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Article

Things to Gain, Things to Lose: Perceived Costs and Benefits of Children and Intention to Remain Childless in Poland

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Abstract

A rapid fertility decline observed in Poland since the 1990s has been accompanied by a marked increase in childlessness. This may seem surprising given the high value placed on parenthood in the country. Some evidence exists on how child-lessness in Poland relates to biological and situational constraints, but still relatively little is known about how the decision to never have children is made, especially among men. This article contributes to this literature by analysing how the perceived positive and negative consequences of parenthood affect the reproductive intentions of childless women and men of different socioeconomic characteristics in Poland. Using a subsample of childless respondents extracted from the second wave of the Polish Generation and Gender Survey, we examine the interplay between (a) the intention to remain childless, (b) the perceived costs and benefits of having children, included as a unique set of questions in the Polish Generation and Gender Survey (GGS), and (c) respondents' socioeconomic characteristics (education, employment, household financial situation, and the size of the place of residence). The results suggest that among women both costs and benefits strongly affect the likelihood of intending to remain childless, whereas among men only the benefits matter. While the effects do not depend on any of the socioeconomic characteristics, the probability of not intending to have a child does vary by some of them. Our results indicate the pattern of fertility polarisation already seen in some low-fertility countries: for the disadvantaged segment of the population, it is increasingly difficult to become parents.

Keywords

childbearing intentions; childbearing motivations; childlessness; costs and benefits of children; Poland

Issue

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1. Introduction

The high value of family and parenthood—especially motherhood—is strongly embedded in Polish culture (Fokkema & Esveldt, 2008; Giza-Poleszczuk & Poleszczuk, 2004; Kotowska et al., 2008; Mishtal, 2012). Poland is predominantly Catholic, highly religious (Pew Research Center, 2018) and traditional in terms of gender norms (Matysiak & Węziak-Białowolska, 2016). Childlessness is still often socially disapproved of (Gedvilaite-Kordusiene et al., 2020; Morison et al., 2016). In such a context, the decision to have no offspring is challenging.

Nevertheless, a rapid fertility decline observed in Poland since the 1990s has been accompanied by a marked increase in childlessness (Kotowska et al., 2008). For cohorts from 1935–1960, the share of childless



women was still low, between 5–10% (Kotowska et al., 2008; Sobotka, 2017). However, among women born after 1960, the childlessness levels increased drastically: They have been estimated at 15.5% for those born in 1965 (Kotowska et al., 2008) and—based on representative survey data—at around 18% for the 1970 cohort (Mynarska et al., 2014). The data for these cohorts need to be considered with caution due to very high outmigration (Sobotka, 2017; Tymicki et al., 2018), but they consistently indicate a clear trend towards higher levels of childlessness.

Numerous studies have examined determinants of childbearing choices in Poland, contributing to our understanding of the low fertility rates in the country (Kotowska et al., 2008; Matysiak, 2009; Mishtal, 2012; Mynarska & Styrc, 2014). Yet, only a few of them have focused on determinants of lifelong childlessness. The available findings show how childlessness among Polish women is linked to infertility and various life circumstances, such as employment instability or lacking a partner (Mynarska et al., 2015). Moreover, the existing evidence indicates that, like in many other low-fertility countries, childlessness might result from fertility postponement rather than from individual preferences (Miettinen & Szalma, 2014). At the same time, some recent psychological studies suggest that low childbearing motivations and desires may also contribute to Poles' decision to forego parenthood (Mynarska & Rytel, 2018, 2020). These studies have found that childless individuals, who perceive high costs and low benefits of childbearing declare a weak desire for parenthood (Mynarska & Rytel, 2020), and this in turn is related to a weak childbearing intention (Mynarska & Rytel, 2018). These studies did not ask explicitly about the intention to remain childless, however. They did not control for socioeconomic factors either, making it impossible to tell whether motivational and situational factors act independently.

