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Territorial and Sociodemographic Determinants of Household Financial Provision Roles in Kazakhstan

Akan S. Nurbatsin[1]*

[1] University of International Business named after K. Sagadiyev, Almaty, Kazakhstan

Corresponding author:
*Akan S. Nurbatsin – PhD, Director of the Department of Research Activities, University of International Business named after K. Sagadiyev, Almaty, Kazakhstan.
Email: nurbatsin.a@uib.kz

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Abstract

This research investigates how territorial and sociodemographic conditions influence household financial provision roles in Kazakhstan. Based on a nationally representative interview survey, the research uses hierarchical clustering and count-model statistical analysis to analyze distributional patterns of financial assignment, whether husband, wife, both, or others by age group, marital status, sector of employment, and territorial location. The findings reveal marked heterogeneity in household economic roles, testifying to the interplay of labor market structure, cultural norms, and levels of regional development. Young and middle-aged respondents report tradition and shared financial arrangements, whereas older and divorced respondents report female-headed and other household support. Urban areas demonstrate greater heterogeneity than rural and peripheral areas, with potential impacts attributable to processes of modernization and access to institutions. Sector of employment is also heavily involved in financial distribution patterns, testifying also to labor market segmentation and participation impacts on intrahousehold relations. In general, the research testifies to financial provision roles as determined neither solely by personal choice nor independent of personal agency and personal tastes and preferences. Instead, financial provision roles are strongly embedded in higher-order sociodemographic and territorial conditions. The research suggests a need for social and economic policies targeted by region to acknowledge heterogeneities of household form and changing dimensions of gendered financial roles within and from contemporary urban and industrial contexts such as Kazakhstan.

Keywords: Gender, Gender Economics, Gender Dynamics, Region, Regional Inequality, Sociodemographic Determinant, Labor Market

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1. INTRODUCTION

Redistribution of financial provision within households among inhabitants of Kazakhstan provides a significant perspective on how gender relations, regional inequalities, and economic action intersect. Evolving labor market arrangements, demographic change, and shifting sociocultural values have remade the conventional male breadwinning model, introducing greater heterogeneity of financial arrangements within households. However, these are distributed unevenly by generations, sectors of employment, and marital status and continue to follow long-established patterns of institutions and geography. Even amid growing interest in gender equality and equal economic engagement, current empirical studies on Kazakhstan have failed to examine how sociodemographic circumstances and regional settings shape financial provision within households simultaneously.

They have to be comprehended for policymaking and academic study both on account of financial provisioning informing intra-household decision-making and serving to proxy for overall structural circumstances such as labor market participation, welfare benefit access, and social norms. For Kazakhstan, with its diversified ethno-region structure and post-socialist transformation, financial provider roles within households are particularly insightful regarding how social modernization interacts with persisting normative traditions.

This study addresses an essential empirical gap by investigating how provision roles, operationalized as husband-led, wife-led, jointly shared, other household member-led, and absent vary by territorial and demographic strata. Drawing on a nationally representative sample of 1,200 households, this study uses a mixed-methods analytical strategy of hierarchical cluster and Poisson regression modeling. Through enumerating territorial tendencies and quantifying the influence of age, marriage, and labour sector on provider roles, this study seeks to unveil underlying structure and statistically significant relations. This study also contributes to an emergent literature prioritizing intersectionality and spatial heterogeneity of household organization, which resonates with Kazakhstan's strategic interests for gender equality and social sustainability.

Through this, the study contributes to academic understanding of financial behavior at households in transition economies and also provides evidence-based recommendations for developing regionally responsive and demographic-inclusive socioeconomic policies.

2. LITERATURE REVIEW

Accounting for household financial provision tasks requires an interdisciplinary dialogue with literature from economic sociology, labour economics, regional studies, and gender studies. Household financial provision labour is a cross-cutting phenomenon influenced by structural economic processes, institutional norms, culture, and agency. Literature suggests financial arrangements within households are not static and vary by lifecycle and broader ranges of socioeconomic change (Becker, 1991; Esping-Andersen, 2009).

Among the first of these theories is Becker's "New Household Economics" of 1991, which maintains that intra-household allocation of work and provision of money is motivated through comparative advantage and the maximization of utility. Subsequent criticisms instead identify these models' tendency to underestimate institutional context, gender ideology, and power relations (Folbre, 1994; Kabeer, 1997). Present theories synthesize theories of the life course, which claim financial duties within households vary systematically along the path of such phases of union formation, bearing, and retirement (Elder et al., 2003; Moen & Sweet, 2004).

