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SOCIOECONOMIC MATURITY AS A CONDITION FOR THE REALIZATION OF WOMEN'S HUMAN CAPITAL

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Abstract. The article examines economically premature marriage as an independent institutional factor that may limit the realization of women's human capital even after the formal legal age of marriage has been reached. In contrast to the traditional approach, which primarily associates early marriage with underage marriage, the study proposes assessing readiness for family formation by considering the completion of education, possession of professional qualifications, initial work experience, and a stable personal income. The article substantiates a shift from an exclusively legal approach to preventing early marriage toward an institutional and economic approach that integrates education, employment, financial independence, access to childcare services, and support for economically sustainable young families.

Keywords: gender equality, female employment, unemployment, human capital.

Аннотация. В статье исследуется экономически преждевременное вступление в брак как самостоятельный институциональный фактор, способный ограничивать реализацию женского человеческого капитала даже при достижении формального брачного возраста. В отличие от традиционного подхода, связывающего ранний брак преимущественно с несовершеннолетием, предлагается оценивать готовность к созданию семьи с учетом завершенности образования, наличия профессиональной квалификации, первоначального трудового опыта и устойчивого собственного дохода. Обоснован переход от исключительно правового предупреждения ранних браков к институционально-экономическому подходу, объединяющему образование, занятость, финансовую самостоятельность, доступ к услугам ухода за детьми и поддержку экономически устойчивых молодых семей.

Ключевые слова: гендерное равенство, женская занятость, безработица, человеческий капитал.

INTRODUCTION

In the international literature, the issue of early marriage is most commonly examined through the concept of *child marriage*, defined as marriage before the age of 18. Although this approach is justified from the perspective of protecting children's rights, it does not fully capture the broader economic risks associated with marriage at a relatively young age. A young woman may marry after the age of 18 and therefore formally fall outside the category of "early marriage," while still not having completed vocational or higher education, secured stable employment, or established an independent source of income. If marriage is immediately followed by an increase in domestic and reproductive responsibilities, the accumulation and effective utilization of her human capital in the labor market may slow down or be interrupted.

This issue is particularly relevant for Uzbekistan. According to the National Statistics Committee, the average age at first marriage in 2025 was 21.4 years for women and 25.6 years for men [13]. At the same time, 105.3 thousand women entering marriage for the first time belonged to the under-20 age group. Based on the official age distribution of first marriages, the share of this group increased from approximately 23.8% in 2015 to 42.2% in 2025 [13].

The relevance of the issue is further reinforced by persistent gender differences in the labor market. In 2025, the official unemployment rate was 6.5% among women and 3.4% among men [13]. The World Bank reports that, based on the data used in its country gender assessment, the gender gap in labor force participation reached 28 percentage points, while the share of young women who were not in employment, education, or training (NEET) was substantially higher than that of young men [20]. In its 2025 report, the International Labour Organization (ILO) estimates the wage gap among employees in Uzbekistan at 25–35% and notes that

this disparity has remained persistent since 2018 [9].

Against this background, the purpose of the study is to develop an institutional and economic interpretation of premature entry into marriage and to substantiate the mechanisms through which family formation before the completion of the basic investment phase of human capital formation and the realization of its returns may contribute to higher female unemployment, greater economic dependence, and income disparities.

LITERATURE REVIEW

The theoretical foundation of the study is based on the human capital theory developed by G. Becker and J. Mincer. Individual earnings are determined by the accumulation of education, experience, and skills; consequently, interrupted education or delayed entry into employment may generate long-term costs in the form of foregone productivity and earnings [4; 12]. For women, family formation often coincides with the most intensive stage of educational investment and the beginning of their professional careers. As a result, family responsibilities may not only temporarily reduce labor supply but may also alter the subsequent trajectory of work experience accumulation.