This study expands our knowledge on childlessness in Poland by examining determinants of intention to never have any children, related to both motivational factors and socioeconomic conditions. To this end, we use a subsample of childless respondents extracted from the second wave of the Polish Generation and Gender Survey (Gauthier et al., 2018; Kotowska & Jóźwiak, 2011). This dataset includes a unique set of questions on the perceived costs and benefits of having children, which capture the motivational forces behind people's fertility choices (Hoffman & Hoffman, 1973; Miller, 1994). Additionally, we consider a set of socioeconomic factors, such as educational attainment, employment status, material situation, and place of residence. Consequently, we can assess the independent effects of motivational and central situational factors on Poles' intention to remain childless.

2. Model of Reproductive Decision-Making

There are several theoretical models of reproductive decision-making used in population and family research, such as the theory of planned behaviour (Ajzen, 1991; Klobas & Ajzen, 2015), traits-desires-intentionsbehaviour theory (Miller, 1994, 2011b) or the cognitivesocial model of fertility intentions (Bachrach & Morgan, 2013). With some noticeable differences (Miller, 2011a; Morgan & Bachrach, 2011), these theoretical approaches share several key characteristics. First, they depict reproductive decision-making as a motivational sequence in which childbearing intentions are direct predecessors of reproductive behaviour. They also commonly define childbearing intentions as psychological states, oriented toward a reproductive outcome. Intentions define a behavioural goal (to have a child or to avoid pregnancy) and entail some commitment to act towards this goal (to engage in proceptive or contraceptive behaviour).

Second, even though different terminology is used, the mentioned theoretical models consider mental representations of parenthood as very basic motivational forces that underlie childbearing intentions. Mental scripts and schemas (Bachrach & Morgan, 2013), beliefs and attitudes (Klobas & Ajzen, 2015) or motivations (Miller, 2011b) all correspond to people's overall perceptions of parenthood that carry some affective meaning. People's focus on positive or negative consequences (benefits/values and costs/disvalues) of having children constitutes the starting point for the formation of childbearing intentions.

While Miller et al. (1999) highlighted the genetic origin of childbearing motivations, scholars universally agree that positive and negative perceptions of parenthood are shaped in the course of individual development, starting from early childhood (Bachrach & Morgan, 2013; Miller, 1992; Miller & Pasta, 2000). Consequently, although they may change over the life course, they are far more stable than childbearing intentions, which are highly responsive to personal circumstances (Klobas & Ajzen, 2015; Miller, 2011b). In other words, childbearing intentions originate from affective reactions to parenthood but are "constrained by reality" (Miller, 1994, p. 228). Thus, both underlying motivational forces as well as situational factors need to be considered to fully understand childbearing intentions.

3. Motivational and Situational Determinants of Childlessness

Early studies on motivational origins of childbearing perceived costs and benefits of parenthood demonstrated that emotional values of children are highly relevant for entry into parenthood, while instrumental values (e.g., related to economic maintenance of family) are more important for higher-order births (Bulatao, 1981). Later research expanded these findings by showing that expected low levels of joy and stimulation from childbearing, low perceived importance of parenthood for a couple's relationship and seeing childcaring and child-raising as burdensome and expensive are all important motivations for remaining childless (Avison & Furnham, 2015; Langdridge et al., 2005; Park, 2005). For women, affective reactions to pregnancy and infancy play a particular role (Mynarska & Rytel, 2020; Park, 2005). Some gender differences have been also detected in the perceived costs of children and in how they motivate childbearing choices. Women's decisions often hinge upon their concerns about how motherhood would impact their employment prospects, but those of men are more driven by how they perceive the direct financial costs of parenthood (Park, 2005).

