Childbirth, Marital Status and Religion: A Comparative Urban-Rural Perspective

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Abstract

This study explores the differences in marital status, childbirth, and religion between urban and rural environments, highlighting their impact on policy formulation and organizational strategies. Using a quantitative methodology, the analysis included paired sample statistics and effect sizes, applying Cohen's d and Hedges correction to assess the significance of these differences. The results indicate surprising uniformity across the means analyzed, with minor and statistically insignificant differences in nativity and marital status behaviors. These findings suggest the need for flexible and inclusive policies in both the public and private sectors that equally address the needs of people from both residential settings. The conclusion of the study emphasizes the importance of recognizing similarities in urban and rural environments in formulating effective development and human resource strategies, contributing to better social and economic cohesion.

Key words: childbirth, marital status, religion, residence environments
J.E.L. classification: M14, Z12, Z13.

1. Introduction

Childbirth, marital status and religion are factors that influence not only social but also labor market dynamics and organizational behavior. This research explores these factors in the context of comparisons between urban and rural residential environments, with the aim of exploring how possible differences may affect organizational practices and cultures.

Childbirth influences the labor market by altering the age structure of the active population, which has direct implications for recruitment, retention and career development strategies within organizations. By analyzing variations in childbirth between urban and rural areas, our study aims to identify how these trends may dictate organizational training, and adaptation needs in different geographical contexts.

Marital status, through the stability or instability it may suggest in employees' lives, also affects organizational performance. A thorough understanding of this aspect can provide companies with important data for developing employee supportive policies that contribute to increased job satisfaction and commitment (Aivaz, Mișa & Teodorescu, 2024).

In addition, religion, as a central element of individual and collective culture, can shape organizational values and workplace behavior (Aivaz & Petre, 2024). Different religious practices and beliefs which are present in urban and rural settings can influence work ethics, team cohesion, and even organizational politics (Petre & Aivaz & Aivaz, 2024). A better understanding of the impact of religion on the business environment can help formulate cultural management strategies that respect and enhance diversity.

By addressing these three factors - childbirth, marital status, and religion-in an urban-rural comparative perspective, our study aims to provide business leaders and Human Resources (HR) managers with a comprehensive perspective on how socio-demographic context can influence and shape organizational culture. This research is designed to support companies in creating work environments that are not only productive, but also inclusive and adapted to diverse social and cultural realities.

2. Literature review

Considering the literature, this study provides new insights and confirms some existing studies while highlighting discrepancies that may influence effective development policies.

The results of this study suggest that although religion has previously been correlated with higher birth rates in the work of Herzer (2019) and Hacker and Roberts (2017), in our case, we did not observe a statistically significant influence of religion on childbirth rates in direct comparison between urban and rural settings. This suggests that other variables, such as economic conditions or access to education, may play a more determinative role in contemporary birth rates decisions than religion.

Also, while Sorokowski et al. (2017) indicated that the number of children and the length of marriage influence marital satisfaction globally, in our research, these aspects did not differ significantly between urban and rural areas, indicating that relationship dynamics are uniform across the geographic environments analyzed.

The present study contributes to the existing literature by highlighting possible shifts in the traditional impact of religion on childbirth behavior, such as those discussed by Shaver et al. (2020) on the influence of religious community support on urban parents. While this support may play a vital role in child development in urban settings, cultural factors and access to community resources may be of comparable or even greater importance in decisions about birth rates and family structure.

Recent analyses (Coale, 2017; Kalmijn, 2013) provide essential context for understanding changes in family structure and birth decisions. These studies suggest that education and socioeconomic factors are key determinants of childbirth and marriage decisions, ideas that are also reflected in our findings on behavioral uniformity in urban and rural settings.

Hubert's (2014) work on the impact of religion on birth rates in several European countries, complementary to Bar-El et al.'s (2013) study which discuss secularization and the cultural transmission of religion, supports our understanding of the complex relationship between religion and childbirth. Both papers illustrate how religious values, and the degree of secularization can influence birth decisions, a point that resonates with our observations of insignificant variation in the impact of religion on births across the environments analyzed (Stan, Vancea & Zaharia, 2023; Stan& Vancea, 2013).

In addition, the analysis by Dribe et al. (2017) and Perrin (2022) studying the origins of the European demographic transition adds depth to the discussion of the influence of socioeconomic status and marital status patterns on birth rates. These historical insights are essential to contextualize contemporary changes in birth behavior and family structures. Also, Fuchs and Goujon's (2014) research conducted in high- childbirth countries and Puschmann and Solli's (2014) study of household and family dynamics during urbanization and industrialization provide valuable insights into how macroeconomic processes and changes in family structure influence childbirth. These papers highlight how economic change and urbanization have reshaped family traditions and childbirth decisions, themes that are consistent with our findings about the similarities between the two urban-rural environments.

