STATISTICS ESTONIA

# **4** SOCIAL TRENDS

TALLINN 2007

The publication focuses on social cohesion which is explored from different aspects like availability of services and social inclusion of persons. Cohesion has been analysed through population, education, employment, households, income, health services, security, road traffic safety, culture and sport.

Compiled by the Population and Social Statistics Department of Statistics Estonia (Urve Kask, tel +372 625 9220).

### **EXPLANATION OF SYMBOLS**

- .. category not applicable
- magnitude nil
- ... data not available or too unreliable for publication

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### FOREWORD

Statistics Estonia started to compile the collection "Social Trends" within the framework of the project Support for Social and Demographic Statistics established by the United Nations Economic Commission for Europe (ECE) and the United Nations Development Programme (UNDP). The first collection was completed in 1998, the second in 2001 and the third in 2004. Now we have completed "Social Trends 4". By now we may say that this collection has become an important output of social statistics. Each time the collection focuses in depth on a specific topic which is considered from different aspects. The central issue provided by the fourth collection of "Social Trends" is social cohesion.

Database is needed to measure social processes such as social cohesion, welfare, poverty and inequality. However, there are no long time series available in these areas and the development and harmonisation of relevant indicators has been introduced rather recently in Europe as well.

Social cohesion is first and foremost associated with sustainable development of a country, but it holds a central role also in the politics of the European Union. At the same time, the necessary data are mostly based on state surveys (surveys based on the probability sampling, carried out by a statistical institution). State surveys are interrelated due to the use of background features and identical definitions and classifications. Unfortunately, we have not managed to create a single Estonian state survey system covering the social sphere. A constant lack of resources and compartmentalization of funding for Statistics Estonia can be pointed out as a respective obstacle – statistics is not observed as a whole. There is a certain need and request expressed by consumers. Insufficient funding and the uncertain situation of Statistics Estonia compromise the temporal continuity of observation of essential processes. It is obvious that without ensuring consistent state surveys it is impossible to ensure production of temporally continuous indicators. Besides, collection of data is becoming more and more human-centred and the need for such statistics is constantly increasing in the entire European Union. However, it is hard to estimate the awareness of that need in Estonia.

This is a proper place to refer to Marju Lauristin: It is time for critical analysis of the connection between the dominance of one-dimensional market economy ideology and the changes in the social and mental environment which have had fatal consequences for the sustainability of Estonia: the degradation of family institution and reduced birth rate, high social inequality, drug addiction and the spread of HIV-infection, enclave of the Russian minority, the citizens' estrangement from the state. Open labour market of the European Union has caused additional problems through brain drain and loss of working hands, and companies are forced to import foreign labour from third countries. (*Riigikogu Toimetised 14/2006*)

After all, the goal is not limited to facing consequences all the time. The purpose of constant observation in the society is to avoid problems and to influence trends (via politics). Thus, the collection of information must always be ahead of current needs. It has to enable the prediction of potential problems in the society. Hence, asking for an opinion about the current situation is not sufficient. Moreover, it is reasonable to develop a system of state surveys and modules that would provide excellent opportunity to prepare an overview of social, economic and cultural environment.

I would like to express my gratitude to all those who contributed to the preparation of this collection: authors, editors and designers, whose efforts have made it possible to bring this publication to broader audiences. The next edition of "Social Trends" shall be published in three years' time — in 2010.

Urve Kask

Project Manager

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### SOCIAL COHESION AND ECONOMY

#### Alari Puriu **Estonian Business School**

Social and economic developments are inextricably linked. Social cohesion manifests itself in all actions that individuals consider to be important. Social cohesion determines the knowledge and experience about the society and the ability to act in different situations. There are various cooperation forms ranging from family and educational system to work and leisure-related activities. The ability and skills to work together and consider the interests of others are essential key factors in far every economic activity. Economic activity functions in turn as a foundation for ensuring welfare and determines conditions of viable social network. Economic activity is also connected with the creation and the wide-spread use of new technologies, which affect to a great extent the standard of living as well as the viability and communication of human communities. At the same time, the different approaches to social cohesion and economy are being constantly opposed to each other. In economy, the focus is on the adherence to its aims which do not prioritise the well-being of individuals and their communities. The private ownership and market-based economies are often criticised for cultivating individualism and abandoning the social dimension. As for economy, here, the various collectivist phenomena are believed to have a regressive effect on the growth of both, economy and welfare. Such modern social theories as economic sociology, institutional economics, welfare economics and public choice do not oppose the economic and social aspects to each other. Instead, the aforementioned studies regard them as interdependent and mutually leveraging. It does not necessarily mean that certain conflicts, achievement of biased and opportunistic goals, or simply misinterpretation are not present in a number of fields. Therefore, it is often desirable to seek for cohesion and conformity in the opposite approaches. And this is also one of purposes of the current publication.

Economy-centred The subject in question is discussed from the perspective of private ownership- and marketbased economic system. Protection of private property, right of its use and the income received from the property underlie modern capitalism. It also plays a determining role in shaping the social networks. The restrictions can be placed on the use of private property due to the requirements of public interest, and in this case, the limitations imposed are in accordance with legislation. The economic system which is based on private ownership, individual profit and liability opposes in a number of ways to the state's and to other collective decision-makers' power and influence. Supposedly, its independence is the basis of economic growth and general welfare and ion contrast with a number of collective attempts to organize societies (Hayek 1944).

approach

Also, to ensure the well-functioning of private property, enacted legislation framework is required. Regulations have been developed according to respective needs and economisthistorians have described how the laws protecting private property were elaborated as the land resources became scarcer, and the profit gained from these regulations exceeded the relevant costs (Demsetz 1967; North 1981).

Markets are the mechanisms which regulate the demand and supply and the resource allocation according to the price signals. At the same time, they are the second economic force which frames modern society. The price signals stand at the core of the decisions which affect the productivity use of human, capital and natural resources. Ultimately, the success of this process determines the living standards of societies.

The short description of market economy touches on the concept of choice, which herewith needs to be introduced. It stresses the consumer's freedom of choice to choose a consumption pattern within the available budget. It also embraces freedom for the firms in determining the combinations of resources, placing the resulting goods on the market, and acting thereof as a part of a development process of competition-based economy. The freedom of choice enables the salesmen to turn into life their expectations, desires and enjoyment. On the other hand, it involves responsibility for taking risks and facing the consequences of the wrong and unsuccessful decisions. Still, economy and society go hand in hand with indeterminacy, the adoption to and embracement of which have entailed a number of efforts which were undertaken in order to achieve economic development.

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Economic activity exhibits the collective dimension when the indeterminacy-related risks materialize, and economic agents, which maximise personal profit, lack the resources in order to cope with them.

Nowadays, the economic choices have a global dimension. Money markets detect the countries with unreliable politics. If a country lacks essential business climate productivity, the country's domestic and foreign investments experience a decrease, and the employees lose their jobs as a consequence of an absence of necessary work ethics. Internalisation of economy is already so far-reaching, therefore no choice has been left for the state whether to adapt to productive economic culture or not. Rather, it is about whether and how the countries and societies adapt to the principles of productive economic culture. It is also about whether and how they change their beliefs, attitudes and values that impede the growth of welfare. That is what shall determine their role in the international labour division process. If they fail to adapt, the internalisation process for them is inevitable in any case, and the chances to succeed and increase their welfare and diversity of life are scarcer (see e.g. Porter 2002).

Together with its different institutions, market economy is the result of material, cultural and social activity of people. In modern social space and time, the aforementioned have also developed a strong reputation of welfare on the basis of private property- and market-based economy. On the one hand, culture and social services are influenced by the demand of consumers. On the other hand, the success of economic development determines, for example, tax revenues on which a great part of resources available for the cultural and social sphere, depend. The overall quality of obtained welfare is a strong argument for the eligibility and efficiency of the system functioning on market-based relations.

Social factors are the major key drivers of market economy, which affect the overall process of how and why people value different products (which is reflected in price signals). They also determine to what extent and in what way people participate in the production and division processes.

The social impact of economy The main social impact of economy manifests itself in the respect for growth and welfare and by putting it into social context, that is into the bases of common life factors. Reaching the norms and rules is a principal meeting point for economic activity and other aspects of social life. It has ensured the diffusion of economically efficient and essential values into other life spheres. At the same time, it surely has a purposeful role from a rational point of view. The initial focus is on the desires and preferences of an individual. But cohabitation with the people who have the same rights to express their needs, forces the individual to concert and negotiate, and it results in the cooperation norms which control the social activity.

Social communities have been under the strong influence of the productivity paradigm, according to which innovation is good, competition — necessary, investments in capacities and technology — inevitable, cooperation with the supplier and clients — useful. Communication and network connection are essential, education and skills have to guarantee more efficient results, the increase in productivity has to ensure the salary rise, etc. (Porter 2002). Even though the current point of view can be classified as consumerist, there is a deal of truth for every worldview that internalisation of economic activity has crossed all geographic boundaries. And thus, operational capacity of societies, transnational recognition, and lastly, even security and internal order depend greatly on their adaptation to productivity rules.

Economic arguments are amplified by technology. It has brought to us things (e.g. mobile phone), which have a great impact on the communities with various historical and cultural backgrounds and living standards. Communication media make the achievements of different cultures accessible and comparable. Public access and adoption to technologies define and unite large groups of social communities in a new way.

Institutionalist interpretation Economists, historians, sociologists and political scientists have developed a number of theories on institutional development. Their main focus is on the institutions' functioning reasons. The standard economic criterion is social efficiency, while the criterion of political science is redistribution in favour of the groups in power, and according to the cultural theories, it is expressed through social beliefs and convictions (see Fukuyama 1995; La Porta et al. 1998; North 1981, 1990; Olson 1996; Putnam 1995).

New institutionalism introduces the rules and norms into economic activity (incl. the market and proprietorship development). This approach regards institution as a formal or informal norm or rule that conducts the reciprocal social behaviour of the individuals. Norms and rules play an important role in decreasing the transaction costs. For instance, if the legislative framework that regulates property rights did not exist, then every single change of property ownership would require a unique approach, which would handle the rights and interests of each party engaged in a transaction. It would be especially costly for the intermediation market and economic growth. The interface of the common part of transactions is fixed by the laws, and more specific features of certain legal sale statement are a separate subject matter of each transaction. This enables to reduce significantly the transaction costs and promotes the exchange-based economic mechanism, i.e. the market.

There are two types of institutions: formal (e.g. legal and judicial system) and informal. The main characteristic feature of formal institutions is that they are created within a limited period of time (or at the same time). It does not mean, though, that they are not constantly and systematically updated. The informal institutions have developed rather evolutionally as a result of interaction and mutual influence between the informal social groups.

The third substantial aspect in the institutional approach is its enforcement mechanism, which imposes the rules and ensures that they are followed. In legislation, that responsible mechanism is the judicial system. As it was mentioned before, the informal institutions take a long time to develop and their functions are not transitively directed as the functions of the formal institution are. Still, the enforcement factor is present here as well. Social norms are potent forces and the exclusion from the society or a certain social group as means of punishment, can have a profound negative and long-term effect (North 1990).

What concerns the other aspect of informal institutions is that the present society is far more kaleidoscopic compared to traditional societies. It consists of a number of various action and trend groups. It is misleading to think that they are indifferent towards other members or authorities, or lack economic interests and virtues.

In the interplay between formal and informal institutions, the informal rules can be regarded as the predecessors of the formal ones. This interrelation is not cut and dried, and there are groups in every society, which do not accept a certain set of rules, or accept the rules within their unavoidable minimum. The main source of contradiction lies in the situation, where the conflict arises between the formal and the informal side, the general symbol of which is the conflict of law and justice. Theoretically, the democratic polity should then guarantee the alternation of power and rules.

**Cohesion and social capital** Social cohesion is based on social ties which enhance general welfare, and it also correlates with independence, availability of goods, personal development, respect of human dignity, responsible participation, sense of belonging, common values. As can be seen, all these concepts carry a positive meaning. On the other hand, their realisation methods have various conflicting aspects. According to Kornai (1992), the best polity is not a supermarket where someone else pays for the goods in a basket.

Cohesion generates social capital. It can be defined as a set of informal values and norms of behaviour shared among members of a group, which permit them to cooperate in order to achieve common goals. When the members of the group ascertain reliability and honesty in each other's behaviour, they develop trust. The latter acts like a lubricant which ensures the efficient work within a group or organisation. (Fukuyama 2002).

It can be said that social cohesion is determined by the conditions and assumptions of social activity. Societies can be ethnically and religiously diverse — this is what considerably shapes customs and traditions. In this case, diversity is a preset condition and must be taken into account in order to be in compliance with the request for cohesion increase. In economic terms, it signifies the increase of transaction costs, as the expectations and risks in economic activity vary more than those in the similar communities.

For cohesion, the importance lies in the relationship between the organisation of national and local governments and self-organisation. For self-organisation, the various social networks are of high importance. At the same time, authors (e.g. Fukuyama 2002) criticise

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the off-handed acknowledgement of the networks' role. Networks can develop different levels of influence and their attitudes towards society are diametrically opposite (in extreme cases, loyal to the government and to the social majority, or entirely denying them). The network can emphasise the interests of a small group and contrast them with the rest, or it can be directed to a common interest. At the same time, they can completely differ in choosing the method for acquiring the needed resources. In turn, the latter depends on certain attitudes towards the society and various groups.

Another aspect of ethnic and religious diversity is the greater number of possibilities, which create more opportunities for developing new combinations of knowledge and skills. It is important for social and economic development. Considering these two factors that associate with diversity, it can be concluded that diversity, if used to its best, invests into implementation and overcoming of itself. The performance efficiency of governments in this context has been considered for example by La Porta (1998).

The best way to amplify diversity is apparently through the educational system. It introduces possibilities for personal development and ensures access to all the other means offered, through which society encourages various groups to participate. On the other hand, the significant role of educational system is in shaping the norms and values. It creates the basis from where the future cohesion process of societies starts, including those with various ethnic and religious backgrounds. Education is an expensive commodity and its successful functioning does not solely depend on political slogans. In Estonia's case, the real contribution into this field needs a thorough revision, and that includes the financial aspect, as well as the contributions of the parties concerned, discretion.

Social capital and economy In order to make social capital contribute to economic growth and development, the norms that constitute social capital need to include the following virtues: truth, sense of duty, mutual assistance. There is a certain amount of social capital in every society. It denotes that the cooperation norms like honesty and mutual assistance are distributed among the members of a certain group, and are not shared with other members of society. For instance, one source of social capital is a family. Though, the strength of family ties can differ from society to society.

Economy functions even in case of limited social capital, and different groups collaborate. There is a need for a number of tools of formal institutions, as, for instance, agreements, hierarchy, laws. Informal norms, which accompany social cohesion, help to reduce the costs encountered when the services of formal institutions are used, but they do not replace them entirely.

A separate field is a movement outwards that is encountered in a unified society. Here, the importance lies in the country's foreign policy, its membership of international organisations, including the ones that cause the lifestyle pattern changes, as, for instance, the European Union. It is also necessary to consider the military and security aspects.

At present, our main focus is on preparedness for global competition and ability to participate in international division of labour. Estonia is a small country and has therefore a very open economy. Almost every medium-sized enterprise has to show its readiness to participate in the international economy both, as an exporter and an importer of goods. The first explanation to it is the so-called effect of a small country, and is defined by a small internal market, specialisation and market expansion through the means of export, aimed for economies of scale. Still, the internalisation of economy is not limited to it, and manifests itself in a number of notably more complex connections, starting with the participation of big and small firms in product development, the advent of new technologies, finding the meeting point of production and science. The social dimension in these undertakings is crucial, because they assume participation, apprehension and capability for coping in complex social communities.

Herewith, we reach an important conclusion that successful outward openness depends on the country's and its various clusters' organized state. The most significant role belongs to social cohesion, ensured first and foremost by informal communities. Although, the international dimension magnifies economy's scope, it also entails an increase in diversity and complexity, as everything takes place in various linguistic and cultural areas. As a result, it experiences the need for broader social capital, as well as for the educated



Cohesion measurement The main general parameter that characterises the range and importance of a certain action, is the scope of activities and services. The second important attribute is availability of services, where its indicators vary depending on the field. Availability has allocable income and geographical (regional) aspect. From the standpoint of economic development, different education forms are of critical importance (especially basic and secondary education and continuing studies). The culture's role is crucial as well, as it represents the basis of world understanding, national cohesion, and acts as a creator of adaptable and intelligent manpower. Another important dimension concerns law and justice, but there, only the selective type of measurement can be employed.

### Summary

The purpose of the current discussion was to open some aspects of economic and social cohesion. One of the aims was to avoid listing recommendable phenomena and situations that should be implemented in order to bring about the desirable changes in society. Social cohesion is to a certain extent influenced by political decisions, but in essence it is largely self-developing and self-organising. At the same time, it definitely influences economic activity.

There is no doubt that interests play an important role in associating social and economic viewpoints. Often, economic interests emanate from the short-term considerations, but not only and not always. Social dimension is based on a long-term scale. At the same time, the economy, which is based on private ownership and profit, cannot be subjected to social economy in the sense that one will set criteria which would arise first and foremost and mainly from the social dimension. Furthermore, such criteria are more ambivalent and subject to political manipulations — economic criteria are more linear in this sense.

The economy, too, has its internal patterns which take into consideration the social dimension, but maintain thereby a certain deal of independence. Welfare justifies such functioning of economy. For this purpose, all collective organisation types of economy, and those proceeding from other principles except for economic ones, have been powerless. This welfare-related aspect has supported social development, too.

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## POPULATION DEVELOPMENT FROM THE SOCIAL COHESION PERSPECTIVE

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In order to understand the social cohesion it is necessary to map how main population groups function in the society. The article below focuses on the cohesive groups of male and female population, indigenous and immigrant population (or foreign-born and native-born population, Estonians and non-Estonians (if possible, distinguish ten major ethnicities)), elderly population, and on the regional demographic indicators of population as the main groups whose social cohesion is evaluated. Behavioural differences and the rate of social cohesion have developed largely due to different developments of population processes.

In his discussion about population K. Katus (2004) has emphasized that the main feature of social cohesion is the generational link of the population to the territory of its country of residence. Generational continuity is ensured by replacement of one generation with the other, thus constantly ensuring reproduction of the composition of population. More specifically, the population reproduction is ensured by fertility, mortality, marriages (currently cohabitation in a wider sense) and migration. Those four processes determining population development also provide basis for major changes in the structure of population — thus, they represent basic factors affecting several socio-economic changes in the society.

Increasing longevity has caused a qualitative shift in population development, which in principle has created new opportunities for reproductive development. For the first time in the history of one generation people had time for other activities besides producing basic means of subsistence. Such a development resulted in further education of people, which in turn increased the ability of acquiring different professional skills and contributed to the development of new areas of activity, such as large-scale industrial production.

The process which in professional literature is referred to as a stage of demographic transition gave way to the population migration potential. On the one hand people moved from rural areas to cities which lead to urbanisation, and on the other hand people emigrated from their ethnic territory. This is the basis for national and cultural diversification of a population. The qualitative change in the development of all concerned population processes mentioned above resulted in increased general awareness expressed by national self-awareness, responsible family planning or healthy behaviour (even if it was only the compliance with the rules of personal hygiene at first), but it was also evident in alteration of cohabitation forms (civil registration in addition to the original clerical marriage, later the spread of consensual unions) (see Vishnevski 1982; Van de Kaa 1999; Zelinsky 1971)

In brief, the above-described review presents the process of establishment of the modern type of population during the past couple of centuries. In Estonia such changes started about 160 years ago and the concurrence of the abovementioned process and several geopolitical factors have produced the current Estonian population. The population with modern type of reproduction was formed in Estonia by the 1940s, therefore more long-term overview of the modern type of population in Estonia is provided by two main population processes, i.e. fertility and mortality, starting from 1970s. Analysis of the groups of population in general focuses on the main indicators of recent 15 years.

Due to insufficient registration of migration, the registration of population and structure thereof has become unreliable in some aspects. This concerns first and foremost county information, and thus several regional indicators are limited to the period from 1990 to 2000, and the main changes of the population groups analysed are presented on the basis of Population Censuses 1989 and 2000.

### Number of population, fertility and mortality

# Number of population The number of population is affected by all four population processes mentioned above, but more so by fertility, mortality as well as immigration and emigration. One major factor affecting the number of population in the modern Estonian society was net migration. Due to the geopolitical change following the Second World War, Estonia became a migration

hinterland for the population with migration potential released at various times in different parts of the Soviet Union. Thus, the basic increase of the number of population in Estonia in that period was mostly caused by immigrant population. Although only one in every five immigrants actually settled in Estonia, it was enough for Estonia to become as one of the European countries with the highest proportion of foreign-born population (26%) by the beginning of 1990s. Age distribution changed in particular after great migration waves in the 1950s and 1960s–70s as well as in the second half of 1980s. Hence, in addition to rapid increase of elderly population, the age structure of immigrant population resulting from previous migration waves has a great impact on the developments in the society since the decline of immigration in the early 1990s. During the 1990s the reliability of migration statistics fell below the critical level, thus it is difficult to estimate the total change in the number of population during the past 15 years.



Figure 1 Crude rate of natural increase and crude rate of net migration in Estonia, 1965–2006

Sources: Data of Statistics Estonia (SA), and Katus, Põldma, 2005 (EKDK).

Such formation of population structure has also had an impact on fertility and mortality that provide a basis for natural increase. The increasing trend of death rate certainly reflects the significant contribution by the immigrant population who have reached the elderly age due to impact of the migration waves, which after substantial change in fertility behaviour in both immigrant and native-born population in the early 1990s, has caused negative population growth rate — the total number of population is declining (Figures 1 and 2).



Figure 2 Crude birth rate and crude death rate, 1970–2006

Source: Data of Statistics Estonia.

Fertility

After establishing the population of modern reproduction type, the changes in fertility behaviour usually take place by generations. In comparison to other European countries passing through the same phase of population development (including Scandinavian countries with the behaviour pattern closest to our relevant pattern) Estonia is characterised by two major features. Firstly, there was no fertility boom in Estonia after the Second World War — fertility did not reach the level of population reproduction before the late 1960s. Secondly, in the post-war Estonia women gave birth at younger age than women in other European countries. This pattern was significantly altered only in the early 1990s, when it brought along a downward trend in the period rates of fertility.



Figure 3 Total fertility rate, 1970–2005

Relevant indicators of the immigrant population cannot be presented due to lack of data. However, considering the fact that in the Second World War Estonia lost almost all historical national minorities, the special features of fertility process of immigrant population can conditionally be presented by the non-Estonians' indicators (Katus, Puur, Sakkeus 2000). The fertility trend of Estonians and non-Estonians in the 1990s has progressed with a certain time lag. The pace of decline in the fertility of Estonians in the early 1990s was slower compared to that of non-Estonians. The fertility of the Estonian females reached its minimum level (1.34 children per woman of fertile age) only in 1998, and then fluctuated around that level for five years. Since 2004 the Estonians' total fertility rate is again at the level of 1995 (1.5 children per woman).

#### Rate 2.4 2.2 Estonians 2.0 1.8 1.6 1.4 Non-1.2 Estonians 1.0 08 0.6 0.4 0.2 0.0 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005

Figure 4 Total fertility rate of Estonians and non-Estonians, 1990–2005

Source: Data of Statistics Estonia.

Source: Data of Statistics Estonia.

Major increase in the fertility of non-Estonians in the late 1980s was followed by an extensive decline after 1990. The decline dropped to its lowest point in 1993 and fertility maintained the low level for six years, then started to show some tendency of growth not earlier than in 1999. Despite that the total fertility rate of non-Estonians does not reach the relevant level of Estonians.

Traditionally the demographic processes of immigrant population reflect the behaviour pattern applied by the country of origin. But, considering the diversity of the countries of origin of the immigrant population in Estonia, it is obvious that every ethnic group behaves differently in these processes. That heterogeneity is illustrated by crude birth rates of ten major groups. In order to eliminate random variations of small-scale population groups, the data of 2000–2005 are adjusted by the moving average of three years.





<sup>&</sup>lt;sup>a</sup> Data have been adjusted by moving average of three years

Source: Data of Statistics Estonia.

In the early 2000s, all major ethnic groups (except Lithuanians) are characterised by crude birth rate lower than that of Estonians. Besides Estonians, this indicator shows an upwards trend during recent years in case of Russians, Byelorussians and Finns. The relevant indicator of Ukrainians and Latvians maintains relatively the same level — although it has a slightly downward trend. The Jews have the lowest crude birth rate after Byelorussians. The fertility of Jews is obviously affected by emigration of younger population to their ethnic homeland, which has significantly reduced the proportion of population in childbearing age among Jews. It might be said that the reproduction of this ethnic group is not guaranteed in Estonia.