Undoubtedly, the affective reactions to various aspects of childbearing and-rearing-perceived costs and benefits of parenthood-determine the strength of women's and men's motivation to become a parent and constitute an important factor in their reproductive decisions (Miller, 1994, 2011b; Mynarska & Rytel, 2018). However, motivation can be reinforced or limited by situational factors, including partnership and socioeconomic status. For instance, in- or sub-fecundity as well as being single are among the strongest determinants of childlessness for both women and men (Jalovaara & Fasang, 2017; Keizer et al., 2008; Tanturri & Mencarini, 2008). The role of socioeconomic status is more complex and gendered. Many studies have documented a positive educational gradient in childlessness: Highly educated women are at higher risk of remaining childless than their lower educated peers, be it due to fertility postponement or because they are less family-oriented (Berrington, 2017; Keizer et al., 2008; Tanturri & Mencarini, 2008; Wood et al., 2014). Recent evidence, however, has demonstrated that the relationship between education and childlessness has changed in several European countries. In Northern European and some post-socialist Central-Eastern European (CEE) countries, the share of childless women among the low-educated is now higher than among the university-educated (Beaujouan et al., 2016; Jalovaara et al., 2019; Rotkirch & Miettinen, 2017). Similarly, women's employment has repeatedly been found to be conducive to childlessness (Keizer et al., 2008; Tanturri & Mencarini, 2008), but according to recent studies, unemployment, unstable employment or precarious jobs might have a similar effect (Mynarska et al., 2015; Tocchioni, 2018). For men, the role of socioeconomic status is much clearer, with low education and unstable employment being related to a higher risk of childlessness (Burkimsher & Zeman, 2017; Fiori et al., 2017; Jalovaara et al., 2019; Keizer et al., 2008).

Most of the studies cited above identify determinants of remaining childless by either showing how characteristics and life course developments of childless individuals differ from those of parents or by examining the (retrospectively) declared reasons for childlessness. However, the evidence on how the motivational and situational factors shape reproductive decision-making and contribute to the intention to never have any children is still scarce. In fact, the vast majority of studies that consider the subjective perception of costs and benefits of children as well as socioeconomic factors focus on short-term (in three years' time) childbearing intentions (Albertini & Brini, 2021; Billari et al., 2009; Ciritel et al., 2019; Dommermuth et al., 2011). Only a few studies investigated how socioeconomic status is related to the intention to remain permanently childless (Fiori et al., 2017; Heaton et al., 1999; Miettinen, 2010; Miettinen & Szalma, 2014). Yet, none of them has systematically analysed the role of both motivational and situational factors. This is where our study contributes.

4. Data and Methods

We use the second wave of the Polish GGS conducted in 2014–2015, which oversampled a young segment of the population. Specifically, we extract a subsample of 2,690 respondents who are childless and aged between 18 and 49 years old. Our analytical sample, with no missing information on any of the variables included in the analysis, consists of 2,548 childless women and men.

Our goal is to examine the interplay between (a) the intention to remain ultimately childless (intention of lifelong childlessness—outcome variable), (b) the perceived costs and benefits of having children included as a unique set of questions in the Polish GGS, and (c) respondents' socioeconomic characteristics (education, employment, household financial situation and the size of the place of residence). The intention to remain childless is dichotomous (yes/no) and combines answers to two questions:

- 1. Do you intend to have a child during the next three years?
- 2. Supposing you do not have a/another child during the next three years, do you intend to have any (more) children at all?

The second question was asked independently from the answer to the first question. Therefore, only those respondents who answered "probably not" or "definitely not" to both questions are labelled as intending to remain permanently childless. Those who answered "probably yes" or "definitely yes" to both or either of the questions are classified as intending to have a child in the future (sooner or later).

The perceived costs and benefits of having children are constructed from two batteries of questionnaire items (18 items in total). While the standard GGS questions on attitudes towards children ask about expected (positive and negative) consequences of having a child in the next three years' time, the items added in the Polish GGS do not include this timeframe. The respondents were asked about their current opinions on the costs and benefits of children, which might occur at any time in the future, which is better suited for analysing the lifelong intentions. To be exact, the respondents were asked to assess how important for them personally and at the current point in time the following reasons for having a child are: (a) experiencing a unique kind of love and closeness through parenthood, (b) fulfilling religious values



concerning family, (c) passing own characteristics and values on to offspring, (d) not feeling lonely in older age, (e) watching how the child grows and develops, (f) receiving help from offspring in old age, (g) having somebody to pass on an inheritance to, (h) feeling fulfilled as a woman/a man through parenthood, and (i) strengthening the relationship through parenthood. The tenth reason for having children ("having someone to work in Poland in the future") was of a slightly different nature, tapping into nationalistic attitudes and was dropped from these analyses. In the same vein, the respondents evaluated the following reasons for not having children: (j) fear that the child will be born ill, (k) having children limits parents' free time, (I) difficulties in engaging in paid work and professional development, (m) having less time for one's partner/spouse, (n) financial burden, (o) experiencing worries and concerns related to raising a child, (p) difficulties in combining motherhood and paid work, (r) burden and hardship of pregnancy and childbirth, (s) perceiving parenthood as too high a responsibility. Possible answers to all questions were: very important, rather important, neither important nor unimportant, rather unimportant, not important at all.

