

Philosophy

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**Digital transformation and family resilience: A socio-philosophical analysis
of demographic change in Azerbaijan**

Majidova Lala Adalat gizi,

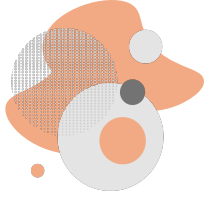
PhD student at the Institute of Philosophy and Sociology of the Azerbaijan
National Academy of Sciences, Azerbaijan, <https://orcid.org/0009-0004-4418-1736>

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***Abstract. Purpose.** This study examines whether contemporary demographic shifts in Azerbaijan — declining fertility, delayed marriage, and rising divorce rates — indicate institutional weakening of the family or, alternatively, reflect adaptive restructuring under conditions of digital transformation and late modern uncertainty.*

***Methodology.** The research employs an integrative design combining socio-philosophical systems analysis with longitudinal demographic assessment based on official statistical data. Fertility rates, marriage timing, divorce trends, infant mortality, and migration patterns are analysed over time to identify structural tendencies. A systems-theoretical framework is applied to interpret demographic behaviour as an interaction between institutional constraints, normative expectations, and digitally mediated communication environments.*

***Novelty.** The paper introduces the concept of adaptive family resilience,*



reconceptualising the family not as a passive demographic unit but as a semi-autonomous social system capable of functional recalibration. Unlike decline-centred interpretations, the study proposes a hybrid modernisation model in which behavioural change coexists with normative continuity.

Results. *The findings demonstrate that demographic change in Azerbaijan follows a moderated and metastable trajectory rather than linear institutional erosion. Fertility decline reflects reproductive rationalisation under conditions of economic risk; delayed marriage corresponds to life-course sequencing strategies; and moderate divorce growth indicates increased relational selectivity. Digital transformation operates primarily as a restructuring force, redistributing informational and socialisation functions while preserving the family's core role in identity formation and intergenerational coordination.*

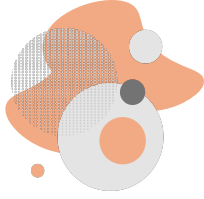
Overall, it is noted that the family's continued ability to absorb uncertainty, coordinate the transfer of knowledge between generations, and stabilize demographic behavior suggests that the family will remain a structurally significant player in emerging "smart" societies.

Keywords: *digital transformation; family resilience; demographic change; smart society; Azerbaijan; social adaptation.*

Цифрова трансформація і стійкість сім'ї: соціо-філософський аналіз демографічних змін в Азербайджані

Маджидова Лала Адалат гизи,

PhD студент Інституту філософії та соціології Національної академії наук
Азербайджану, Азербайджан, <https://orcid.org/0009-0004-4418-1736>

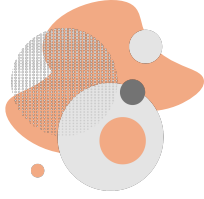


Анотація. *Основна мета в цій статті* полягають у питанні про те, чи вказують сучасні демографічні зрушення в Азербайджані — зниження народжуваності, відкладені шлюби та зростання кількості розлучень — на інституційне ослаблення сім'ї або відображають адаптивну реструктуризацію в умовах цифрової трансформації та невизначеності пізньої сучасності.

Методологія У дослідженні поряд із загальнонауковими методами були використані такі методи як інтегративний підхід, що поєднує соціально-філософський системний аналіз з лонгитюдною демографічною оцінкою на основі офіційних статистичних даних. Аналіз показників народжуваності, терміни укладання шлюбу, тенденції розлучень, дитяча смертність та міграційні моделі у часі виявлення структурних тенденцій. Також застосовується системно-теоретична модель для інтерпретації демографічної поведінки як взаємодії між інституційними обмеженнями, нормативними очікуваннями та комунікаційним середовищем, опосередкованим цифровими технологіями.

Новизна. У статті вперше у вітчизняній суспільній думці вводиться концепція адаптивної стійкості сім'ї, переосмислюється сім'я не як пасивно демографічна одиниця, бо як напіваавтономна соціальна система, здатна до функціональної перенастроювання. На відміну від інтерпретацій, орієнтованих занепад, у дослідженні пропонується гібридна модель модернізації, у якій зміна поведінки співіснує з нормативною наступністю.

Висновки. Узагальнюючи порушені проблеми на основі отриманих даних показується, що демографічні зміни в Азербайджані йдуть помірною та метастабільною траєкторією, а не інституційною лінійною ерозією. Зниження народжуваності відбиває раціоналізацію репродуктивного поведінки за умов



економічного ризику; відстрочений шлюб відповідає стратегіям послідовного життєвого циклу; а помірне зростання розлучень свідчить про підвищену вибірковість у відносинах. Цифрова трансформація діє насамперед як реструктурируюча сила, перерозподіляючи інформаційні та соціальні функції, зберігаючи при цьому ключову роль сім'ї у формуванні ідентичності та міжколінної координації.

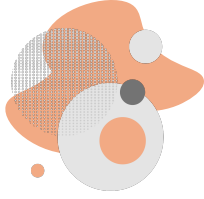
В цілому, відзначається, що зберігається здатність сім'ї поглинати невизначеність, координувати передачу знань між поколіннями і стабілізувати демографічну поведінку свідчить про те, що сім'я залишиться структурно значущим гравцем у формуються «умних» суспільствах.

***Ключові слова:** цифрова трансформація; стійкість сім'ї; демографічні зміни; розумне суспільство; Азербайджан; соціальна адаптація*

1. Introduction

In recent decades, demographic change has emerged as one of the central dimensions of social transformation, reflecting broader shifts associated with modernisation, globalisation, and digitalisation. Declining fertility rates, delayed marriage formation, and increasing divorce levels have been widely observed across diverse socio-cultural contexts, often interpreted as indicators of the weakening of the family institution. However, such interpretations remain contested, particularly in societies undergoing hybrid and uneven forms of modernisation.

Azerbaijan represents a particularly relevant case for examining these processes. As a post-Soviet society experiencing rapid socio-economic restructuring alongside the expansion of digital technologies, the country demonstrates a complex interplay between traditional normative frameworks and emerging behavioural patterns. On the

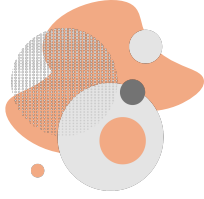


one hand, family remains a central institution in social organisation, strongly embedded in cultural values and intergenerational structures. On the other hand, empirical data indicate significant transformations in demographic behaviour, including declining fertility, changes in marriage timing, and rising divorce rates [2, 33-34].

Within the existing literature, these trends are frequently framed either in terms of demographic transition theory or as manifestations of individualisation processes characteristic of late modernity. While such approaches provide important insights, they often fail to capture the systemic and adaptive nature of family transformation. In particular, there remains a lack of integrative frameworks that simultaneously account for structural conditions, normative continuity, and the growing influence of digital communication environments.

