

Matej Bel University, Banská Bystrica, Slovakia Has been issued since 2014 ISSN 1339-6773 E-ISSN 1339-875X

Ageing of Population in a Transitional Society: Case of Georgia

Mzia Shelia ^a

^a Institute of Demography and Sociology, Ilia state university, Tbilisi, Georgia

Abstract

The process of ageing of the population of Georgia has been continuing for the last two centuries. At the current stage of demographic development, the process of demographic ageing is determined by an intense emigration of population. The studies carried out have demonstrated that there is no any other country like Georgia which has such clear regional differences in terms of the age structure in the area which is very small. Georgia is distinguished with a vast ethno religious and regional variety of ageing of population that has contributed to an uneven nature of ageing. The presented work covers specifics of ageing of the population of Georgia in the post-Soviet period. In particular, it provides an analysis of the problems caused by an accelerated pace of ageing of population, estimates the demographic changes which may occur as a result of the ageing and identifies the relationship between poverty, migration and ageing in a transitional society as well as the problems relating to the determination of the pension age given the existing demographic dividends. The work provides an overview of the role of intergenerational transfers in the social security of the elder.

Keywords: e-population, ageing, Georgia, longevity, demography, intergenerational transfers.

1. Introduction

Ageing of population is a global phenomenon. An uneven demo-economic development of countries, is, usually, followed by the process of uneven ageing that complicates the creation of a common mechanism for its management.

Demographic ageing poses more problems to the less economically developed countries with a small number of population, which also include Georgia.

In the post-Soviet period, Georgia has undergone the process of economic collapse and sharp downfall. It will suffice to point out that in the 1990s, the volume of the Gross Domestic Product (GDP) decreased four times. The hard economic situation was further complicated by the challenges arising from the process of ageing. The above factors posed more problems to our country than to the aged West. We, the authors of the work have aimed to identify the specifics and regularities pertaining to a small post-Soviet country the population of which, under the conditions of less developed economy, is characterized by the demographic behavior that is typical to Europe. For this purpose, we have studied the evolution of ageing of the population of Georgia relying on materials of the general population census and current statistics. At the same time, by generalizing the results of the sociological studies we carried out in 2004-2015, we have attempted to outline the place and role of the aged population in the family and society under transformation.

2. Results of the study

2.1. Specifics and regularities of demographic ageing

The analysis of the age structure of population has demonstrated that since the 1970s, Georgia has already been demographically aged. It was found that the process of ageing was not proceeding at a high rate; however, it was irreversible. Throughout the 20th century, the share of individuals aged 60 and over in the population of Georgia had been increasing.

It must be noted that the process of demographic ageing in Georgia started with the reduction of births at the outset of the 19th century. This marked the beginning of the <u>first stage</u>.

It had been continuing for a rather long time, up to the 1920s when the period of demographic young age of Georgian population ended: the share of individuals aged 60 and over exceeded 8 %.

The <u>second stage</u> of demographic ageing is a transitional period from the demographic young age to the demographic old age. In Georgia, it lasted up to the 1970s and was conditioned by the increase of the average life expectancy. The third age- from the 1970s to the 1990s was characterized by the fact that the age and sex structure already formed in the late 1970s, to a certain degree, contributed to the subsequent development of population. At that time, a general mortality rate increased due to the increase of mortality rate of individuals aged 60 and over; the ageing rate too became relative stable.

The <u>fourth stage</u> of ageing of population has been continuing from the 1990s up to present. During that period, the process of demographic ageing became rather accelerated. We consider that along with depopulation and intense emigration, the speeding up of the ageing of population is one of the major trends typical to the demographic development of Georgia. Also, it is noteworthy that the *high rate of development of that process observed in the 1990s had never occurred before*.

In 2014, Georgia moved to an extended mode of reproduction; however, the process of ageing still remains still due to a high decline in emigration.

Currently, Georgia is the most aged country in the Caucasus region, with its every fifth inhabitant aged 60 and over. A rather specific condition of demo-economic development, in particular, the so-called fourth model of demographic ageing (according to the classification of Professor I. Schmidt) has been formed in the country that was typical to the post-Soviet countries with a transitional economy and which represented a "paradox of demographic transition". The latter was expressed in the fertility in those countries being as low as in the developed countries of Europe in the given period, whilst the average life expectancy was far lower (by 10 years) that was typical to Europe still in the years following the Second World War (Schmidt, 1998).

