Kostaschuk Ivan. Religious activity of the population as factor of influence on the demographic processes. Journal of Education, Health and Sport. 2019;9(1):417-427. eISNN 2391-8306. DOI http://dx.doi.org/10.5281/zenodo.2634398
http://ojs.ukw.edu.pl/index.php/johs/article/view/6805

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 1223 (26/01/2017).
1223 Journal of Education, Health and Sport eISSN 2391-8306 7

The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 03.01.2019. Revised: 11.01.2019. Accepted: 31.01.2019.

UDC: 911.3

RELIGIOUS ACTIVITY OF THE POPULATION AS FACTOR OF INFLUENCE ON THE DEMOGRAPHIC PROCESSES

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Summary

This article studies the peculiarities of influence of religious activity of the population on the course of the demographic process on a certain territory. The territory of Ukraine was selected for research. It is established that the religious activity of the population significantly determines the process of birth and death of the population, due to the number of abortions, suicides, the average number of children in the family, and so on. To establish the relationship and its justification, a method of linear correlation was chosen which helped to establish different degrees of mutual influence. The most noticeable impact on demographic components is presented in the article.

Key words: religious activity, atheists, believer population, demographic process, birth rate, mortality of the population.

Relevance of the research

Religion, as a form of world outlook, not only forms the world perception of social processes, but also significantly affects their course in the state as a whole or in its individual regions. Of course, such an impact can be both positive and negative, to have both open (direct) and hidden (closed) consequences.

Socio-geographical research studies of the religious space are especially relevant, as only they allow us to clearly identify and trace the territorial differences in the confessional space, to understand the causes of the emergence of religious conflicts and to make appropriate forecasts, to develop ways of their reduction and manifestation. The research of confessional space is one of the important directions of scientific researches of modern socio-geographical science – the geography of religion. It is associated with important problems in the life of society, especially with the aim of overcoming ethnic and religious conflicts; increasing the role of religious organizations, movements and currents in solving the most acute social problems in Ukraine (the problem of orphanhood, high level of divorce, homelessness, alcoholism and drug addiction, etc.); the development of religious tourism as one of the most promising types of tourism; consolidation of the Ukrainian people through religious perception of the world and many others.

It should also be noted that the religious space forms not only the spirituality and mentality of the population of the country or its individual parts, but also the way and conditions of life that collectively form its quality. Even in the early twentieth century, a well-known economist and sociologist Max Weber proved that religion directly affects the level of economic development of states and individual regions. Therefore, considering the religious factor as an engine of economic development today is extremely necessary, as Ukraine, like the rest of the world, is in an economic crisis.

Analysis of previous research

For the first time, attention was drawn to the role of the religious factor in demography by M. Weber, E. Durkheim, P. Sorokin, J. Frezer, T. Parson and others. Later, researchers turned to other factors, the impact of which on demographic processes is easier to explain, in particular to the economic. Various aspects of this influence were considered by K.V. Shchetynin, S.N. Osipovskii, J. A. Kalabaeva, V.V. Muraviev, L.A. Belyaeva, N.A. Belyaeva, K. Segida, L.A. Burgart, G. Lichbinskaya, F. Poppel. Significant contribution to the development of the issue of the influence of the religious factor on the demographic processes was made by K. Goldscheider and K. Mcquillan.

Presenting main material

O.I. Shablii and L.T. Shevchuk propose to understand *social troubles* as the completely or partially dissatisfied needs or interests of the territorial community or its individual components, which are generally formulated as a certain social problem, which needs a resolution [1]. In our opinion, this rather outlines not social troubles, but a social problem, which certainly leads to the emergence of social troubles.

We believe that social troubles are a consequence of the socio-economic, psychological and social situation which manifest themselves in deliberate or unintentional crime, alcoholism, suicide, unemployment, low standard of living, and that are unable to fully or partially meet the needs of the population in social security.

In our opinion, it is most appropriate to identify the following groups of social problems for a socio-geographical assessment of the regional level of social troubles, namely:

- ✓ *demographic social troubles*: low fertility rate, high mortality and natural population decline, high proportion of pensioners and a significant prevalence of women in the sex population composition, low average lifetime, high level of forced migration, etc.;
- ✓ *social troubles associated with the work of the population*: low employment, high level of registered unemployment, heavy workload for one vacant work place, etc.;
- ✓ *social troubles associated with welfare of the population are*: low GDP and GNP per capita, average monthly wage, cash income and expenditures per capita, insignificant volume of realized services per person;
- ✓ *social troubles associated with the health preservation of the population*: high rates of active tuberculosis, AIDS and drug addiction, alcoholism, high levels of cancer, disability, significant number of victims at work, etc.;
- ✓ *social troubles associated with the peace and security of the population:* high levels of crime, murders and intentional damage, political persecution, violation of democratic principles of state development, ethnic and religious conflicts, etc.