In post-socialist states like Kazakhstan, studies highlight the persistence of patriarchal values despite market reforms (Kandiyoti, 2007; Bridger & Kay, 1996). For Central Asia,

it is argued that male breadwinner values persist, although faced with rising economic insecurity and dual-income households (Akiner, 2016; Sabates-Wheeler & Waite, 2003). Gender roles within families also get reshaped by religio-cultural traditions, like Islamic and clan identity being widespread in certain places (Sarsenov & Becker, 2020).

Spatial disparities have become a central characteristic of geography of economic differentiation for Kazakhstan. Scholars identify how access to official labor markets, infrastructure, and public services varies from oblast to oblast and shapes local economic livelihood and household strategy (Zubarevich, 2017; Pomfret, 2019). For example, rural households employ informal labor, remittances, or extended kin networks, which organize finance provision patterns (OECD, 2017; Nazarbayev Center, 2023).

Statistical modeling of household composition distributions is complemented by data science and econometric methodologies. Poisson regression and its variants are also readily applied for count responses (Cameron & Trivedi, 2013), and hierarchical cluster analysis allows for territorial units to be grouped according to structure similarity (Everitt et al., 2011). Gender economics has also utilized correspondence and GLMs to identify latent structure within employment and household data (Meurs & Giddings, 2022; Ferrant, 2014).

The intersectionality framework has also been particularly useful to identify how gender, age, marital status, and sectors of employment intersect to form heterogeneous household roles (Collins & Bilge, 2020; Crenshaw, 1989). Empirical evidence confirms how divorced and widowed women, for example, are more likely to become main breadwinners when the spouse becomes no longer capable of supporting them financially (Horrell & Humphries, 1997; Blau & Kahn, 2007). Similarly, analyses based on sociology by age show how younger generations, and especially urban areas, are most open to equitable financial behaviors (Goldscheider et al., 2015).

Institutional factors also affect intra-household financial relationships, including labour market policies, social protection systems, and taxation systems (World Bank, 2020; OECD, 2011). For instance, lack of proper childcare facilities and rigid maternity leave policies can shift financial responsibilities to men or kin members (Gauthier, 2007). This can be most clearly seen for post-Soviet countries going through demographic and social transition.

Kazakhstan's heterogeneity also provides an additional confounding factor. Ethnic, linguistic, and city-rural cleavages predominantly define roles and family organization. Afontsev and Zubarevich (2012) evidence confirms uneven geographical modernization, with southern parts of the republic retaining more conventional forms of families than the industrialized north. These findings corroborate findings from development economics highlighting spatial heterogeneity of household decision-making (Barrios et al., 2006; Henderson et al., 2018).

Finally, recent studies show integrating gender-sensitive indicators and ESG factors into household and labor market analysis (Razavi, 2007; UNDP, 2023). This is aligned with Kazakhstan's strategic development priorities, which progressively highlight social sustainability and inclusive development. Decisions regarding household finance are no longer seen just as straightforward results of personal decisions, but instead are based on a rich web of institutional, territorial, demographic, and cultural contexts. Combining state-of-the-art statistical modeling with gender-sensitive and territorially contextualized lenses offers a systematic means of exploring household financial behavior within Kazakhstan.

3. RESEARCH METHODS

In an attempt to study territorial and sociodemographic determinants for financial provision roles of families, an interdisciplinary methodological framework was developed combining unsupervised learning algorithms and count-based regression modeling.

Hierarchical cluster, Generalized Linear Model type with Poisson distribution, and Pearson's Chi-squared test for independence were used. These were utilized to expose structure similarity among administrative regions of Kazakhstan and statistically significant association among financial roles and sociodemographic attributes of age, marital status, and working sectors. Analytic process was informed with an understanding of financial provision among families being a categorical variable commonly presented in count form on questionnaires and hence need for appropriate modeling methods to accommodate this form.