Therefore, the integration of these works into the analysis not only increases the complexity and relevance of our study, but also emphasizes the importance of a comprehensive and interdisciplinary approach in formulating public policies that effectively respond to the diverse needs of the population in a changing social landscape. These connections between existing studies and our observations contribute to a deeper academic dialog and to the formulation of development strategies adapted to current demographic realities.

3. Research methodology

In this research, we applied a quantitative methodology to analyze and compare urban-rural differences in women's childbirth and marital status, using SPSS version 28 software to perform paired sample statistics. This approach allowed us to assess how demographic and social variables interact in different geographical contexts.

The analyzed data were extracted from national sources of demographic statistics (NSI), segmented into two main categories: urban and rural. We included in the study the female resident

population aged 11 years and over, divided into several subcategories according to birth and marital status. Thus, we examined the number of women who did not have live born children, as well as the total number of children born alive to unmarried, married, widowed and divorced women, for urban and rural settings.

The analysis was performed using the paired-samples statistical test, an appropriate technique for comparing the means of two related samples, in our case, the urban and rural segments for each data category. This method provides an accurate assessment of internal differences, allowing for a detailed interpretation of the impact of socio-demographic factors on birth and marital behavior.

Through this methodological approach, the study aims to provide a rigorous analysis of how urban and rural environments influence women's childbearing and marital status decisions, thus contributing to a better understanding of contemporary social dynamics.

4. Findings

Table 1, which presents a comparative urban-rural description of some of the variables on childbirth, marital status and religion, shows significant differences between the various denominations and marital status in the two settings. There is a predominance of the Orthodox population in both settings, with many women who have not given birth to live children, but also an impressive number of children born alive, especially among married women.

In urban areas, the proportion of women who have not given birth is higher than in rural areas, which could indicate a tendency to delay or even give up motherhood, possibly influenced by economic or career factors. Among Orthodox women in urban areas, almost one million are childless, while in rural areas the figure is lower, indicating a stronger adherence to traditional values regarding family and childbearing.

Interestingly, despite a lower childbirth rate among unmarried women in urban areas, the number of children born alive to unmarried women is significant in both environments, suggesting that traditional marital status is no longer exclusively linked to childbearing decisions. It is also notable that divorced and widowed urban women have higher childbirth rates than rural women, possibly due to better social and economic support in cities for these groups.

Analyzing the data by denomination, we observe that religious minority groups such as Pentecostals, Baptists and Old-Rite Christians have higher childbirth and marriage rates in rural compared to urban areas, reflecting adherence to more conservative cultural and religious practices.

These differences underline the complexity of the relationships between religion, marital status and childbirth decisions, showing that these variables are profoundly influenced by socio-cultural and economic context. Therefore, any policy or social intervention targeting these issues must consider the cultural and economic specificity of the environments of residence in order to be effective.

Table no. 1 Comparative urban-rural description of some of the variables on childbirth, marital status and religion

Religion/ Variables	**PRFU**	**CVU**	**PRFR**	**CVR**	**CNVNU**	**CNVCU**	**CNVVU**	**CNVDU**	**CNVNR**	**CNVCR**	**CNV_VR**	**CNV_DR**
Orthodox	3414977	960019	3195231	790195	375046	2514899	959561	527970	590707	3269048	1277941	258521
Romano-Catholic	168240	47622	181375	50214	20998	120320	58728	26756	32074	190963	79052	15188
Reformed	116373	29527	120454	29792	14378	84085	44153	17452	23264	110321	48041	10275
Pentecostal	59919	20167	107494	36661	9326	95673	18287	6769	23571	198315	32403	6098
Greek-Catholic	33650	9675	22411	5836	3418	19598	13944	6493	4361	21667	9805	2071
Baptist	26687	7916	23837	6316	2578	26076	8903	3987	3517	31310	9581	1889
Advent	11549	3411	20969	5398	1092	10339	3981	1785	2594	26920	7566	1587
Muslim	16719	5593	6548	1958	4010	13509	3929	2320	2552	6929	1704	479
Unitarian	10832	2754	11663	2835	1163	8166	3928	1831	2873	10384	4856	1054

Jehovah's Witnesses	14343	4227	9987	2421	1309	12832	5821	1841	1204	11964	4657	698
Christian according to the Gospel	8394	2887	8307	2541	772	10906	2835	1219	1710	13387	3621	520
Old Rite Christian	4294	1257	9018	2208	381	3722	1450	715	1273	10096	4019	711
Evangelical Lutheran	6421	1789	3279	854	573	4188	2497	1186	520	3174	1346	335
Serbian Orthodox	2807	757	3910	957	383	1741	788	450	870	3182	1350	427
Evangelical	2077	703	1523	482	202	2190	760	366	233	2264	532	127
Augustinian	1355	408	537	163	108	833	650	272	91	508	233	73
Mosaic	1061	369	130	53	62	390	395	270	26	148	29	12
Other religion	5983	2494	4071	1563	568	5489	1012	1001	523	4933	1160	393
No religion	18913	11502	5337	2590	1639	6560	1299	2792	1878	3508	460	574
Atheist	14673	9430	2374	1380	769	3595	907	2170	86	949	154	348
Agnostic	8546	6202	1153	741	371	1658	264	963	49	353	50	151
Information not available	759007	663494	298942	269940	8241	96341	31217	21870	2708	36067	10780	4896