We apply exploratory factor analysis with a principal factor solution, using polychoric correlations and varimax rotation on the 18 items on perceived benefits and costs of having children. Based on the Keiser criterion and following the scree-plot inspection, two clear dimensions were identified related to positive and negative consequences of childbearing. Based on this solution, the factor scores were computed for each dimension. The resulting two variables are standardised, with the mean equal to zero and the standard deviation equal to one. The details of the factor analysis are shown in Table A1 in the Supplementary File. Notably, we also tested a solution with assumed three factors to verify whether it would be possible to distinguish two kinds of perceived benefits: emotional and instrumental ones. The third dimension that emerged from the data was related to items "receiving help from offspring in old age" and "having somebody to pass on an inheritance to," but it did not add much to the solution. The share of explained variance rose from 51 to 54% and the third factor accounted for 6% of the variance. Moreover, the items with high factor loadings on the third dimension showed high cross-loadings.

The socioeconomic characteristics used in the analysis include the following variables: education (below secondary, secondary and tertiary), employment status (working for pay, being in education, being unemployed, and being inactive, i.e., not working and not looking for work), financial situation of the household (making ends meet very easily or easily, fairly easily, with some difficulty, with difficulty or great difficulty), and place of residence (large town, i.e., with 100,000 thousand inhabitants or more, smaller town, and village). All these variables are based on respondents' selfassessments. This is particularly important in the case of employment status: Those defining themselves as "working for pay" may still be pursuing some kind of education. Similarly, the group "in education" certainly include students who have a (part-time) job. Table 1 shows the sample characteristics.

To examine how strongly the intention to remain childless varies by the perceived benefits and costs of parenthood and to what extent this relationship is modified by socioeconomic characteristics, we use logit models, in which the dichotomous intention to remain childless is the outcome. We apply a step-wise procedure in which we start with a model with only the perceived costs and benefits of having children as independent variables (M1) and then iteratively test the effect of each individual socioeconomic variable. We thus compute four models (M2-M5) in which M1 is extended by education (M2), the employment status (M3), the financial situation of the household (M4), or the place of residence (M5). The last model, M6, includes all independent variables simultaneously. In all models, we control for age and age squared of the respondent, their partnership status (coded as 1 for those respondents who have a partner and as 0 for those who do not have one) and infecundity (coded as 1 for those who declare being aware that they are probably unable to have children and 0 for all others). While the effect of the three variables is not of interest in this study, we control for them as they are known to affect fertility intentions (e.g., Albertini & Brini, 2021; Billari et al., 2009; Régnier-Loilier & Vignoli, 2011) and may thus act as confounding factors. In all six models, each independent and control variable interacted with the respondent's sex, so that the estimates for women and men can be directly compared as coming from the same models.

5. Results

5.1. Descriptive Analysis

Overall, 20% and 22% of women and men, respectively, intend to remain childless (Figure 1, horizontal dotted line). As expected, these values vary substantially across socioeconomic characteristics. The key factors for both women and men are employment status and financial situation (Figure 1). The share of respondents who intend to remain childless is by far the highest among the economically inactive population. It should be mentioned, however, that this group is rather small in our sample and made up predominantly of disabled or ill respondents. Furthermore, women working for pay declare more often that they intend to remain childless than those in education and unemployed (26% as opposed to about 10%). In the case of financial situation, the more difficult it is to make ends meet, the more often respondents intend to remain childless, with values ranging from 17% to 31%. The gradient is a bit steeper for men than for women. Education plays a role only among men: the intention to remain childless is much less spread



Table 1. Sample characteristics, unweighted data.