The Estonian average total fertility rate is most affected by three counties — Tartu, Ida-Viru and Harju counties. Apparently, the crucial factor is fertility behaviour specific to urban population combined with the different behaviour of immigrant population.

Table 1 Total fertility rate by counties, 1990–2000, (1991–1999)<sup>a</sup>

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Jõqeva	2.37	2.14	2.04	1.90	1.86	1.84	1.79	1.81	1.80
Valga	2.26	2.12	2.00	1.82	1.83	1.74	1.79	1.70	1.79
Hiiu	2.67	2.45	2.23	2.18	2.11	2.06	1.85	1.75	1.73
Järva	2.23	2.08	1.88	1.70	1.72	1.76	1.78	1.73	1.70
Võru	2.33	2.12	1.96	1.83	1.82	1.81	1.75	1.67	1.68
Lääne-Viru	2.08	1.93	1.83	1.78	1.72	1.71	1.66	1.67	1.68
Lääne	2.18	2.04	1.94	1.77	1.77	1.72	1.79	1.72	1.63
Viljandi	2.25	2.09	1.92	1.84	1.78	1.80	1.75	1.71	1.62
Saare	2.37	2.12	1.97	1.85	1.68	1.64	1.53	1.63	1.62
Põlva	2.13	2.01	1.94	1.87	1.91	1.84	1.70	1.66	1.61
Rapla	2.32	2.14	1.98	1.87	1.79	1.75	1.64	1.59	1.57
Pärnu	2.15	1.92	1.78	1.60	1.56	1.53	1.54	1.51	1.44
Total Estonia	1.85	1.67	1.54	1.43	1.39	1.36	1.32	1.31	1.33
Ida-Viru	1.63	1.44	1.30	1.24	1.28	1.28	1.28	1.28	1.31
Tartu	1.86	1.67	1.55	1.42	1.39	1.36	1.33	1.30	1.29
Harju	1.59	1.39	1.27	1.16	1.12	1.08	1.05	1.05	1.11

<sup>a</sup> Data have been adjusted by moving average of three years.

Source: Data of Statistics Estonia.

An interesting tendency has been found in Ida-Viru county. In spite of the fact that more than 50% of the population of Ida-Viru county consisted of the first generation immigrants in 1989 and more than 40% in 2000, the fertility rate has remained at the same low level after the initial stabilisation period (unlike the general growth trend among non-Estonians since 1999). Apparently, the composition of non-Estonians in the aforesaid county is quite different from the relevant population group in e.g. Harju county; the latter has had a major impact on the fertility trend of non-Estonians and on the average fertility in Estonia. The greatest number of children per one woman in fertile age is born in the Hiiu, Saare and Jõgeva counties, while Jõgeva county should be pointed out as an area with the most compact historical community of national minority - long-established Russian Old Believers near Lake Peipus. This indicates that general concepts of ethnicity should be handled with high awareness of whom they comprise: it is impossible to generalise the behaviour of non-Estonians. In Jõgeva county the non-Estonian and immigrant population do not coincide. In fact, the situation is the opposite — as a county with average proportion of non-Estonians it has the lowest proportion of immigrant population among all counties in the motherland. From the historical point of view, the national minority of Russians is characterised by higher levels of fertility (Katus, Puur, Sakkeus 2000).

When compared to rural population, the non-reproductive behaviour of urban population seems to be associated with two tendencies. At first, the fertility behaviour of both populations was homogenised in the course of modernisation process, which set the background for urbanisation for a long time. In a certain development phase, however, a wave of de-urbanisation occurred, which had started in Estonia already in the 1960s, but did not come to significant expansion before the 1980s (Katus et al. 1999). As a result of de-urbanisation, a certain part of younger generation of urban population left, thus causing differences in fertility indicators (Katus, Puur, Põldma 2002).



### Figure 6 Crude birth rate of urban and rural population, 1965–1990

Source: Katus, Puur, Põldma, 2005.

The decline in fertility in the 1990s was caused by a change in the behaviour pattern characteristic of both Estonians and non-Estonians. Women were giving birth at increasingly older age and therefore a particularly drastic decline occurred in two younger age groups during the period of 15 years.



Figure 7 Age-specific fertility rate of Estonians and non-Estonians, 1990, 2005

Source: Data of Statistics Estonia.









Figure 9 Age-specific fertility rates of non-Estonians, 1990–2005

Fertility has declined by more than 2.5 times both in case of Estonians at the age of 15–19 as well as at the age of 20–24. The decline of fertility in the youngest age group of Estonians has stopped, but a downward trend is still characteristic of population aged 20–24. In older age groups, there was a much less drastic decline of fertility in the early

Source: Data of Statistics Estonia.

1990s, and it has started to increase since 2000 both in the age groups 30–34 and over 35 years of age, even exceeding the high level of 1990 in the former age group by 2005. During recent years there has also been an increase in the fertility rate of female population aged 25–29.

When speaking of non-Estonians, there is principally similar tendency present, but the decline of fertility in younger age groups has been less widespread and has stabilised during recent years. The age groups of 25–29, 30–34 and particularly over 35 years of age have shown a steady growth after they reached the lowest level in 1994–1996, and fertility rate of the age group of 30-34 exceeded the top level of 1990 in 2005.

**Mortality** Besides the abovementioned crude death rate (Figure 2), also average life expectancy — a summary indicator characterising the development of the entire society, is used in the second basic process of population reproduction. A special development feature of mortality in Estonia is its long-term stagnation: after a significant extension of life expectancy in the 1950s it maintained the same level for approximately 40 years (Katus and Puur 1997). Male and female life expectancy has still shown a slow year-by-year increase after the decline in 1994 (after the shipwreck of Estonia), and it reached the highest post-war level for the first time in 2005.

Another important development feature of mortality is a disproportionately large difference between the male and female life expectancy that was established during the war. Although, during recent years, the average life expectancy has shown a certain increase both in case of men and women, that gap has not narrowed: the difference between the male and female average life expectancy has remained at the level of 11–12 years.



### Figure 10 Average life expectancy at birth by gender, 1970–2005<sup>a</sup>

<sup>a</sup> The 1989–2002 data of Statistics Estonia have been recalculated pursuant to the adjusted age-specific distribution of population with regard to years between the 1989 and 2000 Censuses, and due to the amendment of the life table indicators' calculation methodology. The difference in life expectancy of two calculations (SA and EKDK) arises mainly from a different calculation of population structure.

Sources: Data of Statistics Estonia (SA), and Population Life Tables, 2004 (EKDK).

In terms of social cohesion major importance is attributed to life expectancy of population older than 65 years, i.e. the time remaining to live for them. This indicator has not been subject to significant changes in Estonia during the last 35 years (except for a slight growth in average life expectancy during the last few years). However, there is a disturbingly deepening gap between the male and female life expectancy of the grandparents' generation, which has increased from the former 3.5 years to almost 5 years. Feminisation of the society at elderly age could be one of the reasons for several problems of the younger generation. Overcoming that gap is certainly one of major indicators of social cohesion in Estonia. Due to the high male mortality, the proportion of single elderly women increases significantly, requiring the society's much higher contribution to supporting the coping ability of elderly women.



Figure 11 Life expectancy of population aged 65 or older by gender, 1970–2005<sup>a</sup>

<sup>a</sup> The 1989–2002 data of Statistics Estonia have been recalculated pursuant to the adjusted age-specific distribution of population with regard to years between the 1989 and 2000 Censuses, and due to the amendment of the life table indicators' calculation methodology. The difference in life expectancy of two calculations (SA and EKDK) arises mainly from a different calculation of population composition.

Sources: Data of Statistics Estonia (SA), and Population Life Tables, 2004 (EKDK).

The average life expectancy trend of Estonians and non-Estonians has been different during five decades. Long-term stagnation is observed in case of non-Estonians: male life expectancy in 2005 was far from reaching even the level of the 1970s. Female life expectancy of non-Estonians has shown a slight increase after three decades, but in comparison with the Estonian women the growth has been two times slower in the observed period.



Figure 12 Average life expectancy at birth among Estonians and non-Estonians by gender, 1959–2005<sup>a</sup>

<sup>a</sup> The 1959–1989 data originate from A. Puur and K. Katus, Statistics Estonia has not recalculated the data on 1998.

Sources: Data of Statistics Estonia, and Katus, Puur, 1997.

Currently, there are no significant differences between the life expectancy of urban and rural population. However, Northeastern Estonia is distinguished among the five major regions for its lower life expectancy, due to lower life expectancy of immigrant population. Longevity is the highest in Southern and Western Estonia; and the lowest, somewhat surprisingly, in addition to Northeastern Estonia also in Central Estonia. The latter is affected by a specific population structure.



Figure 13 Average life expectancy of regions by gender, 2005

Source: Data of Statistics Estonia.

Average life expectancy is mostly shaped by the health behaviour of population. The causes of death provide a generalised picture of population's health. Four epidemiological transitions can be distinguished in the population mortality process recently having been more described as three transitions. In short, this means that mortality by infectious epidemics and starvation have been superseded by mortality resulting from endogenous and degenerative diseases. J.-M. Robine (2001) has used the generic term "Age of the Conquest of the Extent of Life" to signify the last two transitional stages.

### Figure 14 Standardised mortality rates of three main causes of death in Estonia and in Europe, 1985–2005



Source: Data of Statistics Estonia, and the WHO database, 2007.

The trend of cardiovascular diseases, which are one of major causes of death in the modern society, present in Estonia, coincides with that elsewhere in Europe (except growth of rates in the early 1990s), although until recently these indicators were slightly above the EU average. Malignant neoplasms are the next major cause of death. According to standardised mortality rates due to cancer the mortality caused by neoplasms within the last decade has been slightly lower than in Europe. However, the mortality rate due to external causes (injuries, intoxications, etc.) in Estonia is incomparable to Europe. In 1994 the standardised mortality rate due to external causes exceeded even the cancer mortality rate, yet this was due to the significant contribution by the deaths in the catastrophe of ferryboat Estonia. Despite the fact that during recent years the mortality rate due to external causes is lower than before, it has not yet reached the level of mid-1980s.

	Mortality rate	Males		Females		
		Estonians	Non-Estonians	Estonians	Non-Estonians	
	External causes	168.7	290.4	39.1	58.3	
	Malignant neoplasms	300.4	327.2	133.8	143.4	
	Circulatory diseases	655.1	761.9	357.2	415.2	
	Total	1 357.6	1 717.7	641.9	773.3	

### Table 2 Standardised mortality rates by main causes of death by gender and ethnicity, 2005

Source: Data of Statistics Estonia.

In case of all three main causes of death, male mortality is more than twice higher than female mortality. Also, non-Estonian male and female mortality rates exceed the mortality rates of Estonians — a particularly great age-and-sex-specific difference occurs in case of mortality indicators caused by external reasons.

### Figure 15 Mortality rate due to external causes of Estonians and non-Estonians by age and gender, 2005



Source: Data of Statistics Estonia.

There is a much higher mortality rate due to external causes in case of non-Estonian boys under 12 months of age and almost a three times bigger difference is revealed in case of men aged 20–24. Higher mortality of non-Estonian men is characteristic of all working-age groups, and the mortality rate due to external causes is remarkably lower only among population aged 75–79. Mortality of Estonian men due to external causes undergoes significant increase since the age of 40–44, and reaches the maximum level among men aged 50–54. The mortality rate due to external causes of adult Estonian men exceeds the relevant rate of non-Estonian sonly in case of men at the age of 70–74. In general terms, the mortality rates of non-Estonian women are also higher than the relevant average indicators of Estonian women. Yet, non-Estonian women have the same or even lower mortality rates due to external causes than Estonian women in the following age groups: 30–34, 55–59, 70–74 and over 80 years of age.

Such huge differences indicate specific risk behaviour in case of immigrant population both in terms of age and origin. Considering that increase of life expectancy is a principal indicator of social cohesion, the high mortality rate due to external causes in Estonia can be seen as one of the major regressive factors hindering social cohesion. Mortality rates by age, gender and ethnicity (or origin) are rather helpful for introducing preventive measures targeted to particular risk groups. According to relevant literature, traditionally low level of social cohesion of immigrant population in the country of residence (social control takes place through intergenerational relationships, which in case of immigrant population have remained in the country of origin) is reflected, first and foremost, on the elevated risk behaviour of that population group. Therefore, mortality rate due to external causes serves as the principal indicator for social cohesion of immigrant population.

The ten most common causes of death among Estonians and non-Estonians are generally the same, but in case of non-Estonian men, after the three above-mentioned main causes,

gastro-intestinal and respiratory diseases are followed by mortality caused by mental disorders (mostly due to psychoactive substance use) and infectious diseases. At the same time, in case of Estonian men, the two first mentioned diseases are followed by higher mortality caused by diseases of neural system and mental disorders. Ethnic differences indicated in the priority list of causes of death are even greater in case of women. The three major causes of death are followed by gastro-intestinal diseases in both ethnic groups. Estonian women also die because of diseases of neural system, endocrine system and respiratory system, while non-Estonians die rather because of diseases of endocrine system, respiratory system and due to mental disorders.

### Figure 16 Mortality rates among Estonians and non-Estonians by selected groups of diseases and gender, 2005



Source: Data of Statistics Estonia.



Figure 17 Standardised mortality rate by gender and counties, 2002–2003, 2004–2005

In view of small numbers, the mortality data of 2002–2005 by counties are presented as biannual average, but random variations may still have a certain impact on the data. However, it appears from the standardised mortality rate that the highest number of men die in Ida-Viru, Lääne and Hiiu counties, while the male mortality rate is the lowest in Tartu county and Tartu city, as well as in Harju and Rapla counties. Biannual average indicators are even more uneven in case of women. Generally speaking, it appears that female mortality is also higher in Ida-Viru and Valga counties, but also in Saare, Hiiu and Lääne counties. Better mortality rates are found in Tartu county and Tartu city, and in Jõgeva and Võru counties.

The greatest impact on regional variation of mortality rates comes from death caused by external causes, because the county-specific mortality indicator is significantly increased if, for example, several people died in a fatal traffic accident. The standardised male mortality rates due to external causes in 2004–2005 were the highest in Saare county, but also in Ida-Viru, Rapla and Põlva counties. These counties had also the highest mortality rates due to external causes among female population. However, in the latter case the indicators are the highest in Põlva county, followed by Valga and Võru counties. There are certainly further aspects behind the high level of mortality due to external causes in the aforesaid counties, which would help to understand the background of such a low cohesion rate. Next, the chapter provides an overview of the development regarding the major population groups of between two Censuses (1989 and 2000), in order to enhance the establishment of main factors that could be used for increasing social cohesion in the society.

Map 1 Standardised mortality rate among males (accidents, intoxications and traumas) by counties, 2004–2005



Source: Data of Statistics Estonia.



Map 2 Standardised mortality rate among females (accidents, intoxications and traumas) by counties, 2004–2005

Source: Data of Statistics Estonia.

## Development of the main population groups in the period between Censuses from the aspect of social cohesion

Age structure

Age structure of population generally reflects the total impact of population processes affecting the structure of population. The last fifteen years have given rise to two basic trends that will have significant effect on the development of Estonia within next decades. Firstly, the downward trend of fertility described above has remarkably changed the number of younger population. One also has to consider the slightly increased proportion of children in the population pyramid during recent years, which will have a certain impact on several processes in the future (demand for places in kindergartens and schools, number of population to join the army or enter the institutions of higher education, number of women in childbearing age and number of generations to be born, number of population joining the labour force). It is extremely important to keep in mind the opposite effects arising from simultaneous entry of the most and the least numerous generations in respective stages of life. Thus, at the regional level one has to be, first and foremost, familiar with the populationrelated changes. Otherwise, it may result in hasty and thoughtless decisions on the reduction of kindergarten places and lay-off of teachers, without considering that converted kindergarten buildings and elsewhere employed teachers could become necessary again. Besides that, the ageing process that started more than one and a half century ago has come to the stage where it has resulted in an abundant elderly generation due to more than twofold increase in life expectancy.

The long-term high mortality rate of Estonian men has resulted in an unevenly high proportion of women in older generations — the situation is not expected to change within the next 30–40 years, and this will become a major issue with regard to social cohesion of the Estonian society in the next few decades. The effect of immigrant population becomes evident in the abundance of non-Estonians in a certain age — due to excess mortality of men it affects primarily the non-Estonian women. Last mentioned population group is the main contributor to the rapid increase of population in retirement age.



Figure 18 Age structure of Estonians and non-Estonians by gender, 1990, 2007

### Nationality and non-migration

Due to the geopolitical location of Estonia the population was not particularly homogenous during the establishment of nation-state (see Katus, Puur, Sakkeus 2000). Ethnic heterogeneity rocketed from 11-12% in the 1920s-1930s to 39% in 1989, and declined a little by 2000. Today, more than 140 ethnicities account for approximately 32% of population. More meaningful than ethnic heterogeneity is the number of population with different ethnic background who are associated with the given territory in terms of their country of origin, i.e. how many of them have roots in Estonia. In international terms it is determined by two indicators: (a) proportion of foreign-born population — it specifies population who are born outside the territory of given state; (b) proportion of immigrant population — it measures the connection with state territory through two generations. In the last case neither of the parents is born on the territory under question. Study of immigration is a relatively new research area and immigrant population is a somewhat recent phenomenon in most of the European countries compared to Estonia. Therefore, it is unknown which and whether the changes occur in the third generation of immigrant population - Estonia should, at least in censuses, bring forth the residence of three successive generations on the Estonian territory (The Demographic ... 2002). From the point of view of an individual, person's social and natural environment of the country of birth as well as the integrity of parental home and the country of birth are extremely important indicators, in order to allow integration into the society. Through these relationships an individual is socialising into the same geo-demographic region as the native-origin population (Katus 1999).

The data collected during the Census of 1989 enabled to estimate for the first time the proportion of foreign-born population, which at that moment constituted over 26% of total population. The social changes in the 1990s reduced the volume of external migration to a significant extent. Higher mortality of immigrant population, poor migration registration, under-coverage of Census 2000 (particularly in the cities as the primary location of immigrant population) are the factors which have mainly affected the registration of foreign-born and immigrant population to a great extent in the last decades. That way the proportion of foreign-born population decreased to 18.4% by 2000, the proportion of immigrant population constituted slightly less than a quarter — 24.4%.

Source: Data of Statistics Estonia.

Although by national self-determination several additional ethnicities have been counted, the proportion of non-Estonians has somewhat decreased during the period between Censuses — from 38.5% to 31.5%. Slavication represents a crucial trend during the period of fifteen years. One reason for that is certainly the open borders policy of other nation-states after Estonia restored its independence. That allowed extensive migration of former major communities (Ingrians, Germans and Jews) to their ethnic homeland, that way causing remarkable decline in the general proportion of other ethnicities, but at the same time increasing the Slavic proportion among non-Estonians. While three Eastern Slavic nations (Russians, Ukrainians, and Byelorussians) constituted approximately 80% of non-Estonians in 1989, this number exceeded 90% according to Census 2000, and in addition to that there was a significant increase in the population of Russians among them. Russians already comprised 88% of all Slavic population residing in Estonia.

The effect of migration waves becomes evident when looking at the distribution of foreignborn population by year of in-migration. Although the number of foreign-born population is almost equally distributed between the five post-war decades, their proportion has been increased the most by the migration wave of 1970s.



### Figure 19 Foreign-born population by in-migration year, 2000

Immigrant population that was established as a result of migration waves has uneven age distribution. At older working age (35–54) the immigrant population comprises more than 30%, exceeding 35% of the population of the relevant age group in case of population aged 45–49. Age structure reflecting the migration waves of immigrant population shall have significant effect for another 25 years, mostly due to a disproportionately large proportion beyond working age. Meanwhile, 25 years is a time long enough for industries using mostly immigrant workforce to re-organise their activities. Attention should be paid to the emergence of third generation of immigrant population starting from the generation of those aged 30. Considering the events of the last twelve months, we have to admit that apparently the immigrants and their descendants who had integrated indigenous population into the Soviet society within five decades, have not been able during 15 years to adapt to the traditions and behaviour of the country of residence where some of them have been living for as long as almost three generations.

Source: Data of Statistics Estonia.



Figure 20 Non-Estonians and immigrant population by age, 2000

In terms of cohesion it is important to observe the behaviour of immigrant population in all fundamental social processes. Due to a large proportion of immigrant population Estonia is contrasting with regard to most of the countries of European Union, being comparable with Switzerland only (see The Demographic ... 2002). Considering the rise of third generation of immigrants in younger age groups, it is necessary to gain information concerning the place of birth of the respondent and his or her parents and grandparents in order to reflect vital events. Until this information remains unavailable it is important to use the distinguishing characteristic of ethnic self-determination besides the variable of immigrant population. However, this might be considered discriminating with regard to the main national minority in Estonia, i.e. Russian Old Believers — thus, we have to use every opportunity to distinguish between national minority and third-generation non-Estonians of immigrant origin.

This distinction between non-Estonians and the foreign-born population is particularly well expressed in Jõgeva county, the historic region of residence of Russian national minority. The proportion of non-Estonians has reduced in every county, but variations between the counties have increased. The lowest proportion of non-Estonians (less than 2%) is found in island counties (as it was 15 years ago), and in the following motherland counties: Võru, Viljandi, Järva, Põlva and Rapla counties (5–7%). The highest proportion of non-Estonians is present in Tartu, Valga, Harju and Ida-Viru counties (17–79%). In Jõgeva county the percentage of non-Estonians is approximately 10%.

The above mentioned counties with the low proportion of non-Estonians also stand out for the low level of foreign-born population. As for continental counties, the lowest proportion of foreign-born population is found in Jõgeva county (6.5%). However, this relatively low level is still rather high on the European scale, as it exceeds the relevant indicators of e.g. Czech Republic, Finland, Portugal, Spain or Norway, for example, and is slightly below that of England (United ... 2007). The proportion of foreign-born population is very high in Ida-Viru and Harju counties — 42 and 23% respectively, but the above 10% level of foreign born population in Valga, Lääne-Viru, Tartu and Lääne counties is also comparable to the relevant indicators of Sweden or the Netherlands.

Source: Data of Statistics Estonia.



Map 3 Non-Estonians by counties, 12.01.1989<sup>a</sup>

<sup>a</sup> Based on administrative borders valid in 2000.

Source: Data of Statistics Estonia.



Map 4 Non-Estonians by counties, 31.03.2000

Source: Data of Statistics Estonia.



#### Map 5 Foreign-born population by counties, 12.01.1989<sup>a</sup>

<sup>a</sup> Based on administrative borders valid in 2000.

Source: Data of Statistics Estonia.

### Map 6 Foreign-born population by counties, 31.03.2000



Source: Data of Statistics Estonia.

There is a direct connection between the social cohesion of immigrant population and their knowledge of the language of their country of residence (Integrating ... 2003). Language skills vastly expand the competitiveness on the labour market and help to leave the former segregated Soviet economic area behind (extensive development of industry was the primary reason for widespread immigration of foreign labour). Pursuant to comparison of the data of 1989 and 2000 Censuses it appears that as a result of a 50-years-long integration into the Russian-speaking society, the knowledge of the Russian language among Estonians aged 25–64 was almost 90%. At the same time, non-Estonians who attained

adulthood in 1989 had poorer knowledge of the Estonian language than the older generations. In 2000, only 40% of non-Estonians at working age could speak Estonian, and for the first time the knowledge of the Estonian language among non-Estonians aged 10–24 exceeded 50%. At the same time, such a development means that the knowledge of the Estonian language is still at a very low level and requires a lot of attention in the course of integration process of immigrant population, in order to ensure social cohesion with the country of residence.



### Figure 21 Knowledge of the Estonian language, 1989





#### Figure 22 Knowledge of the Estonian and Russian languages, 2000

Source: Data of Statistics Estonia.

Besides the aforesaid, the social cohesion rate of immigrant population in Estonia can also be described by identification by citizenship rates — first of all in relation to the country of birth. Each immigration wave involved immigrant population from an ever wider area. Population who according to self-determination is of Russian ethnicity comes from different regions associated with different social and cultural background. The last decades of immigration of the Soviet times gave rise to an entirely sovietised type of immigrant. Within the framework of migration policy of those times such type of immigrant was granted special social and economic rights. As said above, more than one third of Estonian immigrant population originates from the migration waves of the 1970s–1980s. For them the restoration of independence of the Estonian state meant deprivation of special rights. For some time during the early years of restoration of Estonian independence immigrants maintained certain advantages provided that they did not connect themselves firmly with the

county of residence (Estonia). First of all, the avoidance of Estonian citizenship provided immigrants with the opportunity to cross the Russian border with their old passports according to a simplified procedure until 1995. It is obviously the descendants of those immigrants who have been unable to make up their mind to this day as to which citizenship they would like to acquire — be it then their country of origin or Estonia. The data of Census 2000 described above with regard to the knowledge of Estonian language disprove the allegation about the knowledge of the Estonian language being a suppressive factor for that population group in selecting citizenship. In case of the described level of knowledge of the Estonian language the number of immigrants aged 10-59 eligible for acquisition of the Estonian citizenship would be much higher, but in fact the proportion of population with undetermined citizenship in younger age groups is increasing. Therefore, there are about 40% of population with undetermined citizenship among immigrant population, one-third have the Estonian, and a quarter have the Russian citizenship. In view of the heterogeneity of immigrant population it has to be considered that their cohesion rate with the country of residence is highly dissimilar and some of the immigrants are not interested in higher cohesion with the society where they live.