The rapid expansion of digital technologies introduces an additional layer of complexity to the analysis of demographic change. Digital platforms reshape communication patterns, influence partner selection, and diversify sources of socialisation, thereby altering the context within which family-related decisions are made. Nevertheless, the role of digital transformation in shaping demographic behaviour remains insufficiently operationalised in empirical research, particularly in the context of post-socialist societies.

Against this background, the present study seeks to address two interrelated research questions: first, whether contemporary demographic changes in Azerbaijan should be interpreted as evidence of family decline or as forms of adaptive restructuring; and second, how digital transformation functions as a mediating factor in this process. The study aims to move beyond dichotomous interpretations by proposing a systems-based perspective that conceptualises the family as a resilient and adaptive



social unit.

The theoretical contribution of this research lies in the integration of demographic transition analysis, digital sociology, and family resilience theory into a unified analytical framework. Empirically, the study draws on longitudinal demographic data to examine patterns of fertility, marriage, divorce, and population structure. By combining quantitative trends with socio-philosophical interpretation, the article seeks to provide a more comprehensive understanding of demographic change in Azerbaijan as a hybrid modernising society.

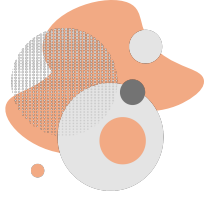
To achieve this aim, the study addresses the following tasks:

- (1) to analyse demographic trends in Azerbaijan;
- (2) to interpret these trends within a socio-philosophical framework;
- (3) to assess the mediating role of digital transformation.

2. Literature Review

The relationship between demographic change and family transformation has undergone substantial theoretical re-evaluation in recent scholarship. Classical demographic transition theory, which framed fertility decline and changing family patterns as linear outcomes of industrialisation, has been increasingly challenged by more nuanced interpretations emphasising uncertainty, institutional adaptation, and non-linear trajectories. Contemporary research argues that demographic behaviour cannot be adequately explained through purely economic or structural variables, but must be situated within broader socio-cultural and communicative environments.

Recent studies (2020–2025) highlight the growing importance of **uncertainty and risk sensitivity** in shaping reproductive behaviour. Building on late-modernity frameworks, scholars demonstrate that fertility decline and delayed marriage are not

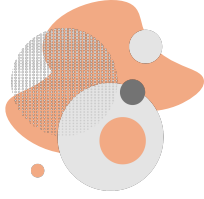


merely consequences of economic constraints but reflect strategic adaptation to perceived instability in labour markets, housing systems, and life-course planning. This perspective reframes demographic change as a rational and context-sensitive process rather than a symptom of institutional breakdown.

At the same time, the expansion of digital communication environments has introduced a new analytical dimension. Research in digital sociology shows that online platforms significantly reshape patterns of partner selection, relational expectations, and socialisation processes. Studies on online dating ecosystems and social media environments indicate that digitalisation reduces barriers to interaction while simultaneously increasing expectations of emotional compatibility and personal fulfilment. This dual dynamic contributes to delayed marriage formation and greater selectivity in intimate relationships. However, empirical findings remain mixed: while some scholars contend that digitalisation erodes traditional family structures, others argue that it primarily redistributes communicative functions without fundamentally displacing the family as a core social institution [3, 23-24; 9, 8-9; 4, 83-85].

A parallel body of literature has developed around the concept of **family resilience**. Recent meta-analyses (2020–2024) conceptualise the family as a flexible and adaptive system capable of functional reconfiguration under structural pressure. Rather than interpreting demographic change as decline, these studies emphasise mechanisms such as role redistribution, intergenerational negotiation, and selective integration of external institutional support. This approach directly challenges earlier “family crisis” narratives and introduces a systems-oriented understanding of family transformation [6, 7-9; 5, 22-23; 17, 355-357; 19, 4-5].

Nevertheless, a key tension persists in the literature. While digital sociology emphasises the transformative role of communication technologies, resilience-based



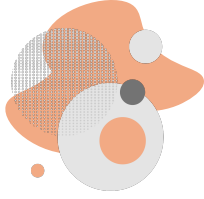
approaches tend to highlight continuity and adaptive stability. The integration of these perspectives remains theoretically underdeveloped. In particular, there is limited empirical work that systematically connects digital communication environments with measurable demographic outcomes such as fertility behaviour, marriage timing, and divorce dynamics [12, 44-46; 16, 55-56; 13, 328-329].

Post-socialist societies provide a particularly important empirical context for addressing this gap. Following the structural disruptions of the 1990s, these societies experienced rapid fertility decline, institutional uncertainty, and changing gender roles. However, comparative research demonstrates significant heterogeneity across countries, suggesting that demographic transition processes are mediated by cultural norms, policy frameworks, and historical legacies. Recent studies (2021–2025) emphasise that hybrid models of modernisation—combining behavioural change with normative continuity—are especially characteristic of such contexts [23, 55-56; 21, 22-23; 10, 223-224; 22, 44-46; 11, 166].

Within the Azerbaijani case, existing research remains relatively fragmented. While statistical analyses document trends such as declining fertility, delayed marriage, and urban–rural differentiation, these studies are rarely integrated with broader socio-philosophical frameworks. Moreover, the role of digital transformation in shaping family resilience has received limited systematic attention. Most available works either focus on descriptive demographic indicators or provide normative cultural interpretations without bridging macro-level data and theoretical explanation.

Thus, a significant research gap emerges at the intersection of three domains:

- (1) demographic transition analysis,
- (2) digital sociology, and
- (3) family resilience theory.

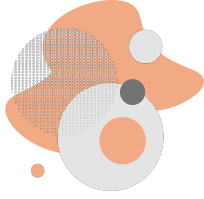


The present study addresses this gap by proposing an integrative framework that conceptualises the family as a semi-autonomous adaptive system embedded within digitally mediated environments. By combining longitudinal demographic data with socio-philosophical systems analysis, the research seeks to provide a more comprehensive understanding of how digital transformation interacts with demographic behaviour in Azerbaijan as a hybrid modernising society.

3. Methodology

This study is based on an integrative research design that combines socio-philosophical interpretation with empirical demographic analysis in order to examine the transformation of the family institution in Azerbaijan under conditions of digital modernity. Given the complexity of demographic behaviour, the research is grounded in a systems-theoretical framework that enables the simultaneous consideration of structural conditions, normative expectations, and communicative environments shaping family-related decision-making processes. Within this perspective, the family is conceptualised as a semi-autonomous social system embedded in broader macro-social dynamics rather than as a passive demographic unit.

Empirically, the study relies on official statistical data provided by the State Statistical Committee of the Republic of Azerbaijan . The analysis focuses on longitudinal demographic indicators, particularly in the post-2010 period, when both digital penetration and socio-economic transformation intensified. The selected indicators include fertility rates, timing of first marriage, marriage and divorce dynamics, infant mortality, life expectancy, and migration processes. These variables are examined not as isolated statistical measures but as interrelated components of a broader demographic system, allowing for the identification of structural tendencies

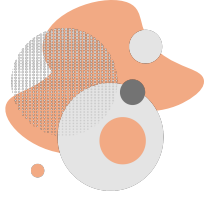


rather than short-term fluctuations.