Let's consider the influence of religious activity of the population on the formation of demographic social troubles.

For research at the level of regions of Ukraine, we select the following indicators: natural increase, migration balance, average and median age of the population, total fertility rate (per woman), gross and net reproduction rates (per woman), average age of the mother at child birth, mortality due to mental disorder and behavior caused by alcohol abuse (per 100 thousand people), mortality due to intentional self-harm (per 100 thousand people), average life expectancy at the birth, the proportion of children (0-14 years old), the number of abortions, the number of abortions (of first time pregnant), the number of abortions per 1000 live birth (Table 1).

Table 1 - **Demographic indicators of the regions of Ukraine**

Region	Population	Birth rate	Mortality	Natural increase	Arrived (all migration flows)	Departed (all migration flows)	Migration balance (all migration flows)	Average age	Median age	Total fertility indicator (per woman)
Vinnytsia	1575808	14142	24066	-9924	7036	11661	-4625	41,5	41,3	1,355
Volyn	1038457	11914	13588	-1674	8673	9496	-823	37,9	36,6	1,617
Dnipropetrovsk	3231140	27504	50906	-23402	51190	27059	24131	41,6	41,2	1,287
Donetsk	4200461	17691	37419	-19728	7842	31710	-23868	44,5	44,2	…
Zhytomyr	1231239	11645	20000	-8355	14212	15100	-888	40,6	40,1	1,415
Transcarpathian	1258155	14552	15077	-525	6013	6110	-97	37,1	36,1	1,641
Zaporizhia	1723171	14155	27758	-13603	7731	10445	-2714	42,2	42,2	1,250
Ivano-Frankivsk	1377496	13426	17306	-3880	15180	13719	1461	39,3	38,2	1,358
Kyiv	1754284	16998	27862	-10864	54935	24258	30677	40,4	39,8	1,412
Kirovohrad	956250	7845	15694	-7849	10952	12609	-1657	42	42,1	1,301
Luhansk	2167802	5973	14314	-8341	2715	21862	-19147	45,1	45	…
Lviv	2529608	25002	32087	-7085	29097	26431	2666	39,9	38,9	1,392
Mykolayiv	1141324	10073	16985	-6912	8205	10095	-1890	41,1	40,7	1,337
Odesa	2383075	25195	33361	-8166	25150	20425	4725	40	39,2	1,543
Poltava	1413829	11070	23414	-12344	19972	20627	-655	42,4	42,4	1,213
Rivne	1160647	14371	14660	-289	15214	17041	-1827	37,2	35,9	1,735
Sumy	1094284	8059	17573	-9514	16399	17130	-731	42,9	43,1	1,130
Ternopil	1052312	9289	14814	-5525	7403	8758	-1355	40,5	39,6	1,253
Kharkiv	2694007	21631	40881	-19250	55076	43007	12069	41,9	41,4	1,168
Kherson	1046981	9964	15885	-5921	4927	7674	-2747	40,8	40,4	1,432
Khmelnitsky	1274409	11483	19559	-8076	7760	10542	-2782	41,4	41,2	1,385
Cherkasy	1220363	9640	20034	-10394	16034	16484	-450	42,7	42,9	1,231
Chernivtsi	906701	9433	11216	-1783	5833	5469	364	39	37,9	1,426
Chernihiv	1020078	7573	18856	-11283	8581	10632	-2051	43,5	43,4	1,181
city Kyiv	2934522	35359	30808	4551	36157	31946	4211	39,7	38,9	1,542