Figure 23 Immigrant population by age and citizenship, 2000

Source: Data of Statistics Estonia.

The hypothesis concerning the lack of desire among immigrant population to adapt to their country of residence is supported by the interdependence of the citizenship of immigrants on their country of origin. One could assume that the majority of population who have been born here have Estonian citizenship and there are only a few people with undetermined citizenship. The proportion of population born in Estonia constitutes approximately 35% of immigrant population, those born in Russia account for 48% and those born in other countries account for 17% of immigrant population. Regardless of their country of birth the proportion of population with undetermined citizenship is in all cases higher than one could expect by their origin. This part of immigrant population certainly deserves special attention, because a social problem may become a problem of security policy, if such a numerous population group increases its strong opposition to commit itself to its country of residence — all the more if such a resistance is not weakened in younger generations.



### Figure 24 Immigrant population born in Estonia, Russia and other European countries by citizenship, 2000

Source: Data of Statistics Estonia.

#### Education

In terms of social cohesion, the ability to cope in the society is often determined by the educational structure of population, which in turn is related to options on labour market. Development of education also enables the economic structures to make a more efficient use of labour resources and creates prerequisites for the restriction of labour-intensive economy. The population with above (upper) secondary education is increasing in Estonia. Although the education classifications and presentation of data used in Censuses cannot be compared one-for-one, the proportion of population with secondary and higher education has increased 10% during the period between two Censuses. Among population older than 10 years the proportion of population with at least secondary education exceeded 60% by 2000. However, social cohesion is more affected by significant decrease in the education level of population aged 15-19: while in 1989 the proportion of population with secondary education in this generation exceeded 30%, it remained below 20% in 2000. This is naturally due to the time spent in the educational establishments of the secondary level — the number of years spent on that level increased over the period between Censuses. Therefore, we cannot presume that one would have gained secondary education at the age of 19 in case of modern 12-year upper secondary school (formerly immigrants acquired secondary education in 10 years). Unfortunately, the same trend continues in the next two age groups. The proportion of population with at least secondary education among population aged 20-24 comprised only three quarters of the relevant proportion 11 years ago, and in case of population aged 25-29 it was 10% less than during the last Census.

The sustainable economic development in Estonia is also hindered by a smaller proportion of population with higher education in younger age groups. In addition to that, the average number of years spent on acquiring higher education has decreased when compared to the period 1980–1990. To some extent it is compensated for by the number of years spent on acquiring secondary education. The proportion of population with higher education has increased among population at the age of 35 and older and among population of retirement age and in four subsequent age groups it is more than twice above the level of 1989. In

comparison with population aged 20-24, a greater proportion of higher educated population among those aged 65-69 is on the one hand associated with the mandatory secondary education of Soviet times, which served as a basis for acquiring higher education for majority of the population during their lifetime. On the other hand it is generally known that the population with higher education have the above average life expectancy, which increases the proportion of population with higher education among older age groups. This may also be affected by the older age structure of those who settled in Estonia in the 1990s, and by the education-selective emigration (people who have stayed in Estonia have higher level of education). At this point the under-coverage of Census 2000 should certainly be considered with regard to younger age groups, i.e. young population who left Estonia and went abroad to acquire education may increase the average level of education attained when they return (including the increase in proportion of the population with higher education). The fact that the attainment of higher education among younger age groups has shifted to a later time, also has its impact. Nevertheless, economic structures have to take it into account that the labour force with appropriate education, for the replacement of those having reached the retirement age, will be gained from the age groups older than it has been common so far.



Figure 25 Education of the population in Estonia by age, 1989, 2000



Sources: Katus, Puur, Põldma, 2005, and data of Statistics Estonia.

When comparing the educational levels of Estonian native and immigrant population it appears that the immigrants have higher average level of education: the number of those who have acquired at least secondary education is nearly one-fifth higher (69% of immigrant population). In native population the proportion of population with at least secondary education is approximately 57%. In case of immigrants the level of higher education also exceeds the relevant level of native population by almost a quarter — 15% and 12% respectively. At this point one has to keep in mind that the number of years spent on education among most of the generations of immigrant population is at least one year less than among people with the same level of education in native population, in some birth cohorts the difference is even up to two years. It is also important to note that the education distribution by age also differs.

In immigrant population the population with at least secondary education is mostly higher at the expense of those aged over 75 and aged 15–19 — their prevalence over the same age groups in native population is approximately 30%. Such a distribution in education can be explained by the selectivity of emigration (the more educated part of older generation of immigrant population has increased longevity and they have stayed to live in Estonia.) as well as by the difference in the number of years spent on acquiring the relevant level of education in comparison with native population. In intermediate age groups the proportion of population with at least secondary education in immigrant population is 3-10% higher than in the same age group of native population. The age distribution of immigrant population with higher education does not differ so much from the relevant distribution of native population. In younger age groups of native population and among persons aged 50-74 the proportion of population with higher education is bigger than or equal to the respective indicator of immigrant population. It can be concluded that the good education of immigrants in Estonia provides them a very good position in comparison with immigrant populations in other European countries, and thus the situation on the labour market should be assessed based on that.

The one-fifth bigger proportion of population with higher education among population over 10 years of age during the period between the two Censuses is the main reason for increased proportion of population with higher education in older generations in Estonia. This trend can also be seen in different counties. There has been more than a 26% increase in population with higher education in Tartu county within the period of 11 years, and with respect to age these people are more evenly distributed over the county. As for the proportion of population with higher education, Tartu county (15%) is superseded only by Harju county with the largest proportion of population with higher education in Estonia — 17%. They are followed by the much lower levels of Ida-Viru (9.7%), Pärnu (8.4%) and Viljandi (8.1%) counties. The proportion of population with higher education is the lowest in Võru (7%), Lääne-Viru (7%), Valga (7.1%) and Järva (7.1%) counties. Although, in addition to Tartu, one of the major increases of population with higher education within 15 years is manifested for example in Võru county, the more than twofold difference between the proportions of population with higher education in those counties is certainly a suppressive factor in terms of social cohesion.

### Map 7 Population with higher education<sup>a</sup> by counties, 12.01.1989<sup>b</sup>



<sup>b</sup> Based on administrative borders valid in 2000.

Source: Data of Statistics Estonia.

### Map 8 Growth of population with higher education by counties compared to 1989, 31.03.2000<sup>a</sup>



<sup>a</sup> Includes everyone at least 10 years of age.

Source: Data of Statistics Estonia.

### Ageing of population

In addition to the immigrant population and educational level discussed above, the development of Estonia during the next decades will be affected by a more rapid process of population ageing. On the one hand, the higher proportion of the elderly population with higher education allows implementation of innovative potential, in order to increase the generational cohesion rate during the next few decades (whereas a great prevalence of

women in that population group has to be taken into consideration). The inevitable nature of that trend is also manifested in the four scenarios of the population forecast of the United Nations. According to the most modest forecast, the proportion of population aged over 60 will increase up to 28% by 2050, and according to the most pessimist scenario it will reach nearly 40%. On the other hand, the fertility rates below replacement level that have lasted for an entire generation has reduced the increase in young ages, which sets boundaries for certain fields of activities. Pursuant to the most optimistic version of that forecast, the proportion of population aged 0–15 is slightly over 21%, and in the worst case, approximately 11% by 2050. In any case, the proportion of population at least over 60 years of age will exceed the proportions of upcoming generation since 1999 (since 2004 also the proportion of at least 65-year-olds). In brief, it can be said that over the next 10 to 15 years the number of dependants will increase by more than 20%. Therefore, it is necessary to assess efficient opportunities for supporting economic structures to ensure social welfare for all population groups.



### Figure 26 Children and elderly persons, 1989–2050





Sources: Data of Statistics Estonia, and United Nations Common Database, 2007.

In view of such a population development it becomes more and more important to consider the regional dimension. Due to further ageing in rural municipalities located in border regions, it is necessary to take additional regional policy measures that would provide an opportunity to acquire education on the spot, as well as wider availability of health services and timely development of social care services, in order to ensure the cohesion rate involving different generations. Regional cohesion is the key issue during the next few decades, while solving this allows to use the greatest achievement in the progress of humankind — ageing — for the benefit of the development of the society as a whole (see also Laslett 1991).

### Map 9 Population aged 65 and older by local government units, 12.01.1989<sup>a</sup>



Source: Data of Statistics Estonia.

### Map 10 Population aged 65 and older by local government units, 31.03.2000



Source: Data of Statistics Estonia.

**Economic activity** 

Upcoming rapid changes in the population structure require adjustment of economic and social structures. The interrelationship of population entering and exiting the labour market, expressed by labour pressure index, has an impact on economic development. If it is below
1, there are more people exiting than entering the labour market — this indicates the need for support to less labour-intensive economic structure. Pursuant to the forecast of labour pressure index calculated by Statistics Estonia, the number of population exiting the labour market by 2050 is twice the number of population entering the labour market. On the one hand, it means the rise of pressure to reduce social guarantees unless the economic area is reorganised quickly and efficiently. On the other hand, there is a tendency to continue in the same way by involving foreign workforce.

Estonia does not need the experience of other countries to learn the consequences of longterm increase in the proportion of immigrant population, as such an economic model has already been applied here. Inefficient economic structures that did not adapt to the population development forced Estonia to carry out very large-scale reforms, which were indeed stoutly and rapidly implemented in the early 1990s. Now there has emerged a need for major restructuring for the second time.



Figure 27 **Population entering and exiting the labour market by age and labour pressure index**, 1989–2050<sup>a</sup>

<sup>a</sup> The data of 2010–2050 are based on the forecasted labour pressure index.

Source: Data of Statistics Estonia.

The need to restructure economic area is also supported by the regional development of labour pressure index. Recent development of the economically active population in Northern and Northeastern Estonia indicates that these are primary regions to be reformed. Although the pressure to introduce changes increases elsewhere as well, the number of population who have attained working age exceeds the number of population beyond the working age in the remaining three areas, whereas the development has been most stable in Southern Estonia. Such a difference at regional level once again refers to the destabilising impact of the immigrant population in the long-term perspective. Regional policy measures aimed at regional relocation of economic structures could support the economic development of Estonia.

### Table 3 Labour pressure index by regions, 1989–2004

Region	1989	2000	2001	2002	2003	2004
Total Estonia	1.27	1.19	1.18	1.14	1.09	1.03
Northern Estonia	1.31	1.1	1.07	1.01	0.96	0.9
Northeastern Estonia	1.05	1.08	1.07	1.04	0.99	0.93
Western Estonia	1.33	1.27	1.25	1.22	1.16	1.1
Southern Estonia	1.27	1.27	1.26	1.25	1.22	1.17
Central Estonia	1.48	1.39	1.37	1.33	1.28	1.2

Source: Data of Statistics Estonia.

Another possibility to evaluate the need for changes in the economic structure is the employment rate of population. The economic structure that has been subject to significant changes during the last 15 years has brought along more than a 30% decrease in

employment rate: it was nearly 70% in 1989, and on average 48.5% in 2000. At the same time, it is common knowledge that the high employment rate in Soviet times was much higher than actual employment. That resulted in labour surplus concerning population with certain skills in a free market era, but also in a lack of workers with specific training. The educational level of population described above gives the basis for required continuing specialised training. It also appeared that the attainment of final level of education has drifted to older age, which in turn causes delayed entry into the labour market. The curve describing females' employment refers to the same trend: employment rate is significantly higher in the older working age than in the younger working age.



Figure 28 Employment rate by age and gender, 1989, 2000

The main change during the period between Censuses is the shortening of working life: people enter labour market later and exit sooner. There is even bigger difference in the employment rate of men and women when compared to 1989. Women enter labour market significantly later, but at the age of 40–54 their employment rate reaches up to 80%, which is approximately 5% higher than the employment rate of men. Apparently, the employment of women in younger age groups is lower, because at that time they acquire education more actively than men or stay at home to take care of children. There is a sharp decline in the employment rate of both sexes in older age groups, although the nominal retirement age started several years earlier in 1989 than in 2000. The employment rate indicators have certainly been affected by extensive economic restructuring during the transitional period, when, at the beginning of the referred period, older generations were forced to stay at home immediately after attaining the retirement age. Such an employment curve sets further restrictions on the economic sphere and in view of the already decreasing population, remarkably more measures are required for full implementation of the existing potential.

The employment rate of non-Estonians is on average 9% lower than that of Estonians, as they enter labour market later and leave it earlier. There is a certain similarity in the employment curves of non-Estonians and women, i.e. in both cases the employment reaches its peak when people are at the age of 40–54. Yet, the lower employment rate of non-Estonians is not due to national discrimination, but instead, due to the change in economic structure which had the same impact both on non-Estonian immigrants employed in industry and on the Estonians engaged in agriculture.

The impact of economic restructuring can be seen in the best way from the comparison of the counties where the population was most affected by it. In 1989 more than 60% of the population of Jõgeva county and the three counties in Southeastern Estonia was employed in agriculture (Katus, Puur, Põldma 2005), while the majority of immigrant population in Ida-Viru county was employed in industry. Rapid changes of the 1990s brought about drastic decrease in traditional economic activities, which resulted in Estonia's highest unemployment rates in these counties. They maintained the lowest employment rate and the highest unemployment rate also in 2000.

Sources: Data of Statistics Estonia, and Katus, Puur and Põldma, 2005.

During the period between Censuses there emerged a group of population who stayed at home in Jõgeva county and the three counties of Southeastern Estonia, constituting 12–13% of the working age population. This refers to the presence of a large number of discouraged persons in these counties. Ida-Viru county, however, is characterised by more active population: among the five counties compared above it has the highest employment rate and level of unemployment level — 12%, but a comparable proportion of discouraged persons. Consequently, it is easier in Ida-Viru county to raise employment on account of the unemployed persons and bring them into labour market provided that appropriate measures are taken.

Figure 29 Employment rate of Estonians and non-Estonians by age, 2000



Figure 30 Employment rate by age and counties, 2000



### Source: Data of Statistics Estonia.

### Summary

During the next few decades, the social cohesion rate of Estonian population shall be increased by all those activities that help to reduce excess male mortality due to external causes, so that they could provide long-term support for well-educated women and pass on the experience of their generation to their grandchildren. Due to the high proportion of immigrants, special attention has to be paid to the population with undetermined citizenship and the unwillingness to commit themselves to their country of residence. In case of such a population group the key issue is to evoke integration interest in their descendants. Both, the substantially increased proportion of the elderly and new generation with low fertility

necessitate crucial reorientation of economy, where the stable, secure, sustainable, competitive and cohesive development is ensured primarily by the increase of educated population in each following generation. It is also important to link the trends in population change with regional development.

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# EDUCATION AS A FACTOR SUPPORTING SOCIAL COHESION

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Good education is a prerequisite for social cohesion and participation in community life. A person with a lower level of education is less actively involved in social activities and is at a higher risk to fall into depression and solitude and become subject to social exclusion. While according to the results of Estonian social survey the relative at-risk-of-poverty rate<sup>b</sup> among people of at least 16 years of age with tertiary education<sup>a</sup> was 10.3% in 2005, the relevant indicator concerning people of the same age but without secondary education was as much as 26.8 percentage points higher. Poor people are at a significantly higher risk of suffering from social exclusion.

Hence, there is an implicit connection between health and education. Social exclusion entailed in lower level of education also brings along a poorer state of health — this is also confirmed by statistical data. It appears from the results of the social survey that 9% of the people with higher education considered their health poor or very poor, but the relevant percentage was three times higher in case of the people with basic or lower education. The analysis of the survey results reveals that the bigger share of older people among the people with basic education is not the only reason (*Toomse 2005: 22*). People, who are more educated, pay more attention to their health. For example, according to the Household Budget Survey of 2006 the average monthly expenditure on tobacco products by members of household where the head of household had higher education constituted only 72% of the expenditure made on tobacco by members of household where the head of household had basic education.

Successful completion of studies leads to a good job, which makes an individual feel social cohesion and involvement with partners. Presence of job improves self-confidence, enhances self-esteem and contentment. Attendance at work improves an individual's quality of life, increases social cohesion and reduces the risk of social exclusion and health hazards. Therefore, access to education and learning opportunities can be considered as a prerequisite for reduction of social exclusion and increase of cohesion. The right to education is as important as any other human right.

However, education system may also become a factor that hinders cohesion. Equal opportunities for acquisition of education are considered substantial, but at times the system functions selectively and does not allow all students to reach higher levels of education without obstacles. The latter facilitates social stratification and inequality.

Below upper secondary education<sup>c</sup> is compulsory in Estonia and its availability is provided for by the Constitution. Thus, learning at a lower level of education is more likely to contribute to the integration, although primary education is also affected by the factors that facilitate stratification (elite schools). Preprimary education tends to reduce social cohesion, as it is not available for everybody due to the lack of kindergarten places. Acquisition of preprimary education is also closely connected with household income. Preprimary education is available for about half of the children in the households included in the one-fifth of population who receive the lowest income, the proportion of the children who go to the kindergarten increases along with the increase in income — in the households with the highest income this percentage is nearly 60% (*Toomse 2007a: 24*). Education system functions selectively also on the levels of education above basic education.

Generally speaking, education is still more likely to unite than divide the society. However, one should note that instead of being unambiguous and linear, the paradigm of social cohesion might be interpreted in more than one ways. For example, it has been said that social cohesion does not necessarily mean a lack of contradictions or even conflicts between groups or individuals, but instead it may be deemed as integration of different

<sup>&</sup>lt;sup>a</sup> Professional secondary education and higher education acquired after secondary education.

<sup>&</sup>lt;sup>b</sup> The relative-at-poverty rate represents the share of people receiving the equivalence income lower than the relativeat-poverty threshold (60% lower than the annual median income of the household).

<sup>&</sup>lt;sup>c</sup> Primary or basic education.

parts of the society into a whole so that the differences are not lost, but developed into a more extensive unity. The more extensive unity formed in the manner described above includes both conflicts and common interests, whereas the latter shall be dominant. (*Vetik 2001: 9*)

### Importance of education in terms of human resources

According to statistics, Estonian people become more and more highly educated year after year. This shows that education may support cohesion in the society. Higher education has started to supersede lower level education. Based on the Estonian labour market survey, the proportion of people with below upper secondary education or without primary education among the working age population (aged 15–74) in 2006 was 23%, and the proportion of persons with tertiary education was 27%. Ten years ago (in 1997), the relevant figures were almost opposite — 27% and 24% respectively.



Figure 1 People aged 15–74 by educational level, 1997–2006

<sup>a</sup> General secondary and vocational education, also professional secondary education following basic education.

Within the period under observation the number of students has increased more than 2.5-fold. Usually higher education is acquired at the age of 20 to 29. The proportion of students (especially female students) was thriving the most at the end of the 1990s. While in the beginning of the 1990s there was no difference as for the sex of students, the number of female students has currently exceeded the number of male students by more than 1.5-fold. During recent years the number and sexual disproportion of students have remained unchanged.

In spite of the fear that there are currently too many people with higher education and that this may result in their increasing unemployment, the labour survey statistics indicate otherwise. The number of the unemployed among people with tertiary education is the lowest. There is no sign of increase in the unemployment rate among people with higher education, in fact the situation tends to be just the opposite — their unemployment rate has shown steady decline during recent years, although not at the same pace as that of the people with lower education level.

Source: Labour Force Survey, 1997-2006.



Figure 2 Students among population aged 20–29 by gender, 1993–2006

Source: Data of Statistics Estonia, and the Estonian Education Information System (EHIS), 2007.

Below upper secondary or lower level Secondary level Tertiary level

Figure 3 Unemployment among population aged 15–74 by educational level, 1997–2006

In international comparison, the Estonians hold a high position in terms of education — 89% of Estonians at the age of 25 to 64 have at least secondary education. This is 19 percentage points above the European Union (EU) average.

Source: Labour Force Survey, 1997–2006.



Figure 4 People aged 25–64 with at least secondary education in European countries, 2006

Worryingly, the number of young people having reached the graduation age but not having acquired secondary education, is rather big. The proportion of the Estonians among the population aged 20–24 and having at least secondary education was 81% — although it exceeds the EU average (78%), it is still less than in a dozen of other countries. Fortunately, the situation has improved, because in 2000 this indicator was three percentage points lower. At the same time, at the end of the 1990s, the number of the young people with at least secondary education was even a bit larger than a year ago. The EU has set a target that 85% of the young Europeans at the age of 22 should have at least secondary education by 2010. In 2006, the best results were shown by the Czech Republic (91.8%), Poland (91.7%), Slovakia (91.5%), and Slovenia (89.4%) — these countries have already surpassed the target to a great degree.

The number of young people without secondary education is related to dropping out of the education system. At international level, the early dropout of education system is measured by an indicator that concerns young people at the age of 18 to 24 with secondary or lower education and who are no longer participating in the education system. The goal is to reduce the proportion of such young people in EU Member States to the level lower than 10% by 2010. In 2006, the EU average was 15%, while the Estonian average value reached 13% (Figure 5). Within the past three years the share of young people dropping out of the education system in Estonia has increased by 1.4 percentage points, whereas at the same time the EU average value has decreased by 1.2 percentage points. Dropout rate is the lowest in Slovenia and the highest in Malta. Students in Estonia tend to be more indifferent about dropping out of school than young people in the Nordic Countries and former socialist countries.

Boys drop out of education system more frequently than girls. In 2006, 19.6% of the young men aged 18–24 with basic or lower education had dropped out of school — this is four percentage points more than in 2002. Thus, the problem continues to increase.

Young people with lower educational level find it more and more difficult to overcome such a situation due to the increasing gap between them and their contemporaries, and therefore it is hard for them to enter the labour market or continue their education later on. (*Kazjulia 2001: 56*). Such people adapt to the changes of labour market worse than average, they are the first to be struck under the conditions of recession and they may need state aid to cope with the situation: little knowledge and poor learning habits prevent them from responding in a timely and appropriate manner in case of negative economic scenarios (*Veldre 2007: 12*).

Source: Data of Eurostat, 2007.





Figure 5 Early leavers from the educational system aged 18–24 in European countries, 2003, 2006

Source: Data of Eurostat, 2007.

In Estonia, essential reasons for discontinuing education include the present-day economic problems, stratification and a deepening contrast between school standards and values dominant in the society. The families who are in a difficult situation are not in the minority and the school-related problems may indicate issues at home. Increasing financial stratification certainly affects the compliance with compulsory school attendance. Pursuant to the household budget survey, the expenditure on education in the households with a lower income and less educated head of household is significantly lower than the relevant expenditure in the households with a higher income and more educated head of household. In 2006, a member of the household, where the head of household had higher education, spent monthly an average of 105 kroons on education, while the relevant monthly expenditure was only 33 kroons in case of a member of the household, where the head of household had higher education, spent monthly an average of 105 kroons on education, while the relevant monthly expenditure was only 33 kroons in case of a member of the household, where the head of household had basic education.