Hierarchical agglomerative cluster analysis was utilizedas the first procedural step toward classifying regions by distributional pattern of financial providers husband, wife, jointly, another relative, no provider, and unknown. Each regional profile was taken to be a multivariate vector of frequencies standardized to control for heterogeneity of scales between measures. Euclidean distance served to quantify pair-wise dissimilarities among regional vectors. Specifically, the squared Euclidean distance between two regions A and B with vectors x_A and x_B was calculated as formula (1):

$$d^2(x_A, x_B) = \sum_{i=1}^{n}(x_{Ai} - x_{Bi})^2 \quad (1)$$

To achieve intra-cluster variation and intra-cluster tightness maximization, Ward's minimum-variance criterion was applied. In this criterion, whose function at each step of agglomeric merger is to combine the two clusters whose unification provokes a minimum rise in overall within-cluster sum of squares, a dendrogram is formed which provides a graphical presentation of regional closeness on the basis of financial role patterns, and from which spatial heterogeneity measures and latent clusters can be calculated.

Generalized Linear Models of Poisson family and log link function were used at the second level to examine associations of sociodemographic groups and number of persons occupying each financial provider position. The GLM is appropriate when the dependent variable is a count and assumes that the response variable Y_i follows a Poisson distribution as formula (2):

$$Y_i \sim \text{Poisson}(\mu_i) \quad (2)$$

The model equation, with a log link function, is given by formula (3):

$$\log(\mu_i) = \beta_0 + \sum_{j=1}^{p}\beta_j x_{ij} \quad (3)$$

where μ_i is the expected count of financial provision responses for observation i, x_{ij} are indicator variables for categories of age, marital status, or employment sector, and β_j are the corresponding regression coefficients. Incidence Rate Ratios (IRRs), computed as $\exp(\beta_j)$, allow for intuitive interpretation of multiplicative effects on the expected counts.

To formally assess whether the distribution of financial provider roles is statistically dependent on categorical independent variables (such as marital status or region), the Pearson Chi-Square Test of Independence was employed. This nonparametric test evaluates the null hypothesis that two categorical variables are independent. The test statistic is defined as formula (4):

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(O_{ij}-E_{ij})^2}{E_{ij}} \quad (4)$$

where:

O_{ij} is the observed frequency in cell (i,j),

E_{ij} is the expected frequency in cell (i,j), computed as formula (5):

$$E_{ij} = \frac{R_i \cdot C_j}{N} \quad (5)$$

with R_i as the total for row i, C_j as the total for column j, and N as the overall sample size. A significance level of α=0.05 was used. If the calculated χ^2 statistic exceeds the critical value from the Chi-square distribution, the null

hypothesis is rejected, suggesting a significant association between the variables.

All analyses were conducted in Stata 18. Hierarchical cluster analysis was applied via cluster wardslinkage and cluster dendrogram commands. GLM models were estimated using glm with options family (poisson) and link (log). Chi-squared tests were conducted via tabulate var1 var2, chi2. This integrated methodological strategy facilitates exploratory regional typologization and confirmatory tests for sociodemographic relationships, supporting an integrative understanding of how household financial roles are structured by territorial setting and population composition. The strategy draws on an established literature regarding cluster analysis (Everitt et al., 2011) and count data regression (Cameron & Trivedi, 2013), and delivers assurance of methodological quality and empirical applicability.

4. RESULTS

Gender equality and financial independence within households are looked for sociodemographically and geographically among household financial provisioning roles, which are coded husband-led, wife-led, joint, and other. Descriptive and inferential statistics are applied to investigate variation in financial structure by geographical area, person's age category, labor force status, and marital status. Each factor is tested for its relation to financial control of the household by chi-squared tests of independence, generalized linear modeling, and hierarchical cluster analysis techniques.

Table 1 shows distribution of household financial providers by region.

TABLE 1. Distribution of household financial providers by region

Region	Husband	Joint	None	Other	Unknown	Wife	Total
Abay	7	32	0	0	0	0	39
Akmola	12	16	0	5	18	0	51
Aktobe	40	5	0	2	8	0	55
Almaty city	36	65	10	9	4	24	148
Almaty region	15	51	1	3	7	9	86
Astana	27	32	1	11	0	16	87
Atyrau	14	15	4	4	0	2	39
East Kazakhstan	4	33	9	0	3	2	51
Jetisu	7	28	0	0	2	4	41
Karaganda	17	30	0	4	0	26	77
Kostanay	33	1	3	8	0	13	58
Kyzylorda	11	18	0	10	0	6	45
Mangystau	5	15	2	13	3	2	40
North Kazakhstan	1	30	0	1	0	5	37
Pavlodar	19	23	0	2	0	7	51
Shymkent	29	15	2	1	0	19	66
Turkestan	35	45	5	10	0	10	105
Ulytau	1	8	0	0	0	4	13
West Kazakhstan	3	28	0	0	0	12	43
Zhambyl	26	25	0	8	4	5	68
Total	342	515	37	91	49	166	1,200

