

Changing patterns of population mobility in Latvia

Zaiga Krišjāne, Andris Bauls and Armands Vilciņš

Abstract

Political, social, and economic changes in the early 1990s in Latvia meant a fundamental shift in the volume and direction of population mobility. International migration processes in Latvia were changed with the stabilization of Latvia's economic situation and the society-integrating policies, which the Latvian government had been implementing. Future trends in migration processes will no doubt be influenced by EU enlargement.

The losses of resident population by migration are different in urban and rural areas. After a decade of dramatic changes in migration in Latvia, internal rural- urban exchange has returned to normal.

Beginning in 1998, the system began to return to the trends of the 1970s and 1980s – the flow from rural areas to cities and from peripheral areas to the Riga metropolitan area is once again dominant in the migration system.

Keywords: migration, population mobility, commuting, Latvia

Introduction

Political, social, and economic changes in the early 1990s in Latvia meant a fundamental shift in the volume and direction of population mobility, and Latvia, which during Soviet times was an immigration-dominated republic, became an emigration-dominated country. Analysing Latvia in the context of international migration processes, we see that there was stabilization in these processes after five to seven years. This has to do with the stabilization of Latvia's economic situation and society-integrating policies that the Latvian government has been implementing. The further trends in migration processes could be influenced by EU enlargement.

Between 2000 and 2002, international migration processes stabilised, mostly because they were based on the endogenous migration potential. Links to the countries of the CIS have become far weaker, even though that group of countries still involves the majority of external migration. There has also been increasing migration during this period to the countries of the European Union. Distinct regional differences in the income and employment levels influence migration processes in the country. The goal of this paper is to analyse the principal migration and mobility trends emerging during the 90s.

Trends of international migration

Accession to the EU is seen as one of the key factor in influencing outward migration from Latvia. Forecasts about a major inflow of people from the new member states have caused worries among the residents of people in countries with better economic development. Rules have been set out to limit the initial inflow, and limitations on labour markets are a part of the mix.

The data of *Eurobarometer* research shows that 3.2% of Latvia's residents (about 74,000 people) have thought about moving to another country. In total 0.6% (14,000 people) have definitely decided to do it. Similar results were found in the other Baltic States. Younger people (particularly in the 15-24 age group, but also in the 25-39 cohort) are more likely to think about emigrating [Alberte *et al.* 2004]. Other research data also shows that 1-2% of local residents have thought about moving permanently to another EU member state. Higher activities in case of emigration can be expected from Latvia's non-citizens [Baltic Data House 2004]. The typical migrant from the acceding countries is young, well educated, or studying in the third-level of education and living as a single person. This profile of a typical migrant indicated that the potential youth drain would be combined with a potential "brain drain" for these countries. [European Foundation for the improvement of living and working conditions 2004]

Table 1.
Main flows of international migration to and from Latvia*

Country	1995			2000			2001			2002		
	Immigration	Emigration	Net migration									
Total	2799	16512	-13713	1627	7131	-5504	1443	6602	-5159	1428	3262	-1834
including												
Germany	79	813	-734	73	927	-854	83	1030	-947	76	210	-134
Israel	40	530	-490	28	655	-627	36	476	-440	51	46	5
Russian Federation	1839	11558	-9719	727	3350	-2623	503	2894	-2391	372	1279	-907
Ukraine	206	1127	-921	185	420	-235	162	387	-225	133	222	-89
United States	86	662	-576	60	497	-437	59	432	-373	82	254	-172

* [LR CSP/CSBL - Central Statistical Bureau of Latvia]

Table 2.
Various migration intentions among persons aged 15- 65 (%)*

Countries	General inclination	Basic intention	Firm intention
Poland	4.3	1.8	1.1
Bulgaria, Romania	6.3	4.0	2.5
Cyprus, Malta, Slovenia	2.5	1.0	0.8
Turkey	6.3	0.8	0.3
Hungary, Czech Republic, Slovakia	2.9	1.0	0.8
Estonia, Latvia, Lithuania	4.0	2.3	0.9
Acceding countries (AC 10)	3.7	1.5	1.0
Acceding and candidate countries (ACC 13)	5.2	1.7	1.0

* [European Foundation for the improvement of living and working conditions 2004 according Candidate Countries Eurobarometer 2002.1]

Studies of society in Latvia during recent years show that the main reasons why people want to emigrate are poor living conditions, low living standards, and a lack of potentials in their homeland. Latvia's GDP Figure in 2003 remained at 42% of the EU average [Eurostat 2004]. The specific reasons for emigration that were mentioned in surveys include higher income (40% of respondents) and wider job opportunities (33%). It has to be mentioned that the potential émigrés have a comparatively higher level of education than the national average [Alberte *et al.* 2000].