The economics of the family explains this mechanism through the allocation of time within the household [5]. When domestic work and childcare responsibilities are disproportionately concentrated on women, the opportunity cost of their time in the labor market increases, while their ability to accumulate uninterrupted work experience declines. In modern economies, this mechanism is reflected in the so-called *motherhood penalty*, which refers to the reduction in women's labor earnings following the birth of their first child. Even in countries with well-developed social infrastructure, differences in the duration of parental leave and reductions in working hours after childbirth remain significant contributors to gender income disparities [8; 14].

A World Bank and ICRW project assessing the economic costs of child marriage demonstrated that the effect of early marriage on future earnings is largely transmitted through lower educational attainment. Across the countries included in the sample, the potential increase in earnings among women who had married early, assuming the elimination of this factor, was estimated to range from 1.44% to 15.6% of their baseline annual income. Most of this effect was explained by higher projected levels of educational attainment [19]. This finding is important for the broader concept of economically premature marriage: the critical factor is not only whether marriage occurs before the age of 18, but also whether a woman has completed the principal investment phase of her education and has had an opportunity to establish herself in the labor market.

At the same time, the relationship between age at marriage and female employment is neither linear nor automatic. The World Bank notes that, in international samples, relatively high levels of female employment may coexist with early marriage in lower-income countries because women may work primarily out of economic necessity rather than as a result of greater economic autonomy [19]. Accordingly, the employment rate alone is insufficient as an indicator of gender equity. It is also necessary to consider job quality, employment formality, income levels, access to social protection, working hours, and women's ability to make independent economic decisions.

On this basis, the present study defines *income parity* not as the literal equality of all individual incomes earned by men and women, but as an institutional condition in which gender does not create a systematic barrier to equal remuneration for work of equal value, access to productive employment, and the accumulation of independent income. This interpretation is consistent with the ILO approach, which associates the gender pay gap with sectoral and occupational segregation, employment interruptions related to caregiving, unequal distribution of family responsibilities, and differences in job quality [9].

RESEARCH METHODOLOGY

The methodological framework of the study is based on systemic and institutional approaches and employs methods of comparative analysis, classification, normalization, index aggregation, and substantive interpretation of the results.

ANALYSIS AND RESULTS

The age structure of first marriages shows that the average age at first marriage among women was 21.4 years in 2000, 22.5 in 2015, 22.3 in 2020, 21.8 in 2024, and declined again to 21.4 years in 2025 [13]. Among men, the corresponding figure was 25.6 years in 2025. This age asymmetry indicates that women, on average, enter the family formation stage approximately four years earlier than men—precisely during the period when a substantial proportion of young people are completing vocational or higher education and acquiring their first stable work experience.

The structure of first marriages is even more indicative. According to official data, the number of women

under the age of 20 entering marriage for the first time increased from 66.4 thousand in 2015 to 105.3 thousand in 2025, while the total number of first marriages among women declined from approximately 279.1 thousand to 249.7 thousand over the same period [13]. As a result, the share of women under 20, calculated by the author, increased from 23.8% to 42.2%. This does not imply that 42.2% of marriages are necessarily associated with adverse socioeconomic consequences. Rather, the indicator reflects a high concentration of family formation at an age that coincides with the transition from education to employment.

From a human capital perspective, the age range of 18–20 is particularly important. For some young women, this period coincides with the first year of university, technical or vocational education, professional training, or the initial stage of employment. If family formation itself does not interrupt these processes, significant economic risks may not arise. Such risks increase when family responsibilities institutionally displace education and employment: a young woman may discontinue her studies, postpone entry into the labor market, fail to accumulate independent work experience, and become dependent on a single source of household income.

Labor market data indicate the presence of structural gender asymmetry. In 2025, the unemployment rate was 6.5% among women and 3.4% among men, representing a gap of 3.1 percentage points [13]. These figures do not demonstrate that early family formation is a direct cause of unemployment. Labor market dynamics are also influenced by the macroeconomic cycle, the pandemic, statistical methodology, demographic structure, and changes in employment policy. Nevertheless, the persistent gender gap suggests that women's transition from education to employment remains relatively more vulnerable.