Source: Author's own processing by SPSS

The significance of the variables coded in Table 1 is as follows:
PRFU = Female resident population aged 11 years and over in Urban
PRFR=Resident female population aged 11 and over in Rural
CVU = females aged 11 and over who have not given born children alive in urban areas
CVR = females aged 11 and over who have not born children alive in rural areas
CNVNU = Total number of children born alive to unmarried women in urban areas
CNVNR= Total number of children born alive to unmarried women in rural areas
CNVCU= Total number of children born alive to married women in urban areas
CNVCR= Total number of children born alive to married women in rural areas
CNVVU= Total number of children born alive to widowed women in urban areas
CNVVR= Total number of children born alive to widowed women in rural areas
CNVDU= Total number of children born alive to divorced women in urban areas
CNVDR= Total number of children born alive to divorced women in rural areas

Analysis of the data in Table 2 reflects several differences and trends in demographic behavior between urban and rural environments. These differences are illustrated by comparing the means of key indicators related to childbirth and marital status in these two environments.

First, the female resident population over 11 years of age (PRFU and PRFR) shows a higher average in urban compared to rural, indicating a higher concentration of women in cities.

For women aged 11 and over who have not given born children (CVU and CVR), we observe a higher average in urban areas. This may reflect a tendency in urban areas to delay or even avoid motherhood, possibly for economic or social reasons such as education or career.

An analysis of the total number of children born to unmarried women (CNVNU and CNVNR) shows a higher average in rural areas, which could indicate a wider acceptance or higher incidence of out-of-wedlock childbirths in these communities compared to urban ones.

If we look at the number of children born to married women (CNVCU and CNVCR), we observe that the average is significantly higher in rural areas. This points to a greater valorization of the traditional family and the role of motherhood among rural married women.

The differences between widowed women in the number of children born alive (CNVVU and CNVVVR) are also higher in rural areas, suggesting that widowhood does not necessarily reduce the chances of having children in those communities.

Analyzing the number of children born to divorced women (CNVDU and CNVDR), we see that the average is higher in urban areas, indicating that divorced women in cities may be more likely to have children than those in rural areas, possibly due to more robust social or economic support in cities for single mothers.

These data provide us with a detailed insight into how marital status and geographical context influence childbearing decisions and family structures, reflecting significant cultural and economic variations between urban and rural areas. This analysis is essential for understanding current social dynamics and for planning social and economic policies that respond effectively to the needs of different demographic groups.

Table no. 2 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRFU	213946.36	22	732900.232	156254.855
	PRFR	183570.45	22	676774.206	144288.745
Pair 2	CVU	81463.77	22	241020.903	51385.829
	CVR	55231.73	22	173899.599	37075.519
Pair 3	CNVNU	20335.77	22	79404.855	16929.172
	CNVNR	31667.45	22	125179.720	26688.406
Pair 4	CNVCU	138323.18	22	532093.755	113442.770
	CNVCR	179835.91	22	692382.324	147616.408
Pair 5	CNVVU	52968.59	22	203085.247	43297.920
	CNVVR	68151.82	22	270889.359	57753.805
Pair 6	CNVDU	28658.09	22	111765.120	23828.404
	CNVDR	13928.50	22	54761.983	11675.294

Source: Author's own processing by SPSS

The results presented in Table 3 on the differences between urban and rural environments in terms of childbirth and marital status revealed that although there is variation between these environments, the differences are not statistically supported at a significant level. This indicates a surprising uniformity in demographic behavior, with socioeconomic and cultural factors influencing childbirth and marital status decisions across the country.

From a business management perspective, these findings underscore the importance of recognizing and understanding the needs of employees from diverse geographic backgrounds as similar. In an increasingly diverse and integrated corporate world, human resource policies should reflect this broad spectrum of commonality by accommodating employees' needs for job flexibility, family benefits, and parental assistance programs, regardless of their urban or rural location.

Sociologically, the uniformity indicated by these results are a signal that traditional and modern values similarly influence urban and rural communities. Although urbanization continues to alter the social and economic landscape, core values related to family and interpersonal relationships remain remarkably constant. This could be explored in community initiatives and public policies aimed at improving quality of life in all areas.