The number of children without parental care<sup>a</sup> has been increasing year after year; it is noteworthy that such children are often the most likely to discontinue education. In 2006, the total of 1,680 children without parental care were registered — 54% of them were boys. Ten years ago the number of such children was by 636 smaller. Disparity of the social environment of students makes acquisition of education unequal. If social environment (first and foremost family) does not support studies and school attendance, it is very difficult for a child to continue education. Without home support even the best and experienced teachers are unable to assist all children and prevent discontinuation of studies. Another problem relating to that is the conflict between school standards and values dominant in the society. In these days tolerance, democracy and freedom of speech are generally considered a good tone. At the same time, the importance of discipline or controlled behaviour at school has become more important than earlier, as it is a substantial prerequisite for completing a very voluminous national curriculum in a timely manner. School is no longer a small model of the society — these two speak a somewhat different language. *(Leino 2001: 69)* 

According to the Lisbon strategy, the EU has set a goal for 2010 to become the leading knowledge-based economy in the world, capable of ensuring a sustainable economic growth with more jobs and greater social cohesion. The strategy pays great attention to lifelong learning. From that aspect the situation in Estonia does not look very good. In the course of labour survey people are among other things asked whether they have participated in any courses (both continuing vocational training and hobby classes) or formal education within

<sup>a</sup> Children, whose parents are declared as missing, divested of active legal capacity or deprived of parental rights, also children who are without parental care for some other reason.

the adult education system during the past four weeks. The results of the survey shall provide for a basis for determining the basic indicator of lifelong learning, which is used to measure the proportion of trainees or participants in trainings among the population aged 25-64. (Heinlo 2007: 12) Within five years (2001-2006) the share of lifelong learning in the EU has mostly increased: the average value of the 27 Member States has risen from 7.1% to 9.6%. According to the Lisbon strategy, the rate of participation in lifelong learning in the EU should reach on average 12.5% by 2010. At the moment Sweden (32.1%), Denmark (29.2%) and Great Britain (26.6%) have surpassed the target by more than a half (Figure 6). With the participation rate of 6.5% in 2006, Estonia was still among those far behind particularly in comparison with Nordic Countries (Sweden 32.1%, Denmark 29.2%, and Finland 23.1%). In these countries one out of three or four adults is involved in lifelong learning, while the relevant number in Estonia is only one out of sixteen adults. In Estonia, the average value of the aforementioned indicator within the past eight years worryingly exceeds the six percentage mark — this implies stagnation, which strikes out as a negative feature when compared with the European growth trend. One might argue that due to a high educational level Estonia does not need the same volume of training as some other countries, but this is hardly relevant when comparing it with Nordic Countries. (Heinlo 2007: 12)





<sup>b</sup> Data of 2002 and 2006.

Source: Data of Eurostat, 2007.

The number of undertakings providing adult education in Estonia has increased over years. While 63% of the companies with more than ten employees were involved in training in 1999, the respective value was 67% in 2005. The people who participate in trainings are frequently the same and they usually already have higher level of education. Less educated people, who are in greater need of training and individual development, are left aside. Training is more frequently organised in larger companies, as they have more money, and thus they can afford it (Figure 7). Compared to 1999, smaller companies (10–49 employees), have also started to organise more trainings. Medium-sized companies provide their employees with slightly less opportunities for individual development than six years ago.



Figure 7 Enterprises which have organised in-service training by size, 1999, 2005

According to modernization theories, education represents a supporting link between expansion and modernization of the economy. Educated human resource together with modernization of the society make technologies more complex, economic structures more elaborate, and the market more competitive. This causes increasing employment in the areas that require higher level of education. (Bell 1975) Expansion of education has contributed to modernization, a more sustainable society and a greater cohesion in Estonia as well. In order to cope in the society that becomes more and more competitive, companies use more elaborate criteria when hiring employees, whereas one crucial criterion is, for sure, a good education. In addition to that, people receive more and more in-service training after being hired, in order to bring an employee's skills in conformity with the needs of the company in a rapidly changing society. Therefore, education (including continuing vocational training) is more and more important for an individual — it enables to get and maintain a (better) job. The theory of human capital states that investments in education enhance the performance of an employee, and thus bring about an increase in wages and salaries (Becker 1964). At the same time, these investments are beneficial for the entire society as they facilitate economic development (Kazjulja 2001: 54), modernization of the society and social cohesion of citizens.

### **Right to education**

Right to education is the most important human right — unless we comply with that right, most of other human rights cannot be adhered to. For example, one cannot claim the right to work, fair standard of living or fair wages and salaries without having the right to education. Access to information is also closely related to the right to education. The purpose of human rights is to avoid making distinctions by supporting unambiguously the idea of interpersonal cohesion. From the viewpoint of education as a factor supporting social cohesion, it is essential to follow the principle of equal opportunities. The modern system of education and research that considers equal opportunities creates a prerequisite for ensuring availability of top specialists on the labour market. In the present-day society education should be a means of daily coping for every person (and more widely speaking, for the entire state), not the luxury available for wealthy upper class only. Pursuant to law, every person has the right to education — thus, lifelong learning should also be available for everybody. Education should alleviate today's social stratification, not increase it — from that aspect Estonia is in a rather sad situation. For the standpoint of the society, it would be the best if the level of education depended on individual's abilities. However, statistics reveals that inequality is still passed on from generation to generation, and the children of people with low level of education are very likely to be left without good education. After graduating from basic school, 57% of the children of the poorest one-fifth of population continue at the upper secondary school; whereas in case of the wealthiest one-fifth, the relevant share is 85%. In 2005, hobby education was provided to 33% of the children under 15 years of age of the poorest one-fifth, and to 55% of the children under 15 years of age of the wealthiest one-fifth

Source: Täiskasvanute koolitus ettevõtetes 2000, 2006.

(*Toomse 2007b*). Despite democratic principles, the Estonian education system facilitates passing on social inequality from the parent to the child — thus, not all children have equal opportunities when starting independent life.

Education is the priority for the Estonian state. Acquisition of education is free of charge and compulsory during nine years (with the exception of private schools). The Estonians are oriented towards quality education. That is why parents are more and more concerned with their children who start school, and they try to put children in elite schools, which are expected to provide education of higher quality than that provided at regular schools. However, that does not facilitate cohesion, but generates educational stratification instead. Despite the availability of free basic education, several parents choose paid private school to provide their child with basic education<sup>a</sup>, assuming that the child acquires a better education there. During the past decade the number of schools providing general education has increased by eight schools: 23 schools in 1995, 31 in 2006. The number of students who acquired general education at private schools was 2,000 in the mid-1990s, currently that number is 4,500. At the same time, the presence and popularity of paid education cannot be frowned upon, because a person should have the right to choose the way of acquiring education as well as the studying environment suitable for himself or his child. However, paid education should still be deemed as an alternative, because education has to be available for everyone, but not everyone is able to pay for that.

Paid learning is more common in higher education than in general education — that holds equally for public institutions of higher education, not just private institutions of higher education. In the academic year 2006/2007 the share of student body acquiring higher education on state-financed student places was 45%, and the percentage of those on paid student places — 55%. About a decade ago (1997) the relevant indicators were 72% and 28%, respectively. Therefore, the proportion of paid learning has been rapidly increasing year by year, and paid higher education is on its way to supersede free higher education. The number of private institutions of higher education was 13 in the academic year 1995/1996, and already 17 in the academic year 2006/2007. The number was the highest in the academic years 2001/2002 and 2002/2003 — a total of 27 institutions (Figure 8). Organisation of the system of higher education through accreditation has decreased the number of those institutions since 2002.



Figure 8 Institutions of higher education by form of ownership, 1995–2006

Source: Data of Statistics Estonia, and the Estonian Education Information System (EHIS), 2007.

Private institutions of education counted for more than half of all institutions of higher education already in the year 2000. Due to great variance in the number of students at the institutions of higher education, the students in private institutions of education constituted only one-fifth of all students even in 2001 and 2002, although the number of students was the highest during several years. The number of private institutions of education has

<sup>&</sup>lt;sup>a</sup> In case of private schools and state or educational institutions in public law the common language is used when speaking of free and paid education. In case of paid education the studies are paid for by students or their parents, free education means funding from state budget, which in case of universities relates to state-budget student places. This comes from the taxpayer.

educational institutions. In 2006, 21% of students studied in private educational institutions, at the same time 62% of students studied in our six public universities. 38% of the students, who paid for their studies, studied in private educational establishments, and 54% — in public universities on the student places not financed by the state.



Figure 9 Students by the form of ownership of educational institution, 1995–2006

There are both positive and negative aspects in the spread of paid higher education. On the one hand it brings along expansion of learning opportunities: everyone can decide according to his or her economic situation. At the same time, statistics shows that paying for studies makes it more difficult to complete the studies: the number of students who discontinue their studies is higher in case of paid higher education. For example, 14.3% of students discontinued their studies on paid student places in 2005, whereas the relevant indicator for the state-budget student places was 12%. Starting studies at the institution of higher education is significantly affected by parents' income. Students admitted to institutions of higher education included 57% of students who graduated from upper secondary school during 1999–2003 and whose household had had material difficulties while they were in their teens. In case of young people from better-off households this indicator was 67%. (*Toomse 2007a: 31*) Acquisition of higher education brings along certain extra expenses for the student and his or her family, including for those students studying on state-budget places. The right to education should apply to higher education as well and take into account the needs and possibilities of students.

Children with special needs also have the right to education. Their inclusion in education and their equal treatment have been priorities in our society. In 2006 the children with special needs acquired general education in 46 schools (Table 1). The number of schools intended for such children has been rather unaltered year by year, although there existed three more such schools ten years ago. The number of students has decreased — in 1995 the number of students in schools for children with special needs was 5,262, while in 2006 the relevant number was 4,482. Their proportion among all students has been more or less the same over years — ranging from two to three percent.

#### Table 1 Education for children with special needs, 1995–2006

	1995	1997	2000	2003	2006
Schools	49	48	48	48	46
Students	5 262	5 429	5 787	5 627	4 482
boys	3 445	3 588	3 866	3 776	2 963
airls	1 817	1 841	1 921	1 851	1 519

Source: Data of Statistics Estonia, and the Estonian Education Information System (EHIS), 2007.

Many disabled children study at conventional schools. Unless the special need requires attending special school, such child may study together with other children of his or her age. Such an inclusion has been the key issue of special needs education already for 30 years. It

Source: Data of Statistics Estonia, and the Estonian Education Information System (EHIS), 2007.

has been admitted that local school provides good opportunities also for a student with special needs: vicinity of home, customized learning environment and introduction of support services contribute to developing the child's abilities. By teaching different students together the issue of social integration is solved more successfully, particularly by better acquisition of social skills. The development of integration has been different in different countries. According to the data of UNESCO, 75% of the countries had approved the principle of integration in 1987, 92% by 1995, and almost every country by now (*Raudmees 2006*).

Special needs education is ensured also at higher levels of education. A lot of attention has been paid to the students with special needs in vocational education — the Vocational Educational Institutions Act has established special conditions for such students. Vocational educational institutions, in cooperation with local county government and rural municipality or city of residence of the student, are required to provide the student with the opportunity to acquire vocational education. Student's wishes, the nature of special needs and potential job opportunities shall be considered where possible.

Educational differentiation is also revealed by counties and cities. In Estonia, a clear stratification has developed within compulsory education, with city schools with no catchment area (so-called elite schools, attendance of which requires passing certain tests) at one end and peripheral rural schools at the other end (Toomse 2007a: 26). Due to lower teaching level and poorer socio-economic situation in rural areas, the education acquired at rural schools tends to have substandard quality. Children from poor rural households cannot cope well enough with their studies and the pace of learning is often set by the slowest. It is also extremely complicated to find teachers for rural schools. The students who are admitted to universities are first and foremost graduates of urban upper secondary schools. Therefore, more talented rural children prefer to continue their studies in city schools instead. For example, the number of children starting school in Parnu is greater than the number of children born in Pärnu and expected to start school there. The schools of Pärnu city provide education to 750 children of basic school age from rural areas; together with the students of upper secondary schools the number of students totals 1,331. (Joon 2006) Rural schools are threatened by closing due to the lack of students. While in 1997 rural schools constituted 61% of the general education schools, the relevant indicator in 2006 had fallen to 59%. During recent years there has been noticeable decline in the proportion of rural school students and increase in the proportion of city school students. 28% of students attended rural schools in 2004 and slightly more than one percentage point less in 2006.

The rate of dropping out of basic school is also higher in rural areas. Besides a poorer economic situation of rural households, reasons for discontinuing studies may be the lack of learning guidance system or the fact that no special education teachers or school psychologists have been hired at schools. Unfortunately, children in rural areas cannot often advance their interests or receive hobby education, as there are no hobby groups or training available in their home area (besides, parents cannot afford to pay for hobby education). Boredom gives rise to problems that lead to crime and discontinuance of education.

Provision of education must be ensured in case of different languages, too. In the academic year 2006/2007, the Russian language was used as the language of instruction in 96 general education schools. In the academic year 2006/2007, the number of students attending general education schools based on Russian and Estonian-Russian as the instruction language was 38,417 — 23% of students in Estonia. The majority of educational institutions using Russian as the language of instruction are located in Harju and Ida-Viru counties. In Tartu, the Russian language based studies are provided by 8 schools, in Pärnu and Lääne-Viru counties — by 4 schools, in Valga and Jõgeva counties — by two schools. Võru, Viljandi, Järva, Lääne and Põlva counties each had one school with Russian as the language of instruction. There are no general education schools using Russian as the language of instruction in Saare, Hiiu and Rapla counties.

The Estonian school is following the example of other European schools in becoming more multicultural. Therefore, schools have to cope with an increasing number of immigrant children, who are not proficient in languages of instruction used in Estonia, i.e. Estonian or Russian. The Ministry of Education and Research in cooperation with the Netherlands has prepared the implementation of the EU Directive "Education for children of migrant workers" in the framework of the EU programme MATRA. Since 2004 the Ministry of Education and

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Research in cooperation with partners of the project "Organisation of education for children of foreign workers in Estonia" have created opportunities for preparing Estonian basic schools to accept the immigrants' children. (*Soll 2005: 102, 103*) Thus, there has been an increasing need for schools that could provide education in English and in Finnish, so that the children from other countries, who come to live here or stay here for a prolonged period of time, could study in Estonia. English is the language of instruction at two general education schools in Tallinn and one in Tartu, and Finnish is the language of instruction in one general education school in Tartu.

### Summary

Contemporary understanding of the right to education is expressed in the principle of equal education opportunities. Pursuant to that principle each individual should have the right to education according to his or her abilities and special needs, irrespective of his or her gender, place of residence, age, mother tongue or economic opportunities. (Kivirand 2005: 96). This is complicated on different levels of education, and in Estonia they cause more educational and social stratification than social cohesion. Concerns start with having not enough kindergarten places for all children, and thus they cannot acquire preprimary education, and end with providing continuing vocational training only for selected people who most probably do not need it the most. Unemployed people with lower level of education are often left without self-development opportunities and it is difficult for them to enter the labour market. Furthermore, not all children can acquire good education according to their interests and abilities. In Estonia, approximately 10,000 children cannot receive hobby education, because there are no relevant facilities in the vicinity of their home, another 10,000 children do not participate in hobby groups, because their parents cannot afford it (Toomse 2007a: 25). Many parents cannot pay for expensive mandatory study materials. Lots of people cannot afford transportation to and from school. Unfortunately, social cohesion is furthermore reduced by several other factors related to education, such as increasing school violence.

Many of the human rights (particularly the right to work and social security) can be achieved only through education. Equal access to education has been one of the main ideals in the European education policy within the past few decades. It has been considered as a chance to reduce inequality that transfers from generation to generation, where the lack of education produces lack of education, and poverty produces poverty. Education is deemed to be a major equaliser of opportunities and its implementation requires both individual efforts and intervention of the state. Estonia has been subject to increasing economic and educational stratification which tend to amplify each other. In order to enhance social cohesion and its positive effect it is crucial to break free from that circle. It is therefore extremely important to ensure equal access to education for everybody.

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### OLDER PEOPLE AND EMPLOYMENT

#### Aare Värk Statistics Estonia

Working is one of the main elements that connect people and the society. At the level of the society, working possibility depends on the demand for labour determined by the general economic condition, on culture and customs, and also on the state's labour policy. At the level of an individual, working possibilities are mainly determined by education, skills, experience, health and ability to work, and also any attitudes and prejudices that may give rise to discrimination.

Cohesion is important both for the well-being of an individual and also from the point of view of the economy. For an individual, cohesion is expressed in the possibility to be involved in the social life through working. From the point of view of the economy, it is important how much of the human resource can be employed. People's involvement is increasing together with the growing economy and need for labour force, which in turn enhances the growth potential of the economy.

The percentage of the people integrated into the society is represented by the employment rate. Among the more important latest trends there are a constantly increasing employment rate of the 15–74-year-olds following the recovery from the Russian crisis at the end of the 1990s, and the decrease of differences in terms of gender and age. This means that capacity of working as a means of involvement has increased.



Figure 1 Employment rate among 15–74-year-olds by gender, 1997–2006

Source: Labour Force Survey, 1997-2006.

Since the percentage of working people among the population has increased, then it is clear that the percentage of the unemployed has decreased. Numbers for both short-term and long-term unemployment grew as a result of the economic recession at the end of the 1990s, but ever since they have only decreased. Both the general and the long-term unemployment rate have decreased on average twofold in comparison with the year 2000 (Figure 2). Another positive indicator is that the number of discouraged persons has dropped more than threefold in comparison with the year 2001 (22,400 people in 2001 and 7,200 in 2006), which means that working has made it possible to involve in the social life a fairly significant number of people who had lost hope for finding work (*Labour Force Survey 2001, 2006*).



#### Unemployment and long-term<sup>a</sup> unemployment rate, 1997–2006 Figure 2



Source: Labour Force Survey, 1997-2006.

Work availability and problems surrounding that are quite different for various groups of people. In relation to that we can distinguish two risk groups — the young and the old. The article at hand deals in depth with the situation of older people in the labour market.

The role and meaning of older-age labour force is in the process of changing considerably due to demographic processes. The percentage of the elderly among the population is growing as life expectancy has increased and birth rate is continuously low. This means that working life has to last longer so that the tax burden of working people would not grow excessively. Keeping that challenge in mind, the following looks into how the involvement of older people in labour force has changed during the last ten years and whether this has brought about a development in the guality of their working life.

### Involvement in labour force

Labour force is defined as the people who either work or are looking for work. The labour force participation rate, i.e. activity rate, represents in general which share of the population wants to work. The work behaviour of women has changed the most during the last ten years. Figure 3 shows that the activity rate of women aged from 50 to 74 increased 15 percentage points, while in the case of men, this indicator has stayed more or less at the same level. Narrower age groups in general trends reveal that the activity rate of men just below the retirement age (50-54 and 55-59) dropped slightly but increased in older age groups (65-69 and 70-74). The activity rate of women has increased in all the age groups mentioned above<sup>a</sup>.

<sup>&</sup>lt;sup>a</sup> More detailed data on the activity rate according to age groups can be found on the web site of Statistics Estonia www.stat.ee under the Statistical Database column by selecting "Social life" and then "Labour market".



### Figure 3 Activity rate among the 50–74-year-olds by gender, 1997–2006

The factors influencing the older persons' decision of either participating in the labour force or retiring can provisionally be divided into those arising from demand for labour, from labour supply, or from the social security system (*Leetmaa, Võrk, Kallaste 2004: 24*). Demand for labour shows the need for older workers and is mostly connected with the general need for labour, age discrimination and with the notion of employers that the labour productivity of older people is lower, which is why younger employees are preferred.

Labour supply is determined by people's will to work. It is influenced by the relation between valuing the free time that retirement brings about and receiving bigger income from working, it is also determined by health, life expectancy and the old-age pension replacement rate.

The social security system determines the possibilities and conditions for leaving the labour force. The most relevant aspects of the social security system from the point of view of the work behaviour of older people are the following: retirement age, (pre-)pension or other compensations enabling to leave the labour force and the extent of the income received from them depending on the age at which one is leaving the labour force (before or after retirement age).

All three factors mentioned above have contributed to the increase in the activity rate of older people. The postponement of the decision to leave the labour force is greatly aided by a higher retirement age<sup>a</sup>. Figure 4 shows that the activity rate of the 55–59-year-old women and of the 60–64-year-old men grew almost 10 percentage points after the retirement age was raised (during the years 2001–2002). The growth of the activity rate of 65-year-olds has been influenced by a change in the retirement system from 1996, according to which working pensioners started to receive a full pension. (*Leppik2006: 9*) However, the general increase of activity during the past years can be explained by the labour shortage which has increased demand for older employees, thus making it easier for them to find work.

Source: Labour Force Survey, 1997-2006.

<sup>&</sup>lt;sup>a</sup> Retirement age for men born in 1938 or later is 63 years. Women's retirement age rises by half a year and reaches 63 in the year 2016 (*www.pensionikeskus.ee*).



Figure 4 Activity rate among 55–59-year-olds and 60–64-year-olds by gender, 1997–2006

### Quality of working life

Longer life expectancy, improvements to the social security system and a greater need for labour increase the employment of older people only as long as there is a supply of jobs that are suitable and of sufficient quality. Having retirement as an alternative keeps the elderly from looking for work for a long period — the lack of suitable options pushes them to a non-active state. And non-active older people hardly ever return to the labour market. Therefore, the availability of suitable jobs is crucial for keeping older people active in the labour market.

**Work availability** There are several indicators showing work availability. Unemployment rate shows the number of people who are not working but are looking for work and are ready to start working. The lower the unemployment rate, the more available work is. Deciding on the basis of the unemployment rate we could claim that work is the most available for the 50–74-year-olds, the second place is held by the 25–49-year-olds, and work is the least available for the 15–24-year-olds.



Figure 5 Unemployment rate by age, 1995–2006

At the same time, while looking at the percentage of the employed persons among the people who had been unemployed a year before, then we can see a totally opposite impression. The percentage of those who had found work was the highest among the 15–24-year-olds, followed by the 25–49-year-olds, and the smallest among the 50–74-year-olds (Figure 6). Therefore, despite the low unemployment rate, finding work is still the most difficult for older people.

Source: Labour Force Survey, 1997-2006.

Source: Labour Force Survey, 1995–2006.

The discrepancy between the unemployment rate and the percentage of people who found work during the year can be explained by general labour market processes and the peculiarities of age groups. Unemployment rate is low for older people mainly because they do not spend much time on looking for work when they have become unemployed — they prefer being non-active and choose either retirement or early retirement. High unemployment rate among the 15–24-year-olds is due to the fact that people in this age step from the education system into the labour market and the majority of job seekers in this age have not lost their jobs but they have never worked before.

The change in the percentage of people who found work during the year, shown by Figure 6, displays clearly the favourable condition of the 25–49-year-olds as compared to younger and older age groups. The influence of the Russian crisis at the end of the 1990s had its impact on the 15–24-year-olds and 50–74-year-olds in 1999, but on the 25–49-year-olds not before 2000. The job opportunities of the 25–49-year-olds started to improve in 2002 as the economy recovered, however the opportunities of older people became even worse at that time. The main reason for that is the increased number of the 25–49-year-old job seekers because of the crisis. The less favourable position of older people is also verified by the fact that their job opportunities started improving only in 2004 when the number of more qualified job seekers among the 25–49-year-oldshad reduced considerably.



#### Figure 6 People who found work within a year by age, 1997–2006

Accordance between work and skills

Accordance between work and skills determines to a great degree the implementation of a person's skills and self-realisation. However, having necessary qualifications is not always enough for getting a suitable job. Employers may have negative expectations when it comes to people with certain qualities, which causes the latter to often have a worse job than their skills would enable; one of such qualities is old age. The main stereotypes concerning older people are the following: they are inflexible about changes at work despite their extensive experience, they have lower productivity because of their diminishing work capacity and their skills are often outdated. (Live ... 2006: 63)

The number of people whose qualification exceeds the requirements set by the respective job can be measured in various ways. Proceeding from how people themselves estimate the accordance between their work and educational level, we can see that the percentage of the 50–74-year-olds who consider their education to be beyond the requirements set for their work has been on average 15% since the year 2000; the same percentage, however, was 11–12% among the 25–49-year-olds, but this indicator dropped to the level of 9% during the years 2004–2006 (Figure 7). By estimating accordance between work and skills indirectly, Figure 8 shows that the percentage of elementary occupations in the employment structure of people who have a certain vocational, occupational or professional education<sup>a</sup>

Source: Labour Force Survey, 1997-2006.

<sup>&</sup>lt;sup>a</sup> When people with a vocational, occupational or professional education work in elementary occupations (no specific education required), it means that their existing education is not used. The percentage of people without a vocational, occupational or professional education among 25–49-year-olds and 50–74-year-olds was 34.6% and 46.5% accordingly in 1997, and 30.4% and 42.6% in 2006.

among older people has been on average twice as high as that percentage among the 25–49-year-olds during the past ten years and there are no signs that indicate the decreasing of this gap.



Figure 7 Employees with higher education than required for their job by age, 2001–2006

Figure 8 Elementary occupations in the employment structure of people who have a certain vocational, occupational or professional education by age, 1997–2006



Source: Labour Force Survey, 1997-2006.

There are several reasons why older people are engaged in work that does not meet the level of their skills. An important factor aside from the above-mentioned negative attitudes of employers is the fact that a great deal of the elderly want to work part-time as their work capability decreases and as they start to value free time more. However, there are fairly limited opportunities to find part-time work in Estonia and one-fourth of part-time work positions belong to the elementary occupations category (another one-fourth is comprised of positions in the professionals category). Another reason is also connected with the fact that the structural changes of the economy and the technological development cause education that was acquired a long time ago to become outdated. This means that a person may formally have a good qualification, but there are no longer any jobs in which a person with such skills is needed.