Note: compiled by authors

Table 1 also provides a distribution of financial provision roles for families living in 20 administrative regions of Kazakhstan, including large cities and oblasts. Roles are categorized by six types: husband sole provision, provision by both partners, provision by neither partner ("none"), provision by other household member,

unknown provider, and sole provision by wife. There are a total of 1,200 observations, with regional numbers varying from a low of 13 households from Ulytau to a high of 148 from Almaty city. All regions exhibit considerable variation within distribution by provider type. Almaty city, for example, has largest figures for all provider types, with large numbers of households reporting joint (n = 65) and husband-dependent financial provision (n = 36), and large numbers of wife-headed households (n = 24). In contrast, regions like North Kazakhstan and Ulytau have small numbers of households overall, with large proportions of respondents from these regions reporting joint and husband-dependent financial provision.

To statistically examine independence of type of financial provider by residential region, a chi-squared test of independence was applied. Its value, $\chi 2(95)=596.27$, and accompanying p-value less than 0.001, demonstrate a strong association of type of household financial provider and regional residence. This is evidence of an interdependence of financial household role distribution on geographical area. Strength and statistical significance of association justify models for testing underlying demographic, socioeconomic, and culture processes potentially driving such variation. There are some anomalous patterns for some of the regions; notably, Kostanay has a reasonably large number of husband-only providers (n = 33) and large proportions of "other" (n = 8) and "wife" (n = 13) providers for quite a small sample of n = 58. There are also places such as Abay and Jetisu, which have only joint or husband providers, indicating low heterogeneity of household financial arrangements. This geographical variation of domestic financial responsibility offers a baseline for further inferential testing of the relationship between geography and economic gender roles.

Figure 1 shows hierarchical clustering of regions based on household financial provision roles.

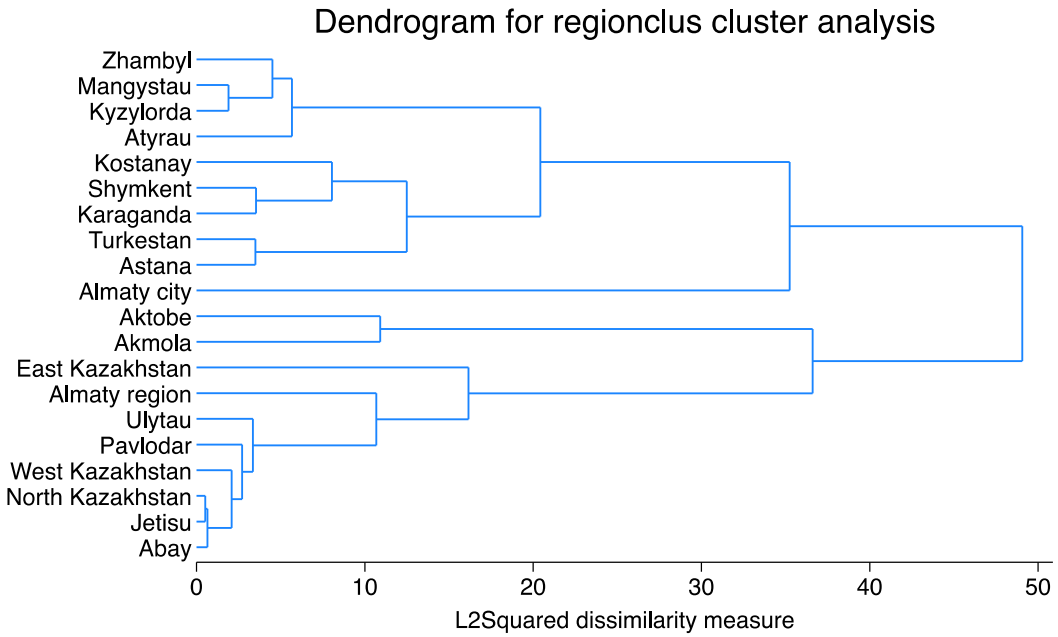

FIGURE 1. Hierarchical clustering of regions based on household financial provision roles