Continuation of Table 1

Region	Gross - reproduction rate (per woman)	Net - reproduction rate (per woman)	Average mother's age at the birth of a child	Coefficient of population mortality as a consequence of disruption of the psyche and behavior caused by alcohol abuse (per 100 thousand people)	Coefficient of population mortality due to intentional self-harm (per 100 thousand people)	Average life expectancy at the birth	Proportion of children (0-14 years old)	Number of abortions	Number of abortions (of first time pregnant)	The number of abortions per 1000 live births
Vinnytsia	0.656	0.647	27.12	2.3	22.2	72.70	15.6	5 116	464	362
Volyn	0.789	0.778	27.29	5.7	14.0	71.94	19.8	2 128	306	179
Dnipropetrovsk	0.626	0.615	27.64	-	21.8	70.91	15.6	9 557	876	347
Donetsk	…	…	…	…	…	…	12.3	5 551	572	314
Zhytomyr	0.688	0.676	27.13	2.8	19.4	70.40	16.7	3 908	377	336
Transcarpathian	0.795	0.780	25.96	8.4	12.7	71.31	20	2 723	230	187
Zaporizhia	0.597	0.588	27.67	0.2	21.2	71.49	14.7	3 912	405	276
Ivano-Frankivsk	0.666	0.658	26.99	0.1	11.8	73.78	17.2	2 322	436	173
Kyiv	0.694	0.683	27.62	0.1	22.4	70.46	16.9	4 989	588	294
Kirovohrad	0.628	0.614	27.00	5.2	28.5	70.50	15.2	2 296	192	293
Luhansk	…	…	…	…	…	…	11.3	1 728	136	289
Lviv	0.675	0.666	27.82	1.8	5.3	73.49	16.5	3 472	652	139
Mykolayiv	0.644	0.634	26.84	4.3	23.8	71.33	15.7	3 080	231	306
Odesa	0.742	0.728	27.79	0.2	20.3	71.09	17	5 395	779	214
Poltava	0.595	0.588	27.17	0.3	20.0	72.07	14.2	3 623	368	327
Rivne	0.847	0.833	27.50	0.9	13.2	71.62	20.6	1 466	225	102
Sumy	0.549	0.540	27.32	2.4	19.6	72.30	13.4	1 489	150	185
Ternopil	0.616	0.607	26.99	0.1	9.7	73.58	16	1 000	170	108
Kharkiv	0.564	0.555	28.12	0.5	8.7	71.88	13.8	5 279	870	244
Kherson	0.686	0.674	27.28	1.3	25.0	70.80	16.2	3 324	186	334
Khmelnitsky	0.687	0.675	27.07	5.4	21.0	72.18	15.9	2 506	233	218
Cherkasy	0.586	0.578	26.94	1.6	22.0	72.20	14.1	2 759	291	286
Chernivtsi	0.693	0.684	27.09	7.1	10.1	73.71	17.4	1 787	172	189
Chernihiv	0.585	0.576	27.52	7.6	20.8	71.18	13.7	2 191	184	289
city Kyiv	0.738	0.728	29.98		6.4	74.35	16.4	7 243	1 117	205

Table 2 - **Correlation between religious activity and demographic indicators**

Indicator of religious activity	Birth rate	Mortality	Natural increase	Arrived (all migration flows)	Departed (all migration flows)	Migration balance (all migration flows)	Average age	Median age	Total fertility indicator (per woman)
Index of confessional mosaic	0.26047	0.09606	0.14753	0.12793	0.10863	0.09374	-0.17209	-0.14508	0.29809
Proportion of convinced atheists and non-believers	0.12187	0.48624	-0.62247	0.14380	0.38148	-0.12314	0.66087	0.66077	-0.32046
Proportion of those who attribute themselves to believers	-0.10831	-0.41297	0.52318	-0.14622	-0.31342	0.05960	-0.63522	-0.65086	0.28781
Provision of the population (number of communities per 1,000 people)	-0.32790	-0.57828	0.53096	-0.36475	-0.62073	0.00672	-0.62292	-0.61730	0.41346
Provision of the settlements (number of communities per one settlement)	0.00825	-0.34004	0.58953	-0.25947	-0.42927	-0.01535	-0.64726	-0.66224	0.56971

