780520971004.
- Kjeldstad, R. and Lappegård, T. (2014). How do gender values and household practices cohere? Value–practice configurations in a gender-egalitarian context. *NORA – Nordic Journal of Feminist and Gender Research* 22(3): 219–237. doi:10.1080/08038740.2013.864703.
- Klinenberg, E. (2012). *Going solo: The extraordinary rise and surprising appeal of living alone*. Penguin.
- Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review* 36(2): 211–251. doi:10.1111/j.1728-4457.2010.00328.x.
- Lesthaeghe, R. (2014). The Second Demographic Transition: A concise overview of its development. *Proceedings of the National Academy of Sciences* 111(51): 18112–18115. doi:10.1073/pnas.1420441111.
- Lesthaeghe, R. and Surkyn, J. (1988). Cultural dynamics and economic theories of fertility change. *Population and Development Review* 14(1): 1–45. doi:10.2307/1972499.
- Liefbroer, A.C. and Billari, F.C. (2010). Bringing norms back in: A theoretical and empirical discussion of their importance for understanding demographic behaviour. *Population, Space and Place* 16(4): 287–305. doi:10.1002/psp.552.
- McDonald, P. (2000). Gender equity in theories of fertility transition. *Population and Development Review* 26(3): 427–439. doi:10.1111/j.1728-4457.2000.00427.x.

- McLanahan, S. (2004). Diverging destinies: How children are faring under the Second Demographic Transition. *Demography* 41(4): 607–627. doi:10.1353/dem.2004.0033.
- McMunn, A., Lacey, R., Worts, D., McDonough, P., Stafford, M., Booker, C., Kumari, M., and Sacker, A. (2015). De-standardization and gender convergence in work–family life courses in Great Britain: A multi-channel sequence analysis. *Advances in Life Course Research* 26: 60–75. doi:10.1016/j.alcr.2015.06.002.
- Mize, T.D. (2019). Best practices for estimating, interpreting, and presenting nonlinear interaction effects. *Sociological Science* 6: 81–117. doi:10.15195/v6.a4.
- Mood, C. (2010). Logistic regression: Why we cannot do what we think we can do, and what we can do about it. *European Sociological Review* 26(1): 67–82. doi:10.1093/esr/jcp006.
- Mulder, C.H. and Hooimeijer, P. (2002). Leaving home in the Netherlands: Timing and first housing. *Journal of Housing and the Built Environment* 17(3): 237–268. doi:10.1023/A:1020264417389.
- Mustillo, S.A., Lizardo, O.A., and McVeigh, R.M. (2018). Editors’ comment: A few guidelines for quantitative submissions. *American Sociological Review* 83(6): 1281–1283. doi:10.1177/0003122418806282.
- Ní Bhrolcháin, M. and Beaujouan, E. (2013). Education and cohabitation in Britain: A return to traditional patterns? *Population and Development Review* 39(3): 441–458. doi:10.1111/j.1728-4457.2013.00611.x.
- OECD (2021). *Labour force participation rate*. doi:10.1787/8a801325-en.
- OECD (2022). *Population with tertiary education (indicator)*. doi:10.1787/0b8f90e9-en.
- Ono, H. (2003). Women’s economic standing, marriage timing, and cross-national contexts of gender. *Journal of Marriage and Family* 65(2): 275–286. doi:10.1111/j.1741-3737.2003.00275.x.
- Oppenheimer, V.K. (1997). Women’s employment and the gain to marriage: The specialization and trading model. *Annual Review of Sociology* 23(1): 431–453. doi:10.1146/annurev.soc.23.1.431.
- Perelli-Harris, B., Sigle-Rushton, W., Kreyenfeld, M., Lappegård, T., Keizer, R., and Berghammer, C. (2010). The educational gradient of childbearing within cohabitation in Europe. *Population and Development Review* 36(4): 775–801. doi:10.1111/j.1728-4457.2010.00357.x.