The World Bank's country gender assessment further points to substantial gender differences among young people. According to the data used in the report, unemployment among young women stood at 15.5%, compared with 10% among young men, while the NEET rate was 42% among young women and 8.8% among young men. The World Bank also estimated the gender gap in labor force participation at 28 percentage points and noted that lower levels of female employment and earnings entail direct macroeconomic costs [20]. According to the Bank's estimates, greater alignment of women's economic participation with that of men could substantially increase national income; however, this is a model-based estimate and should not be interpreted as a guaranteed effect of any specific policy measure.

The gender pay gap is equally important. Based on available data, the ILO concludes that female employees in Uzbekistan earn, on average, 25–35% less than male employees and that this range has persisted since 2018 [9]. The underlying causes cannot be reduced to direct discrimination alone. The ILO identifies sectoral and occupational segregation, employment interruptions, caregiving responsibilities, differences in job quality, and insufficient data for a precise decomposition of the gap among the relevant factors. For this reason, premature interruption of the educational trajectory and delayed entry into employment may have cumulative effects: they influence not only the probability of being employed at present but also the accumulation of work experience, occupational mobility, and future earnings.

A simple correlation between the annual share of first marriages among women under the age of 20 and the official female unemployment rate during 2015–2025 is weak and does not support a direct causal interpretation. This is an important methodological result because aggregate-level data conceal differences associated with marital status, education, the presence of children, place of residence, household income, and type of employment. A more robust assessment of the hypothesis would therefore require microdata and quasi-experimental methods.

The proposed mechanism consists of several sequential channels. The first is the “education gap.” Marriage during the period of study may increase the likelihood of taking academic leave, shifting to more flexible but in some cases lower-quality forms of education, or discontinuing education altogether. The second is the “first-experience gap.” Internships, initial formal employment, and early work experience facilitate a more timely transition into the labor market and contribute to the development of a more competitive professional profile. The third is the “income-autonomy gap.” In the absence of independent income, a woman's bargaining position within the household may be relatively limited, particularly when major expenditures are controlled by a single breadwinner. The fourth is the “reproductive gap.” Early childbirth may reinforce a prolonged employment interruption when affordable childcare services are unavailable. The fifth is the “cumulative gap.” Reduced work experience and narrower occupational mobility may gradually translate into lower wages and weaker pension entitlements.

This logic helps explain why formal equality under family law alone may be insufficient to ensure income parity. If, at the time of marriage, the man is older, already has employment experience and an independent income, while the woman is only completing secondary education or beginning vocational training, the spouses enter marriage from economically asymmetric positions. Even under conditions of full legal equality, such asymmetry may reproduce a model of family-role allocation in which responsibility for income generation and caregiving is distributed unevenly between spouses.

The history of the Soviet Union provides an important comparative counterexample. Demographic

reconstructions indicate that the average age at first marriage among women in the European part of the USSR remained approximately within the range of 21.9–22.5 years for a considerable period, while in the Russian Soviet Federative Socialist Republic it was about 22.4 years in 1980 [21]. This was below the contemporary average age at first marriage among women in OECD countries, which approached 32 years by 2021 [16].

However, the economic consequences of relatively early marriage in the USSR were partly mitigated by a different institutional system. Studies indicate that during the 1980s approximately 90% of women of prime working age were either employed or enrolled in education, with employment predominantly being full-time [11]. High levels of female participation were supported by widespread access to education, the norm of universal employment, and an extensive state-supported care infrastructure. By the late 1980s, approximately 70% of children aged 1–6 were enrolled in public childcare and preschool institutions [11]. Ofer and Vinokur also documented very high labor force participation among married women [17].

The Soviet model therefore demonstrates that relatively early marriage does not necessarily result in women's exclusion from the labor market when education, employment, and childcare are institutionally supported by the state. At the same time, this model did not eliminate gender inequality. Researchers documented occupational segregation, lower female earnings, and the “double burden,” whereby paid employment was combined with a disproportionately large share of unpaid domestic work [15; 10]. Thus, the Soviet institutional model maintained comparatively high levels of female employment participation while differences in income, employment quality, and the distribution of unpaid work persisted.