Younger people are looking at study opportunities abroad, both in the EU member states and in the United States in particular. Younger people tend to have a better command of foreign languages than do their elders. The number of students who are enrolled in various international exchange programmes has increased. When a young person spends three to six months abroad, he or she gains a very different understanding of the relevant country, its everyday life and culture, as well as job opportunities that exist there. Many students, however, say that they would like to return to Latvia after a certain period of time. This is a new trend in migration –

the desire to go abroad to gain knowledge and experience and then to return to Latvia. To be sure, it is impossible to know how much time respondents will finally end up spending abroad. Neither do we have a clear sense of whether someone who has been away for several years will be able to adapt to new circumstances in Latvia, or whether that person will be able to return to Latvia at all.

It will take several years before we can know whether various labour force forecasts are actually valid. In the early 1990s, we must remember, developed countries believed that there would be a flood of immigrants from Central and Eastern Europe, but in the event, that did not happen.

Lots of Latvians work abroad, although the precise numbers are not known – many people do not declare their income or register as having worked abroad. There has been no detailed analysis of people who have permits to work abroad. Data of the *Eurobarometer* survey indicated that 3 % of Latvia's respondents have work experience in the EU Member states in the last two years [Eurobarometer 2002, 44]. Many work at seasonal jobs, and not everyone works legally. Seasonal farm work is one of the main areas of labour migration. Job offers often appear in local newspapers, because people in the rural areas and in small towns face a comparatively higher level of unemployment than is the case in Latvia's larger cities. Often one member of a family goes abroad to do a seasonal job, because the income that can be earned in a couple of months abroad can meet and even exceed the annual income in Latvia. This ensures better living conditions, as well as better opportunities for education. Ireland and Great Britain have been particularly popular destinations. There are already considerable numbers of people from Latvia in both countries.

Extensive debates in society were created by two documentary films, "Atrasts Amerikā" (Found in America) and "Sprīdītis Amerikā" (Sprīdītis in America). (Sprīdītis is a character in a classic book by the early 20th century author Anna Brigadere. He is a little boy who goes out into the world to find his fortune and to prove his mettle). Both films focus on people who moved to the United States in the 1990s. Since there have been no extensive studies about the way in which these migrants have adapted to life in a new environment, about how they are doing in life and work, the two films are a useful anecdotal source. They can be analysed in a broader context, to indicate the multi-faceted aspects of migration – why people decided to leave, what they are doing, what the situation is in Latvia, and so on.

Disparities of internal migration

There have been important changes in the volume and direction of internal migration in Latvia. The total volume of internal migration has declined considerably from the maximum at the beginning of the 1990s. During years 1993-1998 the volume of internal migration has stabilized at approximately 39,000 people per year, but in 2002 has reduced at approximately 31,000 inhabitants per year (Table 3).

The migration pattern is strongly influenced by urban development. Processes of urbanisation in Latvia are typified by a specific situation involving the metropolitan area of Riga. In the 1970s-80s the area saw massive urbanisation due to rapid industrialization and the fact that the prevailing destination for many migrants (both from rural areas of Latvia and territories of the rest of Soviet Union), along with the city of Riga, was to regional centres and suburban settlements of Riga. According Gayer (2002b), following kind development of suburban satellites is a typical indication of the intermediate stage of differential urbanization.

Riga is the largest and still growing centre of economical activities, thus continuing a long historical trend. 40% of migration flows involve the city of Riga. Riga's size and economical dominance over a wide territory have a strong influence on the development of settlements, population density, migration, and economically functional interactions, both directly and indirectly. In terms of suburban traffic development, the densely populated areas stretch out like rays from Riga. Riga – Aizkraukle corridor along the valley of the River Daugava is especially noticeable. There is a railway line and a highway and there is intensive economic development along the major traffic highways. A similar pattern can be seen in the Sigulda – Saulkrasti – Tukums – Jelgava directions. The development of densely populated zones creates favourable conditions for intensive economic activities of these settlements. There

are also main centres of agglomeration in Jelgava, Jurmala, Tukums, Kalnciems, Sigulda, Līgatne, and Aizkraukle in the centripetal zone of Riga. [Filimonenko 1989, Bauls *et al.* 1999].