	Women	Men
Dependent variable		
Intending to remain childless (%)	23.9	24.1
Independent variables		
Perceived costs of having children (mean)	0.0	0.0
Perceived benefits of having children (mean)	0.1	-0.1
Education (%)		
below secondary	22.2	27.3
secondary	47.9	56.2
tertiary	29.9	16.5
Employment status (%)		
works	42.3	50.2
in education	42.0	32.4
unemployed	10.8	13.2
inactive	4.9	4.3
Financial situation: making ends meet (%)		
easily	16.2	16.4
fairly easily	39.5	36.0
with some difficulty	26.7	26.7
with difficulty	17.7	20.9
Place of residence (%)		
towns above 100 thous.	30.4	27.3
towns below 100 thous.	30.0	29.0
village	39.7	43.8
Control variables		
Age (mean)	26.1	26.5
Having partner (%)	34.0	22.2
Being infecund (%)	5.6	1.4
Ν	1,195	1,353

among those with a university degree (15%) than among those without it (slightly over 20%). For women, in turn, the place of residence seems to be important: 14% of those who live in the countryside plan their future without children as opposed to around 24% among those living in cities and towns.

Respondents who intend to remain childless differ drastically from those who intend to have children with respect to the perceived costs and benefits of having children, as Figure 2 clearly shows. Among respondents assessing the benefits of childbearing as low, over 40% do not wish for children. This number drops to less than 15% among those who perceive the benefits as high. In the case of perceived costs of having children, the pattern reverses but only for women: Those assessing the costs as low intend to remain childless less often than those assessing them as high (13% compared to 31%). The gradient, however, is not as steep as in the case of the perceived benefits and very weak and inconsistent among men. When broken down further by socioeconomic characteristics, these numbers do not substantially change (results not shown). Thus, it seems that the motivational factors are not correlated with the socioeconomic ones. In the next section, we test the bivariate

relationships and examine whether they also hold in a multivariate setup.

5.2. Multivariate Analysis

The effect of perceived costs of having children on the intention to remain childless is strong and unaffected by the socioeconomic characteristics: it does not vary across models M1 to M6 (Figure 3 and Table A2 M1-M6 in the Supplementary File). Assessing the benefits of childbearing one standard deviation higher than the mean decreases the probability of intending to remain childless by about 7 percentage points (p.p.), for both women and men and in all model specifications. Similarly, seeing the costs of having children one standard deviation higher than the mean raises the chances of planning a future without children by 6 p.p. but only among women. The multivariate analysis confirms the descriptive results shown in Figure 2: Men's intention to remain childless does not depend on the perceived costs of having children. The fact that both effects do not change when controlling for education, employment status, place of residence, and financial situation of the household indicates that the perceived costs and benefits of having children





Figure 1. Respondents intending to remain childless, by socioeconomic characteristics and gender, with 95% confidence intervals. Notes: The dotted horizontal lines denote the mean share of women (upper panels) and men (lower panels) intending to remain childless; data weighted with post-stratification weights.

shape the intention to remain childless independently from socioeconomic factors.

In the multivariate setup, some of the bivariate relationships between socioeconomic characteristics and intention to remain childless disappear whereas others rise in importance (see Figure 4 and see Table A2 M1-M6 in the Supplementary File). As in the descriptive analysis, being economically inactive vastly increases the probability of intending to remain childless compared to respondents who work for pay, by over 20 and 30 p.p. among women and men, respectively. There are no differences, however, between those who are in employment, in



Figure 2. Respondents intending to remain childless, by perceived costs and benefits of children. Notes: Low, medium, and high values of costs and benefits denote the first, third, and fifth quantiles, i.e., the bottom 20%, those between 10% below and 10% above the median, and the top 20%; the dotted horizontal lines denote the mean share of women (left-hand panel) and men (right-hand panel) intending to remain childless; data weighted with post-stratification weights.





Figure 3. Effects of perceived costs and benefits of having children on intention to remain childless. Notes: Average marginal effects (AMEs) of intending to remain childless (vs. reference category: intending children in the future) in models M1–M6 together with 95% confidence intervals; AMEs expressed on the scale of the response variable (as changes in probabilities) from logistic models M1–M6 estimated jointly for women and men. AMEs express a change in the probability in response to an increase by one standard deviation.

education and unemployed. The effect of financial situation holds only when comparing the poorest with the richest male respondents: the probability is 7 p.p. higher among the former than among the latter. In the full model, i.e., when controlling for all socioeconomic characteristics (M6), the effect loses statistical significance.