For contemporary Uzbekistan, this experience suggests that it is important not only to ensure women's access to formal employment but also to create conditions that enable them to continue their education, develop professional specialization, advance in their careers, and maintain independent income after family formation. Otherwise, relatively high employment may coexist with low pay, informality, and a double burden of paid and unpaid work.

Most developed countries have experienced a sustained increase in the age at first marriage. According to the OECD, the average age at first marriage among women increased from approximately 25 years in the early 1990s to almost 32 years in 2021 [16]. Directly transferring this model to Uzbekistan, however, would be methodologically inappropriate because cultural norms, the prevalence of non-marital cohabitation, educational structures, and demographic conditions differ substantially. It is therefore more useful to examine not the age itself, but the institutions that make family formation compatible with the economic activity of both spouses.

Sweden provides an illustrative example. Since the 1970s, key policy elements have included individual taxation of spouses, the expansion of accessible public childcare, and gender-neutral paid parental leave [7]. The economic rationale of these reforms is to reduce the “second-earner penalty”: women have stronger incentives to remain employed because their income is not treated merely as a supplement to the husband's earnings, while childcare is institutionally recognized as the responsibility of both parents. The contemporary Swedish parental leave system provides 480 paid days, part of which is reserved individually for each parent and cannot be transferred to the other [7].

International experience also confirms the importance of fathers' participation in caregiving. In 2025, the ILO highlighted a substantial global gap in paid leave entitlements: the average duration of paid leave available to mothers considerably exceeded that available to fathers [8]. When caregiving is institutionally assigned almost exclusively to women, employers may anticipate longer career interruptions for female employees, potentially reinforcing differences in expectations regarding men's and women's career continuity and limiting women's wage growth. Achieving a sustainable balance between family and employment trajectories therefore requires not only support for mothers but also a more balanced distribution of caregiving responsibilities between parents.

The findings also allow the concept of early marriage to be specified more precisely in the context of Uzbekistan. From a legal perspective, the prevalence of marriages before the age of 18 has declined substantially, and such marriages are now relatively rare. However, economic vulnerability may persist beyond the age threshold of 18. A woman marrying at the age of 18–20 may be in fundamentally different circumstances: she may be a student following a stable educational trajectory with family support; she may already possess a profession and employment; or she may have neither education, employment, nor independent income. Age alone does not distinguish between these situations, whereas an institutional and economic approach does.

For this reason, the study proposes interpreting early marriage along two dimensions. The first is legal, referring to the inadmissibility of marriage below the statutory minimum age. The second is socioeconomic, referring to a premature transition to family responsibilities before the achievement of basic economic and social independence. The second category should not be transformed into a new form of prohibition. Its purpose is to reshape incentives and support mechanisms for young people so that professional qualification, labor market adaptation, and independent income become socially expected stages that either precede marriage or are not interrupted by it.

This approach is consistent with recent institutional changes in Uzbekistan. Presidential Decree No. UP-33 of March 3, 2026, explicitly identifies among its objectives the encouragement of marriage between young people who have achieved financial independence and are comprehensively prepared for family life; beginning in 2027, additional support measures are envisaged for young couples entering marriage for the first time when both spouses are at least 21 years old [2]. Resolution No. 257 of the Cabinet of Ministers, dated May 19, 2026, further develops the system of preparing young people for family life and providing family counseling [3]. Thus, the institutional framework is increasingly shifting from a predominantly restrictive approach toward the promotion of informed and economically sustainable family formation.

At the same time, a comprehensive economic policy for preparation for marriage requires expanding the content of such programs. Psychological and legal preparation is important, but it should be complemented by financial literacy, career guidance, assessment of income sources, household budgeting skills, and planning of the educational trajectories of both spouses. Otherwise, "readiness for family life" may remain predominantly a moral and psychological concept without fully incorporating the material foundations of family sustainability.