A central methodological objective of the study is the operationalisation of digital transformation, which is often treated in the literature as an abstract contextual factor. In order to overcome this limitation, the research adopts a proxy-based analytical approach commonly used in digital sociology. Digital transformation is conceptualised not as a direct causal variable but as a mediating structural condition that reshapes the environment within which demographic decisions are made. This mediation is reflected in the expansion of digital communication infrastructures, the increasing accessibility of online interaction environments, and the growing role of digitally mediated information flows in everyday life.

From a behavioural perspective, digital environments contribute to the transformation of partner selection mechanisms by expanding interaction opportunities while simultaneously increasing expectations regarding relational quality and emotional compatibility. This dual effect is associated with delayed marriage formation and greater selectivity in intimate relationships. At the same time, digital communication alters the processes of socialisation by diversifying the sources through which norms, values, and behavioural models are transmitted. As a result, family-based socialisation becomes embedded within a broader multi-source informational ecology, which affects intergenerational coordination and identity formation.

Analytically, the study proceeds through the integration of descriptive demographic mapping and socio-philosophical interpretation. Longitudinal statistical data are first examined to establish the empirical trajectory of demographic change in Azerbaijan. These trends are then interpreted through the lens of late-modern theoretical concepts, including risk sensitivity, life-course rationalisation, and adaptive



family resilience. Within this framework, demographic behaviour is understood as a context-sensitive response to uncertainty rather than as a purely deterministic outcome of structural constraints.

The analysis also incorporates a sensitivity to internal heterogeneity within Azerbaijani society. Particular attention is paid to urban–rural differentiation, gendered behavioural patterns, and cohort-specific dynamics, recognising that demographic transition processes are uneven and mediated by local socio-cultural contexts. This approach allows the study to capture hybrid forms of modernisation in which behavioural change coexists with normative continuity.

Certain limitations of the research design should be acknowledged. The reliance on macro-level statistical data restricts the direct observation of intra-household interactions and micro-level decision-making processes. In addition, the absence of platform-based behavioural data limits the possibility of directly measuring digital interaction patterns. Nevertheless, the integrative systems approach provides sufficient analytical depth to identify the structural direction of demographic transformation and to interpret the role of digital environments as indirect but influential factors shaping family resilience in contemporary Azerbaijan.

4. Results and Discussion

The empirical analysis demonstrates that demographic change in Azerbaijan follows a pattern of gradual transformation rather than abrupt disruption, reflecting a structurally moderated trajectory consistent with hybrid models of late-modern demographic development.

A key structural dimension is revealed through the long-term population dynamics of Azerbaijan.

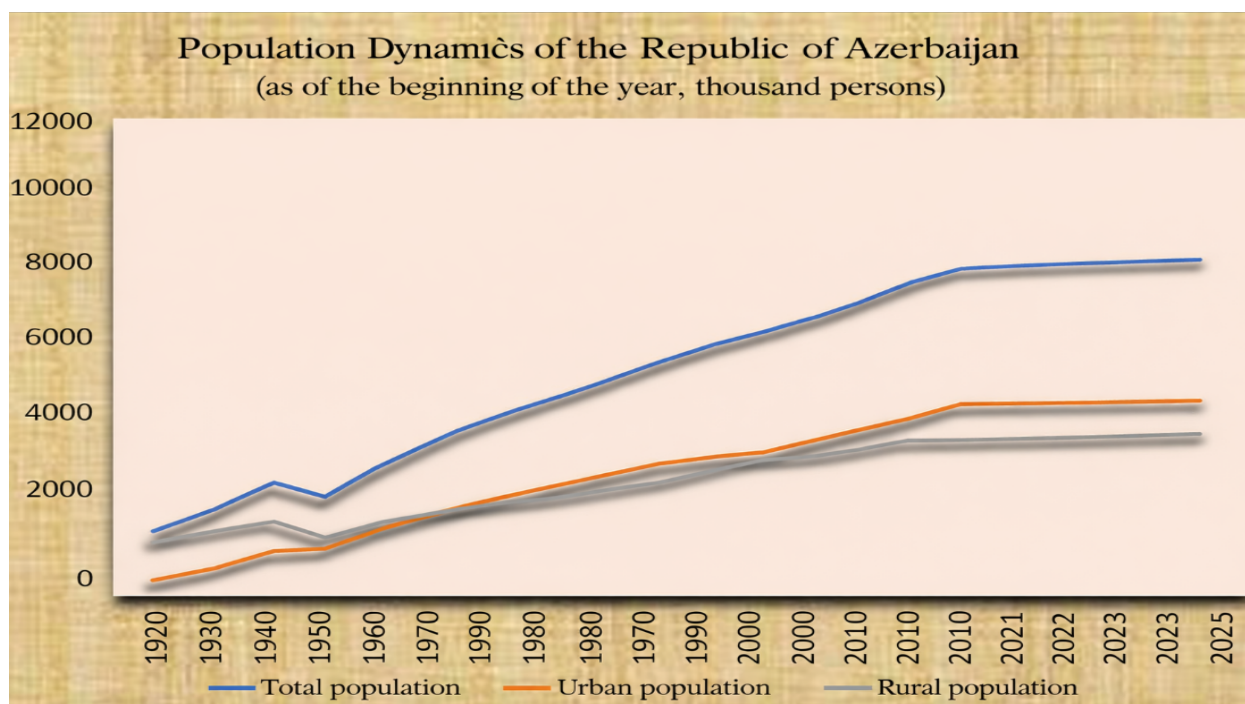


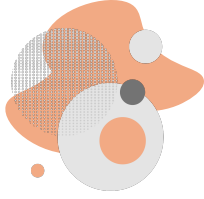
Figure 1. Population dynamics of Azerbaijan (1920–2025, thousand persons)

Source: State Statistical Committee of the Republic of Azerbaijan

Figure 1 illustrates the long-term population dynamics of Azerbaijan from 1920 to 2025, distinguishing between total, urban, and rural population groups.

The data demonstrate a sustained overall increase in the total population, rising from less than 2 million in the early twentieth century to over 10 million in recent years. However, this growth is not linear and reflects several distinct historical phases. A temporary decline or stagnation is observable around the mid-twentieth century, followed by a period of accelerated growth during the late Soviet era. After the 1990s, population growth continues but at a slower and more stabilised rate, indicating a transition toward a mature demographic regime.

A key structural feature of the graph is the divergent trajectories of urban and rural populations. Urban population growth is particularly pronounced, especially from



the 1960s onward, reflecting rapid urbanisation processes. The urban population increases steadily and eventually surpasses the rural population, indicating a shift in the spatial organisation of society. This trend is closely associated with industrialisation, economic restructuring, and internal migration from rural to urban areas [20, 12-13].