The peculiar nature of ageing of population in Georgia is also expressed in the fact that the *demographic burden from the beginning of the 21st century did not decrease but increased instead* (Table 1).

	Burden of children	Burden of the elder	Total burden
1989	37,4	13,3	50,7
2002	31,6	19,2	50,9
2014	27,7	21,2	49,0

Table 1. Changes to the demographic burden in the post-Soviet period (%)

Source: materials of the general population census for respective years.

It was found that the process of ageing of Georgian population at the given stage is proceeding not traditionally, i.e. from the bottom or from the top, but from the middle that is caused by the intense emigration of the middle aged population.

According to our observations, there is no other post-Soviet and may be, any country in the world like Georgia that, in its small area (69.000 square km.), has regions with dramatically different age structures located next to each other. The difference between the median ages of the most aged (Racha-Lechkhumi, Kvemo Svaneti) and the youngest regions (Kvemo Kartli) is 17 years (Table 2). This has been conditioned, on one hand, by the ethnic and religious diversity of Georgia and on the other hand by some specifics of the historic development and diverse natural economic zones of the country. For instance, the median age of the most aged ethnic group (Russians) exceeds the median age of the youngest ethnic group (the Kists) by 27 years; the difference between the median ages of the Orthodox and Muslim population residing in Georgia is 4 years, whilst of the Catholic and Muslim population -9 years.

	Share of individuals aged 0-14 in the entire population (%)			Share of individuals aged 60 and over in the entire population (%)			The median age of population (year)			
	1959	1989	2014	1959	1989	2014	1959	1989	2014	
Tbilisi	22,9	23,2	19,1	10,0	13,3	17,0	29,4	31,0	35,0	
Abkhazia	30,0	23,9	-	10,2	14,9	-	26,4	31,9	-	
Adjara	32,1	29,0	19,7	9,1	11,2	15,6	24,4	27,0	34,8	
Guria	27,6	23,2	16,3	13,6	18,1	25,8	28,0	33,6	43,5	
Racha- Lechkhumi and Kvemo Svaneti	27,5	18,4	12,1	15,8	27,9	36,4	28,0	43,5	51.1	
Samegrelo- Zemo Svaneti	30,4	24,0	17,0	12,3	15,5	24,0	26,0	32,2	42,0	
Imereti	28,3	22,6	17,5	12,4	16,0	24,1	26,9	32,8	41,4	
Kakheti	29,4	24,1	17,8	12,2	17,7	23,8	27,0	32,8	41,0	
Mtskheta- Mtianeti	30,5	24,1	17,0	12,3	16,2	22,7	25,3	31,5	39,8	
Kvemo Kartli	36,3	29,7	21,1	8,3	10,1	16,0	22,7	26,8	33,7	
Shida Kartli	30,5	24,7	18,4	11,1	15,0	20,7	26,6	30,9	39,0	
Samtskhe- Javakheti	34,6	27,7	19,8	8,7	12,6	19,3	23,4	28,7	36,6	
Georgia	29.3	24.7	18,6	11.0	14.4	20,0	26.5	30.7	37,7	

Table 2. Changes to the indicators of the old age for population in Georgia and its regions in 1959-2014

Source: materials of the general population census of Georgian population.

The demographic ageing is proceeding unevenly in individual geographical zones (the north highland region, south highland region, plain between mountains, etc.). For instance, population in the highland regions is more aged than in the plain regions. In addition, population in the north highland is more aged, in particular, it has been already demographically aged since 1950s when population in the south highland reached the threshold of demographic old age only in four decades.

2.2. Longevity in Georgia

The share of individuals aged 80 and over in the entire population in Georgia is 3, 1 %, whilst the share of individuals aged 65 and over is 21, 7 %. These indicators are similar to those of the countries like Singapore (22, 9 %) and South Korea (21, 2 %) (Wan He, Goodkind, Kowal, 2016). According to some noted researchers, longevity of the population is but a national myth (Young, 2010). In the opinion of L. Garson, an American scientist, this is where the claim of longevity of the Caucasian people originates from Garson, 1986. French demographers share the same idea. They think that longevity of Georgians is a fiction, a myth and a result of flattery aiming to amuse Stalin (Vallin, Meslé, 2001). Professor M. Pulin, Belgian scientist shares the same viewpoint (Pulin, 2006). In our opinion, their conclusions are ungrounded. In fact, a large number of long-livers residing in Georgia was impossible to overlook by visitors of the country even before the era of Stalin and Communism. For instance, Jacque Francois Gamba, the French consul who travelled to Georgia in 1820-1824 underlined the fact that there were many long-livers in the country (Gamba, 1826). A high level of longevity in Georgia is confirmed by joint scientific studies carried out by Georgian, Russian, American and Japanese scientists in the 1960s-1970s.