Table 3
Internal migration flows and their trends in Latvia*

	1993		1998		2000		2002	
	Amount	%	Amount	%	Amount	%	Amount	%
Total flows	37046	100	38729	100	34989	100	31413	100
1.Urban-urban	11068	30	11711	30	11224	32	10028	31
Urban-rural	11734	32	11542	30	10839	31	9272	30
Rural-urban	8892	24	11217	29	9674	28	7734	25
Rural-rural	5352	14	4259	11	3252	9	4379	15
2.To cities	19960	54	22928	59	20898	60	17662	56
to rural areas	17086	46	15801	41	14091	40	13751	44
3.From cities	22802	62	23253	60	22063	63	19300	61
from rural areas	14244	38	15476	40	12926	37	12113	39

* Calculated according [LR CSP/CSBL - Central Statistical Bureau of Latvia]

Migration from the rural areas to the city traditionally involves so-called gradual migration. The more complex is metropolitan area, the greater the probability that gradual migration will take place. Satellite centres may absorb all of the migrants from rural areas. In countries where urbanisation is in its infancy, migration usually flows from rural areas to the centre of the metropolitan area, thus increasing the process of concentration in the centre to an even greater degree [Prothero 1988].

In the 1990s, there was a short period of ruralisation, which was expressed in dominating population outflows from Riga and other major cities.

Why have urban residents been moving to the rural areas? The main reason is that after World War II people had moved from the rural areas to the cities, i.e., from the peripheral regions to the central part of the country. People moved from single-family farms to rural villages, particularly the so-called "emergent villages" (perspektīvie ciemati) [Markausa 1997]. In the 1990s, studies showed that the denationalisation of property in the rural areas led considerable numbers of people to move back to their ancestral homes in rural areas. Young people and people of retirement or pre-retirement age were particularly ready to make the move. People who moved to Riga from rural areas in the 1960s were particularly prone to make the move.

During the initial years of land reform after regaining the independence in the beginning of 1990s, the number of people in more distant Latvian districts, particularly in the far eastern region of Latgale, increased more swiftly than was the case in the central part of the country, because greater numbers of people had left Eastern Latvia during the previous decades (for work in the cities) [Eglīte 1997, Markausa 1997]. Many researchers say that this is a phenomenon typical to transition periods, because surveys show that rapidly shifting socio-economic factors were key reasons why people chose to move [Markausa 1997]. Trends in the flow of domestic migration in later years showed that these were only temporary flows and motivations. Unfavourable socio-economic conditions, including a high level of unemployment and a lack of jobs, led to a different migration flow, with people once again flowing away from the peripheral districts of the country. This has been shown through increased migration from Latgale to the central part of the country since 1998. The number of people arriving in Riga from Latgale has increased from year to year. In 1993, 13% of all people who moved to Riga came from Latgale, while in 2002 the percentage was up to 15% (in 2000 15%) [LR CSP/CSBL 1994-2003].

After economic declines and a short period of inertia in the rural areas, a migration reversal started. Internal migration flow data show that movement between cities and rural areas represent about 30% (Table 3) of domestic migration. Between 1993 and 2000 rural areas saw population increases as a result of migration, mostly from the city of Riga. Migration had led to more arrivals than departures in rural areas, although the positive internal migration balance could not compensate for the population decreases that had occurred as the result of natural movement. More people, however, moved from the rural areas to the major cities and local centres during this period than was the case in the opposite direction (Table 4).