- Pessin, L. (2018). Changing gender norms and marriage dynamics in the United States. *Journal of Marriage and Family* 80(1): 25–41. doi:10.1111/jomf.12444.
- Pongracz, M. and Spéder, Z. (2008). Attitudes towards forms of partnership. In: Höhn, C., Avramov, D., and Kotowska, I.E. (eds.). *People, population change and policies: Lessons from the population policy acceptance study vol. 1: family change*. European Studies of Population. Dordrecht: Springer Netherlands: 93–112. doi:10.1007/978-1-4020-6609-2\_5.
- Régnier-Loilier, A, Beaujouan, E., and Villeneuve-Gokalp, C. (2009). Neither single, nor in a couple. A study of Living Apart Together in France. *Demographic Research* 21(4): 75–108. doi:10.4054/DemRes.2009.21.4.
- Roseneil, S. (2006). On not living with a partner: Unpicking coupledness and cohabitation. *Sociological Research Online* 11(3): 111–124. doi:10.5153/sro.1413.
- Rosenfeld, M.J. (2007). *The age of independence: Interracial unions, same-sex unions, and the changing American family*. Cambridge, MA: Harvard University Press.
- Sandström, G. and Karlsson, L. (2019). The educational gradient of living alone: A comparison among the working-age population in Europe. *Demographic Research* 40(55): 1645–1670. doi:10.4054/DemRes.2019.40.55.
- Schneider, S.L. (2009). *Confusing credentials: The cross-nationally comparable measurement of educational attainment* [PhD thesis]. Oxford University, UK.
- Schwanitz, K., Mulder, C.H., and Toulemon, L. (2017). Differences in leaving home by individual and parental education among young adults in Europe. *Demographic Research* 37(63): 1975–2010. doi:10.4054/DemRes.2017.37.63.
- Sironi, M. (2018). Economic conditions of young adults before and after the Great Recession. *Journal of Family and Economic Issues* 39(1): 103–116. doi:10.1007/s10834-017-9554-3.
- Sobotka, T. and Toulemon, L. (2008). Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe. *Demographic Research* 19(6): 85–138. doi:10.4054/DemRes.2008.19.6.
- Stone, J., Berrington, A., and Falkingham, J. (2011). The changing determinants of UK young adults' living arrangements. *Demographic Research* 25(20): 629–666. doi:10.4054/DemRes.2011.25.20.
- Torr, B.M. (2011). The changing relationship between education and marriage in the United States, 1940–2000. *Journal of Family History* 36(4): 483–503. doi:10.1177/0363199011416760.



- Van De Kaa, D. J. (1987). Europe's second demographic transition. *Population Bulletin* 42(1): 1–59.
- van den Berg, L. and Verbakel, E. (2021). Trends in singlehood in young adulthood in Europe. *Advances in Life Course Research* 51: 100449. doi:10.1016/j.alcr.2021.100449.
- Verbakel, E. (2012). Subjective well-being by partnership status and its dependence on the normative climate. *European Journal of Population / Revue Européenne de Démographie* 28(2): 205–232. doi:10.1007/s10680-012-9257-2.
- White, L. and Rogers, S.J. (2000). Economic circumstances and family outcomes: A review of the 1990s. *Journal of Marriage and Family* 62(4): 1035–1051. doi:10.1111/j.1741-3737.2000.01035.x.
- Wiik, K.A. (2009). 'You'd better wait!': Socio-economic background and timing of first marriage versus first cohabitation. *European Sociological Review* 25(2): 139–153. doi:10.1093/esr/jcn045.
- Wiik, K.A. and Dommermuth, L. (2014). Who remains unpartnered by mid-life in Norway? Differentials by gender and education. *Journal of Comparative Family Studies* 45(3): 405–424. doi:10.3138/jcfs.45.3.405.
- Wrosch, C. and Heckhausen, J. (1999). Control processes before and after passing a developmental deadline: Activation and deactivation of intimate relationship goals. *Journal of Personality and Social Psychology* 77: 415–427. doi:10.1037/0022-3514.77.2.415.

## Appendix

**Table A-1: Results for multilevel logistic regression models on living in singlehood after leaving home, in odds ratios. Individuals (level 1) are clustered in countries (level 2)**

	Model 1	Model 2
Man	1.741 [1.583] – [1.914]	1.994 [1.708] – [2.328]
Education level (ref. low)		
Middle	1.303 [1.186] – [1.432]	1.343 [1.185] – [1.521]
High	2.243 [1.959] – [2.569]	2.552 [2.135] – [3.051]
Birth cohort (ref. 1930s)		
1940s	0.919 [0.853] – [0.989]	0.916 [0.851] – [0.986]
1950s	0.882 [0.797] – [0.976]	0.876 [0.790] – [0.971]
1960s	0.877 [0.771] – [0.997]	0.868 [0.764] – [0.987]
1970s	0.978 [0.846] – [1.129]	0.968 [0.839] – [1.117]
1980s	1.256 [1.078] – [1.464]	1.242 [1.067] – [1.447]
1990s	1.665 [1.358] – [2.042]	1.647 [1.345] – [2.017]
Man * education level		
Man * middle education level		0.928 [0.825] – [1.045]
Man * high education level		0.740 [0.632] – [0.867]
Constant	0.625 [0.480] – [0.814]	0.593 [0.449] – [0.785]
Variance on country level	1.295 [1.181] – [1.420]	1.295 [1.180] – [1.420]
ICC country	0.073	0.073
N individuals	69,723	69,723
N countries	30	30

Note: Standard errors in parentheses.