Young women from low-income families and rural areas require particular attention. Under conditions of limited household resources, marriage may sometimes be perceived as a means of redistributing economic responsibility. From a human capital perspective, however, premature discontinuation of education may simply shift costs from the present to the future: the household's immediate burden may decline, while the woman's potential lifetime earnings and the economy's future tax base may decrease. Targeted educational grants, scholarships, concessional loans, and vocational programs should therefore be regarded not only as forms of social support but also as investments in future productivity.

It is equally important to provide opportunities for young people to acquire initial work experience before or independently of marriage. Internships, dual education, paid practical training, and youth employment programs contribute not only to skills development but also to the formation of economic agency.

For women who are already married, flexible mechanisms for returning to education and employment are necessary. These may include academic leave without losing the continuity of the educational trajectory, distance and evening learning formats, short-term vocational programs, recognition of previously acquired competencies, childcare services, and labor market re-entry programs. Preventive policy should also be designed in a way that avoids additional stigmatization of women who require support.

Another important direction involves economic incentives for sustainable young families. Some support measures could be linked not simply to the formal registration of marriage but also to the educational and employment trajectories of the spouses. Priority access to rental housing programs, entrepreneurship grants, vocational training, or preschool childcare services could be provided to families in which both spouses continue their education, are employed, or participate in verified professional training. At the same time, eligibility criteria should be transparent and should not disadvantage individuals who are temporarily out of employment for objective reasons.

The distribution of family caregiving responsibilities is also a fundamental issue. If all family-support policies are directed toward women as the primary caregivers, they may unintentionally reinforce a model in which women remain outside employment for prolonged periods. International experience indicates the importance of encouraging fathers' participation through individual leave entitlements, flexible employment arrangements for both parents, and a social norm of shared responsibility. This is directly related to income parity because it reduces employers' expectations of systematic differences in career interruptions between men and women.

Finally, reducing the gender pay gap also requires labor-market instruments, including greater pay transparency, comparability of occupational positions, assessment of work of equal value, improvement in the quality of jobs held by women, and a reduction in occupational segregation [9]. In this context, early marriage represents only one component of a broader mechanism. Even a well-designed educational trajectory cannot ensure income parity if women remain concentrated in lower-paid sectors or face constraints on career advancement.

The principal limitation of the study is the absence of an openly accessible micro-level database that simultaneously records age at marriage, education, employment status, personal income, childbirth, and household characteristics. For this reason, the article deliberately avoids claiming a causal relationship between the increasing share of very young first marriages and the female unemployment rate at the aggregate level. The limited explanatory value of a simple time-series correlation further confirms the need for more disaggregated analysis.

CONCLUSIONS AND RECOMMENDATIONS

The study demonstrates that, under contemporary conditions, the issue of early family formation should be considered not only in terms of the formal age at marriage but also from the perspective of the level of

socioeconomic maturity attained by young people. Women's entry into family life before completing education, obtaining a profession, gaining work experience, and establishing a stable independent income may constrain the subsequent accumulation and realization of human capital, increase economic dependence, and raise the risk of temporary or prolonged withdrawal from the labor market. In this context, education, employment, and economic independence should be regarded not only as individual characteristics of women but also as important institutional preconditions for gender equality, family stability, and the more effective utilization of human capital in the national economy.

For Uzbekistan, an important policy direction is the transition from a predominantly formal and legal approach to family formation toward an institutional and economic framework that creates conditions in which professional preparation, initial labor market adaptation, and the achievement of economic independence become natural stages preceding family formation. Implementing such an approach requires expanding educational and employment opportunities for young women, developing mechanisms that enable women to return to education and employment after marriage and childbirth, improving support measures for young families, and promoting social attitudes oriented toward informed and responsible family formation. In the long term, these measures may contribute simultaneously to the fuller realization of women's human capital, a reduction in gender disparities in employment and income, and the creation of more sustainable conditions for the reproduction of human capital across future generations.

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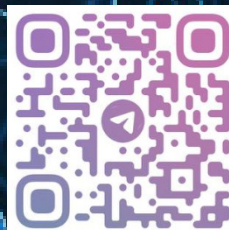
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