Continuation of Table 2

Indicator of religious activity	Gross - reproduction rate (per woman)	Net - reproduction rate (per woman)	Average mother's age at the birth of a child	Coefficient of population mortality as a consequence of disruption of the psyche and behavior caused by alcohol abuse (per 100 thousand people)	Coefficient of population mortality due to intentional self-harm (per 100 thousand people)	Average life expectancy at the birth	Proportion of children (0-14 years old)	Number of abortions	Number of abortions (of first time pregnant)
Index of confessional mosaic	0.24223	0.23877	0.27891	-0.10707	0.13638	-0.14328	0.15008	0.34820	0.27599
Proportion of convinced atheists and non-believers	-0.35898	-0.37007	0.23977	-0.24095	0.61351	-0.53995	-0.62057	0.51124	0.26435
Proportion of those who attribute themselves to believers	0.32344	0.33496	-0.26159	0.20376	-0.66586	0.55403	0.58542	-0.47145	-0.22835
Provision of the population (number of communities per 1,000 people)	0.45956	0.46526	-0.51167	0.30108	-0.27855	0.24328	0.65805	-0.55538	-0.47311
Provision of the settlements (number of communities per one settlement)	0.56928	0.57596	-0.52057	0.32177	-0.49412	0.43172	0.60178	-0.25766	-0.20300

The most important indicators of religious activity of the population are the provision of the population with religious communities (per 1,000 people), the provision of settlements with religious communities, confessional mosaics, the proportion of believers and the proportion of convinced atheists. Let's make a correlation between these three indicators of religious activity and all demographic indicators.

Correlation analysis allows us to find out whether data sets of two arrays are correlating by magnitude. The correlation coefficient can be either positive or negative. An additional coefficient indicates that the larger value of the array A corresponds to the larger values of the array B, while the negative confirms that the larger value of the array A corresponds to the lower values of the array B. If the data does not correlate, then the correlation coefficient is equal to 0.

After correlation analysis, we obtain coefficients of correlation of indicators, which characterize directly and hiddenly the demogeographical process with indicators of religious activity. It is established that the index of confessional mosaic has the smallest influence on the demogeographical process, which makes it possible to state that all confessions in Ukraine have the same influence on the course of this process.

The following two indicators – the proportion of the believer's population and the proportion of atheists, reflect the inverse correlation relations: the positive correlation of the atheist's proportion with the demographic indicator comes along with the negative correlation between the proportion of the believer's population and the same indicator and vice versa. The proportion of atheists in the structure of the population negatively affects the course of the demographic process (Figures 1, 2, 3, 4, 5 and 6), namely:

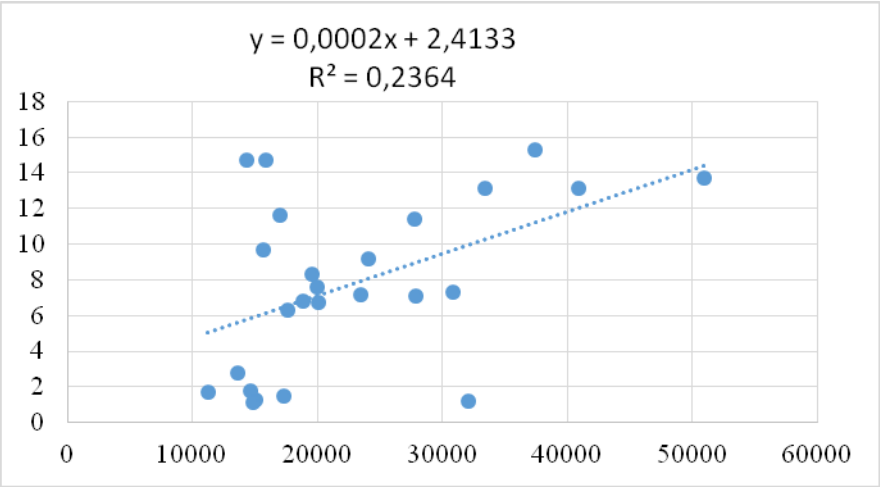

Fig. 1. Correlation between the proportion of atheists and mortality of the population