Racha-Lechkhumi and Kvemo Svaneti are the most demographically aged regions in Georgia with a large number of long-livers (Table 2; 3). There, every third person is aged 60 and over and the median age is 51,1 years. The Municipality of Ambrolauri in this region is especially remarkable with this respect. The median age of local population is 55 years, whilst that of females –

59,4 years. No similar indicators have been observed not only anywhere else in Georgia but even in Japan, the most aged country in the world where, in Akita, the most aged province, the share of the population aged 65 and over is 33, 4 % (Yoshida, 2016), whilst the same indicator for the Municipality of Ambrolauri is 34 %.

	Tbilisi	Adjara	Guria	Racha- Lechkhumi and Kvemo Svaneti	Samegrelo- Zemo Svaneti	Imereti	Kakheti	Mtskheta- Mtianeti	Kvemo Kartli	Shida Kartli	Samtskhe- Javekheti
Share of individual s aged 80 and over in the population aged 60 and over (%)	13,5	13,0	16,6	21,0	15,5	16,8	17,0	17,2	15,5	15,5	18,8
Share of individual s aged 90 and over in the population aged 60 and over (%)	1,1	1,3	1,3	1,7	1,4	1,6	1,2	1,2	1,2	1,0	1,2

Table 3. Longevity level (average life expectency) in the regions of Georgia as of 2014

Source: materials of the 2014 general population census of Georgian population.

In our opinion, despite the small area of Georgia, diverse landscapes, ethnic and religious varieties and the cultural diversity formed as a result of the historic development of regions provide a rather interesting picture of ageing of population. Therefore, we consider that in terms of acuteness of problems of demographic ageing, Georgia is a unique region. The comprehensive international studies which will be carried out in the country in the future will have outstanding scientific implications, e.g. the question can be answered: is there an optimal level of ageing of population at which the process of ageing is not labeled as a demographic dilemma?

2.3. Demographic future

Ageing of population, usually, poses numerous socio-economic problems. The following trends out of the demographic consequences of ageing of population have been outlined in Georgia:

Quantitative misbalance between the genders. In 2002, on every 1000 males there were 1120 females in Georgia, whilst in 2014 - 1094 females. Over the past few years, the correlation decreased due to intense labour emigration of women.

Growth of the share of females of older reproductive age (30-49 years) due to deformation of the age structure. Naturally, this will result into the reduction of births in the future.

A question that follows is: will Georgia be subject to the demographic shock caused by ageing?

If we take into account the fact that in the post-Soviet period, the average life expectancy has not only been increasing in Georgia, but even tends to decrease in some years, presumably, the shock caused by ageing is less likely to occur (Figure 1).

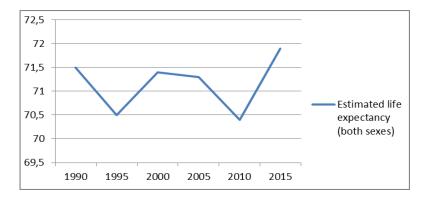


Fig. 1. Changes to the average life expectancy in Georgia in 1990-2015

In addition, the birth rate has relatively improved over the past few years which pertains to the call of the Patriarch of Georgia promising that if a third child would be born in the family, he would become a godfather of the baby. Therefore, during the last decade, the number of births of the third and next children has doubled in the country. However, the problem of highly intense emigration still persists. We presume that visa liberalization with the countries of the European Union will reduce the intensity of prolonged emigration. In our surveys, the emigrants who were in illegal emigration for 4 and more years pointed out that if they had the freedom of movement, they would have returned home as soon as they had solved the economic problem of the family and would not be willing to leave the homeland and family for such a long time (Survey of returned migrants, 2011). If this were the case, the demographic situation in Georgia would be still uneasy due to a small number of females of reproductive age; however, it would not be heading towards the demographic death.

2.4. Demographic dividend and the problem related to the pension age

The process of ageing of population of Georgia has also been accompanied by the process of ageing of the population engaged in production. The old-age ratio of this category of population was 48 % by 2014. The average age of economically active population is 43 years. The so-called demographic window has opened in Georgia in 1970s when a relatively numerous generation born in the years following the Second World War, in the so-called compensation period attained the working age. In 2002-2014, the demographic bonus reached its peak as at that time, the category of population which needed to be economically supported started to include a rather small number of individuals born during the War and in the 1990s (Table 4).