Figure 1 depicts the result of a hierarchical agglomerative cluster analysis of distribution of household financial providers by type for 20 administrative regions of Kazakhstan. Clustering was performed using Ward's minimum variance and the squared Euclidean distance as a measure of dissimilarity. L2-squared values of dissimilarities are plotted on the x-axis, and regional names on the y-axis. The dendrogram identifies several interpretable clusters of regions on the basis of similarity of household financial provisioning structure. Zhambyl, Mangystau, and Kyzylorda, for example, form a tightly paired cluster, indicating very similar household provider profiles, presumably with higher proportions of traditional husband-breadwinner provision roles. Jetisu, Abay, and North Kazakhstan are close neighbors on the low end of similarity too, suggesting similarity of household financial behavior like widespread joint provision.

On the other hand, Almaty city and Aktobe appear to stand apart from other groups, suggesting their heterogeneous and potentially urbanized household financial behavior trend. Clearly distinguishable macro-regional differentiation is reflected by the branching structure of the dendrogram, which also supports the idea that geographical and socio-cultural factors are significant predictors of household economics for Kazakhstan. This framework provides an empirical foundation for explaining regional patterns and informing region-specific socioeconomic policy interventions.

Table 2 shows household financial provider type by age group.

TABLE 2. Household financial provider type by age group

Age	Husband	Joint	None	Other	Unknown	Wife	Total
18_28	78	77	11	42	21	13	242
29_45	146	192	7	12	13	51	421
46_60	70	137	13	10	7	52	289
61_plus	48	109	6	27	8	50	248
Total	342	515	37	91	49	166	1,200

Note: compiled by authors

Table 2 presents cross-tabulation of financial provider status against four different age groups: 18-28, 29-45, 46-60, and 61 and older. Provider status is represented by husband, wife, both spouses, other relative, no provider, and unknown. Total observations are 1,200, with most of them coming from the age group 29-45 (n = 421), followed by 46-60 (n = 289), 61+ (n = 248), and 18-28 (n = 242). There appears to be a pattern of change within the age spectrum. Young and intermediate-age respondents (18–28 and 29–45 years, respectively) respond with the largest numbers of husband-provisioned forests (n = 78 and n = 146, respectively), with a trend for provision shared within economically active intermediate years peaking within the 29–45 years of age (n = 192). Both of these groups, i.e., 46–60 and 61+ years of age, also respond with an increase in percentage of wife-provisioned forests (n = 52 and n = 50, respectively), and this suggests a change of financial status perhaps occasioned by change within employment, retirement status, or widowhood.

Family and other unknown providers are most noted among the youngest (18–28: n = 42 and n = 21) and oldest (61+: n = 27 and n = 8) groups, suggesting potential reliance on relatives beyond primary kin and informal financial commitments at earlier and later phases of the course of life. It was performed a test for statistical association of age and provider type by conducting a Pearson chi-squared test of independence. We calculated a test-statistic $\chi 2(15)=124.80$ with a p-value less than 0.001, indicating a highly significant association involving financial provider and respondent's age group. This observation confirms that distribution of financial

responsibilities varies systematically with respondent's age. Table 3 shows generalized linear model (Poisson) of financial provider counts by age and provider type.

TABLE 3. Generalized linear model (poisson) of financial provider counts by age and provider type

Predictor	Incidence Rate Ratio (IRR)	Std. Err.	Z-score	P-value	95% Confidence Interval
Age group					
29-45 years	1.872	0.186	6.32	0.000	[1.541, 2.273]
46-60 years	0.897	0.104	-0.93	0.353	[0.714, 1.127]
61+ years	0.615	0.080	-3.74	0.000	[0.477, 0.794]
Provider role					
Wife	1.000	0.076	-0.00	1.000	[0.861, 1.162]
_cons	78.000	6.921	49.10	0.000	[65.550, 92.815]

Note: compiled by authors

Table 3 demonstrates the result of a Generalized Linear Model (GLM) with Poisson distribution and log link function for predicting financial provider incidence rate by age group, with "husband" set as reference provider and baseline age group set at 18–28. The model reflects statistically significant effects on financial provider role frequencies by age. Compared to the reference category (18–28 years), respondents aged 29–45 are 1.87 times more likely to endorse a given type of provider (IRR = 1.872, $p < 0.001$), signifying peak financial provision at this stage of life. Conversely, category 61+ has lower likelihood of endorsement of provider roles (IRR = 0.615, $p < 0.001$), potentially reflecting less labor force participation and/or change due to widowhood and/or retirement. Category 46–60 is no different from the reference category ($p = 0.353$).