In contrast, the rural population exhibits slower growth and relative stabilisation over time. While rural population levels do increase, the pace is significantly lower compared to urban areas, and in later periods the trend approaches stagnation. This suggests a gradual reallocation of population resources toward urban centres and a declining demographic weight of rural regions.

The convergence of these trends indicates a structural transformation in the demographic composition of Azerbaijan. The increasing dominance of urban population reflects broader processes of modernisation, including changes in employment structure, education, and lifestyle patterns. Urbanisation, in turn, has significant implications for family behaviour, particularly in relation to fertility decline, delayed marriage, and changing household structures.

From a socio-demographic perspective, the slowing growth rate observed in recent decades suggests that Azerbaijan is entering a phase of demographic stabilisation. The transition from rapid population expansion to controlled growth reflects the combined effects of declining fertility, improved living standards, and changing socio-economic conditions.

Overall, the figure supports the interpretation that demographic change in Azerbaijan is characterised by long-term structural transformation rather than instability. The interplay between population growth, urbanisation, and stabilisation processes indicates the emergence of a mature and adaptive demographic system

within the broader context of late modernity [18, 12-13].

Further insight is provided by the age–sex structure of the population.

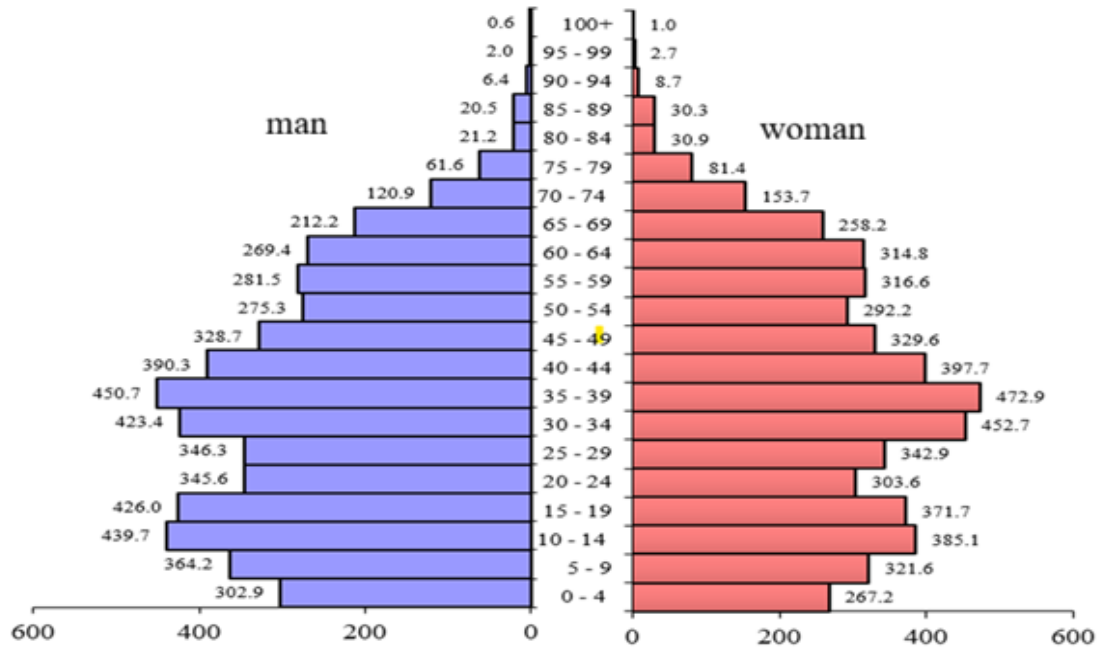
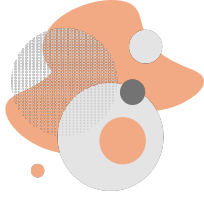


Figure 2. Age–sex structure of the population of Azerbaijan (2025, thousand persons)

Source: State Statistical Committee of the Republic of Azerbaijan

Figure 2 presents the age–sex structure of the population of Azerbaijan, illustrating the distribution of males and females across different age cohorts.

The overall shape of the population pyramid indicates a transition from a traditionally broad-based structure toward a more column-like or constrictive form. This transformation reflects declining fertility and the gradual maturation of the demographic system. The relatively narrower base of the pyramid, particularly in the youngest age groups (0–9), suggests a reduction in birth rates compared to earlier generations, confirming the shift toward a low and stabilising fertility regime.



At the same time, the middle age cohorts—especially those between 25 and 44 years—are relatively wide, indicating a large working-age population. This structure provides a temporary demographic advantage, often referred to as a “demographic dividend,” which can support economic productivity if effectively utilised. However, this advantage is conditional and depends on future fertility, employment opportunities, and migration patterns.

Another notable feature is the increasing proportion of older age groups. The upper segments of the pyramid, particularly above the age of 65, show gradual expansion, reflecting improvements in life expectancy and overall health conditions. This trend points toward the early stages of population ageing, which may place additional pressure on social support systems and family-based care structures in the future.

Gender differences are also clearly visible. In younger and middle age groups, the distribution between males and females is relatively balanced. However, in older age cohorts, females significantly outnumber males. This pattern is consistent with global demographic trends and reflects higher female life expectancy. From a socio-demographic perspective, this imbalance contributes to the feminisation of ageing and may lead to an increase in single-person elderly households, particularly among women [15, 33-35].

From a socio-philosophical perspective, the observed structure reflects a shift in the functional role of the family. While earlier demographic regimes were characterised by high fertility and collective reproductive strategies, the current structure suggests a transition toward a more individualised and strategically planned model of family formation. The narrowing of younger cohorts combined with the expansion of older groups indicates that the family is evolving from a primarily

reproductive unit into a more complex institution focused on intergenerational coordination, care provision, and social stability.

Overall, the age–sex structure of Azerbaijan demonstrates that the country is moving toward a mature demographic stage characterised by lower fertility, increasing longevity, and gradual ageing. These changes should be interpreted not as signs of demographic decline, but as indicators of structural transformation and adaptation within a late-modern social context.