Table 4. Changes to the share of working age population in Georgia in 1926-2014 (%)

	1926	1939	1959	1970	1979	1989	2002	2014
Working	49,2	50,3	56,1	52,6	56,8	56,3	64,0	64,0
age								
population								

Source: materials of the general population census of Georgia for respective years

This was also supported by the fact that under the legislation of Georgia, the pension age in 1995 increased by 5 years and became 60 years for females and 65 years – for males. As a result, a mechanic growth of working age population occurred. This has conditioned the highest share (64,0 %) of working age population in the entire population over the past hundred years. Regrettably, the negative political developments, civil war and ethnic conflicts occurring in the country in early 1990s as well as the economic downfall coupled with the global economic crisis did not allow the country to avail of the demographic opportunity that emerged in that period.

As the increase of the pension age was not accompanied by respective growth of the number of jobs, the unemployment rate and extent of emigration rose. The process of unemployment and emigration is still in progress in the country. After the overwhelming crisis following the collapse of the Soviet Union, almost one fifth of the population (approximately one million individuals) emigrated permanently. In comparison to the amount of the pension funds saved by the increase of the pension age, far larger portion of human capital was lost. Such conclusion can be drawn based on the results of the study of emigration of Georgian population which revealed that professional qualification and health of individuals in emigration are subject to deterioration. Their absence from the homeland further aggravates the demographic crisis that has started in the 1990s.

2.5. Poverty and emigration

The artificially increased "demographic dividend" further complicates the social problems the demographically aged and crisis-stricken countries are facing. Today, unemployment remains to be a very acute problem in Georgia. According to the experts, the actual unemployment rate is three times higher than the official rate. Despite the decreased trend, poverty remains the major challenge in the country.

One third of Georgian population is still beyond the poverty line (World Bank 2014). The existing situation encourages the population to emigrate; although, the share of the elderly in the migration flows is small. According to the 2014 population census, the share of individuals aged 60 and over in the emigrants was only 5,3 %.

Due to close intergenerational ties, the majority of the elderly (50 % of males and 56 % of females) in Georgia live with their children aged over 25 (Generations, Gender Survey in Georgia, 2010). It is natural that under such cohabitation, the elderly actively participate in raising kids, whilst, according to the research, upbringing of children in the families residing in Georgia whose members are migrant workers is almost completely the responsibility of the elderly. The presence of the "young elderly" in the family is a factor that encourages the other family members to work abroad. Due to the intense emigration, the electorate in Georgia has also aged. By 2014, every fourth elector was aged 60 and over. Considering the trends of demographic development, it is likely that their share in the future elections will further increase that needs to be taken into account during the election campaigns in the years to come.

2.6. Intergenerational transfers and fighting the "social death"

In parallel to the process of ageing of population, costs for social maintenance tend to increase in Georgia. For instance, by 2015, the costs amounted to 35 % of the budgetary resources. A large share of the costs is designated for individuals of retirement age. The pensioners belong to the socio-demographic group that comprises a large portion of the poor, with the average pension of GEL 180 (equivalent to USD 69). The pension constitutes only 18 % of the average nominal salary and 66 % of the subsistence minimum in the country regardless of the fact that the educational background of the pensioners is not low. Every fifth person in Georgia aged 60 and over has obtained a higher education.

It is noteworthy that persons of retirement age underwent the process of transformation of the society in the post-Soviet period rather painfully and are still suffering from its consequences. According to the survey we conducted in 2004-2009, 54 % of the respondents considered that if they had the opportunity to start the life anew (an – from the beginning), they would have changed the major decisions they had made earlier. For instance, 45 % of them would have changed their professions; in addition, along with the Russian language, they would have necessarily studied any other foreign language (mostly English) and would have become a programmist, an economist or lawyer. Dissatisfaction with their profession can be especially observed among engineers and pedagogues.

The issue of the so-called "demographic regret" of that generation is also noteworthy: 40 % of the respondents surveyed pointed out that they would have had more children or would have married at an earlier age. The approach of two thirds of the elderly towards their demographic behavior turned out to be critical.

The "demographic regret" of the elderly has been conditioned by the fact that a small pension makes them dependent on their children and close relatives. Even the lonely elderly refer more to the aid received from relatives than from the state.