Analysis of the flow of migration among populated areas that are on different levels of the urban hierarchy (the capital city, major cities, district centres, local centres, rural areas) show that they have different migration balances. Since 1993, Riga has lost 17,188 people (2.3% of the population in 2002) as the result of internal migration. In 2000 Riga had a negative migration balance in relation to all of the populated areas that are lower on the hierarchy scale, save only for district centres. [Krišjāne, Bauls 2002]

**Table 4
The internal migration balance among settlements on various levels of the hierarchy,
1993-2000***

	Total	Riga	Other major cities	District centre	Local centre	Rural areas
Riga	-12195	0	2088	-1683	3441	8349
Other major cities	7084	-2088	0	-1446	-598	-2952
District centre	-3498	1683	1446	0	-277	646
Local centre	2908	-3441	598	277	0	-342
Rural areas	5701	-8349	2952	-646	342	0

* Calculated according [LR CSP/CSBL - Central Statistical Bureau of Latvia]

For major cities other than the capital city, the migration balance between 1993 and 2000 was positive in total numbers and in relation to other kinds of populated areas. District centres saw a negative migration balance in relation to all other kinds of populated areas except small towns.

Analysis of the flow of migration in cities allows us to conclude that Riga often absorbs people from district centres. One of the main motivations to change the place of residence is the ability to find a better job in the capital city. This means that district centres lose fairly well qualified professionals. Major cities outside the capital city attract labour from the surrounding territory and from other cities. It is possible that older people may be moving from Riga to the small towns, while young people are moving to bigger cities in pursuit of an education. Each year approximately one-half of the young people of Latvia, for whom the dominant motivation in life is education, are concentrated in Riga.

To be sure, a well-paid job and job opportunities are one of the key factors in internal migration processes too. That is certainly the case of Latvia, where there are distinct regional differences in terms of employment and income. This is particularly true when one compares the capital city of Riga and its metropolitan area on the one hand and the more peripheral regions of the country on the other. Inevitably, there is increasing movement of people from rural regions to cities or their metropolitan areas. The comparative poverty, the unacceptably low level of social contacts in rural areas, those are among the factors which cause people to leave the rural areas and move to the city. That is particularly true among people who are of working age.

Between 1990 and 1996 the Riga agglomeration did not see an increase in population as the result of internal migration, because more people left the metropolitan region for other parts of Latvia than arrive from other areas. Beginning in 1997, however, the migration balance became positive again, especially in areas that are near the city.

Since 1990 Riga itself has lost residents each year due to internal migration. The most intensive flow of migration has been between Riga and the city's greater metropolitan area. If

the number of people arriving from the metropolitan area to Riga proper did not change much at all between 1993 and 2000, the number of people departing from the city for other parts of the metropolitan area increased. During all of the 1990s Riga had a negative migration balance with cities and towns of all levels, except group of the district centres.

Over the next decade or so, the age of those who are most active in terms of moving from one place to another will be reached by the generation of people who were born during the one period in the last half century when Latvia's residents had the largest number of children, and that means that processes of active urbanisation should reappear in Latvia. The next trend to be expected, perhaps, will be an intensive movement toward the suburbs. That would be determined by a radical reduction in the potential number of people who might want to migrate from the rural areas. Meanwhile, working people in Riga will have greater expectations and opportunities to improve their living conditions and living environment.

Trends in the patterns of commuting to work

Wider ranges of jobs as well as higher salaries affect not just the process of population movement to the city or its surrounding area. It also has an effect on daily commuting patterns to the area surrounding the city.

Daily commuting has been the object of a variety of studies worldwide. In America, there has been great focus on the way in which metropolitan areas affect daily commuting [Hamilton 1982, 1989; Gordon *et al.* 1989]. These authors have argued that everyday commuting in polycentric and dispersed metropolitan areas takes up less time. Similar results were found in a study of the metropolitan area of Randstad, a town in the western part of the Netherlands [Clark, Kuijpers-Linde 1994]. In other Dutch studies, however, it has been found that the size of the central city in the region and the level of suburbanisation do not affect the distance of everyday commuting [Rouwendal, Rietveld 1994].

In Latvia, where the urban system is typified by a mono-centric population structure, it is precisely the economic factors that play a great role. So do the latest trends in terms of people wanting to change their way of life and to select their place of residence if their income allows this. It has to be said, however, that studies of mobility in the Riga metropolitan area confirmed another aspect of life – many people come to Riga to work, and they then go back home for the weekend. Rural families face economic survival risks, and they tend to deal with the issue by “commanding” one family member to go to work in the city. Migrants who move to the city permanently usually maintain active links to their previous place of residence in the rural areas, both because their relatives live there and because there are risk factors in the job market [Geyer 2002a].