**Table A-2: Differences in the probability of living in singlehood between higher- and lower-educated individuals per gender and country, sorted from highest to lowest**

Men		Women					
Absolute difference	Relative difference	Absolute difference	Relative difference	Absolute difference	Relative difference		
CY	31,49	CY	67,52	CY	44.35	CY	223.06
PT	22,20	PT	47,72	PT	40.04	PT	165.53
NL	19,75	PL	37,60	GB	33.90	BG	118.29
BG	17,75	BG	36,80	RS	27.33	ES	96.82
PL	17,43	IT	36,66	BG	26.95	IT	95.58
GB	17,31	NL	36,56	FR	26.86	GB	91.28
FR	15,62	HU	34,84	ME	26.64	PL	86.77
IE	14,86	GB	29,52	ES	24.60	SK	82.61
IT	14,35	ES	27,60	PL	22.21	RS	72.39
ES	13,09	FR	26,35	IT	22.10	FR	71.91
HU	12,44	BE	24,18	SK	20.46	BE	69.93
LT	12,11	SK	23,44	IE	20.37	ME	66.10
FI	10,94	IE	22,17	AT	19.39	AT	44.38
SK	10,83	LT	18,97	DE	19.17	DE	43.43
RS	10,29	DE	17,47	BE	18.14	HR	41.56
DE	10,22	FI	16,73	LT	17.13	HU	38.22
SE	10,12	RS	16,50	NL	17.01	IE	36.51
BE	9,61	SE	14,49	HR	15.48	LT	34.19
AT	8,19	AT	14,11	NO	13.11	SL	33.39
NO	7,61	HR	13,47	SL	11.06	NL	32.83
EE	7,30	EE	10,44	CH	10.85	CZ	31.10
HR	6,82	NO	9,74	LV	10.13	NO	19.13
LV	4,63	LV	6,22	CZ	10.07	LV	17.98
DK	2,90	DK	3,83	EE	10.02	EE	17.31
CH	2,34	CH	3,35	SE	9.92	CH	16.22
CZ	0,09	CZ	0,18	HU	9.84	SE	16.20
ME	-0,43	ME	-0,56	UA	7.81	UA	15.67
SI	-0,62	UA	-1,11	DK	6.61	DK	9.99
UA	-0,82	SI	-1,18	FI	5.54	FI	8.74
RU	-4,55	RU	-6,78	RU	0.49	RU	1.04

**Table A-3a: Results for multilevel logistic regression models on the role of contextual-level factors on living in singlehood after leaving home, women, in odds ratios. Individuals (level 1) are clustered in countries (level 2)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Higher-educated (ref. low/mid-educated)	2.039 [1.771] – [2.347]	2.042 [1.775] – [2.350]	2.034 [1.772] – [2.335]	1.899 [1.642] – [2.195]	1.891 [1.633] – [2.189]	1.903 [1.666] – [2.174]
Gender-egalitarian norms		1.319 [1.102] – [1.578]	1.346 [1.103] – [1.642]			
Gender-egalitarian norms * higher-educated			0.931 [0.822] – [1.054]			
Women's labor force participation					1.322 [1.150] – [1.520]	1.364 [1.187] – [1.567]
Women's labor force participation * higher-educated						0.872 [0.803] – [0.948]
Constant	0.771 [0.619] – [0.960]	0.791 [0.660] – [0.949]	0.792 [0.661] – [0.948]	0.855 [0.678] – [1.079]	0.840 [0.694] – [1.017]	0.841 [0.696] – [1.018]
Variance (constant)	1.321 [1.171] – [1.492]	1.204 [1.100] – [1.317]	1.200 [1.099] – [1.311]	1.328 [1.187] – [1.485]	1.216 [1.089] – [1.358]	1.217 [1.090] – [1.360]
Variance (education)	1.069 [0.983] – [1.162]	1.069 [0.979] – [1.167]	1.065 [0.983] – [1.155]	1.063 [0.979] – [1.154]	1.071 [0.981] – [1.169]	1.051 [0.977] – [1.129]
BICC	12737.34	12736.58	12744.54	11835.79	11836.75	11798.96
ICC country	0.078	0.053	0.053	0.079	0.056	0.033
N individuals	9,903	9,903	9,903	9,156	9,156	9,156
N countries	28	28	28	24	24	24