**Payment for work** Previously the article addressed problems relating to employment and the quality of employment for older people. However, the difference of salaries and wages between various age groups demonstrates the extent of economic impact resulting from the disadvantageous position of older members of the labour force. Figure 9 shows that the average monthly salary of older people steadily comprises 87%<sup>a</sup> of the average monthly

Source: Labour Force Survey, 2001-2006.

<sup>&</sup>lt;sup>a</sup> The average monthly wages and salaries has been calculated by including all forms of employment relationship and all statuses pertaining to work, irrespective of the duration of the employment relationship. It is important to differentiate between average wages and salaries and the average wages and salaries published in the public database of Statistics Estonia. The latter is calculated by including only people working officially on the basis of an employment contract, contract of service, or on the basis of public service law.

salary of the 25–49-year-olds (except during the recession of 2000). Since then this difference has been increasing because the wage increase during recent years has been quicker for the 25–49-year-olds than for older people. The difference is mainly caused by the fact that the occupations that experience quicker wage increases (such as legislators, senior officials and managers; craft and related trades workers; technicians and associate professionals) are less represented in the employment structure of older workers than in the employment structure of 25-49-year-olds. And at the same time, the percentage of elementary occupations that have less wage increase is much higher in the employment structure of older people than in the age group of the middle-aged.

## Figure 9 Average monthly net wages (salaries) of the 50–74-year-olds in the average monthly net wages (salaries) of the 25–49-year-olds, 1998–2006



Source: Labour Force Survey, 1998-2006.

### Summary

The activity and employment rate of older people have increased considerably but this is greatly due to women's increased activity, which in turn has been caused by the changes in the retirement age. Work has become much more available to the elderly because of labour shortage. Unfortunately, this has not brought about better accordance between work and skills, nor has it resulted in fewer differences between the wages and salaries received by older people in comparison with the 25–49-year-olds. A general improvement in the quality of working life for older people presumes a change in the mentality of both the employers and the elderly – especially when it comes to improving the skills. Older people are not as eager to engage in individual development as younger people, and employers do not invest that much into their training because the profitability of such an investment during the few remaining working years of the employee is questionable. At the same time, it is important to pay attention to renewing skills because outdated competence is one of the few factors hindering older people from working and which can actually be reduced with the help of active labour market measures<sup>a</sup>.

<sup>&</sup>lt;sup>a</sup> Increasing work capacity by promoting a healthy life style and developing health care is possible but it is a long-term process and presumes constant work, the results of which will only become apparent after decades. The same applies to overturning negative attitudes.

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### LABOUR MARKET POSITIONS OF YOUNG ESTONIANS AND NON-ESTONIANS

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### Emergence of the ethnic composition of Estonia

Estonia, together with other post-communist countries, has undergone a transition process from the principles of planned economy to the logic of free-market economy. The starting point for labour force was that the employees who had immigrated to Estonia as a result of directed immigration contributed a lot to the expansive development of economy. Directed immigration was made more attractive for immigrants by offering economic and social benefits. It was possible to improve one's position both in comparison with the permanent residents of the previous and of the new place of residence.

The restoration of the Republic of Estonia brought about great economic and social changes. Primary and secondary sectors were affected the most by the collapse of the previous economic arrangement and connections. The Citizenship and Language Act, also Aliens Act and other legislation created a situation in which the majority of people who had come to Estonia during the Soviet occupation found themselves in the status of an immigrant. They had a choice of meeting the requirements of the naturalisation process, recognised by most European countries, of opting for a wait-and-see attitude, or of taking the citizenship of another country. Becoming an immigrant was not merely a formal process. Higher unemployment and smaller wages and salaries of non-Estonians became common. Even the Soviet-era Estonia was already characterised by ethnic segregation according to sectors of economy and occupations - with Estonians mostly working in the fields of agriculture, education and culture, and non-Estonians dominating in mechanical engineering and oil shale industry. Estonians were engaged in the majority of occupations related to culture and education. Non-Estonians were dominating among engineers and skilled craft and related trades workers. The segregation grew deeper in the 1990s. Jobs started to become single-national, whereas these were the white-collars and skilled craft and related trades workers of lower position who often found a job with the help of social connections (through friends, relatives or acquaintances).

### Ethnic origin as a reason for labour market differences

Immigrants' worse labour market indicators compared to the native population characterise the majority of developed countries. For example, in Canada it was found that immigrants have a greater risk of poverty and that this risk increases even more in the case of second generation immigrants (*Kazemipur 2001*). Also Sweden has highlighted considerable differences in wages and salaries between immigrants and native people (*Albrecht, Björklund, Vroman 2000*). Many theories have been put forward to explain this phenomenon. According to the theory of human capital, differences in wages and salaries between ethnic nationalities are caused by differences in human capital. According to this theory, differences in income and social position that result from ethnic origin would disappear if people were given equal opportunities to acquire education and professional skills. (Rubinson and Browne 1993)

Alternative approaches to the theory of human capital are based on the presumption that the differences between immigrants and native people cannot be explained merely by investments to the individual and by productivity. Gender, race and ethnic nationality affect the divisional processes of the labour market — there are many mechanisms that result in differentiation and inequality in the labour market on the basis of the said categories. When enough employers have a negative attitude towards national minorities, then their income will be considerably smaller than that of the native population, despite their equal capabilities (Grand and Szulkin 2000).

At the same time, supporters of the statistical discrimination theory claim that discrimination must not necessarily be based on an economically irrational antipathy towards minorities. Also an employer operating in a free market and interested only in making maximum profit can make decisions that cause inequality relating to race and ethnic nationality. According to this theory, employers' decisions depend on the information they receive about the people seeking jobs (in the case of national minorities, there is less information). When hiring new people, employers often base their decisions on existing stereotypes and social categories regarding the working productivity of some ethnic groups. National minorities are much less valued than the native population. An employer may treat people with the same level of education differently depending on the fact in which country they have acquired their education. The discrimination of national minorities may also be a means to ensure the monopolistic state of privileged groups (the dominating ethnic nationality) at the most wanted work posts. (Grand and Szulkin 2000)

A. Calvo-Armengol (2004) and M. O. Jackson (2004, summarized from Beaman 2006) found that the reason behind the different positions of ethnic groups in the segregated labour market conditions lies in the different structure of social networks; therefore, higher unemployment among national minorities may be the result of intra-network processes (e.g. less knowledge about work opportunities and also less work opportunities).

**Employment among immigrants in Estonia** The difficulties immigrants experience when adapting to the labour market often become apparent when the second or third generation of immigrants enter the labour market. In Estonia, when comparing young (15–24-year-old) Estonians and non-Estonians, we have to take into account that this is an age group in which most members are still economically inactive, and therefore it differs from the rest of the working-age population. Also, higher unemployment and a lower level of wages and salaries among the youth in comparison with the population as a whole has been common in Estonia.

The labour market positions of young Estonian and non-Estonians can be compared on the basis of various indicators. Position and its strength or weakness is expressed for example in the level of wages and salaries and professional profile. It is also important to look at the percentage of the unemployed and what the expectations and requirements of the unemployed are when seeking a new job; for example, which are the acceptable wages and salaries, and whether the position has to be in accordance with the person's acquired level of education.

Important structural changes in the economy of Estonia ended at the second half of the 1990s. Employment among young Estonians and non-Estonians during this period — that is, from 1997–2000 — was almost the same. The employment of young people dropped from 38–39% in 1997 to 31–32% in 2000, whereas the majority of young people started their studies. In 2005, however, the unemployment gap between the15–24-year-old Estonians and non-Estonians was the highest of the last nine years. This was mainly the result of a considerable decrease of the unemployment rate among young Estonians during the previous year — from 17% in the year 2004 to 9.5% in 2005. (Eamets, Philips, Tuvikene 2006)

There are many trends that can be highlighted in the youth labour statuses. A low percentage of employed persons is common for both the Estonian and the non-Estonian youth. Nevertheless, the percentage of the employed is still higher among Estonians; it was equal to that of the non-Estonians only in 2002. There percentage of employed persons among the Estonian youth in comparison with the non-Estonian youth was 6% higher in 2006, and at the same time, also the unemployment rate among young non-Estonians was higher than that of Estonians. However, in 2006 the unemployment rate was considerably lower in comparison with previous years both for young Estonians and young non-Estonians. The percentage of inactive persons was higher in 2006 for the first time among the non-Estonian youth than among the Estonian youth.

### Table 1 Estonian and non-Estonian youth by their labour status, 1998–2006

(percentage)

	1998	2000	2002	2004	2006
Estonians					
Employed	38	32	27	28	33
Unemployed	5	9	5	7	3
Inactive	58	59	68	67	64
Non-Estonians					
Employed	35	29	28	25	27
Unemployed	10	12	8	11	6
Inactive	55	59	64	64	66

Source: Labour Force Survey, 1998-2006.

The main reason for inactivity both for young Estonians and young non-Estonians is studies, the share of which has increased every year in both groups. Also the percentage of pregnancy, maternity, and parental leave has started to increase as a reason for inactivity among Estonians since the year 2002, but the same percentage among non-Estonians dropped slightly by 2006. The positive aspect of inactivity is that the percentage of pessimistic people (young people who think that they will either not find work or there is no work) is marginal both among Estonians and non-Estonians.

### Table 2Reasons for inactivity among young Estonians and young non-Estonians, 1998–2006<br/>(percentage)

	1998	2000	2002	2004	2006
Estonians					
Studies	82	85	92	88	90
Military service	3	3	2	3	1
Disability	2	2	1	1	1
Taking care of a child up to 3 years of age	8	6	3	5	6
Need to take care of children or other members of the family	2	1	1	1	1
Discouraged	2	3	2	2	1
Non-Estonians					
Studies	82	86	88	90	92
Military service	1	3	1	1	1
Disability	4	1	2	1	3
Taking care of a child up to 3 years of age	6	7	7	7	4
Need to take care of children or other members of the family	2	3	2	1	1
Discouraged	5	1	1	1	1

Source: Labour Force Survey, 1998–2006.

**Occupational position** The opportunities of an employee in the labour market are demonstrated largely by the occupational position that the particular employee holds. When in the year 2000, mostly people under 30 years of age occupied better work posts among Estonians, then among non-Estonians people over 40 had better jobs. Increasing similarities between the employment structure of Estonians and non-Estonians have also been brought into attention. A considerable share of non-Estonians (especially the young) were employed in elementary occupations and as support staff in the year 2000, but now young non-Estonians are working rather as skilled craft and related trades workers, and together with the pace of acquiring higher education also the share of specialists is increasing in the occupational structure of employed non-Estonians. (*Pavelson 2006*)

There are considerably more managers and professionals among young Estonians than among young non-Estonians — 19% and 7% accordingly in 2006 (there was no major differences only in 2004). However, the percentage of skilled craft and related trades workers has been higher among the non-Estonian youth. The share of persons engaged in elementary occupations was significantly lower among the employed Estonian youth than among the employed non-Estonians. The percentage of clerks is not very high in the employment structures of either young Estonians or young non-Estonians.

	1998	2000	2002	2004	2006
Estonians					
Managers, professionals	17	14	16	15	19
Technicians and associate professionals	16	12	14	14	12
Clerks	7	4	7	9	6
Service workers	19	23	22	18	21
Craft and related trades workers	30	34	31	32	32
Persons in elementary occupations	11	13	11	12	10
Non-Estonians					
Managers, professionals	6	6	9	13	7
Technicians and associate professionals	8	15	10	9	8
Clerks	8	10	6	3	7
Service workers	17	18	15	18	20
Craft and related trades workers	44	39	49	44	39
Persons in elementary	17	13	11	13	19

### Table 3 Young Estonians and non-Estonians by occupation, 1998–2006 (percentage)

Source: Labour Force Survey, 1998–2006.

The percentage of young people working at work posts that require a lower level of education than what they have acquired is much higher among non-Estonians in comparison with Estonians — 17% and 7% accordingly in 2006. Nevertheless, 80% of young non-Estonians have found a job in which the work requirements are in accordance with their education. In 2002, slightly more than four-fifths of both young Estonians and non-Estonians occupied positions in which their education met the requirements of their work. At the same time, 17% of young non-Estonians had jobs that presumed a lower level of education than what they had — the same figure for the Estonian youth was 9%.

Ways of getting work and the level of wages and salaries Social network plays a big role in getting a job. Half of the non-Estonian youth who started working during the last year got their job through relatives or acquaintances; 44% of young Estonians used such help. 17% of young Estonians and 16% of non-Estonians got a job through job offer ads and 19% of Estonians and 22% of non-Estonians personally turned to the employer. 8% of young Estonians received a job offer from an employer, whereas only 3% of non-Estonians found work that way.

In 2006, the wages and salaries of young non-Estonians were considerably lower than those of Estonians, all in comparison between men and women, and between Estonians and non-Estonians with higher education (whereas the latter not only had higher education but also sufficient knowledge of the Estonian language, and Estonian citizenship). The average wages and salaries of young Estonians with a higher education were 6,605 Estonian kroons in 2006; while the average wages and salaries of young non-Estonians with a higher education, Estonian citizenship and sufficient Estonian language skills were 6,066 kroons. Nevertheless, the wages and salaries of the latter were equal to the average wages and salaries of Setonians. What is important, however, is that the wages and salaries of young Estonians with higher education working as managers and professionals did not differ considerably from the wages and salaries of non-Estonian managers and professionals who had also the Estonian citizenship and sufficient language skills in addition to higher education.

Figure 1 clearly shows that the level of wages and salaries of non-Estonians has constantly been at least one-tenth lower than that of Estonians. Social discussions have often concluded that Estonian citizenship and sufficient knowledge of the Estonian language is a means that eradicates the gaps of wages and salaries. However, data proves that citizenship and language skills do not have an equalising effect. It is rather the case that citizenship and language skills are a competitive advantage for a non-Estonian in comparison with his/her compatriots.



## Figure 1 The wages and salaries of young non-Estonians and non-Estonians in proportion to the average wages and salaries of young Estonians and Estonians, 1998–2006



Source: Labour Force Survey, 1998–2006.

Figure 2 shows that in 2006 the average wages and salaries of young non-Estonians were lower than the wages and salaries of Estonians in most occupations. They were higher only in the case of technicians and associate professionals and clerks. At the same time, the wages and salaries of young managers, professionals, and skilled craft and related trades workers was considerably higher for Estonians than for non-Estonians.

## Figure 2 The wages and salaries of young non-Estonians in proportion to the wages and salaries of young Estonians by occupation, 2006



Source: Labour Force Survey, 2006.

# Expectations of the job, coping and mobility

In 2006, 37% of young Estonians, versus 21% of young non-Estonians, looked only for such a work that would meet their level of education. The rest of the people looking for work were willing to accept also jobs that did not presume such high levels of education. The percentage of people looking for work that would meet their level of education had decreased in comparison with previous years, whereas the drop was bigger among non-Estonians. Also the expectations of young non-Estonians with respect to the offered level of wages and salaries are significantly lower than the expectations of Estonians. For example, in 2002, a third of Estonians expected the gross wages and salaries to be at least 5,000 kroons in order for them to accept the job, whereas a third of young non-Estonians would also have agreed to the wages and salaries amounting to 4,000-kroons; the wages and salaries' requirements in 2006 were 7,300 kroons and 5,300 kroons accordingly.

60% of young Estonians coped well in 2006 according to their own estimations, 35% coped with some difficulties, and 5% had great difficulties with coping. The estimates among young non-Estonians were noticeably different: only 33% claimed to have coped well, 43% said to have coped with some difficulties and 24% — with great difficulties. The general coping ability has improved for both groups in comparison with the year 2002 but the gap is still in favour of Estonians.

Flexibility is an important keyword in estimating labour market positions. A. Simonazzi and P. Villa (1999, summarized from *Eamets 2002*) point out three flexibility components: labour market mobility (include both the movement of people and of jobs), employment resilience against economic cycles, and the rate at which the state intervenes in the functioning of the labour market. When estimating the mobility of the youth by the first component, we can look at movements from one job to another and also movements into an inactive state or into unemployment. In 2006, 73% of young Estonians and 75% of young non-Estonians were working at the same job (as a year earlier). There was an equal share (16%) of Estonians and non-Estonians that had changed their jobs once during the previous year. 4% of young Estonians and non-Estonians started looking for a new job after losing their present one. The number of people who did not start to look for a new job after losing their previous one was higher among young Estonians but, taking into account the peculiarities of the age group, it could have meant that they started their studies.

### Summary

The analysis revealed that the labour market position of young non-Estonians is worse than the position of young Estonians. This is mainly expressed through the levels of wages and salaries and unemployment indicators but also through positions in the occupational hierarchy. Other important indicators are also the lower wage expectations of young non-Estonians and their smaller opportunities, in comparison with the Estonian youth, to receive work that meets their level of education. Therefore, the labour market position of young non-Estonians is similar to that of the second or third generation immigrants in several Western European countries.

K. Leping and O. Toomet (2007) have analysed the differences in wages and salaries of the Estonians and non-Estonians. They reached the conclusion that the reason for that cannot be discrimination or payment of lower wages and salaries for similar work. Difference in wages and salaries is neither based on the differences related to sector of economy, and the occupational skills of non-Estonians are, for sure, not worse than those of Estonians. Differences in wages and salaries cannot be explained by regional or education-related differences.

It is more complicated for young non-Estonians to enter the labour market and the process involves more hardships in comparison with the Estonian youth. Taking into account, among other things, the fact that social networks play the biggest role in getting a job, the difference in positions between young Estonians and non-Estonians can be explained by segregated networks. A segregated labour market with a dominant non-Estonian network may have less potential jobs and therefore difficulties occur in adapting to the labour market. Naturally, two separately operating labour markets do not promote social cohesion between the two communities living in Estonia.

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### HOUSEHOLD COHESION

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### Household Structure

A household is based on people's cohabitation and economic connexion. Aside from social ties, households also offer stability — people who live alone often cannot rely on help from anyone. For that reason, they are more at risk than others in terms of poverty or losing their dwelling. Coping alone is especially difficult for the elderly.

European households have been growing smaller in size and previously uncommon household types have become more frequent due to various demographic trends (decreased birth rate, giving birth at an older age, less contractions of marriages, more divorces, increased extramarital affairs). The number of households consisting of one person is rising in the European Union — a trend which is likely to continue also in the coming decades.

The total number of households has considerably increased in the European Union during the last decades. The so-called Older Member States (EU15) had 92 million households with an average of 3.3 persons per household in 1961; however, the number of households had grown to 148 million and the average household size shrunk to 2.5 persons by the year 1995.

The main reason behind the risen number of households is a rapid increase in the number of people living alone. The current EU15 Member States had 14 million single-member households in 1961, which comprised 15% of the total number of households. The number of such households had tripled by the year 1995, comprising 28% of households. (Trends ... 2003)

The trends in Estonia are somewhat different (Table 1). The number of households increased during the period between the 1959 Census and the 1989 Census, but differently from older European Union countries, this number decreased again in the 1990s because Estonia's population and birth rate decreased during the transition period to market economy. This can be seen in the figures from the year 2000.

Additionally, the division of households by the number of members differs in Estonia and in the EU15 countries. Birth rate increased in Estonia at the end of the 1980s, which is why the number of households with two or more members increased and the number of single-person households decreased; however, the latter is on the rise again since the year 2000.

Table 1	Number and average size of household	ls, 1959–2000
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	1959	1970	1979	1989	2000
Total number of households	461 733	532 302	573 343	598 702	595 083
Single-member households <sup>a</sup>	153 120	174 615	178 918	171 859	208 113
Households with two or more members	308 613	357 687	394 425	426 843	386 970
Average size of household with two or	3.10	3.15	3.09	3.11	3.00
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<sup>a</sup> Including people living in institutions.

Sources: Population and Housing Census VI, 2000, and Population of Estonia by Population Censuses III, 1996.

Change in the structure of households is also apparent in the average number of household members. The average size of households with two or more members was more or less the same until the year 2000 (despite the growing number of households during previous years), being in the proximity of 3.1 members per household (Figure 1). This indicator decreased in 2000, it is apparent from the comparison of data from the Census and the Household Budget Survey of 2006, thus making 2.9 the average size of a household with two or more members.

The percentage of single-member households and of people living in institutions<sup>a</sup> stayed more or less at the same level (with just a slight decrease) during the 1959–1989 Census, as did the size of households. Single-member households and people living in institutions comprised 29% of all households in 1989. The share of people living alone had increased to 35% by the year 2000.

<sup>a</sup> People living in educational, health, social welfare, military, religious and other institutions, etc.



Figure 1 Households with two or more members by number of members, 1959–2006

Source: Population and Housing Census VI, 2002, and Household Budget Survey, 2006.

If to exclude people living in institutions, then the percentage of people living alone has been steadily around 31–33% since 2000. Also the average size of households — 2.3 members — has not changed since then. This indicator is at the same level in Estonia and in the other European Union countries (Figure 2). The average number of household members is bigger in southern countries and in Ireland, and smaller in northern countries. The average household in Slovakia, Cyprus and Ireland consisted of three members in 2001, while in Sweden and Finland the number was around two. A reversed connexion can be seen in the case of the share of single-member households, with Cyprus and Portugal having the lowest percentage (16–17%); and Sweden (40%), Norway and Finland (38%) having the highest. The percentage of single-member households in Estonia is among the European average.



Figure 2 People living alone and the average household size in European countries, 2001<sup>a</sup>

<sup>a</sup> Data on Sweden are from the year 1990.

Sources: Database of the Statistical Office of Sweden, 2007; and Eurostat, 2007.

Single-member households are the most common in Estonia (Figure 3). The second position is held by a household type which comprises households of several families — parents living together with their adult children (at least 16 years old) or people living together with their friends. Statistics refers to them by the term "other household type". Childless couples constitute one-fifth of households, and only 16% of all households is made up of couples with children or single parents. The rarest are the families with many children: couples with three or more children comprise only 1%.





Source: Household Budget Survey, 2006.

Almost a half (45%) of Estonia's population can be classified under "other" household type. People in childless couples make up one-fifth, and single adults 14% of the population. Less than a fourth of the people can be regarded as the "couple with children" household type. The dominant household types among younger people are "other" and "a couple with 1–2 children", but the percentage of childless couples and singles rises after the age of 55.

**Single persons** Living alone is a conscious choice for many people and it may not mean that they have no one to count on. Despite that, living alone is a risk factor both for the people themselves and for the state. If a source of income is lost in such a household, then its earnings drop to a very low level, which makes it difficult to keep the former standard of living. Living alone brings about a bigger risk of poverty. The percentage of people living in poverty is the highest among single-person households in comparison with other household types (except single parents). It is especially difficult to cope for the elderly who live alone, as more than 40% of them live in poverty. The elderly are less active in the labour market, which significantly decreases their chances of participating in social life. People in retirement age who live alone find it even more difficult to maintain cohesion with the society.

Another advantage in living in a bigger household is the possibility to share the cost of some goods (e.g. television, housing) with other members of the household. The consumption of some goods and services (such as food) depends directly on the number of people, but for other things (such as housing, electricity, car) the factor influencing consumption is the number of households.

There were more than 180,000 single-member households in Estonia in the year 2006, in which 14% of population lived. As in other European Union countries, there are more single women living in Estonia than single men — 65% and 35% accordingly. On the whole, women live longer than men and therefore they often live alone as they grow older.

Almost a half (46%) of single people are at least 65 years old (Figure 4). The number of singles among the older people and the people of working age has grown for different reasons. The number of over 64-years-olds living alone is increasing because the population is getting older and the number of elderly in on the rise. There are more single persons

among the working age people, because there are more unmarried people and less people live together with their partners, or people postpone cohabitation to a later time.



Figure 4 Single persons by age and gender, 2006

No particular age group is clearly dominant among single men. When in the case of men, living alone appears more to be a matter of choice (is not caused by the death of partner), then in the case of women, there are many more instances of involuntary single habitation. There are considerably more women older than 54 years living alone than men. The number of single women in the age group 55–64 is twice as high as that of men, and the difference is almost fivefold in the 74+ age group.

There are more men living alone than women from the age 16 to 44. The reason may be the falling apart of households, in which case men usually start living alone and the children stay with the mothers.

An important indicator of household cohesion is leaving one's parents' home. A great number of children live with their parents at least until they reach the age of 16–18. From there on, the number of children living separately from their parents starts rising rapidly. The median age for leaving one's parents' home is 20.5 years. Almost 40% of men and women in the age 20–24 live either alone or together with a partner of their age.

Young men are tied to their childhood homes notably longer than women. Even though there are more single men in that age group than women, the percentage of women who have left their parents' homes is higher. Differently from men, a considerable number of young women live at that point already together with their partners: the number of women living together with a partner of their age is almost twice as high as that of men.