The question that logically follows is: What is the role which a family plays in assisting the individuals aged over 60 to overcome the "social death"? What is its place within the system of social maintenance and its role in ensuring security of the family members? To answer these questions, at the Institute of Demography and Sociology in 2013-2014, we studied the process of

transformation of relationships within the family in the post-Soviet period. The study also included examination of the issue of intergenerational relations and transfers. 2012 respondents were surveyed by random selection, taking into consideration the gender, age and educational background of the respondents.

According to the studies carried out in different countries, the transfers tend to be more directed from the older to the younger generation. This is also the case in Georgia. During the study, we have found that 55 % of the respondents belonging to the older generation provided material and financial support to representatives of the younger generation, whilst only every fourth representative of the latter provided similar support. 22 % of parents and 31 % of children pointed out that they could only provide moral support. 4,3 % of representatives of the older generation and 2,6 % of representatives of the younger generation provide support in every respect. 15 % of the respondents belonging to the older generation and 32,2 % of the respondents representing the younger generation cannot provide to their children any support at all. It was found that males tend to support their parents more financially and materially, while women – morally. This can also be explained by the fact that the average salary of females in Georgia constitutes only two thirds of the average salary of males. It was established that the higher is the educational background of individuals, the higher is the volume of the financial support provided. It was found that the intergenerational financial transfer constitutes 16,2 % of the average monthly income of a household. Although, this indicator constitutes 21 % of the average monthly income of their family for parents and 12 % - for children. 70 % of the respondents (both children and parents) receive transfers regularly, mostly on a monthly basis. The survey demonstrated that the motif of transfers is purely altruistic.

The study of intergenerational relations has demonstrated that at the given stage of demographic ageing with one fifth of the country's population aged, the intergenerational relationship is based on firm traditional relations and despite the aspiration of the younger generation to lead the life this is rich in new values, the intergenerational conflict, so far, is not distinctly manifested in Georgia.

Even under the conditions of the economic crisis, the growth of the number of the elderly in the country has not undermined the firm intergenerational relations established for centuries. In this context, it was interesting for us to study the issue of transfers between grandparents and grandchildren. We found that grandchildren provide mostly moral and physical support (54 %), whilst grandparents provide to their grandchildren mainly financial and material support (53 %). 32,7 % cannot provide and 28,4 % do not receive any support at all. Only a small portion of the grandchildren – 13 % provide financial and material support to their grandparents. 70 % of the respondents stated that the support – both provided and received is regular (usually, on a monthly basis). Even though, very small in volume, the support provided by grandparents to their grandchildren twice exceeds the support received from the grandchildren. Also, it was found that the financial and material support provided by grandparents is not different in terms of either gender or education. It is not surprising as, despite a very good educational background of the population of retirement age in Georgia, a very small amount of fixed pension does not allow to differentiate transfers according to the education level.

Finally, it was found that a family plays a major role in the socio-economic security of the elderly. It serves as a moral support for them, enhances their psychological and physiological stability and protects two thirds of the elderly from the "social death". Even though rather small, financial transfers, due to their regular nature, supplement the subsistence minimum required for the families of the elderly, thus preventing the decline of their viability.

3. Conclusion

The process of ageing of the population of Georgia has gone through four stages. Due to intense emigration, currently, that process is proceeding from the "middle" level. Similar situation has been observed only in just few countries (Malta and Ireland). Due to the non-standard nature of the developments, the experience of management of the ageing of population is scarce. This is further aggravated by the difficulties arising from the diversity of regions and ethnic and religious structure in Georgia. All the above factors provide a firm foundation for studying the issue of aging of population in a comprehensive manner and for determining whether the country is facing a demographic dilemma. In addition, it would be interesting to study the phenomenon of longevity

in the country which, due to the existing hard socio-economic conditions, has been subject to a major decline over the past few years.

Due to the deformation of the age structure, the prospects of demographic development are not very promising for the country like Georgia, given the small number of its population. The "demographic regret" expressed by the elderly with respect to late marriage and small number of children is especially observed in a poor country. Therefore, the elderly encourage the younger generation to behave in a different way.

A family plays a far significant role in maintaining the psychological and moral rather than financial stability of the elders. So far, the amount of the state pension is larger than the amount of a family-related financial transfer. This has been conditioned by a high unemployment rate and presence of the "poor employed" in the country, not by the disappearance of firm intergenerational relationships.