No variation was noted for "wife" reference category versus "husband" reference category (IRR = 1.000, $p = 1.000$), implying equivalence of count values when only provider roles are being monitored without interaction terms. Model constant (_cons) is the expected baseline incidence rate (78) for husband-headed financial provision for category 18–28. Model diagnostics show a close fit: deviance and Pearson residuals are close to zero and converge after three iterations. AIC = 7.46 and BIC = –6.24 suggest a parsimonious model for the small sample of $n = 8$, although low degrees of freedom caution against interpretation. These results support the salience of age as a transformer of financial responsibility within households, consistent with life-course accounts of financial role development.

Table 4 shows household financial provider type by employment sector.

TABLE 4. Household financial provider type by employment sector

Sector	Husband	Joint	None	Other	Unknown	Wife	Total
Agriculture	5	12	0	2	4	4	27
Agriculture	5	12	0	2	4	4	27
Catering	12	23	0	3	3	3	44
Construction	8	12	1	0	3	3	27
Culture	2	1	1	0	0	1	5
Disabled	2	0	0	1	0	1	4
Don't know	0	1	0	0	1	0	2
Education	52	116	10	7	10	30	225
Energy sector	40	33	0	0	0	20	93
Finance/Banking	3	4	0	0	0	5	12
Housewife	87	36	2	8	2	7	142
IT and Telecom	6	19	0	2	1	4	32

Law	0	0	0	0	0	2	2
Manual labor	19	25	1	3	0	14	62
Maternity leave	7	2	0	0	0	2	11
Military/Police	2	10	0	0	0	1	13
Private entrepreneur	0	0	1	0	0	0	1
Public sector	18	46	3	3	6	13	89
Retired	44	93	4	26	8	38	213
Self-employed	1	2	2	0	0	1	6
Services/Beauty	7	17	1	2	2	7	36
Sports	16	66	0	0	0	16	98
Student	15	9	3	22	6	1	56
Trade	35	72	4	9	2	24	146
Transport	6	8	0	0	1	2	17
Unemployed	9	5	3	3	0	2	22
Total	397	612	36	91	49	203	1,388

Note: compiled by authors

Table 4 reports financial provider composition by 25 sectors for which composition of providers is available. Composition of providers is husband sole provision, provision by both spouses, sole provision by wife, provision by some other relative, no provider, and unknown. We have a total sample of 1,388 and our sector sample sizes vary from 1 for Private Entrepreneur up to a maximum of 225 for Education sector. Education, Retired, and Trade are some of the most extensive occupational groups and have diverse sources of financial provision. For the education group, joint provision is most prevalent (n = 116), followed by husband-led provision (n = 52) and wife-led provision (n = 30). To contrast, no other group shows higher wife-led provision (n = 38) and other family member provision (n = 26), reflecting financial readjustment after retirement. An extremely large incidence of husband-only provision (n = 87) exists for the housewife group, reflecting historical gender segregation.

Sub-groupings such as Aviation, Law, and Private Entrepreneurship have extremely skewed distributions and wife-only or one-mode provision is prevalent. Student and disabled groups both exhibit higher financial dependencies on other members of their households or on unidentifiable sources, suggesting financial vulnerability for these groups. Pearson Chi-squared test for independence indicates a very significant association of employment sector and type of financial provider $\chi 2(125)=469.11$, $p<0.001$. This suggests that financial provision arrangements at home are significantly influenced by employment status. Table 5 household financial provider type by marital status.