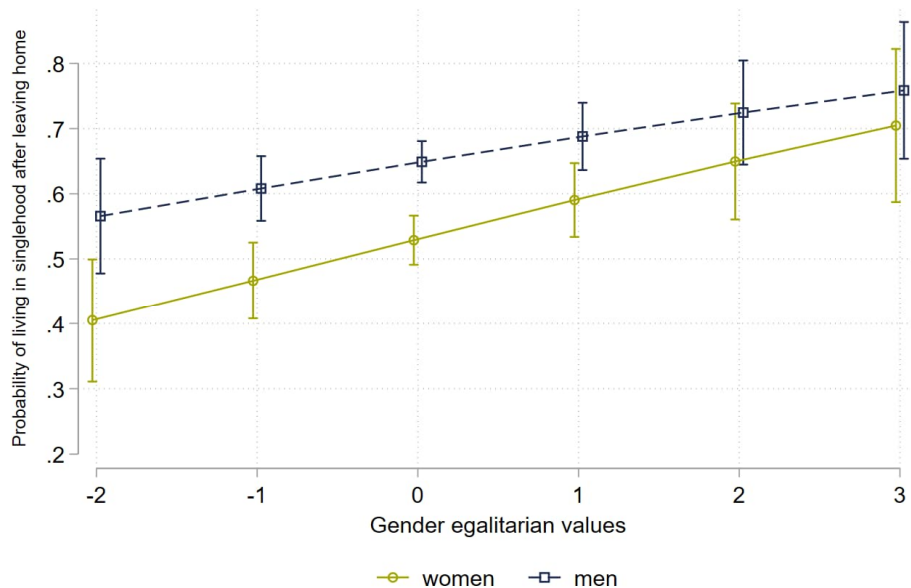
Note: Standard errors in parentheses.

**Table A-3b: Results for multilevel logistic regression models on the role of contextual-level factors on living in singlehood after leaving home, men, in odds ratios. Individuals (level 1) are clustered in countries (level 2)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Higher-educated (ref. low/mid-educated)	1.630	1.640	1.638	1.575	1.574	1.574
	[1.353] – [1.962]	[1.365] – [1.970]	[1.366] – [1.963]	[1.316] – [1.884]	[1.314] – [1.886]	[1.314] – [1.885]
Gender-egalitarian norms		1.192	1.194			
		[1.004] – [1.416]	[0.996] – [1.433]			
Gender-egalitarian norms * higher-educated			0.990			
			[0.851] – [1.151]			
Women's labor force participation					1.328	1.333
					[1.158] – [1.523]	[1.167] – [1.521]
Women's labor force participation * higher-educated						0.978
						[0.851] – [1.124]
Constant	1.537	1.574	1.574	1.520	1.510	1.510
	[1.286] – [1.837]	[1.342] – [1.845]	[1.343] – [1.844]	[1.254] – [1.842]	[1.305] – [1.748]	[1.305] – [1.749]
Variance (constant)	1.188	1.138	1.137	1.202	1.104	1.104
	[1.075] – [1.313]	[1.057] – [1.224]	[1.056] – [1.225]	[1.072] – [1.347]	[1.029] – [1.184]	[1.029] – [1.184]
Variance (education)	1.159	1.152	1.152	1.122	1.128	1.128
	[1.021] – [1.317]	[1.021] – [1.300]	[1.021] – [1.300]	[1.001] – [1.258]	[1.004] – [1.267]	[1.006] – [1.264]
BICC	10149.35	10180.98	10189.98	9525.385	9522.487	9531.376
ICC country	0.050	0.038	0.038	0.053	0.029	0.029
N individuals	8,290	8,290	8,290	7,712	7,712	7,712
N countries	28	28	28	24	24	24

Note: Standard errors in parentheses.

**Figure A-1: Probability of living in singlehood after leaving home across countries with different levels of gender-egalitarian norms (z-scores), by gender**



Data: ESS, round 3 and round 9; own calculations.