In parallel to the economic development of the country, a good educational background of the elderly allows the latter to actively obtain employment on the labour market. This will presumably reduce the economic burden of the hired employees as well as social costs from the state budget.

References

Antadze, 1970 – Antadze, K. (1970). Georgian Population in the XIX Century. Tbilisi. [in Georgian].

Antadze, 2009 – *Antadze, T.* (2009). Characteristics of the Present Labor Market in Georgia. *Journal "Migration, 3*" Tbilisi. pp. 16-29. [in Georgian].

Akhalaia, Khmaladze, 2015 – Akhalaia, N., Khmaladze, M. (2015). Role of Migration in the Formation of Georgian Population. *International Journal of Social Sciences and Education Research. Volume 1, Issue 2*, pp. 293-297.

Barnay, Sermet, 2007 – Barnay, T., Sermet, C. (2007). Le vieillissement en Europe – Aspects biologiques, économiques et sociaux, Les études de la documentation française, n° 5256, La Documentation Français.

Caselli, Rasulo, 2005 – *Caselli, G., Rasulo, D.* (2005). Centenarians in Sardinia: The Underlying Causes of the Low Sex Ratio. URL: http://demoscope.ru/weekly/knigi/tours_2005/papers/iussp 2005 s 50913.pdf

Caselli, Vallin, 1990 – Caselli G., Vallin, J. (1990). Mortality and population ageing. European Journal of Population. Issue 1.

Chelidze, 2006 – *Chelidze, N.* (2006). Labour Emigration from Post-Soviet Georgia. Universali, Tbilisi. [in Georgian]

Coleman, 2012 – *Coleman, A*. (2012). Intergenerational transfers and public policy.URL: http://www.treasury.govt.nz/government/l ngterm externalpanel/ dfs/ltfep-s2-06.pdf

Demographic yearbook – Demographic yearbook. Demographic yearbook of Georgia 2015. (2016). Tbilisi, Georgia.

Duée, Rebillard, 2006 – *Duée, M., Rebillard,C.*(2006). La dépendance des personnes âgées : une projection en 2040. *Journal. Santé et protection sociale*. URL: http://www.eurohex.eu/ bibliography/pdf/Duee DonneesSociales 2006-2019377666/Duee DonneesSociales 2006. pdf

Evandrou et al., 2016 – Evandrou, M., Falkingham. J., Gomez-leon M., Vlaghantoni, A. (2016). Intergenerational flows of support between parents and adult children in Britain. Journal

Aging & Society. Gambridge Univerity Press. pp. 1-31.

Gamba, 1826 – *Gamba, J.F.* (1826). Voyage dans la Russie méridionale et particulièrement dans les provinces situées au delà du Caucase. *Paris: C.J. Trouvé*.

Garson, 1986 – *Garson, L.K.* (1986). The Centenarian Question: Old-age Mortality in the Soviet Union, 1897 to 1970. Ph.D. dissertation. Princeton University.

Generations & Gender, 2010 – Generations & Gender. (2010). Survey in Georgia. II Wave Report. UNFPA. [in Georgian]

Gugushvili, 1973 – Gugushvili, P. (1973). Issues of Population Reproduction of Georgian SSR. Tbilisi. [in Georgian].

Hamzaoui et al., 2016 – Hamzaoui, M., Léonard, D., Artois P.(2016). Vieillissement et société: catégorisations, travail, politiques socials. Academia-l'Harmattan,

Park, 2016 – Park, M. (2016). Population Aging and Labor Market Policy in Germany, the United Kingdom, Japan, and the Republic of Korea: The Effects of Institutional Context on

Old Age Employment. The Aging Workforce Handbook: Individual, Organizational, and Societal Challenges. (Ed): Alexander-Stamatios Antoniou, Ronald J. Burke, Sir Cary L. Cooper. pp. 109-134.

Jaoshvili, 1984 – *Jaoshvili, V.* (1984). Georgian Population in the XVIII-XX Centuries. Tbilisi [in Georgian].

Labour Market, 2012 – Labour Market and Reintegration of returned Migrants in Georgia (2012). Tbilisi. [in Georgian]

Loichinger, Skirbekk, 2016 – Loichinger, E., Skirbekk, V. (2016). International Variation in Ageing and Economic Dependency: A Cohort Perspective. *Comparative Population Studies*, Vol. 41, 2. pp: 121-144.