Single parents Just as the number of single people has increased in Europe during the past decades, so has the percentage of single parents. People become single parents when the relationship between a couple with children falls apart or when children are born outside an official relationship. Aside from single persons, single parent households have the most problems with coping. Single parents do not only have to support themselves but also their children. 40% of single parent households lived in poverty in the year 2004.

Source: Household Budget Survey, 2006.



Single parents among all households and among households with children<sup>a</sup> in Figure 5 European countries, 2001

Source: Eurostat, 2007.

The comparison between countries includes parents who live both with their minor and adult children. The percentage of single parents differs greatly among European countries, varying from 5% to 20% (Figure 5). This indicator is the smallest in Denmark and Switzerland and highest in Estonia and Latvia. Single parent households comprise 15% in Estonia; a similar percentage can be seen in the Czech Republic, Poland, Slovenia and Ireland. A high single parent percentage may not necessarily reflect a big number of families that have fallen apart or a big number of children born outside an official relationship. Since also parents living with adult children were observed, then the number of single parents also depends on the age in which children leave their homes. The sooner children leave their parents' homes, the smaller the number of single parents is. There are more children living in their parents' homes in Southern European countries and in Ireland, and less in Scandinavia and Germany.

The percentage of single parents among households with children varies from 10% to 40%; this indicator is 34% in Estonia. Aside from Estonia, the percentage of single parents is also high in Latvia, the Czech Republic, and the United Kingdom. There is a small number of single parents in Cyprus, Switzerland, and Portugal.

There are more women who are single parents than men in Europe — the percentages in Estonia were respectively 90% and 10% in 2001. The Baltic Republics have the smallest percentage of single male parents with the number being slightly lower in Lithuania and slightly higher in Latvia in comparison with Estonia. Luxemburg has the highest share of men among single parents (more than one-fifth).

Further discussions will consider single parent households that include a parent and his or her minor child or children (up to the age of 15). There were 19,000 single parents with children below 16 years of age in Estonia in the year 2006 - 95% of those single parents were women, and 5% - men. Most of the single parents were 25-44 years old. The majority of single parent households were with one child (64%); the percentage of single parent households with two or more children was 36%.
### Time spent together with children and family

The time that a person can spend according to his or her desires is considered to be the biggest luxury. Household cohesion is shown by the time spent at home and with family. It is especially important to see with whom free time is spent. Cohesion with children is measured through the time spent on child care and the time spent with children.

In Europe, women spend considerably more time at home in comparison with men. They do more housework and take care of the children. The younger the children are, the bigger is the women's connection with household and home. An Estonian woman with children younger than 7 years of age spends an average of 17 hours a day at home while spending 6.5 hours on housework and the family. Men, however, are more engaged in paid labour, thus ensuring the family with economic well-being. Men who have young children spend an average of 2.5 hours less time at home than women.

Mothers are primarily responsible for child care in all European countries (Figure 6). Hungarian, Estonian and Finnish women spend the most time (2.5–3 hours per day) on children younger than 7 years; French and Belgian women spend the least time (less than 2 hours). The time that fathers spend with their children varies much less across countries. Their time spent on child care is approximately an hour per day in all countries, being the longest in the Nordic Countries and the shortest in France, Estonia and Belgium. A shorter time spent on child care in a country does not necessarily mean that people take less care of their children there. Differences between countries are probably also caused by different child care systems. In addition to that, child care often takes place in combination with other activities. (How... 2004)

# Figure 6 Time spent on child care as the main activity by parents living with children younger than 7 years of age in European countries, 1998–2002



Source: How Europeans Spend Their Time, 2004.

Mothers' share in the time parents have spent on child care is from 65% to 76%. The figure is smaller in the countries in which men spend more time with their children (Sweden, Norway). The biggest difference between the time that mothers and fathers spend on child care is in Estonia because, in comparison with other countries, men are more engaged in paid labour and women are more busy at home.

Parents with children aging from 7 to 17 spend considerably less time on their offspring: mothers on an average of 30 minutes and fathers 10–20 minutes a day. Fathers in Sweden play a bigger role in dealing with older children than in other countries: they spend 40% of all the time spent on child care on school-age children (the same figure is approximately 30% in other countries).



Figure 7 Time spent on child care as the main activity by working parents living with children younger than 7 years of age in European countries, 1998–2002

Source: How Europeans Spend Their Time, 2004.

Working parents have less time to spend with their children; therefore, they make more use of other child care options (Figure 7). While the time spent on young children decreases up to an hour for working women, then in the case of men, time spent on child care is more or less the same. Working affects the Estonian and Hungarian women the most. The time spent on child care has almost not changed in the Nordic Countries. Parents' work does not influence the duration of time spent by them with bigger children.

In reality, the time spent with children in a household is much longer. Children are taken care of while dealing with other activities. Also, several activities are done together with children or time is just spent in the same room (except sleeping time). An average of 5 hours a day is spent with children younger than 10 years of age. Men spend 3.5 hours with children and women almost twice as much — a fourth of the day. If to take into account an average sleeping time of 8 hours per day, then women spend more than a third and men more than a fifth of their day with children younger than 10 years of age.

An average of 1 hour and 45 minutes of free time is spent with children in one day — this comprises 44% of the women's free time and 37% of the men's free time who live in a household with children younger than 10 years of age. More than a half of it (66 minutes) is spent watching television.

Time spent with members of the household is 5 hours a day on average. The average time spent with the household is more than half an hour longer for women than that for men. 40% of one's free time is spent with the household. A significant share of time spent with the family is spent on meals. A person spends an average of 74 minutes per day on eating — two-thirds of this is done together with the household.

### **Dwelling availability**

A home is one of the basic needs of a person because a good dwelling creates a feeling of security and ensures cohesion with the society. The location of home determines both the availability of several services (commerce, education, medical assistance, hobby classes) and also the community to which one belongs. A dwelling of low quality or in a bad location often causes social exclusion — such buildings are concentrated in certain city districts or regions; less well-off households go to live there, while richer households concentrate in other areas. Problems with dwelling availability, unsuitable living conditions and lack of social housing play a big part in the causes of homelessness. Also single persons, single parents, families with many children and young people experience problems with dwelling availability.

There were 638,200 dwellings in Estonia as at 1 January 2007, making the ratio 476 dwellings per 1,000 inhabitants. Estonia is covered with dwellings quite well in comparison with other European countries. The number of dwellings per 1,000 inhabitants is smaller for example in Poland, Latvia, Lithuania, Belgium, Ireland, and Spain. Greece, Switzerland, Finland and France have a larger number of dwellings than Estonia.



### Figure 8 Number of dwellings and their average size, 1994–2007<sup>a</sup>

<sup>a</sup> An estimated population size from the beginning of the year has been used in the 2007 calculations. Source: Data of Statistics Estonia.

One of the indicators of dwelling quality is its size. In 2007, the surface area of an average dwelling was 61 square metres — 28.9 square metres per inhabitant. The quality and availability of dwellings have increased every year. The average dwelling size per inhabitant has increased 18% since 1994, and the number of dwellings per 1,000 inhabitants — by 14% (Figure 8). The increasing number of dwellings (per 1,000 inhabitants) is also the result of decreasing population to a certain extent.

The dwelling of a household has 1.1 rooms per inhabitant on average. 42% of households have more rooms than household members, and in the case of one-third the number of rooms equals to household members. One-fourth of the households are forced to live in the conditions in which there is less than one room per person. Dwellings are bigger in rural areas: over half of the households in the countryside have more than one room per person. Single persons usually live in dwellings with two rooms. Couples with three or more children have 0.6 rooms per person in their homes.

70.5% of the households live in blocks of flats, 19.5% — in detached or terraced houses, and 10% live in farmhouses. The percentage of households living in blocks of flats is highest among single-member households and single parents. Detached houses are mostly occupied by couples with underage or adult children and by childless couples over 60 years of age.

A household's cohesion with the surroundings is increased by having one's own dwelling. In 2006, 84% of the households owned their primary dwelling, 16% rented it from a private individual, state or local government or used the dwelling free of charge. The percentage of rented dwellings was the highest among single persons younger than 60 years — 38%. A third of single parents do not own their dwelling.

Many households consider their dwelling to be suitable for them: 77% feel that it is very good or fairly good, and 16% consider their dwelling to be satisfactory in some respects. Only 7% of households think that their dwelling is either partly or completely unsuitable for their household. Households in Northern Estonia and especially in Tallinn are the most

critical: one-tenth of the Tallinn residents feel that their dwelling is unsuitable for their household.

Nearly 90% of all dwellings are occupied; the share of unoccupied dwellings is 8%. Therefore, there should be no lack of dwellings. However, limitations on the availability of dwellings are set by financial opportunities and the nonconformity of some dwellings to the needs of certain households (too large or too small dwelling, unsuitable location).

The average monthly income of a household member was 4,343 kroons and expenditure 3,712 kroons in the year 2006. 566 kroons was spent on dwelling. Expenditure on dwelling takes the second place (comprising 15% of total expenditure) after food cost in the household expenditure structure. Even though the percentage of dwelling expenditure has dropped in the last ten years, its percentage among compulsory expenditure (food and dwelling) has increased, reaching 38% in 2006.

The most important dwelling problems for households are too expensive cost of dwellings (35%), small number of rooms (20%), small dwelling size (19%), and low security in the area (16%). Dwellings are often in a bad condition and without any extra conveniences in rural areas. People living in cities, in Northeastern Estonia and single people who are 60 years old or older are worried the most about dwelling expenses. The problem for families with many children is the fact that the dwelling is small, without conveniences, in a bad condition and too expensive. 45% of couples with three or more children wished they had more rooms. Pollution in the residential area, too much noise and the lack of security are the main problems for people living in Northeastern Estonia. The main sources of problems have not changed since the year 2000. However, the number of households that worry about the cost of dwellings, lack of security, lack of conveniences and bad conditions in dwellings has decreased. There are slightly more problems regarding the size of dwellings and the number of rooms in dwellings.

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### INCOME

#### Piia-Piret Eomois Statistics Estonia

Income sets a limit to a person's material options. Social cohesion, too, is tied to total income and especially to how it is distributed — cohesion is bigger in societies that are more equal. In addition to objective inequality indicators people's personal opinion is also of extreme importance. Persons with limited material options do not always feel that they are socially on the same level with people whose financial options do not impose great limitations on them. Likewise, wealthier people do not always feel social cohesion with people who are less wealthy.

### **Total income**

The concept of income in this article includes income from wage labour and from selfemployment (i.e. from the agriculture and forestry-related activities), monetary and nonmonetary income received from non-agricultural self-employment activity (which can be negative if the month's expenses exceed the earnings), property income (income from renting property, interest from deposits and securities), and income received from intellectual property, transfers and other sources (income from the sale of personal belongings, from returned income tax, from winning in a lottery, etc.). Total income is measured at household level. It is difficult to compare the total incomes of households since they may differ in their number and structure. It should also be taken into consideration that a household spends a part of the income on all members of the household and another part on single members of the household. For example, a household of two adults can buy one washing machine, while if the adults of the household lived separately then they would each have to buy their own washing machine. Taking these two aspects into consideration, the income comparison shall use income per consumption unit (per consumer): the total income of a household is divided by its equivalence scales The equivalence scales being used are OECD modified equivalence scales, which give the first adult the value of 1.0, the value for other adults is 0.5 and the value for household members younger than 14 years is 0.3. All the income data in the present article come from the Household Budget Survey, and the labour force data come from the Estonian Labour Force Survey. Regarding the poverty and inequality indicators, it must be taken into consideration that the calculations use monthly income instead of yearly income, and that the data are therefore estimated.

At the total income level, the monthly income has increased 2.9 times during the years 1996–2006 — from 2,189 Estonian kroons to 6,435 Estonian kroons (Table 1). The growth of nominal monetary income has been 10% on average since the year 1997; however, the growth has accelerated in recent years, reaching 25% in the year 2006 (Table 2).

### Table 1 Average disposable income per consumption unit, 1996–2006 (kroons)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Income from wage labour	1 422	1 588	1 951	1 971	2 180	2 316	2 542	2 812	3 074	3 565	4 407
Income from self- employment activity	240	272	186	179	174	173	194	192	215	178	312
Property income	10	6	13	18	27	31	17	23	18	31	33
Transfers	472	568	657	789	848	866	934	1 055	1 165	1 325	1 531
Other income	44	36	51	51	63	59	56	104	80	61	153
Total disposable income	2 189	2 469	2 858	3 008	3 292	3 445	3 744	4 186	4 552	5 160	6 435

Source: Household Budget Survey, 1996–2006.

		(percenta	90)								
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Growth compared to the year 1996
Average	113	116	105	109	105	109	112	109	113	125	3.1
1st or the lowest income quintile	116	115	108	102	113	109	114	106	119	130	3.4
2nd income quintile	110	114	107	106	106	110	112	111	117	123	3.0
3rd income quintile	110	117	104	108	106	108	113	111	117	122	2.9
4th income quintile	110	116	105	111	105	107	112	110	115	124	2.9
5th or the highest income guintile	116	116	105	111	102	109	111	107	110	126	2.9

#### Table 2 Disposable income growth rate as compared to the previous year by quintiles, 1997–2006 (nercentage)

Source: Household Budget Survey, 1996-2006.

# Figure 1 Growth rate of nominal disposable income and consumer price index as compared to the previous year, 1997–2006



Source: Household Budget Survey, 1996-2006.

The consumer prices increased 1.5 times during the years 1996–2006. Therefore, the real increase of income was almost twice as little instead of the threefold nominal growth. The rise of consumer prices during the period of observation was moderate and the increase of nominal income was continuously bigger than that of the consumer prices (Figure 1). Therefore, it can be said that people's standard of living has improved.

Income quintiles are calculated by ranking people according to income, from the poorest to the richest, and then dividing them into five equal groups. If to look at the increase of nominal income according to such quintiles, then the nominal increase of monthly income in the lowest quintile during the years 1996–2006 was 3.4-fold, while in the highest quintile it was 2.9-fold. Annually the income growth rate has primarily been quicker in the lowest quintile than in the highest (Table 2). At the same time, the increase of incomes during the observed period has not differed greatly in the quintiles. The general increase of incomes has been more or less even in all income quintiles. Here we can draw an important conclusion: the general increase of incomes is not primarily related to income growth in the highest quintile, but it affects all income levels.

Inequality between the poor and the rich has decreased due to a slightly bigger income growth in the lowest income quintile. When in 1996 the income of the richest one-fifth of the population was 6.5 times higher than that of the poorest fifth, then the difference between the richest and the poorest decreased to the 5.5-fold level by 2006. The inequality indicator has constantly been decreasing during the last ten years. The only exception was the year 2000 when the indicator rose to a 6.9-fold level, but then it dropped back again to the previous year's level. The percentage of people living in relative poverty (income less than 60% of the state's median income) has been around 18% throughout the years. The percentage of the poor has stayed more or less at the same level, because the line starting from which people with lower income are considered to live in relative poverty according to

the definition, has risen three times, just like the average income – the rise has been from nearly 1,000 kroons per month in 1996 to 3,000 kroons per month in 2006.

On the basis of poverty and inequality indicators, we can conclude that the gap between the rich and the poor has decreased in the last ten years and that people's standard of living is improving in all income groups fairly evenly.

### Income from wage labour

The biggest income element has constantly been monetary income from wage labour, the percentage of which increased from 65% in 1996 to 68% in 2006 (Table 3). Average income from wage labour increased at the same pace as total income — income from wage labour increased during the observed period 3.1 times, from 1,422 kroons to 4,404 kroons per month. The higher share of wage labour may be the result of the risen percentage of the employed persons, from 44% to 48% in the years 1996–2006. The primary form of employment among the employed persons is wage labour. The percentage of salaried employees in total population increased from 40% in 1996 to 44% in 2006. This percentage decreased up to the year 2000, when salaried employees comprised 38% of the population (and 50% of the employed persons), but the share of the salaried employees started to grow in the following years also greatly due to the increasing labour shortage. The percentage<sup>a</sup> of the underemployed has decreased since 2000 — from 2.8% in 2000 to 1.5% in 2006.

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
100	100	100	100	100	100	100	100	100	100	100
65	64	68	66	66	67	68	67	68	69	68
11	11	7	6	5	5	5	5	5	3	5
0	0	0	1	1	1	0	1	0	1	1
22	23	23	26	26	25	25	25	26	26	24
2	1	2	2	2	2	2	2	2	1	2
100	100	100	100	100	100	100	100	100	100	100
33	32	32	37	35	32	32	36	34	33	32
3	5	-1	3	-4	1	2	2	2	1	2
0	0	0	0	0	0	0	0	0	0	0
63	62	68	59	68	66	65	61	63	65	65
1	1	1	1	1	0	1	0	1	1	1
100	100	100	100	100	100	100	100	100	100	100
76	75	80	79	78	80	79	78	78	81	77
11	12	6	6	5	4	6	5	6	4	7
1	0	1	1	2	2	1	1	1	1	1
8	10	10	11	12	11	12	12	12	13	10
4	3	3	3	3	3	3	5	3	2	4
	1996 100 65 11 0 22 2 100 33 3 0 63 1 100 63 1 100 76 11 100 76 11 8 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								

Table 3 Income structure in total population and by quintiles, 1996–2006 (percentage)

Source: Household Budget Survey, 1996-2006.

At the same time, income from wage labour is not the main source of income for all people. Income from wage labour of the one-fifth of the population with the lowest income makes up only 33% of their total income, while the share for the one-fifth with the highest income is on average 78%. Income from wage labour for the poorest one-fifth of the population rose 3.3 times, from 234 kroons to 774 kroons, in the years 1996–2006. Income from wage labour of the richest fifth has risen 2.9 times, from 3,527 kroons to 10,325 kroons, during the observed ten years' period. Therefore, the inequality of wages and salaries in comparison to total income is even bigger, but the difference has also started to decrease slightly — the wages and salaries of the richest one-fifth were 15.1 times higher than the respective indicator of the poorest one-fifth in 1996, and the same ratio was 13.3 in 2006. Inequality of wages and salaries has both increased and decreased during the observed period.

<sup>a</sup> People who are working part-time and who would like to work more but cannot do so due to unavailability of work.

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Since the percentage of income from wage labour in the total income, is so significant, then it can be said that employment plays a very important role in the growth of a person's material welfare. This is also confirmed by the fact that 42% of unemployed people (who were looking for work) lived in poverty in 1996, and in 2006 the respective share was already more than half of the people — 53%. At the same time, work can not be considered the sole solution to escaping poverty — even among the employed almost every tenth person lives in relative poverty. The poverty percentage among the employed decreased from 11% in 1996 to 8% in 2006. If we look at the minimum monthly wages and salaries for full-time work, then this mostly stays below the relative poverty threshold (Figure 2). The minimum monthly wage rate and poverty threshold ratio improved until the year 2004 (being even above the value 1 during the last four years), but by 2006 the minimum wage rate dropped slightly below the poverty threshold again. It should also be taken into account that an average of 8% of the employed persons do not work full-time work.



Figure 2 The minimum monthly wage rate and poverty threshold ratio, 1996–2006

In addition to wages and salaries, income from self-employment has also been an important source of income during the past years; however, the percentage of this source of income has decreased during recent years — income from self-employment was 11% of total income in 1996, but only 5% in 2006.

### Social transfers

Social transfers also form a significant part of income. Social transfers can be divided into two groups: the redistribution of state and local government money (pensions, unemployment benefits, sickness benefit, child benefit, and other financial aid) and the redistribution of privately owned money (alimony, support payment, gifts). The purpose of transfers is to redistribute money in the society in order to lower the level of inequality.

The percentage of transfers in total income was 25% on average during the observed period. Income from social transfers has increased 3.2 times — from 472 kroons per month in 1996 to 1,531 kroons per month in 2006.

Source: Estonian Tax and Customs Board, 2007.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Pension	312	380	419	527	515	534	579	660	753	852	1 042
Unemployment benefit	3	4	3	7	9	10	7	14	17	7	6
Child benefit	80	88	112	120	134	129	134	132	157	155	158
Benefit for incapacity	8	5	7	17	28	20	26	30	23	26	33
for work											
Alimonies, allowances	21	22	20	26	21	16	18	16	16	24	28
Other transfers	48	68	96	93	141	158	170	203	199	260	264
Transfers	472	568	657	789	848	866	934	1 055	1 165	1 325	1 531

Table 4 Average size of transfers per consumption unit by sources, 1996–2006

Source: Household Budget Survey, 1996-2006.

Pensions comprise the biggest portion of transfers — 64% on average (Table 5). Average pension per consumption unit has increased 3.3 times — from 312 kroons per month in 1996 to 1,042 kroons per month in 2006. The number of persons receiving the state pension has slightly increased due to population ageing – from 374,308 persons in 1996 to 377,133 persons in 2006. An average of four-fifths of pension recipients are old-age pensioners; a considerably smaller portion is comprised of people receiving survivor's pension and incapacity pension. The percentage of pension in transfers varies by different income quintiles: the pension share grew from 70% to 78% during the observed period among the poorest fifth of the population, but it dropped from 50% to 45% among the richest fifth. When looking at the average state pension and poverty threshold ratio, then the pension level stays below the poverty threshold (Figure 3). The average pension and poverty threshold ratio has continuously been decreasing since 1999. The average old-age pension is somewhat higher than the average pension, but its ratio to the poverty threshold has been below the value 1 since 2002.

Even though the average pension rises every year, the percentage of pensioners living in poverty has steadily been around 24% on average during the observed period. Almost a fifth of the population has escaped poverty with the help of pensions — without that, the percentage of people living in relative poverty would be on average 17%, i.e. higher by more than 200,000 people (Figure 4).

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total population	100	100	100	100	100	100	100	100	100	100	100
pension	66	67	64	67	61	62	62	63	65	64	68
unemployment benefit	1	1	1	1	1	1	1	1	1	1	0
child benefits	17	16	17	15	16	15	14	12	13	12	10
benefit for incapacity for work	2	1	1	2	3	2	3	3	2	2	2
alimonies, financial aid	4	4	3	3	3	2	2	2	1	2	2
other transfers	10	12	15	12	17	18	18	19	17	20	17
1st quintile	100	100	100	100	100	100	100	100	100	100	100
pension	70	72	72	61	64	67	69	68	70	71	78
unemployment benefit	1	1	1	3	3	2	2	3	2	1	1
child benefits	18	17	15	22	19	18	15	15	16	13	10
benefit for incapacity for work	0	0	0	1	1	0	1	0	0	1	1
alimonies, financial aid	2	1	1	2	2	1	0	1	2	1	1
other transfers	8	8	10	11	11	12	13	13	11	13	9
5th quintile	100	100	100	100	100	100	100	100	100	100	100
pension	50	50	39	47	34	36	34	33	37	37	45
unemployment benefit	0	1	0	0	0	1	0	0	2	0	0
child benefits	19	16	17	16	16	16	15	14	15	11	11
benefit for incapacity for work	5	2	2	7	9	6	9	10	4	4	5
alimonies, financial aid	7	8	8	7	5	2	4	3	2	3	2
other transfers	19	23	34	22	36	39	39	39	40	44	36

 Table 5
 The structure of transfers in total population and by quintiles, 1996–2006 (percentage)

Source: Household Budget Survey, 1996-2006.



Figure 3 The average state pension and poverty threshold ratio, 1996–2006



Figure 4 Effect of transfers on poverty, 1996–2006

Since transfers comprise more than a half of the income of the poorest fifth of the population, then the economic situation of the poorest people would clearly be unacceptable without transfers. Almost a quarter of the population escapes poverty thanks to all transfers. Aside from pensions, also other transfers (child benefits, unemployment benefit, etc.) are of assistance, helping on average 7% of the population per year escape poverty.

Another important part of transfers is comprised of child benefits and other benefits paid by the state and local governments. The income received from child benefits per consumption unit increased almost twofold, from 80 kroons to 158 kroons per month during the years 1996–2006. The percentage of child benefit in transfers does not differ significantly by income quintiles (Table 5). When the child benefit percentage in the poorest fifth decreased from 19% in 1996 to 11% in 2006, then among the richest fifth the drop was from 18% to 10%.

In a welfare society a smaller percentage of household income is spent on a child than on an adult — therefore, a child younger than 14 years must be considered a 0.3-fold consumer in a consumption unit context. For that reason, child benefit sizes have been compared to a 0.3-fold poverty threshold (Figure 5). The sizes of child benefits have changed very little during the observed period, but at the same time the poverty threshold has risen threefold, which causes a continuous drop in the benefit and poverty threshold ratio. Child benefit for each child (irrespective of the number of children) and single parent's child allowance have remained at the 300-kroons-per-month level since 2004. By the year 2006, it comprised only

Source: Household Budget Survey, 1996-2006.

a quarter of the 0.4-fold poverty threshold. Child benefit for a child under the age of 3 has been 600 kroons per month since 1998. When during the years 1998–2003 that sum exceeded the 0.3-fold poverty threshold level, then by 2006 it comprised 60% of that threshold.