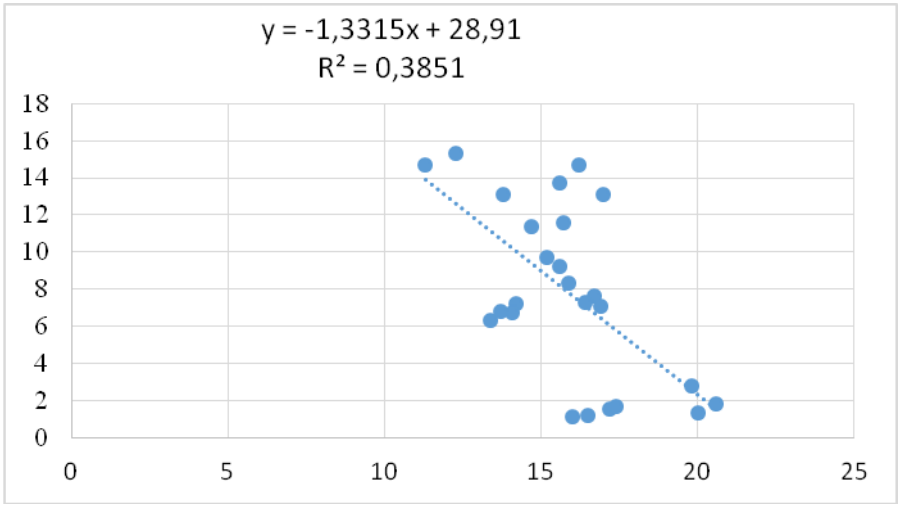

Fig. 2 Correlation between the proportion of atheists and the proportion of children aged 0-14 years

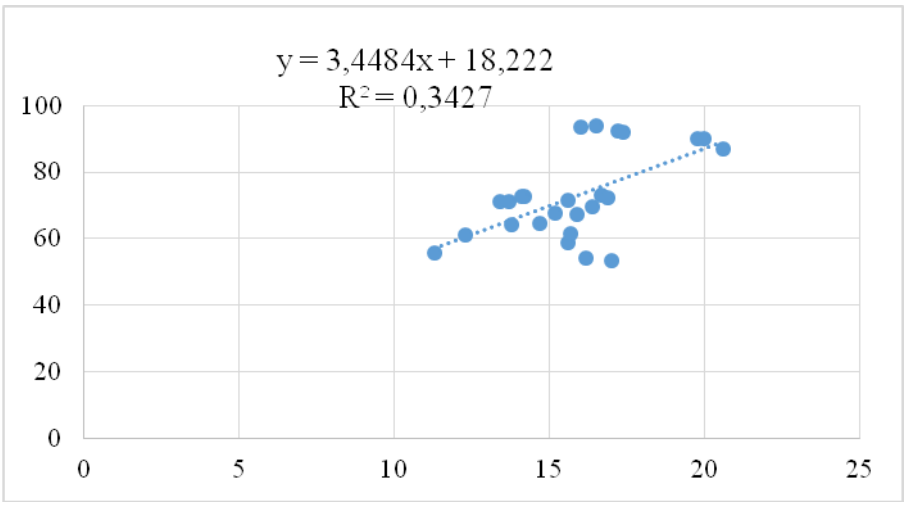

Fig. 3. Correlation between the proportion of believers and the proportion of children aged 0-14 years.

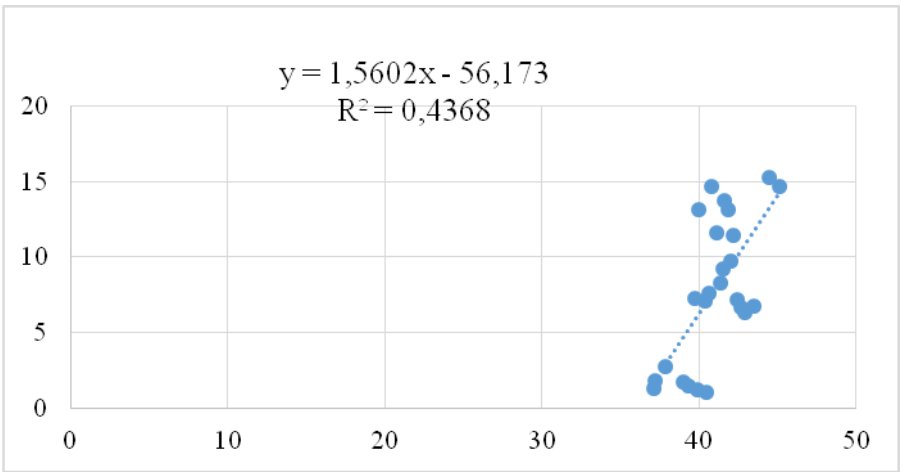

Fig. 4. Correlation between the proportion of atheists and the middle age population