Lipsi, Caselli, 2015 – *Lipsi, RM ; Caselli, G., Pozzi, L., Baggio, G., Carru, C., Franceschi, C., Vaupel, JW, Deiana, L.*(2015). Demographic characteristics of sardinian centenarian genealogies: Preliminary results of the AKeA2 study. URL: https://www.demographic-research.org/volumes/vol32/37/32-37.pdf

Lee, Mason, 2010 – *Lee, R., Mason A.* (2010). Some macroeconomic aspects of global population aging. J. *Demography.* 47(Suppl): pp. 151–172.

Lee, Mason, 2010 – Lee, R., Mason A. (2010). Fertility, Human Capital and Economic Growth over the Demographic Transition. European Journal of Population. V. 26(2), pp. 159–182.

Loriaux, 2002 – *Loriaux, M.* (2002). Les societes de la geritude et la gestion des relation intergenerationelles. Vivre et `soigner` la vieillessedans le monde. Genova, 11-16 mars.

Loriaux, 1995 – Loriaux, M. (1995). Du vieillissement démographique à l'intégration des âges: la révolution de la géritude. *Population*. Vol. 50, No. 6, pp. 1611-1625.

Lordkipanidze, Totadze, 2007 – *Lordkipanidze V., Totadze, A.* (2007). Nation should save the nation: The demographic situation. "Universal", Tbilisi. [in Georgian]

Materials of the General... - Materials of the General Census of Georgian Population. 1926, 1939, 1959, 1970, 1979, 1989, 2002, 2014. URL: www.geostat.ge

Magnus, 2009 – Magnus G. (2009). The Age of Aging. John Wiley&Sons (Asia). Pte. Ltd.

Meladze, 2007 – *Meladze, G*. (2007). Demographic challenges in Georgia. Tbilisi, Universal. [in Georgian].

Menabdishvili, 2000 – *Menabdishvili, L.* (2000). *Be-Ethnic Marriage and Its Demographic Consequences*. Author's Abstract of Candidate Dissertation. Tbilisi, p. 17. [in Georgian]

Pulin, 2006 – *Pulin, M.* (2006). Les determinants de la longévité. URL: www.md. ucl.ac.be/ loumed /V125.../S329-332.pdf

Powell, 2016 – *Powell, D.* (2016). The Effect of Population Aging on Economic Growth, the Labor Force and Productivity. URL: file:///C: /Documents%20and%20 Settings/User/My%20 Documents/pop% 20aging% 20paper%20july%2015%202016_stamped.pdf

Sanderson et al., 2012 – Sanderson, J.P., Eggerickx T., Burnay N. (2012). Vieillissement de la population et mise en place du système des retraites en Belgique. URL: http://retro. erudit. org/livre/aidelf/2012/004093co.pdf

Shelia, 2013 – Shelia, M. (2013). Elderly Population in Georgia (Social and Economic Problems). Universali. Tbilisi. [in Georgian]

Shelia, 2016 – *Shelia, M.* (2016). Impact of Labour Migration on the Demographic Development of Georgia in the post-Soviet period. *Migration* 7. Tbilisi. pp.189-200. [in Georgian]

Shelia, 2014 – *Shelia, M.* (2014). Employers Demand on Labour Force in Georgia s Big Cities. Interdisciplinary Perspectives on Social Sciences. Cambridge Scholars Publishing, UK.pp. 113-118.

Shelia, 2005 – *Shelia, M.* (2005). Age problem of employment. *J. "Social Economics*" №6, Tbilisi. [in Georgian]

Shelia, 2004 – *Shelia*, *M*. (2004). Alteration of the labour age population in the 1990s. "*Social Economics*, №4. Tbilisi. [in Georgian]

Shelia, 1999 – Shelia, M. (1999). Population Ageing in Georgia. Tbilisi. [in Georgian].

Sulaberidze, 2016 – Sulaberidze A. (2016). Economic Transformation of the Family at the Transitional Stage in Georgia. *Problems of Demography and Sociology. Collection of works*. Tbilisi. pp. 102-107.

Totadze, 2009 – *Totadze, A.* (2009). Ethnic Composition of Georgia Population. Tbilisi. [in Georgian]

Tsuladze, Sulaberidze, 2016 - *Tsuladze, G. Sulaberidze, A.* (2016). Georgia's Regions Demographic Peculiarities. Tbilisi [in Georgian]

Tukhashvili, Shelia, 2012 – *Tukhashvili M., Shelia M.* (2012). The impact of labor emigration on the demographic and economic development of Georgia in the post-Soviet period. URL:http://www.carim-east.eu/media/CARIM-East-2012-RR-29.pdf

Tukhashvili et al., 2012 – *Tukhashvili, M. et al.* (2012). Socio-economic Problems of Return Migration in Georgia. Universali. Tbilisi.