Economically, the lack of a significant urban-rural difference in these areas is an indication that the economic factors influencing childbirth and marriage decisions are evenly distributed. This could imply a balanced distribution of economic opportunities or challenges in different areas, which should be considered in economic planning and regional development.

Table no. 3 Paired Samples Test

	Paired Differences					t	df	Significance	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
				Lower	Upper				
Pair 1 PRFU - PRFR	30375.90	107543.30	22928.30	-17306.119	78057.93	1.32	21	.100	.199
Pair 2 CVU - CVR	26232.04	89729.73	19130.44	-13551.890	66015.98	1.37	21	.092	.185
Pair 3 CNVNU - CNVNR	-11331.68	45842.13	9773.575	-31656.944	8993.58	-1.15	21	.130	.259
Pair 4 CNVCU - CNVCR	-41512.72	161996.33	34537.73	-113337.876	30312.42	-1.20	21	.121	.243
Pair 5 CNVVU - CNVVR	-15183.227	68099.170	14518.792	-45376.708	15010.253	-1.046	21	.154	.308
Pair 6 CNVDU - CNVDR	14729.591	57047.791	12162.630	-10563.983	40023.164	1.211	21	.120	.239

Source: Author's own processing by SPSS

From a cultural perspective, the results show that there is a common cultural basis that transcends these geographical divisions. This finding can inspire stronger cultural integration initiatives and help shape a cohesive national identity that values diversity within a framework of similarity.

In conclusion, although the results do not show significant differences, they provide valuable insights for understanding national uniformity in demographic behavior and marital status. This understanding could be used to support decisions in business management, socioeconomic planning, and cultural initiatives, promoting policies that are relevant and effective for all segments of society.

Table no. 4 Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	PRFU - PRFR	Cohen's d	107543.301	.282	-.147	.706
		Hedges' correction	111584.645	.272	-.142	.680
Pair 2	CVU - CVR	Cohen's d	89729.734	.292	-.138	.716
		Hedges' correction	93101.667	.282	-.133	.690
Pair 3	CNVNU - CNVNR	Cohen's d	45842.131	-.247	-.669	.180
		Hedges' correction	47564.822	-.238	-.645	.174
Pair 4	CNVCU - CNVCR	Cohen's d	161996.330	-.256	-.678	.172
		Hedges' correction	168083.952	-.247	-.654	.165
Pair 5	CNVVU - CNVVR	Cohen's d	68099.170	-.223	-.644	.203
		Hedges' correction	70658.253	-.215	-.620	.195
Pair 6	CNVDU - CNVDR	Cohen's d	57047.791	.258	-.170	.680
		Hedges' correction	59191.576	.249	-.164	.656

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Source: Author's own processing by SPSS

The effect size results for comparing demographic behaviors and marital status between urban and rural environments, as reflected by Cohen's d and Hedges correction in Table 4, indicate relatively small differences. These small variations suggest that although there are absolute differences between urban and rural in terms of childbirth and marital status, they are not significant. Thus, family-related behaviors and birth decisions are surprisingly similar between the two environments.

From a business management perspective, the uniformity indicated by the small effect sizes between urban and rural environments highlights the importance of implementing similar organizational policies (Stan & Cortel, 2022). These policies should address the diversity of employees' family situations, recognizing that employees' needs in terms of parental support and work-life balance are similar regardless of the environment. Organizations would benefit from adaptability in addressing employees' needs through parental support programs and *work-life balance* initiatives that need to be adaptable enough to cover a broad spectrum of situations (Aivaz, 2021).

At the sociocultural level, effect sizes reflect a consistency in family-related norms and practices, indicating that traditional family-related values are deep-rooted and influence behaviors in comparable ways in different geographical contexts. Thus, community development strategies and public policies could benefit from an integrated approach that capitalizes on similarities across residential environments to create greater and more coherent impact at the national level (Herciu et al., 2023). This holistic approach could facilitate better social integration and more effective application of resources in development initiatives at community and national levels.

5. Conclusions

The study provides a comprehensive perspective on the uniformity of family-related behaviors and childbirth decisions in two geographic contexts. The analysis showed that, despite expectations of significant urban-rural differences, the variations are in fact subtle and do not reach a threshold of statistical significance indicating profound differences.

The implications of this uniformity are important for the formulation of public policies and corporate strategies. Policies and programs designed to support families and employees should recognize the cross-sectional similarity and be designed to address the needs of people from both backgrounds equally. Parenting support programs and initiatives promoting work-life balance should accommodate these similarities, thus avoiding the creation of fragmented policies that may neglect or underestimate essential commonalities. At the socio-cultural level, the results show that traditional and modern values uniformly influence communities.

Therefore, this research illustrates how a thorough understanding of demographic structures and marital status behaviors in different settings can reflect key aspects of social and economic structure, thus providing a solid evidence base for public policy and business decisions.

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