Although proximity to Riga is generally seen as a promoting factor in small-town development, it must be noted that in recent years we have seen increasing numbers of people from the area around Riga coming to work in the capital city, because Riga offers better opportunities to find work, a more extensive offer of places of employment, as well as, on average, higher salaries. On the other hand, the cost of living in Riga is higher than in small towns. In Riga, housing prices, as well as rental costs tend to be higher. These conditions together with the labour market, influence the intensity of daily commuting in the metropolitan area of Riga. It is also true that many people from the industrial suburbs of Riga now work in the capital city, because the suburbs were built around Soviet-era industrial facilities that were so narrowly specialized that they lost their markets and can no longer provide work. When these suburban residents come to Riga to work, they take advantage of the service and retail facilities of the city. This, in turn, means that specialized service and retail establishments are not being set up in small towns, because goods and services can be found in Riga in a much higher variety [Bauls, Krišjāne 2000; Krišjāne 2001].

Migration trends show that suburbs are developing, especially around Riga. Despite the fact that its population has declined in the 1990s, Riga remains a city of intensive economic activity. This belies the generally accepted hypothesis that a positive migration balance is an indicator of economic growth. This phenomenon can be explained through the fact there is no longer a need for as intensive a concentration of labour as was the case during the overdeveloped heavy industry phase of Soviet period, because the structure of the national

economy has changed greatly. However, the availability of a wide range of jobs and the development of new and dynamic sectors of the economy create a growing demand for qualified workers, and this could serve to increase migration flows [Krišjāne, Bauls 2002].

The process of daily commuting in Latvia is now beginning to be understood. Results of the research by the Department of human geography, at the University of Latvia on population mobility in the seven largest urban areas at the end of 90ties allow us to identify several new trends in this area:

- (1) In comparison to the late 1980s and early 1990s, there has been a very significant decline in the flow of daily commuting from the centres of urban areas to the periphery, because suburban job opportunities have in many cases disappeared. Major collective farms that used to be near cities have collapsed, and many of the people who worked in the kolkhozes – especially scientific specialists – who lived in the cities no longer had jobs, and thus urban to rural commuting has declined.
- (2) The decline in daily commuting within cities has been influenced by the fact that many Soviet-era industrial factories shut down or reduced their output. A major example was the closure of the van-producing factory in Jelgava.
- (3) The intensity of daily commuting from suburban areas to the centres of cities today depends on the level of development in cities and on their ability to adapt to the demands of the market economy. The volume of daily commuting to Ventspils has nearly doubled, because that city is home to a very successful port.
- (4) Job losses in rural areas have led people to go to work in cities and many employees stay in the cities during the week [Bauls, Krišjāne 2000; Department of human geography 2000].