TABLE 5. Household Financial Provider Type by Marital Status

Marital	Husband	Joint	None	Other	Unknown	Wife	Total
Cohabiting_unregister	9	12	1	0	1	0	23
Divorced	12	20	8	7	6	57	110
Never_married	34	35	21	39	23	27	179
Registered_only	162	256	3	17	6	14	458
Registered_religious	108	152	3	4	9	8	284
Religious_only	4	6	0	0	0	0	10
Widowed	13	34	1	24	4	60	136
Total	342	515	37	91	49	166	1,200

Note: compiled by the authors

Table 5 indicates distribution of financial provider roles among seven groups of marital status: never married, divorced, widowed, unregistered and cohabiting, married (solely registered in civil registry officially), married (registered both officially and religious ceremonies), and religious rite only. There are six provider types and numbers equal to a sum of 1,200 observations. Registered only (n = 458) and registered with religious ceremony (n = 284) are the most prevalent marital statuses, and these both exhibit preponderance of husband-initiated provision (n = 162 and n = 108) and joint provision (n = 256 and n = 152), consistent with normative union-based financial partnerships. Increased incidence of wife-initiated provision (n = 57 and n = 60) and other household reliance (n = 7 and n = 24), however, among divorced (n = 110) and widowed (n = 136) reflects structural change after separation and widowhood.

The never married also follow a highly diversified pattern, with large proportions falling within non-traditional groups: “other” (n = 39), “none” (n = 21), and “unknown” (n = 23), representing household instability and ad hoc household arrangements. There are very few religious-only marriages (n = 10) and low provision diversity. The robust and statistically significant association for marital status and type of provider is supported by the test of association for these two categorical variables, the Pearson Chi-squared test $\chi 2$ (30) = 602.13, $p < 0.001$. The result points towards how marriage arrangements, both formal and informal, affect household financial composition and gendered roles.

5. CONCLUSIONS

This article provides detailed analysis of financial provision household roles at both regional and sociodemographic levels by incorporating hierarchical clustering, Poisson regression modeling, and chi-squared testing. Findings indicate substantial heterogeneity of financial provision arrangement within households, both based on person-level markers such as age, marital status, and employment sectors, and on regional and institutional context. Conventional dominance of husband-headed provision for most regions is increasingly challenged by patterns of shared and wife-headed financial provision, particularly for urbanized and economically diversified regions such as Almaty city and Astana.

Life-course status plays a significant role, financial roles shifting radically across age groups. High financial engagement is experienced by respondents of middle age (29-45), for whom the groups of advanced years are oriented towards shared or other financial household arrangements, retirement and widowhood often being the precipitating factor. Marital status also distinguishes financial roles, marriage being entered into formally with conventional provision roles and divorce and widowhood being characterized by higher financial engagement on the women's side. Sector of employment also emerges strongly as a predictor of household roles, public sector and education staff revealing more equalized tendencies than sectors such as construction and trade.

Cluster analysis focuses on regional variation, in which embeddedness of gender norms and economic behavior is located. Southern and rural regions are likely to maintain traditional household forms, while northern and urban regions are characterized by more varied and recent patterns. Outcomes show territorially divergent social and labor policies, taking into account both structure-related and norm-related discrepancies.

Taken together, these findings verify that household financial responsibilities in Kazakhstan are less a question of individual decision than of a multifaceted set of demographics, financial, and institutional factors. Gender-sensitive and place-informed considerations inform policy design at its core to promote greater inclusion and development. Additional research also needs to give due regard to intersecting factors—education, ethnicity, and household size—and employ longitudinal designs so that changing financial provision roles can be monitored.

AUTHOR CONTRIBUTION

Writing – original draft: Akan S. Nurbatsin, LászlóVasa.
Conceptualization: Akan S. Nurbatsin, László Vasa.
Formal analysis and investigation: Akan S. Nurbatsin, LászlóVasa.
Development of research methodology: Akan S. Nurbatsin.
Resources: Akan S. Nurbatsin, LászlóVasa.
Software and supervisions: Akan S. Nurbatsin, László Vasa.
Data collection, analysis and interpretation: Akan S.Nurbatsin, László Vasa.
Visualization: Akan S. Nurbatsin.
Writing review and editing research: Akan S.Nurbatsin, László Vasa.

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AUTHOR BIOGRAPHIES

***Akan S. Nurbatsin** – PhD, Director of the Department of Research Activities, University of International Business named after K. Sagadiyev, Almaty, Kazakhstan. Email: nurbatsin.a@uib.kz, ORCID ID: https://orcid.org/0000-0001-5390-5776