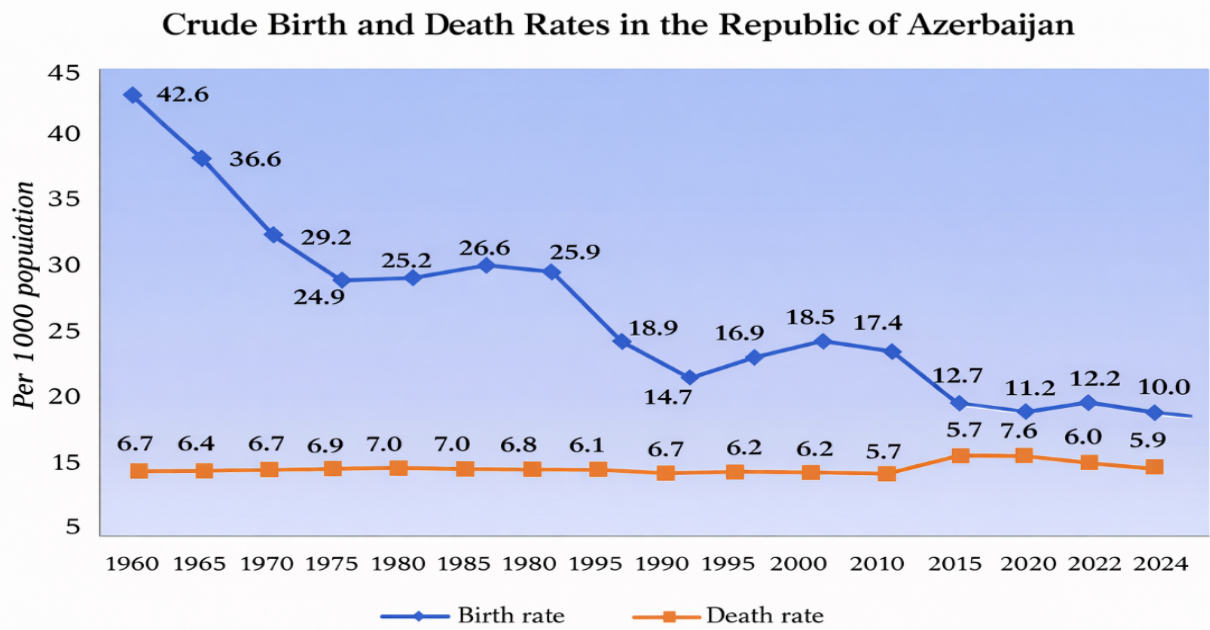
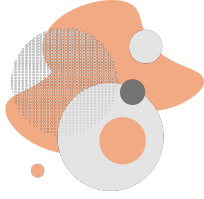


Figure 3. Crude birth and death rates in Azerbaijan

Source: State Statistical Committee of the Republic of Azerbaijan

Figure 3 illustrates the long-term dynamics of crude birth and death rates in Azerbaijan over the period from 1960 to 2024, measured per 1,000 population.

The data reveal a pronounced decline in birth rates alongside relatively stable death rates, indicating a fundamental transformation in the demographic regime. In the early period (1960s), the birth rate was exceptionally high, exceeding 40 births per



1,000 population, reflecting a traditional high-fertility model characterised by early marriage, large family size, and strong normative pressures on reproduction.

From the 1970s onward, a steady and continuous decline in birth rates is observed. This downward trend accelerates particularly during the late Soviet and post-Soviet periods, when fertility levels drop sharply to below 20 per 1,000. By the 2000s and especially in the 2010s–2020s, the birth rate stabilises at a significantly lower level, approaching approximately 10–12 per 1,000. This pattern reflects the transition toward a low and controlled fertility regime associated with urbanisation, increased female education, and changing socio-economic conditions [14, 701-703].

In contrast, death rates remain relatively stable throughout the entire period, fluctuating within a narrow range of approximately 5 to 7 per 1,000 population. Minor increases observed in certain years—particularly around 2020–2021—can be interpreted as the result of external shocks, such as the COVID-19 pandemic, rather than structural deterioration in mortality conditions.

The divergence between declining birth rates and stable death rates indicates that demographic change in Azerbaijan is primarily driven by shifts in reproductive behaviour rather than mortality dynamics. This corresponds to the later stages of the demographic transition, where fertility decline becomes the dominant factor shaping population dynamics.

From a socio-philosophical perspective, the observed trends reflect a shift from a normatively driven reproductive model to a more rationalised and strategic approach to family formation. The decline in birth rates suggests increasing sensitivity to economic risk, life-course planning, and changing social expectations. At the same time, the absence of a significant rise in mortality indicates that the demographic system remains structurally stable [8, 55-56].

Overall, the data support the interpretation of Azerbaijan as a society that has moved into a post-transitional demographic phase characterised by low fertility, stable mortality, and adaptive behavioural patterns. These changes should be understood not as indicators of demographic crisis, but as elements of a broader process of modernisation and systemic adjustment.

Marriage and divorce dynamics further illustrate the transformation of family structures.

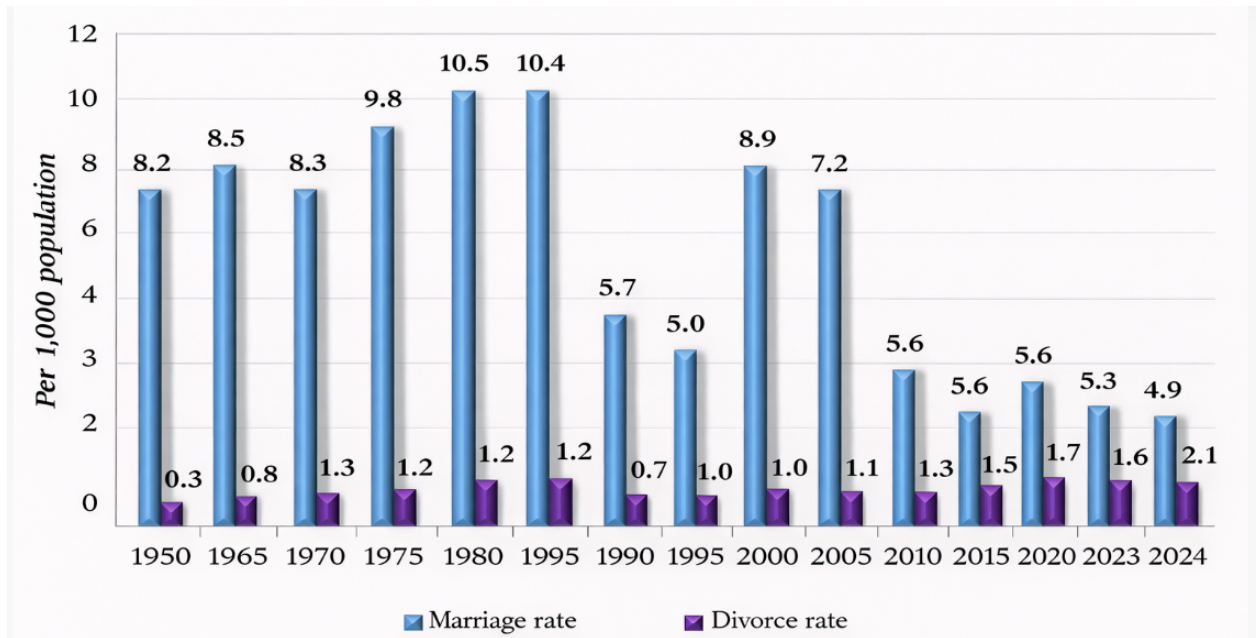
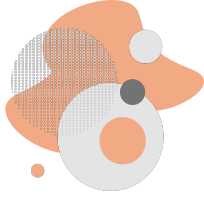


Figure 4. Marriage and divorce rates in Azerbaijan

Source: State Statistical Committee of the Republic of Azerbaijan

Figure 4 presents the dynamics of marriage and divorce rates in Azerbaijan over the period from 1950 to 2024, measured per 1,000 population.