#### Figure 5 The child benefits' and 0.3-fold poverty threshold ratio, 1996–2006

The state alleviates the financial situation of the unemployed with unemployment benefit (unemployment allowance as of 2006). The unemployment allowance comprised only an average of 1% of the transfers, and 2% in the lowest income guintile. Almost a half of the unemployed live in poverty, but not all of them receive the benefit. When in 1997 the unemployment benefit was received by 46,700 people, then in 2006 it was received only by 20,000 people — 71% and 49% of the unemployed accordingly. Only people who have been engaged in work or in activities equal to work at least for 180 days during a 12-months' period prior to registering as unemployed and who do not have an income in the amount of the unemployment allowance are eligible to receive unemployment benefit, i.e. unemployment allowance. Unemployment allowance is paid for up to 270 days. When looking at the unemployment benefit and poverty threshold ratio, then we can see that it reached its maximum level in the year 1999 — 0.28 (Figure 6). The ratio has continuously decreased after that with the unemployment benefit being only 13% of the poverty threshold in 2006. It would not be possible to cope at an acceptable level with only the unemployment benefit; however, the situation of the unemployed is alleviated by income from other household members and by other benefits that increase their average income.

Unemployment insurance benefit was implemented in 2003 to prevent a rapid change in the economic situation of the unemployed. Everyone who is insured, who has registered as unemployed and whose insurance period has been at least 12 months during the 24-months' period prior to registering as unemployed is eligible to receive the benefit. The size of unemployment insurance benefit depends on the person's previous salary and is several times higher than unemployment benefit. When looking at the average size of unemployment insurance benefit and the poverty threshold ratio, then we can also notice a decreasing tendency here. When in 2003, the average size of unemployment insurance benefit equalled the 1.2-fold poverty threshold, then in 2006 the average size of the benefit barely reached the poverty threshold. The percentage of people receiving unemployment insurance benefit among the unemployed is less than that of the people receiving unemployment benefit, but it keeps rising every year — 20% of the unemployed received unemployment insurance benefit in 2003, and in 2006 the percentage was already 30%.

<sup>&</sup>lt;sup>a</sup> Child care allowance for a child up to 1.5 years old in 1996, and for a child up to 2 years old from 1997 to 1999. Source: Mändmaa, 2002, 2006.



Figure 6 The unemployment allowances' and poverty threshold ratio, 1996–2006

From the aspect of social cohesion it is also important to look at the long-term unemployed. The percentage of people having been unemployed for a year and longer among the unemployed, increased from 46% to 53% during the years 2000–2005. The labour shortage reached also the long-term unemployed in 2006, and the percentage of the people having been unemployed for more than a year dropped to 48%. The percentage of very long-term unemployed (unemployed for two years or longer) among the unemployed has constantly dropped from 3% in 2000 and reached 1% in 2006.

### Summary

Income from wage labour comprises the most important part of people's income. Since the average income from wage labour is considerably bigger as compared to the average levels of other sources of income, then people are in a greater risk to fall into a poorer group of the population when they lose income from wage labour. Social benefits and other benefits are of great help in assisting people with lower income escape poverty. Regarding the total population level, the share of transfers is high (especially among the poorest fifth), which shows that this source of income has served its purpose: the income of poorer groups of the population has been increased — and thus, inequality has been reduced.

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Source: Mändmaa 2002, 2006.

### **AVAILABILITY OF HEALTH SERVICES**

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Health and health care are considered as "a right" in several documents, although in a somewhat different wording and meaning. The Constitution of the Republic of Estonia states that everybody has the right to the protection of health (*Eesti ... 1992*). According to the Charter of Fundamental Rights of the European Union (2004) everyone has the right of access to preventive health care and the right to benefit from medical treatment under the conditions established by national legislation and practices. Pursuant to the Constitution of the World Health Organization the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being (Constitution ... 2006). These are traditional starting points in discussions concerning the availability of health services — even if the subject of discussion is often understood differently. While dismissing all ethical and philosophical reasoning, it is certainly worth considering which changes have occurred in differences over time or between various groups regarding people's access to the services intended for restoration or promotion of health. If there are differences present, it is possible to analyse the reasons thereof in order to assess the compliance of the availability of services with technical or outlook-related expectations.

At the same time, one must keep in mind that in terms of health system, availability thereof is not an end in itself, but one of three interim objectives instead (in addition to efficiency and quality). Since 2000, the commonly defined fundamental objectives have included good health of the population, responding to people's expectations and providing financial protection against the costs of ill-health. (The world ... 2000). The same prerequisite underlies also the present analysis of the reasons for availability of health services. Financing is crucial in achieving the aforesaid objectives, but the article also considers other levers that can have an impact on the availability of health services (including health care administration, the behaviour of population and professionals, regulations) (Roberts et al. 2003). However, financing is still one of the major factors in the analysis, because due to the fact that health care is perceived as a public service, the amount of money and its optimal use in health care provides ground for constant discussion and it is important to have relevant information when making decisions.

The article considers health services in a narrower sense, i.e. as services provided in the medical system, and thus, many public health services are excluded from observation. Pursuant to legislation, the availability of health services means that the patient is provided with quality emergency care, general and specialized medical care, and nursing care in a timely manner considering the medical need for such health service and the professional competence of the service provider (*Tervishoiuteenuste ... 2001*). The article does not include in-depth discussion about the quality of services and for the purposes of simplification of discussion it is presumed that all provided health services comply at least with minimum quality requirements.

### Assessment on the availability of health care

The first and rather significant indicator is the assessment of the availability of health care by the population. In Estonia, this indicator has remained relatively unaltered within the last few years. According to the annual survey of contentment carried out by the Health Insurance Fund and the Ministry of Social Affairs, slightly more than a half of the respondents consider the availability of health care to be good and very good, although the proportion of very content people has gradually decreased (Figure 1) (*Kindlustatute ... 2000–2006*).

Waiting lists are used as the most typical objective indicator of the availability of health services. However, this is not a very good indicator, because on the one hand waiting lists are affected by extremely different factors and on the other hand demand for certain service does not necessarily mean the actual presence of justified need. At this point the systematic analysis of various aspects and causes of the availability of services uses the six barriers proposed in the research project *HealthACCESS*. The six barriers are: the proportion of the

population covered for health care, benefits covered by health care systems, cost-sharing arrangements, geographical and organizational barriers to access and utilization of accessible services. The review of the availability of health services in Estonia according to listed barriers is provided below. (Busse et al. 2006)





The first barrier proportion of population covered for health care In most of the EU countries the principle of universal health insurance is applied due to value-based agreements, which means that the third party provides the resident of the country with certain financial protection in using the service. At this point it is irrelevant whether money is raised in the form of general taxes, withheld from wages and salaries as taxes or by mediation of compulsory private insurance. Generally, five principles are followed: (1) primary insurance is provided in order to access health services; (2) public sector financing is dominant; (3) insurance is compulsory; (4) insurance coverage is generalised; (5) availability is based on need (Busse et al. 2006). Therefore, the first barrier affecting the access to services is the proportion of the population covered for health care.

There is actually not a single country with "universal" proportion of the population covered for health care — be it then due to illegal status in that country or the fact that the right to insurance cover is defined via employment. Estonian health insurance is social health insurance, where the employer pays a 13%-tax from wages and salaries. At the same time, the persons insured are divided into four basic categories: (1) persons, for whom the health insurance contributions are made in the composition of social tax; (2) persons, for whom the health insurance contributions are made by the state; (3) persons lawfully entitled to make the health insurance contributions by himself or herself; (4) persons insured on the basis of international agreements (Jesse et al. 2005). One cannot withdraw from the health insurance system. The only group directly excluded from the insurance coverage consists of imprisoned persons. Their treatment is organised and paid for by the Ministry of Justice. Since 2002, the people who would otherwise be ineligible as persons equal to insured persons are entitled to voluntary health insurance.

Estonian Health Insurance Fund is required by law to provide health care for all insured persons (*Ravikindlustuse ... 2002*). If a person is not covered by health insurance the costs shall be paid for out of the state budget in case of the so-called emergency care, the essence of which is not clearly defined and is decided upon by the provider of the service, i.e. the physician. Health services received during inpatient or outpatient medical care are in all cases paid by mediation of state. Therefore, personal connection with health insurance determines a person's access to health services.

During recent years there has been an increase in the number of people covered by health insurance in Estonia; by the end of 2006 it finally reached 95.1% (Figure 2). There were

Source: Contentment surveys of the insured, 2000-2006.

approximately 1.3 million people insured; there were slightly more than 60,000 people equal to insured persons or not covered by health insurance (*Kindlustatud 2006*). There are currently 41 types of insured persons in Estonia, whereas the social tax is paid only for 52% of them. During 2004–2007, the proportion of the insured persons increased by 4.4% and the proportion of persons not covered by health insurance decreased from 5.9% to 4.5%. The proportion of persons equal to insured persons has decreased by 3% during recent years.



#### Figure 2 The insured, persons equal to the insured, and the uninsured, 2003–2006

One reason for decrease in the proportion of uninsured persons is the reduction of unemployment, because the proportion of people insured by their employer has increased, while the proportion of people equal to insured persons has decreased. Yet 48% of the insured are not paid for and their medical treatment expenses have to be covered from the contributions made by other taxpayers.

In a generally positive background trend it is important to point out the difference between groups of population. Despite the fact that the average proportion of uninsured persons was 6% in 2002, the total of 17% among men aged 20–44 were not covered by health insurance *(Kindlustatute ... 2004)*. Similar data have not been published later on and although one may presume that unemployment has decreased specifically in the aforesaid group, the assessment of situation should consider dynamics by particular group of population.

It is equally important to observe relevant indicators of other countries in addition to the change in the proportion of uninsured persons in Estonia. For example, in Germany — the health care administration of which provides the basis for Estonian health insurance system — the percentage of uninsured persons was only 0.2% in 2003 (Busse et al. 2006).

Besides the health insurance fund and state budget (in case of uninsured persons) protection against financial risk is also provided by private insurance. In Estonia this is considered as an alternative insurance besides the Estonian Health Insurance Fund, which does not mean that the help received is more comfortable or quicker than usual. There are an extremely small number of people using private insurance in Estonia and the corresponding costs made up only 0.3% of all health care costs in 2004 — whereas this includes both separate health insurance and the travel and motor third party liability insurance. Thus, the role of private insurance is marginal with regard to the availability of health services in Estonia.

The second barrier — content of the health insurance

Provided that insurance coverage is ensured, the second factor determining the availability of particular service is whether the insurer compensates for the service or not. The content of insurance package is becoming more specified all over the world — first and foremost in terms of the share not covered by the insurance. Generally, health insurance is connected mainly with financial restrictions. Furthermore, the services compensated by public funding require established clinical effect.

Source: Contentment surveys of the insured, 2000-2006.

In Estonia, the list and price of services covered by the Health Insurance Fund is approved by the Government of the Republic. The list of medicinal products that are partly compensated for by the Health Insurance Fund when purchased from the pharmacy shall be established by the Minister of Social Affairs — this requires prior registration of the medicinal product in the State Agency of Medicines (*Ravikindlustuse ... 2002*). For example, there were 2,768 medicinal products (including various pharmaceutical forms and dosages) registered in the State Agency of Medicines in 2004. Within one year 317 applications were submitted for marketing authorization and 256 or 81% of those applications were satisfied (*Ravimite ... 2007*). At this point, reference can be made to Germany, where 40,000 licenses have been issued and the register of medicinal products comprised 9,449 medicines (Busse and Riesberg 2004).

The impact of the content of insurance package is clearly expressed in case of dental care. Since 2000 the number of visits to dentist has decreased by nearly 15% due to gradual reduction of compensation for adult dental care services (Figure 3). According to the data of survey ordered by the Health Insurance Fund, the number of population using dental care fell from 42% to 32% during 2001–2003 (*Kindlustatute ... 2000–2006*). The total of 78% of population considered economical issues as the reason for not being able to access dental care. The main reason for not having access to dental care is the same in the majority of EU countries, whereas this was pointed out by more than 50% of people in Spain, Greece, Ireland, Italy, Norway and Portugal. The availability of dental care was the least affected by economic situation in Luxembourg (14%). (*Secure ... 2004*) The proportion of people using dental care services in Estonia increased again to 42% by 2005 (*Kindlustatute ... 2000–2006*), but it has to be kept in mind that wealthier people use dental care services to a much greater extent (Habicht 2003).

The above-mentioned administrative restrictions on extending the list of health services have direct impact on determining the availability of services. In comparison with wealthier and more developed countries, the difference of Estonian insurance package has been observed e.g. in case of availability of psychiatric and also anti-cancer medicinal products — in some cases it is also associated with poor treatment response (*Luik 2004*). People have become more mobile and health care is more frequently considered as a service that should be provided without any obstacles in different Member States. Thus, the EU has started serious discussion in order to collect more information about the content of health services, although there is no direct indication towards international harmonization of packages (Consultation ... 2006).



Figure 3 Number of visits to dentist in Estonia, 1995–2005

The third barrier — cost-sharing arrangements

The third barrier to the availability of health services is cost-sharing arrangements or patients co-financing. Costs are shared in almost every EU country, and besides insurance premium, further amounts are charged for medicinal products and dental care services (except for Poland, where cost-sharing has not been applied in dental care) (Busse et al. 2006). In half of the EU countries fees are established on the first contact care and in

Source: Data of Statistics Estonia.

specialised medical care. Usually protection is provided for specific groups such as children and retired persons, as well as pregnant women and people with chronic illness. (Consultation ... 2006)

The proportion of health care costs by source of financing has shown no significant changes since 2000. Major costs are incurred by Health Insurance Fund (66% in 2004), state budget (8.5%) and households (21%). In terms of availability it is important that the own financing of patients has constantly increased (in 1999 it was only 14%).

The impact of cost-sharing on population is shown by the analysis, according to which the proportion of the households where expenses on health care constituted more than one-fifth of the budget (which are very high expenses on health care pursuant to international criteria) increased from 3.4% in 1995 to 7.4% in 2002. Besides that, it is worth mentioning that in 2002 the expenses on health care caused poverty among 1.3% of Estonian population. The same survey revealed that the risk of poverty is mainly associated with the older people with increased use of medicinal products. (Habicht 2006) At this point one has to consider the establishment of visit fees and inpatient fees in 2003 and 2004 as well as changes in the payment procedure for adult dental care (Võrk et al. 2005).

Population's expenses on medicinal products have grown year-by-year. Monthly per capita expenditure on the medicinal products subject to medical prescription and those not subject to medical prescription was almost the same in 2002 as it is now — 23 and 20 kroons respectively. Expenses on medicinal products subject to medical prescription have doubled after four years (47 kroons), and the expenses on medicinal products not subject to medical prescription have increased by slightly more than a half (31 kroons). (Apteegistatistika 2007)

Considering the fact that majority of the retail sales of medicinal products (77%) comes from medicinal products subject to medical prescription (of which approximately 90% are medicinal products distributed at a discount), this group has the greatest impact on the availability of medicinal products. Based on the data of the Health Insurance Fund, the number of medical prescriptions issued has increased annually — in 2006 the total of more than 5.3 million medical prescriptions were issued, which is approximately 1.3 million prescriptions more than in 2003 (Figure 4). During recent years, the Health Insurance Fund has spent the most on the medicinal products distributed at a discount rate 100%, but there has also been an above average increase in proportion of medicinal products distributed at a discount rate 50%. The latter concerns the majority of population, because medicinal products distributed at the discount rate 50% constitute 48% of the total number of medical prescriptions. This also explains the increase of patients' cost-sharing (on average 63% of expenditure on medicinal products in 2006).

# Figure 4 The medicinal products distributed at discount and compensated by Health Insurance Fund, 2003–2006



<sup>a</sup> Discount rate (percentage)

Source: Estonian Health Insurance Fund, summary tables, 2007.

Hence, it can be concluded that attempts have been made in Estonia to improve the availability of medicinal products intended for treating the most serious diseases, but due to restricted budget it has been done on account of the availability of lower-priority medicinal products intended for the majority of population. Such an approach complies with the principle of solidarity, but may cause discontent among the majority of people.

**The fourth barrier location of residence** Irrespective of acceptable cost-sharing, the access to service could still be limited due to geographical factors. For example, access to service providers is often complicated in rural areas. Survey results reveal that in the EU geographical distance is not considered much of a problem with regard to availability of health services. According to the data of Eurobarometer, 48% of the population of the 25 EU countries can arrive at the nearest hospital within less than 20 minutes (Busse et al 2006). In Estonia the time necessary for arriving at the nearest hospital was studied by L. Rooväli and R. Kiivet (2003). They found that in case of 20% of the respondents it took 1–14 minutes to drive to the hospital situated on the territory of other local government, 10.8% of the respondents arrived there within 15–29 minutes, and 3.4% after 30 minutes. 65.8% of the respondents were residents of the same local government where the hospital was situated and their relevant time for arriving at the hospital was estimated to be zero minutes.

In Estonia, the availability of health care depends more on the regional than rural versus urban location of patient's place of residence. At the same time, different results are received when measuring the number of provided health services and asking people's opinion on the availability. The first one measures the so-called satisfied need, which is always higher in the region with more service providers. However, people's own opinion is largely based on estimation of meeting their expectations, which may depend on their culture or adaptation to "restricted conditions". Thus, both approaches provide distorted picture of the availability of health services based on objective need.

Slow but steady increase in the number of outpatient medical care services per capita has regional differences of up to 60% — being 7.9 annual visits in Tallinn and 4.6 annual visits in Rapla county in 2005. This parameter exceeded the Estonian average (6.1) only in Harju, Tartu, Pärnu and Saare counties (*Statistikaameti ... 2007*). There have been earlier reports of up to twofold difference in the inpatient medical care frequency (*Kunst 2002*). At the same time, the population survey of 2005 revealed that the availability of health services is the worst in Northeastern Estonia (Figure 5). The total of 30% of respondents living in Northeastern Estonia did not receive the dental care service they needed. The availability of family physician's medical care was the best in Central Estonia — only 3.4% of respondents found that they were not provided health care when they needed it.



Figure 5 Unavailability of health care by region, 2005

Source: Data of Statistics Estonia.

The fifth barrier administration of services Health services administration is directly associated with organisational insufficiencies, the best-known example of which is waiting lists. In order to improve the administration of services it is possible to change the principles for pooling of (financial) resources, or remuneration principles of service providers and regulations concerning the provision of services, to plan in a better way the distribution of services between different service providers and to introduce more efficient treatment practices. Long waiting lists pose a problem in almost every country — recently particularly in Great Britain, Ireland, Italy, Poland and the Netherlands. Among other things the fifth barrier has also been described with regard to private insurance or parallel service network that offers competition to national health care professionals or resources (e.g. in France, Germany and Ireland). (Busse et al. 2006)

Pursuant to the health care organisation principles established in Estonia, in most cases one's family physician is to be contacted when illness occurs. According to the contract entered into by the family physician and Health Insurance Fund, the patient is entitled to consultation with his or her family physician at the same day in case of acute illness and within three working days in case of chronic illness. In 2006, the total of 99% of patients with acute illness were granted consultation at the same day and 1% of patients with chronic illness had to wait for the visit to family physician over three working days in every region of the Health Insurance Fund (*Üldarstiabi ... 2006*). With regard to the permitted waiting period, minor changes have been made to the disadvantage of patients. According to the contentment survey carried out among population, the number of people who had access to their family physician at the day of registration had decreased by one-fifth in 2006 when compared to the relevant number in 2002 (*Kindlustatute ... 2006*).

At the same time, the number of patients treated by family physicians (number of cases) has increased on annual basis (Table 1), whereas the increase in the budget of general medical care has brought along a remarkable increase in the number of visits or treatment availability (*Koppel, Lai and Aaviksoo 2007*).

On the contrary to the aforesaid, the use of all service categories decreased in the sphere of specialised medical care during 2000–2003, but in 2004 the use of services compensated by the Health Insurance Fund started to grow. The same year shows significant increase in cases of day treatment (Table 1). That way it was possible to compensate for the reduction of inpatient services until 2005, but it did not solve the problem of extended waiting lists for consultations with medical specialist (Figure 6). By 2006 the proportion of people having access to the physician at the same day had reduced by 13%, i.e. twice, when compared to 2002. At the same time the number of people who have to wait over a month to get an appointment with medical specialist has increased by 120% — the proportion of such people was 10% in 2005, and reached 22% in 2006.

### Table 1 Provision of family physician's and specialised medical care services, 2000–2006

	2000	2001	2002	2003	2004	2005	2006
Family physician's consultations	2 572 076	4 338 268	3 987 121	3 935 504	4 194 373	4 513 223	4 828 955
Increase compared to previous year, %		69	-8.1	-1.3	6.6	7.6	7.0
Annual number of consultations per one family practice	5 336	6 494	4 904	4 799	5 357	5 727	6 120
Cases of specialised medical care		2 645 235	2 636 417	2 571 193	2 629 436	2 716 579	2 871 492
outpatient treatment		2 380 100	2 384 731	2 319 862	2 345 957	2 436 719	2 576 022
day treatment					33 095	38 261	44 062
inpatient treatment		265 135	251 686	251 331	250 384	241 599	251 408
Increase compared to			-0.3	-2.5	2.3	3.3	5.7
previous year. %							

Source: Availability of general medical care in 2006, 2006.

	At the	1–2	3–4	5–7	8 days–	3–4	Over a	Cannot
	same day	days	days	days	2 weeks	weeks	month	say
2006	13	8	9	14	16	17	22	2
2005	18	11	7	14	16	15	19	1
2004	20	10	11	14	17	14	13	1
2003	22	13	10	17	10	12	14	2
2002	26	16	8	14	10	14	10	2

### Table 2 Waiting list for getting an appointment with medical specialist, 2002–2006

Source: Contentment surveys of the insured, 2000–2006.

During recent years, attempts have been made to reduce the so-called long-term waiting lists, which are administered centrally. According to the forecast of 2007 of the Health Insurance Fund, the maximum length of waiting lists for prosthetic replacements and cataract surgeries shall by the end of the year be reduced to three and two years respectively, which is half a year less than earlier. Continuing reduction of waiting lists is limited by the fact that the need for replacement surgeries increases faster than the ability to provide relevant service. (*Eesti* ... 2007)

Thus, due to limited resources, the volume of cost-efficient services (visits to family physician) has also been increased in case of waiting lists in order to solve the major and most imminent problem. Since 2004 the volume of almost all health care services has increased due to high receipt of the contributions for sickness insurance (since 2005 in case of inpatient treatment). Hence, the critique made over the recent years is first and foremost associated with elevated expectations of population and increase in the price for services and rapid wage increase pressure on the service providers.

The sixth barrier utilization of accessible services The last barrier describes the so-called residual difference in using health services, which occurs even after the inspection of all abovementioned barriers. Some people do not use health care service even in case the need is justified and the service is available — be it then due to low awareness or for any other reasons. Despite conducted surveys it is still unclear to which extent such extreme behaviour is objectively reasoned or to which extent we need to involve in reducing that barrier.

> The behavioural component of "availability" is most commonly associated with socioeconomic status. For example, it has come out in Estonia that the females engaged in elementary occupations and with unhealthy behaviour living in rural areas are less likely to participate in free of charge screening for breast cancer (*Tekkel et al 2007*). As for sexually transmitted infectious diseases (including HIV), the negative impact of social stigmas on the use of preventive services has been reported (*Uusküla et al. 2006*). Likewise, the health care professionals have been observed to keep at a distance when treating HIV-positive patients (*Rüütel and Loit 2006*).

### Summary

Availability of health services in Estonia is generally satisfying. Pursuant to the data of Statistics Estonia the proportion of people who did not receive care when needed was 6.9% in case of specialised medical care, 5.2% in case of family physician's medical care and 15.2% in case of dental care in 2005 (Secure ... 2004). As for other European countries the problematic issues encountered with regard to the availability of health care were the most common in Sweden (23%), and the least common in Austria (4%). The total of 53% of population considers availability of health care in Estonia as good or very good. This indicator has not shown any significant changes within the last few years. There has been constant decline in proportion of extreme opinions. There has also been a decrease in the number of people who consider the availability of health care very poor, as well as the number of people who consider it very good.

There has been an improvement in insurance coverage, but nevertheless about 60,000 people are still not covered by health insurance. The use of the majority of services

financed by the Health Insurance Fund has increased due to high receipt of the contributions for sickness insurance. In comparison with developed countries, Estonia is characterised bypoorer availability of medicinal products and dental care — in both cases the cost-sharing arrangements are of great importance. Regionally speaking, the situation is the worst for the residents of Northeastern Estonia.