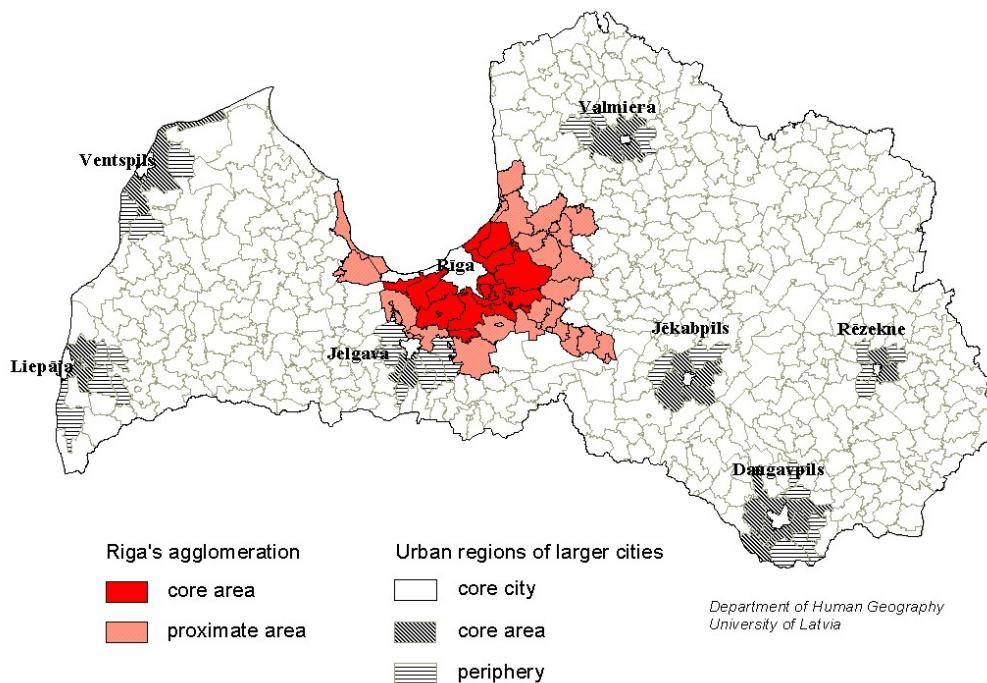


Figure 1. The Riga Agglomeration and other major urban areas

Additional data about population mobility in the Riga metropolitan area have led to the conclusion that the process has very much been affected by socio-economic change in Latvia. There have been more rapid economic transformation processes in Riga and its environs than in other parts of Latvia. New and dynamic sectors of the economy are emerging, which is evidenced by the fact that 60% of the country's foreign investment has gone to the Riga area [LR CSP/CSBL 2002]. There has been a rapid increase in the demand for highly qualified workers and specialists, and the fact that they have been found is proven by the increase in the flow of daily commuting. In 2000 there were 56,000 commuters while in year 2003 the number had increased to 67,000 [LR CSP/CSBL 2004].

Preliminary results of population mobility research in 2004 indicate several new trends. The commuting distance and time tend to be longer and, compared to the end of 1990s, the area of agglomeration is expanding [Department of human geography 2004]. At the same time, however, there is something else that is affecting changes in the lifestyle of a specific group in the population – the suburbanization processes that are common in Western countries are also taking place in Latvia. This is shown by the development of new areas of private bedroom communities on the peripheries of large cities (especially Riga). At the same time an exurban type of settlement is emerging in beyond the immediate commuting range of cities.

Conclusions

Political, social and economic changes in the early 1990s in Latvia meant a fundamental shift in the volume and direction of international migration, and Latvia, which during Soviet times was an immigration-dominated republic, became an emigration-dominated nation. International migration in the early 1990s continued to be largely tied to the former Soviet territories, but during the last ten years this has diminished. A gradual shift toward greater migration flows to and from Western Europe and to developed countries beyond Europe has been occurring.

The results from different studies and surveys indicated the stabilization of current migration flows and new types of migration, such as educational and seasonal, were observed. As mentioned before, future trends of labour migration processes will probably be influenced by EU enlargement and its impact on the economic situation on a new member states such as Latvia.

The losses of resident population by migration differ in urban and rural areas. After a decade of dramatic changes in migration, internal rural- urban exchanges have normalized. Internal migration trends in the early 1990s, which saw flows of people from cities to rural areas and from the central part of the country to its peripheries, turned out to be only temporary.

Beginning in 1998 the migration system began to return to the trends of the 1970s and 1980s. The flow from rural areas to cities, and from peripheral areas to the Riga metropolitan area is once again dominant.

The current mobility trends show that suburbs are developing, especially around large cities. The intensity of daily commuting from suburban areas to the centres of cities today depends on the level of urban development and on the ability to adapt to the demands of the market economy. The suburbanization processes, which are common in Western countries, are also beginning to appear in Latvia.

References

- Alberte, I., Burve, A., Sloga, G., Kasparāns, G., Dīnģelis, M.** (2004). Vienvirziena biletē uz rietumiem. *Sestdiena*. 3-9.04., 17-20. [One way ticket to the western countries]. In Latvian.
- Bauls, A., Krišjāne, Z.** (2000). Latvian population mobility in the transition period. *Geogrāfiski Raksti/Folia Geographica*, 8, 24-35.
- Bauls, A., Melbārde, Z., Šķinķis, P.** (1999). Rīgas aglomerācijas robežu noteikšana nepilnīgas informācijas apstākļos. *Geogrāfiski Raksti/Folia Geographica*, 7, 85-93. [Delimitation of the borders of the Riga agglomeration with incomplete information]. In Latvian.
- Baltic Data House** (2004). Data from public opinion survey. Unpublished.
- Clark, W.A.V., Kuijpers-Linde, M.** (1994). Commuting in restructuring urban regions. *Urban Studies*, 31, 465-483.
- Department of Human Geography, University of Latvia.** Cilvēka ģeogrāfijas katedra, Latvijas Universitāte (2000). *A study of the largest urban areas*. Unpublished. In Latvian.
- Department of Human Geography, University of Latvia.** Cilvēka ģeogrāfijas katedra, Latvijas Universitāte (2004). *A study of population mobility in the Riga agglomeration*. Unpublished. In Latvian.