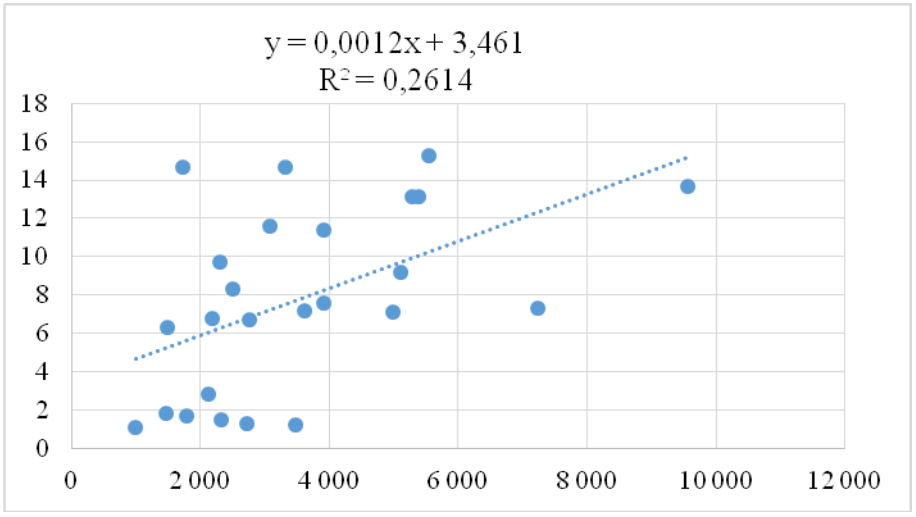

Fig. 5. Correlation between the proportion of atheists and the number of abortions

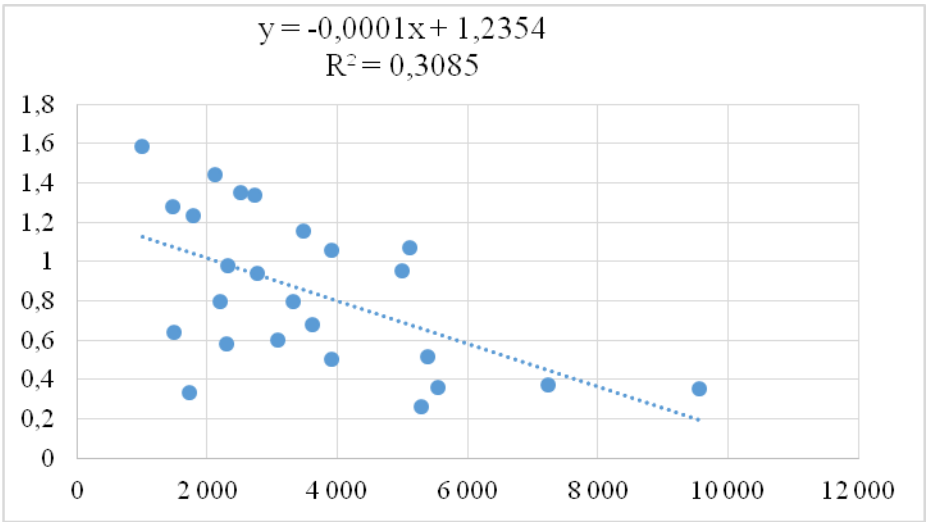

Fig. 6. Correlation between the proportion of atheists and the population's provision with religious communities (communities per 1000 people)

1) there is a high correlation coefficient with a proportion of children aged 0-14, the average and median age, population mortality and natural increase, indicating an aging population;

2) there is a relationship with mortality due to suicide, which is strictly forbidden by all denominations;

3) there is a rather high level of correlation between the number of abortions and the proportion of atheists, due to low spirituality, neglect of the prohibition of abortion (except medical) by religious organizations, and it in turn leads to negative indicators of natural increase. As already noted, the proportion of believers in the opposite dependence reflected correlation with demographic indicators.

The indicators of population provision (number of communities per 1000 people) and settlements (number of communities per one settlement) give practically identical correlation

with the proportion of the believer's population, since they are higher in religiously active areas. The highest positive correlation is observed between the indicators of provision with natural increase, the indicator of total fertility (per woman), net and gross rates, the expected life expectancy at birth and the percentage of children from 0 to 14 years old.

Conclusions

Religious space affects the course of demographic processes, namely: the higher the level of religious activity of the population of the region, the more positive demographic indicators are. The most noticeable influence of religious activity of the population is on the number of abortions that women in their young age commit, suicides due to unreasonable reasons, middle age and average life expectancy of the population. Such features should be taken into account and contribute to the development of the spirituality of the population due to the increasing role of religious institutions in the life of society.

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