The data reveal a clear long-term transformation in family formation and dissolution patterns. In the earlier period (1950s–1980s), marriage rates remained



consistently high, reaching a peak of over 10 marriages per 1,000 population in the 1980s. During this period, divorce rates were comparatively low, generally remaining below 1.5 per 1,000. This pattern reflects a normatively regulated family model in which marriage was socially expected and institutionally reinforced, while divorce was relatively rare due to social constraints and cultural norms.

A significant shift occurs beginning in the 1990s. Marriage rates decline sharply, dropping to around 5–6 per 1,000, while divorce rates begin to increase gradually. This transition corresponds to the broader socio-economic transformations of the post-Soviet period, including economic uncertainty, labour migration, and changing gender roles. The weakening of institutional constraints and the rise of individual choice contribute to a reconfiguration of family behaviour [1, 34-35].

In the 2000s and especially after 2010, the data show the emergence of a new pattern characterised by moderate marriage rates and steadily increasing divorce levels. Although marriage remains a central institution, its frequency is lower and its timing more selective. At the same time, divorce rates rise to above 2 per 1,000 by the early 2020s, indicating a growing acceptance of relationship dissolution.

This configuration may be interpreted as a shift toward what contemporary family sociology describes as a regime of selective stability. In this regime, individuals enter marriage under more stringent expectations of emotional and economic compatibility, while the tolerance for unsatisfactory unions decreases. As a result, both lower marriage rates and higher divorce rates coexist within the same structural framework.

From a socio-philosophical perspective, these trends do not necessarily indicate the decline of the family institution. Rather, they reflect its transformation from a normatively imposed structure into a more flexible and choice-based system. The

Azerbaijani case demonstrates a hybrid trajectory in which traditional family values persist, while behavioural patterns increasingly align with late-modern principles of individualisation and relational selectivity.

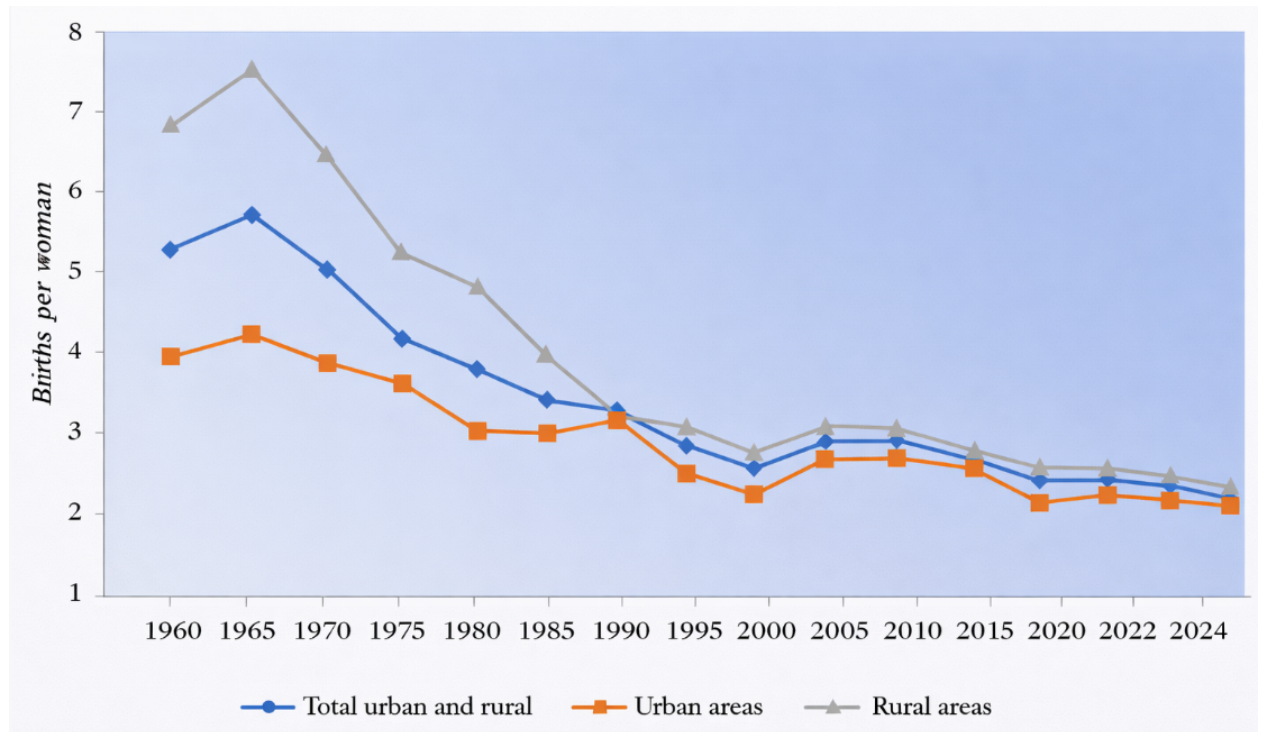
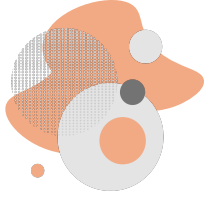


Figure 5. Total fertility rate in the Republic of Azerbaijan

Source: State Statistical Committee of the Republic of Azerbaijan

Figure 5 illustrates the dynamics of the total fertility rate in Azerbaijan, differentiated by urban and rural areas, over the period from 1960 to 2024.

The data reveal a clear long-term decline in fertility across all population groups. In the early period (1960s–1970s), fertility levels were relatively high, particularly in rural areas, where the rate exceeded 7 births per woman. Urban areas, by contrast, exhibited consistently lower fertility, reflecting earlier exposure to modernisation processes such as urbanisation, female education, and labour market



participation.

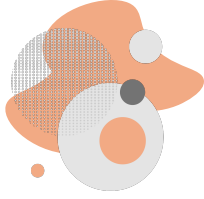
From the 1970s onward, a steady downward trend is observed in both urban and rural fertility rates. This decline accelerates during the late Soviet and early post-Soviet periods, indicating a structural transformation in reproductive behaviour. The reduction in fertility is more pronounced in urban areas, where the transition toward a low-fertility regime occurs earlier and more rapidly.

By the 1990s and early 2000s, fertility levels converge across urban and rural populations, stabilising within a relatively narrow range. This convergence suggests a diffusion of modern reproductive norms beyond urban centres into rural areas. Despite this convergence, rural fertility remains slightly higher, indicating the persistence of traditional family patterns and socio-cultural factors [7, 55-57].