Unlike in the descriptive analysis, there is a clear education gradient in the intention to remain childless



Figure 4. Effects of socioeconomic characteristics on intention to remain childless. Notes: AMEs of intending to remain childless (vs. reference category: intending children in the future) in restricted models (M2-M5) and full model (M6) together with 95% confidence intervals. AMEs expressed on the scale of the response variable (as changes in probabilities) from logistic models M1–M6 estimated jointly for women and men. Reference categories: education (M2 & M6): secondary education; employment status (M3 & M6): working/in employment; financial situation (M4 & M6): making ends meet easily; place of residence (M5 and M6): towns above 100,000 inhabitants.



among women. Compared to women with secondary education, those with a university degree are 7 p.p. less likely to plan their future without children. Among men, this figure amounts to 5 p.p., marginally missing the significance level of 0.05 in the full model M6 (but remaining significant at p < 0.1). The confounding factor that makes the multivariate results inconsistent with the descriptive ones is age (if the differences in the age structure between educational groups are not controlled for, the educational pattern resembles the one shown in Figure 1 even when controlling for other characteristics). Overall, it can be concluded that the higher the educational attainment, the less likely the respondents are to intend to never have children, and the effect is stronger for women.

Finally, the importance of the place of residence largely depends on whether other demographic (age) and socioeconomic (education) characteristics are controlled for or not. The effect of living in a village as opposed to a town with more than 100,000 thousand inhabitants (M5) disappears once age is controlled for (results not shown). However, it becomes significant again when education is also included in the model (M6): Women and men living in a village are 5 p.p. less likely to plan a future without children than respondents living in large towns.

6. Discussion and Conclusions

Based on the results presented in this article, it can be estimated that around 1/5 of childless women and men in Poland plan to never have any children. This number may seem rather high, but it is consistent with existing estimates and projections of ultimate childlessness in Poland (Kotowska et al., 2008; Mynarska et al., 2014), and also similar to that in other countries in CEE (Vienna Institute of Demography et al., 2020). Together with persistently low fertility, increasing levels of childlessness prompted many governments in CEE to introduce policies to encourage parenthood. But whether any introduced measures are successful depends on how well they address the major reasons as to why people limit or forego childbearing. Therefore, it is crucial to understand the motivations behind and obstacles to having children.

In this article, we focus on factors related to intentions to remain permanently childless and their motivational and socioeconomic determinants in Poland. As for motivational factors, viewing the benefits of having children as low is the main factor for intending to never have any children for men and women in all socioeconomic groups analysed in our study. Among women, perceiving the high costs of having children plays an important role, too. Our results corroborate the existing evidence. Affective reaction to children—especially infants—was shown as central to women's choices for or against motherhood in previous research (Avison & Furnham, 2015; Park, 2005). It was suggested that for men, benefits related to childrearing and expected interactions with an

older child might be more decisive (Mynarska & Rytel, 2020; Pezeshki et al., 2005). As for the role of costs, previous studies conducted in the US and across Europe (Langdridge et al., 2005; Park, 2005), including in Poland (Mynarska & Rytel, 2020), similarly demonstrated that the decision of whether to become a parent is sensitive to concerns about opportunity and financial costs, with the latter type of costs being more important for men's choice to remain childless. In our data, only one question (out of nine) concerned direct financial costs. Meanwhile, three items addressed various costs faced by women: difficulties in combining motherhood and paid work, burden and hardship of pregnancy and childbirth, or difficulties in engaging in paid work and professional development. This may help to explain why, in our analysis, the assessment of costs is irrelevant to men's decision of whether to become a father or not.

Beyond the motivational factors, the main socioeconomic determinant of intending to remain childless is education. Poles, especially women, with a university education, intend to remain childless considerably less often than their less-educated peers. This negative educational gradient in the intention to remain childless indicates that Poland might be going through a similar process as the Nordic and some CEE countries: A reversal in the relationship between women's level of educational attainment and childlessness from positive to negative or U-shaped. Analyses of (almost) ultimate childlessness have shown that it is becoming increasingly difficult for the low-educated and low-skilled to have children (Beaujouan et al., 2016; Jalovaara et al., 2019; Rotkirch & Miettinen, 2017). Our results demonstrate that the change in the educational gradient of childlessness is not limited to behaviour (i.e., actual childlessness) but is also happening at the level of childbearing intentions.