- Eglīte, P.** (1997). Lauku iedzīvotāji Latvijā. *Apcerējumi par Latvijas iedzīvotājiem / Studies on the Latvian Population*, 1. Rīga: Institute of Economics L.A.Sc., 5-33. [Rural population in Latvia]. In Latvian.
- Eurobarometer** (2002). Candidate Countries Eurobarometer 2002.2. Public opinion in the candidate countries. http://europa.int/comm/public_opinion
- European Foundation for the improvement of living and working conditions** (2004). Migration trends in an enlarged Europe. Luxembourg: Office for official publications of the European Communities.
- Eurostat** (2004). GDP in Member States. <http://www.europa.eu.int/eurostat>
- Filimonenko, L.** (1989). Principi sovershenstvovanija rasselenija v Latvijskoi SSR. *Rajonnaja planirovka i gradostroitelstvo v Latvijskoi SSR*, 6. Riga: Rizhskij politehnicheskij institut, 10-16. [Principles for the improvement of settlement patterns in Latvian SSR]. In Russian.
- Gordon, P., Kumar, A., Richardson, H.W.** (1989) The influence of metropolitan structure on commuting time. *Journal of Urban Economics*, 26, 138-151.
- Geyer, H.S.** (2002a). An exploration in migration theory. H.S.Geyer (ed.). *International Handbook of Urban Systems*. Cheltenham: Edward Elgar, 19-38.
- Geyer, H.S.** (2002b). The fundamentals of urban space. H.S.Geyer (ed.). *International Handbook of Urban Systems*. Cheltenham: Edward Elgar, 3-18.
- Hamilton, B.W.** (1982). Wasteful commuting. *Journal of Political Economy*, 90, 1035-1053.
- Hamilton, B.W.** (1989). Wasteful commuting again. *Journal of Political Economy*, 97, 1497-1504.
- Krišjāne, Z., Bauls, A.** (2002). Migrācijas procesi Latvijā un to reģionālās atšķirības. *Geogrāfiski Raksti/Folia Geographica*, 10, 55-63. [Regional differences in the migration processes in Latvia]. In Latvian.
- Krišjāne, Z.** (2002). Jaunas iezīmes Latvijas mazo pilsētu attīstībā. *Geogrāfiski Raksti/Folia Geographica*, 9, 33-42. [New trends in the development of small towns in Latvia]. In Latvian.
- LR CSP/CSBL (LR Centrālā Statistikas pārvalde / Central Statistical Bureau of Latvia)** (1991-2003). *Demographic Yearbook of Latvia* [yearly 1991-2003]. Rīga: LR CSP/CSBL.
- LR CSP/CSBL** (2004). Labour force survey. Unpublished data.
- LR CSP/CSBL** (2002). Latvia's regions in figures 2001. Rīga: LR CSP/CSBL.
- Markausa, I.** (1997). Iekšējā migrācija Latvijā 90.gadu pirmajā pusē. *Apcerējumi par Latvijas iedzīvotājiem / Studies on the Latvian Population*, 1. Rīga: Institute of Economics L.A.Sc., 34-64. [Internal migration in Latvia in the beginning of 1990s]. In Latvian.
- Markausa, I.M.** (1998). Latvijas iedzīvotāju izvietojums un to prognozētās izmaiņas. Rīga: LU. [Distribution of population in Latvia and its expected changes. Ph.D thesis]. In Latvian.
- Prothero, R.M.** (1988). Populations on the move. *Third World Quarterly*, 9, 1282-1310.
- Rouwendal, J., Rietveld, P.** (1994). Changes in commuting distances of Dutch households. *Urban Studies*, 31, 1545-1557.