In the most recent period (2010–2024), fertility rates remain relatively low and stable, fluctuating around replacement or below-replacement levels. Minor variations observed in this period reflect short-term socio-economic adjustments rather than structural shifts. The overall pattern corresponds to a post-transitional fertility regime characterised by rationalised and planned reproductive behaviour.

From a socio-philosophical perspective, these trends support the interpretation of demographic change in Azerbaijan as a process of adaptive transformation rather than demographic decline. The shift from high to moderate and stabilised fertility reflects a transition toward a “quality-oriented” reproductive model, in which family decisions are increasingly influenced by economic considerations, life-course planning, and changing social expectations.

Within this empirical framework, digital transformation plays a mediating role by reshaping interaction patterns, partner selection, and socialisation processes. Increased access to digital communication environments expands relational



opportunities while simultaneously increasing expectations regarding emotional compatibility. This contributes to delayed marriage and greater selectivity in relationships.

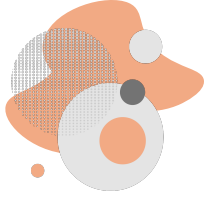
At the same time, digitalisation diversifies the sources of normative influence, reducing the exclusivity of family-based socialisation. However, the Azerbaijani case demonstrates that this does not lead to the disappearance of the family. Instead, the family retains its central role in coordinating intergenerational relations and stabilising social behaviour.

Urban–rural differentiation further highlights the hybrid nature of demographic change. Urban areas exhibit stronger trends toward delayed marriage, lower fertility, and digital mediation, whereas rural areas retain more traditional demographic patterns. This confirms the uneven and context-dependent nature of demographic transition.

Taken together, the empirical findings demonstrate that demographic change in Azerbaijan represents adaptive restructuring rather than institutional decline. The family remains a resilient and functionally significant social system capable of absorbing uncertainty and maintaining structural coherence under conditions of digital transformation.

5. Conclusion

This study set out to examine whether contemporary demographic changes in Azerbaijan should be interpreted as indicators of family decline or as manifestations of adaptive transformation under conditions of digital modernity. The integrative analysis combining socio-philosophical interpretation with longitudinal demographic data suggests that the latter perspective provides a more adequate explanation.



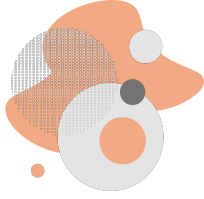
The findings indicate that ongoing demographic shifts—declining fertility, delayed marriage formation, and moderate increases in divorce—are more appropriately understood as elements of functional reconfiguration rather than evidence of linear institutional erosion. Reproductive behaviour appears increasingly aligned with risk-sensitive and life-course-oriented strategies, reflecting broader transformations associated with late-modern social environments.

At the same time, the analysis demonstrates that the symbolic and normative centrality of the family in Azerbaijan is relatively stable. While behavioural patterns are changing, these changes do not necessarily imply a weakening of the family as a social institution. Instead, they point toward the emergence of a hybrid configuration in which adaptive adjustments coexist with elements of cultural continuity.

The study also highlights the importance of digital transformation as a contextual and mediating factor. Rather than acting as a direct cause of demographic change, digitalisation appears to reshape communication environments, expand relational opportunities, and influence expectations regarding partnership and family life. However, within the Azerbaijani context, these processes do not lead to the displacement of the family but instead contribute to the redistribution of its functional roles.

An important aspect of the findings concerns the internal heterogeneity of demographic processes. The divergence between urban and rural patterns suggests that demographic transition in Azerbaijan is uneven and context-dependent. This reinforces the need for analytical approaches that account for spatial and social differentiation rather than assuming uniform transformation.

From a broader perspective, the concept of adaptive family resilience proposed in this study offers a useful analytical lens for interpreting demographic change in

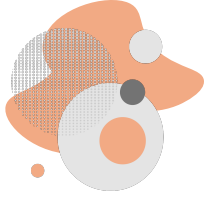


societies experiencing uneven digital modernisation. Nevertheless, the conclusions should be considered with a degree of caution. The reliance on macro-level statistical data and the indirect operationalisation of digital transformation limit the possibility of establishing causal relationships at the micro level. Future research would benefit from incorporating household-level data and platform-based behavioural indicators in order to further refine the mechanisms identified in this study. In this context, smart societies are understood as digitally mediated social systems in which traditional institutions, including the family, retain adaptive and coordinating functions.

In sum, the available evidence suggests that the family institution in Azerbaijan is not undergoing a straightforward process of decline. Rather, it appears to be entering a phase of adaptive recalibration, within which it continues to perform a stabilising role under changing structural conditions. This interpretation does not exclude the possibility of future transformation but emphasises the importance of viewing demographic change as a dynamic and context-sensitive process.

ЛІТЕРАТУРА

1. Beck, Ulrich. *Risk Society: Towards a New Modernity*. Sage Publications, 1992.
<https://us.sagepub.com/en-us/nam/risk-society/book203976>
2. Walsh, Froma. *Strengthening Family Resilience*. 3rd ed., Guilford Press, 2016.
<https://www.guilford.com/books/Strengthening-Family-Resilience/Froma-Walsh/9781462529602>
3. Rainie, Lee, and Barry Wellman. *Networked: The New Social Operating System*. MIT Press, 2012.
<https://mitpress.mit.edu/9780262526163/networked/>
4. Kulu, Hill, and Paul J. Boyle. "High Fertility in City Suburbs: Compositional



or Contextual Effects?” *European Journal of Population*, vol. 25, no. 2, 2009, pp. 157–174. <https://doi.org/10.1007/s10680-008-9163-9>

5. Billari, Francesco C., and Aart C. Liefbroer. “Towards a New Pattern of Transition to Adulthood?” *Advances in Life Course Research*, vol. 45, 2020, 100338. <https://doi.org/10.1016/j.alcr.2020.100338>

6. Bongaarts, John. “Trends in Fertility and Fertility Preferences in the Developed World.” *Population and Development Review*, vol. 46, no. 3, 2020, pp. 409–438. <https://doi.org/10.1111/padr.12318>

7. Cherlin, Andrew J. “The Deinstitutionalization of American Marriage Revisited.” *Journal of Marriage and Family*, vol. 82, no. 1, 2020, pp. 62–80. <https://doi.org/10.1111/jomf.12617>

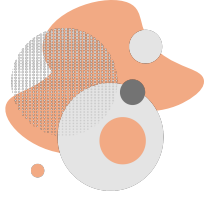
8. Finkel, Eli J., et al. “Online Dating: A Critical Analysis from the Perspective of Psychological Science.” *Psychological Science in the Public Interest*, vol. 13, no. 1, 2012, pp. 3–66. <https://doi.org/10.1177/1529100612436522>

9. Sobotka, Tomáš, and Éva Beaujouan. “Late Fertility Intentions and Fertility Decline.” *Population and Development Review*, vol. 40, no. 2, 2014, pp. 235–262. <https://doi.org/10.1111/j.1728-4457.2014.00683.x>