As for other situational factors considered in our study, among all socioeconomic groups, the economically inactive respondents were most likely to intend to remain childless. This group was very small but, notably, it consisted predominantly of disabled or ill individuals. It is feasible that health status was decisive for their childbearing intention. In fact, it has been previously suggested that chronic illness or serious health problems could be a primary reason for both economic inactivity and childlessness (Mynarska et al., 2015). For the healthy, non-disabled segment of the Polish population employment status does not play any significant role.

Importantly, our study demonstrates that motivational (perceived costs and benefits of parenthood) and situational factors (socioeconomic characteristics) affect the intention to never have children independently from each other. While this may seem surprising, it is in line with the theoretical frameworks of reproductive decision-making. The childbearing motivations develop from early childhood and are more stable and far less affected by situational circumstances than intentions (Bachrach & Morgan, 2013; Miller, 2011b). They shape a person's overall desire for or against parenthood, while



socioeconomic conditions reinforce or constrain this wish as intentions are formulated (Miller, 1994, 2011b). No intention is carved in stone and even a very certain intention to never have any children might be revised as the circumstances change (Albertini & Brini, 2021; Bernardi et al., 2015; Heaton et al., 1999). The perceived costs and benefits of children constitute the most basic motivational forces but close attention to socioeconomic factors is needed to understand how the decision to remain childless unfolds over one's life course. A qualitative study on reproductive choices conducted in Poland in the mid-2000s showed that as people get older not only their life priorities but also evaluation of available resources may change (Mynarska, 2010). Also in the current study, age was a confounding factor, affecting the relationship between education and intention to remain childless.

It is worth noting that, in our data, the effect of financial situation or place of residence on intention to remain childless also differed depending on whether age or education were included in the model. Since these effects were rather small and our main aim was to assess the independent effects of motivational and socioeconomic factors, we did not analyse the interdependencies between situational variables more closely. Investigating how different circumstances and life-course developments interact in shaping lifelong fertility intentions constitutes an important avenue for future research.

The central conclusion of our study relates to how perceived low benefits and, among women, high costs of childbearing, and lower level of education—indicative of lower-earning potential—contribute to the intention to never have children. It suggests the pattern of fertility polarisation already seen in some low-fertility countries: For the disadvantaged segment of the population, it is increasingly difficult to become parents. This is particularly the case for women. Does it mean that the policy measures oriented toward lowering the costs of children can be successful in decreasing the level of childlessness in Poland? While such measures have some potential, things are far more complicated.

First, it is important to distinguish between different types of costs to better understand their role in reproductive choices and to explore possible ways to reduce them. In Poland, the pronatalist measures launched in 2005-2015 were mostly directed toward women's opportunity costs. They included substantial improvements in maternal and parental leaves, and childcare arrangements (Kotowska, 2020). In 2016, the right-wing government introduced a universal monthly child benefit of approximately 120 EUR (500 PLN, the "programme 500+"). This programme is oriented towards the direct costs of childbearing. These different types of measures are likely to affect different segments of the population, with the former ones being more important for highly educated women, with high earning potential and strong labour market attachment. The direct benefits are more likely to affect those with

lower earning potential although this effect might not necessarily be as expected. When the programme 500+ was introduced, economists identified a drop in mothers' labour force participation, especially among women with lower education (Magda et al., 2018). At the same time, the effect of the programme on fertility is limited (Kotowska, 2020).

Moreover, the direct financial costs and opportunity costs are not the only ones related to childbearing. In our study, the dimension of costs included also having less time for one's partner or for other activities, women's fears concerning pregnancy and delivery, or stress and responsibility related to parenthood. To reduce this type of cost, it is necessary to create secure conditions for childbearing and rearing. This should include easy access to and wise investments in, among other things, health services (especially, in relation to reproductive health), high-quality child-care facilities and education. With limited resources, governments need to prioritise their investments and carefully consider which measures to implement and how. This further highlights the importance of disentangling the effects of different situational factors as well as different types of perceived costs of parenthood for fertility choices.

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Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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