Tukhashvili, 2016 – Tukhashvili, M. (2016). New Trends in Georgia's Population and Labor Resourses Territorial Mobility. *International Journal of Arts & Sciences*. 09(02).pp. 139–142. URL:https://www.researchgate.net

Tukhashvili, 1998 – Tukhashvili, M. (1998). Labour Potential of Georgia: Formation and Distribution. TSU. Tbilisi. [in Georgian]

Tukhashvili, 2011 – *Tukhashvili, M.* (2011). Population Permanent and Labour Emigration from Post-Soviet Georgia. URL: http://www.carim-east.eu

Vallin, Meslé, 2001 – Vallin, J., Meslé, F.(2001). Vivre au – delá de 100 ans. Population et societés. Nº365, fevrier.

Wan et al., 2016 – *Wan He., Goodkind, D., Kowal, P.* (2016). An Aging World: 2015. U.S. Census Bureau, International Population Reports, pp. 95/16-1, U.S. Government Publishing Office, Washington, DC pp. 138-139.

World Bank, 2014 – World Bank. URL: http://povertydata.worldbank.org/poverty/country/GEO

World Health Organization, 2015 – *World Health Organization*. (2015). World report on ageing and health. URL: http://apps.who.int/iris/ bitstream/10665/186463/1/9789240694811_eng.pdf?u

World Population Ageing, 2015 – World Population Ageing 2015 (2015). URL: http://www.un.org/ en/development/ desa/population/ publications/pdf/ ageing/WPA2015 _ Report.pdf

Yoshida, 2016 – Yoshida, R. (2016). Japan census report shows surge in elderly population, many living alone. URL: http://www.japantimes.co.jp/news/2016/06/29/national/japan-census-report-shows-surge-elderly-population-many-living-alone/#.WJsMF46g_IW

Young et al., 2010 – Young, R., Desjardins, B., Laughlin, K., Poulain, M., Perls, T. (2010). Typologies of Extreme Longevity Myths. *Current Gerontology and Geriatrics Research*. URL: http: //C:/Documents %20 and% 20 Settings/User/My%20Documents/423087.pdf

Zimmermann, 1991 – *Zimmermann, K.* (1991). Ageing and the labor market: age structure, cohort size and unemployment. *J Popul Econ.* 1991, 4(3): 177-200.

Denisenko, 2005 – *Denisenko, M.* (2005). Tikhaya revolyutsiya [Silent revolution]. *Otechestvennye zapiski*. №3. URL:http://www.strana-oz.ru/2005/3 [in Russian]

Lorio, 2004 – *Lorio, M.* (2004). Vzaimootnosheniya pokolenii v stareyushchem obshchestve [Mutual relations of generations in an aging society]. V kn.: Sovremennye problemy stareniya naseleniya v mire: tendentsii, perspektivy, vzaimootnosheniya mezhdu pokoleniyami. M.: MAKS Press, S. 34–47. [in Russian]

Mironova, 2014 – *Mironova, A.* (2014). Chastnye mezhpokolennye transferty v usloviyakh stareniya naseleniya v Rossii [Private intergenerational transfers in terms of population aging in Russia]. URL: http://opec.ru/data/2014/08/07/12339 40481/ Mironova% 20 prezentatsiya.pdf [in Russian]

Safarova, 2009 – *Safarova, G.* (2009). Demografiya stareniya: sovremennoe sostoyanie i prioritetnye napravleniya issledovanii [Demography of aging: the current state and priority areas of the study]. *Uspekhi gerontologii*. T. 22.№ 1. S.49–59. [in Russian]

Starenie i dolgoletie v Gruzii, 1991 – Starenie i dolgoletie v Gruzii (Sots.gigienicheskie aspekty) [Aging and longevity in Georgia (Social hygienic aspects)]. (1991). Tbilisi. NIIEKT. [in Russian]

Shmid, 1998 – Shmid, I. (1998). Starenie naseleniya: Dinamika, sotsial'nye i ekonomicheskie posledstviya dlya sem'i, obshchin i obshchestva v tselom [Population aging: Dynamics, social and economic consequences for the family, communities and society as a whole]. Regional'noe soveshchanie po narodonaseleniyu. Budapesht, 7-9 dekabrya. [in Russian]