10. Abasov, Ə. Azərbaycanca qadın məsələsi: (AQM) XX əsrin 90-cı illərindən bu günə qədər. Gender kitabxanası. Buraxılış 20. Bakı “Təknur” 2012/

11. Azərbaycan Respublikasının Dövlət Statistika Komitəsi (DSK). Azərbaycanın demoqrafik göstəriciləri. Statistik məcmuə. Bakı 2025. [file:///C:/Users/raufm/AppData/Local/Temp/7b9fbc0-19c1-491e-8679-2e363af49acf_demoqraphy_2025%20\(1\).zip.acf/Az%C9%99rbaycan%C4%B1n%20demoqrafik%20g%C3%B6st%C9%99ricil%C9%99ri_2025.pdf](file:///C:/Users/raufm/AppData/Local/Temp/7b9fbc0-19c1-491e-8679-2e363af49acf_demoqraphy_2025%20(1).zip.acf/Az%C9%99rbaycan%C4%B1n%20demoqrafik%20g%C3%B6st%C9%99ricil%C9%99ri_2025.pdf)

12. Məmmədov, R. “XIX–XX əsrlərdə Azərbaycanda ailə institutunun



transformasiya mərhələləri.” *AMEA-nın Fəlsəfə və Sosiologiya İnstitutunun məcmuəsi: Sosiallaşma proseslərinin problemləri*, cild 18, “OPTIMIST” nəşriyyatı MMC, 2025, pp. 633–720.

13. Livingstone, Sonia, and Julian Blum-Ross. *Parenting for a Digital Future*. Oxford University Press, 2020. <https://doi.org/10.1093/oso/9780190874695.001.0001>

14. Salmanova, N. Ə. *Müasir dövrdə Azərbaycanada nikah və boşanma dinamikasının sosial-fəlsəfi problemləri*. Namizədlik dissertasiyası, Bakı, 2006.

15. Comolli, Chiara L., et al. “The Great Recession and Fertility in Europe.” *Population Studies*, vol. 75, no. 2, 2021, pp. 223–242. <https://doi.org/10.1080/00324728.2021.1886930>

REFERENCES

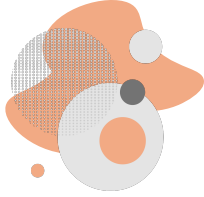
1. Beck, Ulrich. (1992) *Risk Society: Towards a New Modernity*. Sage Publications, <https://us.sagepub.com/en-us/nam/risk-society/book203976> [in English]

2. Walsh, Froma. (2016), *Strengthening Family Resilience*. 3rd ed., Guilford Press, <https://www.guilford.com/books/Strengthening-Family-Resilience/Froma-Walsh/9781462529602> [in English]

3. Rainie, Lee, and Barry Wellman. (2012) *Networked: The New Social Operating System*. MIT Press, <https://mitpress.mit.edu/9780262526163/networked/> [in English]

4. Kulu, Hill, and Paul J. Boyle. (2009), “High Fertility in City Suburbs: Compositional or Contextual Effects?” *European Journal of Population*, vol. 25, no. 2, pp. 157–174. <https://doi.org/10.1007/s10680-008-9163-9> [in English]

5. Billari, Francesco C., and Aart C. Liefbroer. (2020) “Towards a New Pattern of



Transition to Adulthood?” *Advances in Life Course Research*, vol. 45, 100338. <https://doi.org/10.1016/j.alcr.2020.100338> [in English]

6. Bongaarts, John. (2020) “Trends in Fertility and Fertility Preferences in the Developed World.” *Population and Development Review*, vol. 46, no. 3, pp. 409–438. <https://doi.org/10.1111/padr.12318> [in English]

7. Cherlin, Andrew J. (2020) “The Deinstitutionalization of American Marriage Revisited.” *Journal of Marriage and Family*, vol. 82, no. 1, pp. 62–80. <https://doi.org/10.1111/jomf.12617> [in English]

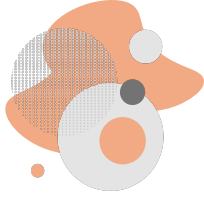
8. Finkel, Eli J., et al. (2012) “Online Dating: A Critical Analysis from the Perspective of Psychological Science.” *Psychological Science in the Public Interest*, vol. 13, no. 1, pp. 3–66. <https://doi.org/10.1177/1529100612436522> [in English]

9. Sobotka, Tomáš, and Éva Beaujouan. (2014), “Late Fertility Intentions and Fertility Decline.” *Population and Development Review*, vol. 40, no. 2, pp. 235–262. <https://doi.org/10.1111/j.1728-4457.2014.00683.x> [in English]

10. Abasov, Ə. (2012), *Azərbaycanda qadın məsələsi* [Gender issues in Azerbaijan]: (AQM) XX əsrin 90-cı illərindən bu günə qədər. Gender kitabxanası. Buraxılış 20. Bakı “Təknur”. [in Azerbaijanian]

11. Məmmədov, R. (2025), XIX–XX əsrlərdə Azərbaycanda ailə institutunun transformasiya mərhələləri. [Stages of transformation of the family institution in Azerbaijan in the 19th–20th centuries], *AMEA-nın Fəlsəfə və Sosiologiya İnstitutunun məcmuəsi: Sosiallaşma proseslərinin problemləri*, cild 18, “OPTIMIST” nəşriyyatı MMC, pp. 633–720. [in Azerbaijanian]

12. Statistik məcmuə. (2025). *Azərbaycanın demoqrafik göstəriciləri*. [Demographic indicators of Azerbaijan], Azərbaycan Respublikasının Dövlət Statistika Komitəsi (DSK). Bakı. <file:///C:/Users/raufm/AppData/Local/Temp/7b9fbc0-19c1->



491e-8679-2e363af49acf_demoqraphy_2025%20(1).zip.acf/

Az%C9%99rbaycan%C4%B1n%20demoqrafik%20g%C3%B6st%C9%99ricil%C9%99ri_2025.pdf [in Azerbaijani]

13. Livingstone, Sonia, and Julian Blum-Ross. (2020), *Parenting for a Digital Future*. Oxford University Press, <https://doi.org/10.1093/oso/9780190874695.001.0001> [in English]

14. Salmanova, N. Ə. (2006), *Müasir dövrdə Azərbaycanada nikah və boşanma dinamikasının sosial-fəlsəfi problemləri* [Socio-philosophical problems of marriage and divorce dynamics in modern Azerbaijan]. Namizədlik dissertasiyası, Bakı, 2006. [in Azerbaijani]

15. Comolli, Chiara L., et al. (2021) “The Great Recession and Fertility in Europe.” *Population Studies*, vol. 75, no. 2, pp. 223–242. <https://doi.org/10.1080/00324728.2021.1886930> [in English]