Waiting lists of outpatient visits to medical specialists have constantly extended. There has also been a steady increase in cost-sharing proportion upon payment for medicinal products. Therefore, under the conditions of restricted resources main attention is paid to dealing with acute problems. At the same time, a large proportion of people with chronic health disorders perceive deterioration of the availability of health services.

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### SECURITY

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### Social cohesion and security

Secure society is characterised by higher confidence both in other people and in institutions. This is a crucial factor for enhancing interpersonal cooperation and social cohesion. Security resembles such common goods as clean environment or other resources commonly used by all members of society (Lagerspetz 2005: 180). Secure environment represents a prerequisite for the development of social bonds and civil society, while a dense social network increases the feeling of security among the members of society. There are two aspects to be considered when discussing security: firstly, the so-called rational component or risk to become a victim of crime, and secondly, people's own emotions and fears.

High level of offences against the person is primarily characteristic of "market societies" (Currie 1997). In such societies financially least privileged members of the society — particularly the long-term unemployed — associate themselves less and less with the legitimate society and are more likely to participate in illegal enterprises. Generally, the criminological effect resulting from a low financial status can be softened by implementing an appropriate social network. However, this may not be enough if the social cohesion level of the society is low.

The way, how security is perceived by the members of society, may be even more significant than objective risks. The decision whether to go to the concert or just for a walk at night, establish a new home or give birth to a baby depends among other things also on how safe people feel. Feeling of security is determined by several factors: sex, age, education, residential area, level of income underlying an individual's lifestyle, etc. A person's former contact with crime may also increase fear of crime to a significant extent. An important role is attributed to the media, where violent criminal offences are often over-represented. Research has shown that the feeling of insecurity is more characteristic of single people than family people. Social network is weaker in large cities with anonymous environment and people feel less secure there than those living in rural areas. There is also a connection between financial instability and insecurity. People with limited financial resources are more afraid of falling victims to a crime than financially secure people, because they are unable to cover the loss incurred by victimisation.

The assessment of security risks provided in this article uses both the Police Board data on the recorded offences and the information from victim surveys. While the information recorded by the Police is among other things related to changes in legislation, the victim surveys, which have repeatedly been carried out by standardised methods describe tendencies irrespective of laws and recording practice, thus providing a more objective picture. Victim surveys have been carried out in Estonia in 1993, 1995, 2000 and 2004.

### Security risks

Trends in recorded crime Two periods can be distinguished when observing the dynamics of criminal offences recorded in Estonia. The period starting from the restoration of independence until the year 2001 is characterised by a constant increase in crime levels, especially in the second half of the 1990s. This increase stopped in 2001 and the number of criminal offences stabilised during 2002–2005 after reaching the level of 53,000 recorded offences in a year. In 2006 the number of criminal offences dropped, as the police recorded 48,317 criminal offences. However, it has to be kept in mind that such a drastic change in the number of criminal offences is to a certain extent the result of the fact that the new Penal Code that entered into force on 1 September 2002 differs significantly from the former Criminal Offences it is impossible to compare the statistics of many types of criminal offence with the statistics of criminal offences that took place before 2002. Therefore, the article uses recorded police statistics only for the period 2003–2006.





The number of serious offences against the person (particularly intentional homicides) is considered an important indicator in crime analysis. Namely, the definition of intentional homicide remained basically the same upon establishment of the new Penal Code. Homicide is also deemed to be a less latent criminal offence. In Estonia, the number of committed homicides decreased during 2002–2006. The Police recorded the total of 91 manslaughters and murders (excluding attempts) in 2006 — for the first time after the restoration of independence this figure was less than 100. Recent years have shown a downward trend in serious damage to health as well — 110 incidents were recorded in 2006.



#### Figure 2 Serious offences against the person recorded by the police, 2002–2006

Source: Police Board, 2007.

Similar trend in dynamics of recorded serious offences against the person can be seen from the victim survey results, according to which 3% of respondents fell victim to offences against the person in 2003 (6% in 1999).

Source: Police Board, 2007.

### Table 1 Victims of offences against the person, 1993–2003

(percentage)

Type of crime	Victim surve	еу		
	1993	1995	1999	2003
Assault/threat	4.8	5.5	6.4	3.2
threat	2.6	3.8	4.0	1.7
assault	2.2	1.7	2.3	1.4
Robbery	2.9	3.4	2.9	1.8
Sexual incident (against woman)	2.5	1.3	3.6	1.4
sexually insulting assault	1.4	0.7	2.8	1.1
rape and attempted rape	1.0	0.7	0.7	0.2
Number of respondents	1 000	1 173	1 700	1 687

Source: Saar et al., 2005.

Besides the aforesaid types of crime, the category of offences against the person also includes causing of or threatening with minor health damage, rape, etc. This category shows an upward tendency: in 2006 the number of offences against the person increased by approximately 30 times in comparison with the relevant figure of 2003. Yet, these data do not necessarily refer to a significant deterioration of situation — the reason for that comes from changes in legislation. Namely, pursuant to the Code of Criminal Procedure that entered into force on 1 July 2004, the Police is required to investigate a case even if there is no relevant application submitted by the victim (*Kuritegevus … 2007: 15*). This resulted in a drastic increase in the number of recorded offences against the person.

The most widespread type of criminal offence is the criminal offence against property, which constituted 63% of all recorded offences in 2006. This category has also shown a certain improvement due to the decline in the number of thefts. There was a significant decrease in the number of thefts from residential premises: from 6,495 in 2003 to 3,928 in 2006.

Victim survey supports the information that the proportion of victims has decreased in most cases of criminal offence committed against property. However, there was a slight increase in the proportion of victims of theft from non-residential premises in 2003 in comparison with the proportion of 1999. It is noteworthy that there is a constant decline in the proportion of respondents who have suffered from burglary. Police statistics also supports the decrease in thefts from residential premises.

#### Type of crime 1993 1995 1999 2003 Theft from a car 73 7.0 9.2 7.4 15.6 11.7 car owners only 11.5 14.7 Theft from a summer house, 7.3 7.3 ... country home or garden plot owners only 17.0 15.5 Theft of other personal property 80 55 55 6.3 (incl. pocket picking) Vandalism against car 5.9 3.1 5.2 5.1 car owners only 6.6 8.6 9.3 8.1 Bicycle theft 6.3 4.7 4.1 4.0 bicycle owners only 9.6 70 6.1 5.5 Theft from garage, shed, shelter 7.9 7.0 4.5 5.0 owners only 58 73 2.7 2.7 Pocket picking 3.6 3.9 Theft from home 5.7 42 37 3.1 Attempted theft from home 3.2 3.9 3.1 1.7 Car theft 0.7 1.6 0.9 0.7 car owners only 15 27 15 11 Number of respondents 1 000 1 173 1 700 1 687

#### Table 2 Victims of criminal offence against property, 1993–2003

(percentage)

Source: Saar et al., 2005.

In order to prevent theft from apartment or house it is important to use security measures for protection of one's home. Security locks are the most popular protection measure. While in 1993 only 10% of respondents had security lock installed, the number of such respondents has increased four times within the period of eleven years — security lock was used to protect household property by 40% of respondents in 2004. There are also other measures

used, such as grating or security alarm system, a dog to scare burglars or a high fence. But security lock still remains the best-known and most valued security measure. In 2004, two thirds of population had taken some measures to protect their home.

### Table 3 Use of security measures to prevent burglary<sup>a</sup>, 1993–2004

(percentage)

Security measure	1993	1995	2000	2004
Security alarm system	3.0	2.8	3.8	6.5
Special security lock on the door	10.1	17.2	22.8	40.4
Special window or door grating or frame	0.9	2.6	5.1	3.6
Dog to scare off burglars	19.2	23.8	23.8	27.2
High fence	0.9	1.6	1.9	4.0
Guard or security guard	0.1	0.3	0.3	1.9
None of the aforesaid measures present	65.8	58.6	53.2	33.8
Arrangements for neighbourhood watch	27.2	32.7	28.5	30.6
Neighbours are watching home anyway	16.2	12.9	19.5	23.1
Possession of firearm	7.4	8.3	7.4	7.4
for protection purposes	4.8	4.3	3.3	3.6
Household property is insured	22.7 <sup>b</sup>	12.4	12.4	22.3

<sup>a</sup> Multiple responses were allowed.

<sup>b</sup> This figure cannot be compared to recent years as this insurance originates from the Soviet period.

Source: Saar et al., 2005.

Security locks, grating and security alarm system are measures used by a person to reduce security risks by relying on himself only. There is still a noticeable increase towards relying on social network. Since the mid-1990s there has been an increase in the number of respondents who consider that their security is guaranteed by neighbours keeping an eye on their property without requesting them to do so. That indicates strengthening of social connections.

Neighbourhood watch movement is also based on social network. Namely, the non-profit association Estonian Neighbourhood Watch ("MTÜ Eesti Naabrivalve"), actively operating all over Estonia, has been founded in order to increase the security of surrounding environment. Interpersonal relations have also improved due to the establishment of apartment associations, this has enabled application of the principles of neighbourhood watch not only in area of private houses where people are as a rule familiar with their next-door neighbours, but also in big anonymous multi-storey buildings.

**Regional differences** In 2006 substantially more criminal offences were recorded in large cities than in rural areas. The highest crime level in Estonia was registered in Tallinn and the lowest on the islands in Western Estonia. 44% of criminal offences that were reported to the Police were committed in Tallinn, where 5,317 criminal offences were recorded per 100,000 inhabitants. The relevant figure was 1,262 in Hilu county and 1,329 in Saare county which is four times less than in the capital city. The results gained from victim survey are similar to the data of recorded criminal offences.



Figure 3 Recorded crime by counties, 2006

Source: Data of Statistics Estonia.

Criminal offences against property concentrate first and foremost into large cities, as there is more property to be stolen, anonymous environment and lower probability of getting caught. Over a half (52%) of all recorded thefts in 2006 took place in Tallinn.

According to the results of victim survey, Tallinn is also in the foreground among areas with different levels of urbanisation, where 40% of respondents were victims of at least one criminal offence in 2003. The proportion of victims was the lowest in county centres — 23%. This indicator was surprisingly high in villages, where 30% of locals had fallen victim to criminal offence.

Victims of crime by socio-demographic categories Victim survey enables to analyse victimisation by the victims' sex, ethnic nationality, age and social insurance. 33% of men and 31% of women became victims at least once in 2003. There are no significant sex-specific differences found in different types of criminal offence, with an exception of the theft of personal belongings (handbag, articles of apparel, jewellery, mobile phone) outside home — 8% of women and 5% of men became victims of theft in 2003.

The proportion of victims was remarkably higher among non-Estonians: 30% of Estonians and 36% of people from other nationalities fell victim to at least one crime under investigation in 2003. Non-Estonians appear to fall victim to offence against the person (robbery, attack or threat to attack) more frequently than Estonians. They also have a significantly higher level in regard to theft of personal belongings — 9% in 2003 (6% in case of Estonians).

By ageing, the risk of falling victim to crime reduces. In 2003 the proportion of victims was the highest — 40% — in the youngest age group (16–24), and it was almost a half of that (22%) in the oldest age group (65–74). The fact that young people encounter crime more frequently is generally explained by an active lifestyle. Criminal activity decreases as the person gets older.



#### Figure 4 Victims of crime by age, 2003

### Feeling of security

People respond to crime differently. On the one hand, there is a rational response, i.e. person assesses the risk of becoming victim of a criminal offence. On the other hand, there is an emotional response, i.e. he or she may feel fear of crime. Those two aspects are not identical. If a person considers himself or herself to be at high risk of becoming a victim that does not necessarily mean that he or she is afraid. Risk assessment means first and foremost that the person is aware of various dangers. Fear of crime often expresses people's daily concerns and vulnerability.

Victim survey allows assessment of both aspects — rational and emotional. In order to measure the rational component, the respondents were asked to assess the probability of someone attempting to burgle their home within the next year. In order to study the

emotional component, they were asked the standard question "How safe do you feel when being alone in the vicinity of your home after dark?" The question was selected provided that the fear of becoming victim of a criminal offence would be most intensive when staying alone in the street at night, when the risk of becoming a victim is relatively high.

**Risk of falling victim to burglary** In 2004, burglary was considered likely by 30% of the respondents, unlikely by 41% of the respondents, and 28% were unable to assess the risk. In 2004, the risk of becoming a victim of burglary was considered lower than in 2000.

International surveys show that people's assessment of a burglary risk is higher when they live in a large city (Kesteren et al 2000). This conclusion is also supported by the data collected in Estonia. Particularly interesting are the changes in risk assessment by type of settlement during 2000–2004. There has been a significant increase in the security of Tallinn and other large cities. While almost 63% of people residing in Tallinn considered the probability of their homes being burgled rather high in 2000, four years later that figure decreased to 39%. Similar results were revealed also in other large cities, where the proportion of people who considered the risk highly probable decreased from 59% to 33%. In comparison with the relevant figures of 2000, the probability of risk decreased also in smaller cities, towns and in rural areas.

Differences in risk perception between the urban and rural population can be explained by the strength of social network in smaller settlements and by the confidence people have in their neighbours. People from areas with a stronger social network considered the risks to be lower than those living in areas with a low level of joint activity. Burglary was considered likely by 24% of people in such residential areas where people often help each other; this opinion was shared by 35% of residents in the areas, where people are more on their own.

## Figure 5 Assessment on the probability of falling victim to burglary by type of settlement, 2000, 2004



Source: Saar et al., 2005.

Good neighbourly relations have certain impact on the assessment of security risk. The risk of burglary was considered the lowest by the respondents (25%), whose neighbours were keeping an eye on their apartment without being asked to do so. 28% of respondents, who asked their neighbours to keep an eye on their home, considered the risk of burglary likely. The total of 35% of respondents who did not request help from their neighbours, were afraid of falling victim to burglary.

The respondents in the youngest age group (up to 19 years of age) and those over 50 were the least afraid of burglary. People aged 40–49 were the most afraid of burglary. People in that age group are actively involved in labour market and their children live already separately or attend school or an institution of higher education at daytime. Therefore, their home is often without supervision and there is a higher break-in risk.

# Risks related to street<br/>crimeWhen answering the question "How safe do you feel when being alone in the vicinity of your<br/>home after dark?" 68% of respondents considered themselves absolutely safe or rather safe<br/>in 2004 (Figure 6). 32% of respondents felt slightly or very insecure. People's feeling of

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security has substantially increased since 1993. The improvement of that indicator can be explained by general improvement of crime control and a more stable life. Increase of the feeling of security and decrease of the fear of crime reflect the improvement of general social and economic welfare, not only the lower risk of falling victim to a criminal offence.



Figure 6 People's assessment on the security in their residential area, 1993–2004

Source: Saar et al., 2005.

Former studies revealed that women are more afraid of falling victim to a criminal offence than men. Women are physically more vulnerable and they have generally a more modest social position — which results in a lower social status. According to the victim survey 2004 there was a major difference in the responses given by women and men. The majority of men (80%) said that they felt absolutely or rather safe in the vicinity of their home after dark, while only 57% of women felt safe. (Box, Hale, Andrews 1988)

Older people are more afraid of becoming victim of a crime than younger people. According to survey, young people aged 15–39 felt the safest. The feeling of security decreased in case of people aged 40–59 — primarily on account of male respondents. Older age is associated with fear of crime both in case of men and women, because older people are less able to offer resistance in case of a potential incident. As a rule, the socio-economic status of the elderly is rather poor in the society, which makes them vulnerable. Their greater fear is in many ways paradoxical, because in comparison with young people the elderly are at a significantly lower risk of actually becoming victim of a criminal offence due to their lifestyle.

Personal income is a major factor determining the social position. The amount of income affects the quality of life, lifestyle, volume and value of benefits used. That affects both the risk of becoming a victim and the feeling of security. For example, people with a low income will much more likely live in a socially disorganised residential area where people feel insecure. People are at a higher risk of victimization from street crime and violence in such areas. While the lack of property decreases the risk of becoming victim of criminal offence against property, the presence of valuable property is a risk-increasing factor in case of people with higher income. According to the results of victim survey 2004, people who felt the safest were the respondents with the above-average income, whereas 18% of them were afraid of being alone in the street after dark. The fear of crime was higher in case of respondents with the below average income — 35%.

In larger cities people's life tends to be more individualistic — social connections between neighbours are weak. Crime level is higher in larger cities than in rural areas. This is also reflected in the inhabitants' feeling of security. In 2004, the total of 47% of people residing in Tallinn and 41% inhabitants of other large cities (Tartu, Narva, Kohtla-Järve, Pärnu) felt unsafe. Living in smaller cities and towns is much more secure: only 13% of people living in villages felt unsafe when being outside after dark.

The feeling of security is also affected by the intensity of interpersonal relations. Insecurity increases in proportion to isolation from other people. Pursuant to the victim survey 2004, the total of 20% of respondents from areas with strong social support network felt insecure, when being alone in the vicinity of their home after dark. At the same time, 43% of people living in an isolated neighbourhood were afraid of crime. The feeling of insecurity and the fear of crime can often be referred to as the fear of strangers. If people communicate, there will be less "strangers" around. People with stronger social connections can rely on help from neighbours in case of attack. It is also important that people in the areas characterised by close interaction are much more active and involved in crime prevention. Once again, neighbourhood watch movement serves as a good example.

### Summary

Life in Estonia has become safer during recent years. This is indicated by the information about recorded criminal offences and subjective assessments given by people. General improvement of welfare and the gradual development of civil society have played a crucial role in this process. Stringent punishment policy is not enough to make people feel safe. It is important to ensure active involvement and cooperation of people in various spheres of life, which results in the growth of social capital. The state cannot be excluded from this process, but it has to increase the security of its citizens not only by means of crime control but also by means of reasoned social policy.

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### **ROAD TRAFFIC SAFETY AS A SOCIAL PROBLEM**

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Road transport plays a crucial role in European economy. It comprises a total of 83% of annual passenger-kilometres, and during 1995–2004 its capacity in the European Union (EU) grew by 18%, which is a considerably bigger growth in comparison to other modes of transport (International ... 2007).





Source: International Road Federation, 2007.

Several developed countries face serious problems affecting their environment and quality of life because of an increase in the number of cars. The most serious among them are environmental problems, and an increasing number of traffic accidents, persons injured and persons killed in traffic.

### Road traffic safety in the world

Around 700,000 people die and 10–15 million people get injured every year in traffic accidents around the world. Every third person needs medical treatment because of a traffic accident and every twentieth dies or becomes handicapped. 50,000 people (including more than 10,000 pedestrians and cyclists) die and 1.7 million people get injured every year in traffic accidents in the EU. (Directorate ... 2007) The damage caused to the EU by traffic accidents since Estonia's restoration of independence, which means a loss of more than 40 billion Estonian kroons. According to estimations, the same sum can be added for the medical treatment of people injured in accidents (*Transpordi* ... 2007).

Traffic accidents pose a serious social problem — more than 3,000 people get killed in traffic every day, thereby 85% of them in the developing countries. About one person in 200 dies in the world because of a traffic accident. (Trinca et al. 1988)

The World Health Organisation (WHO) predicts a 30% drop of traffic accident related deaths in developed countries, but at the same time it sees the number rising by the same amount in developing countries. If the current trends continue, traffic accident related deaths may take the third place in the list of death-causing health disorders and injuries already by the year 2020. (The World ... 1999)

Indicator	ECMT	USA	Japan
Number of inhabitants, million	801.1	285.3	125.0
Area, million km <sup>2</sup>	23.92	9.36	0.38
Number of motor vehicles, million	297.6	221.2	75.2
People killed in traffic accidents	101 855	42 116	13 078
(during 30 days)		~~	
Population concentration, inhabitants per km <sup>2</sup>	33	30	336
Level of car ownership, motor vehicles per 1,000 inhabitants	372	775	592
People killed in traffic accidents per 1 million inhabitants	127	148	79
People killed in traffic accidents per 1 million motor vehicles	342	190	134

#### Table 1 Road traffic safety in the ECMT countries<sup>a</sup>, in the USA and in Japan, 2001

<sup>a</sup> European Conference of Ministers of Transport, in which 39 countries participate (Austria, Albania, Azerbaijan, Belgium, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Germany, Greece, Finland, France, Macedonia, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Serbia and Montenegro).

Source: Country Reports on Road Safety Performance, 2006.

Several studies have tried to estimate the social damage caused by traffic accidents. The conclusion drawn shows that this sum reaches 180 billion euros per year just in the EU, which comprises almost 2% of the GDP of EU countries (Elvik 2002; Racioppi et al. 2004).

One of the main tasks in developing transport systems is to decrease human losses caused by traffic accidents. The social consequences of accidents and the relating human losses were the main reasons why the ministers of transport of the ECMT countries decided in 2002 to take measures in order to decrease the number of traffic accident related deaths in Member States 50% by the year 2012. The European Commission has set a similar task for the EU Member States, recommending to decrease the number of accident related deaths 50% by the year 2010 (European ... 2001).

### Road traffic safety in Estonia

The development of Estonian transport system follows the tendencies of other European countries to a great scale. The increase of car ownership (usually measured by the number of passenger cars per 1,000 inhabitants) has been very rapid in Estonia. This figure has tripled in the last twenty years. The Estonian Motor Vehicle Registration Centre (*ARK*) reports that 516,099 passenger cars, 4,364 buses and 79,085 lorries were registered in Estonia as at July 2007 (*Infoleht 2007*). When in 1986 there were 123 passenger cars registered in Estonia per 1,000 inhabitants, then by 1st October 2007 there were already 384 passenger cars and 443 motor vehicles registered per 1,000 inhabitants.

Table 2	Registered motor vehic	cles in Estonia, 1st Janua	y, 2002–2007
		,	

	2002	2003	2004	2005	2006	2007 <sup>a</sup>
Passenger cars	407 272	400 697	433 982	471 183	493 780	516 099
Lorries	80 535	80 179	83 430	85 732	86 201	79 085
Buses	5 542	5 306	5 364	5 284	5 194	4 364
Motorcycles	6 837	7 259	8 112	9 113	10 234	14 501
Total	493 349	486 182	522 776	562 199	585 175	595 184
Number of inhabitants	1 361 242	1 356 045	1 351 069	1 347 510	1 344 684	1 342 409
Passenger cars per 1,000 inhabitants	299	295	321	350	367	384
Motor vehicles per 1,000 inhabitants	362	359	387	417	435	443

<sup>a</sup> Data as of 1st Oct 2007.

Source: ARKi aastaraamat 2006, 2007, and data of Statistics Estonia.

The drop in the number of cars in 2001 was due to rearrangement of the *ARK* register, as a result of which cars that had not passed regular technical inspection were deleted from the register. The aim was to remove the motor vehicles that were not actually used in traffic from the motor vehicle register. Hence, the drop in car ownership during the years 2002–2003 was caused by the new motor vehicle registration principles.



Figure 2 Car ownership in Estonia, 1981–2006

Sources: ARKi aastaraamat 2006, 2007, and data of Statistics Estonia.

The growth in car ownership together with a more active car usage and bigger mobility has brought along many negative consequences also in Estonia, the most serious among them being the people killed and injured in traffic accidents.



### Figure 3 Traffic accidents, 1986–2006

Source: 2006. aastal Eestis toimunud inimkannatanutega liiklusõnnetuste statistika, 2007.

The year 1991, when 491 people were killed in traffic, was the worst year ever for Estonia in terms of traffic safety. The number of traffic related deaths has dropped since 1992, and less than 200 people per year were killed in traffic in the years 2003–2005. In 2006, however, the number of persons killed in accidents rose again, reaching the value 204.

Unfortunately there is no drop to be seen in the number of traffic injuries. The number of injured persons was 2,200 in 1991, but in 2006 it was already 3,500. Since the injured persons are not classified according to their level of severity of injury in Estonia, then it unfortunately cannot be analysed whether the number of injured people is based on minor or serious injuries. This also makes it impossible to compare the number of persons injured in traffic accidents and the indicators calculated on the basis thereof with the respective indicators of other countries.



Figure 4 Persons killed in traffic accidents, 1986–2006

Source: 2006. aastal Eestis toimunud inimkannatanutega liiklusõnnetuste statistika, 2007.

Figure 5 **Persons injured in traffic accidents, 1986–2006** 



Source: 2006. aastal Eestis toimunud inimkannatanutega liiklusõnnetuste statistika, 2007.

When we also take into consideration the changes in the number of inhabitants and an increase in the fleet of cars, then the relative risk of traffic deaths has still dropped considerably as compared to the 1990s, even though the decrease of this indicator has slowed down since 2003.

The years 1992–2006 were characterised by an increased number of traffic accidents on rural roads. The number of accidents in urban areas changed in a slightly different way. The number of traffic accidents in urban areas increased from 1992 to 1995, but then decreased in 1996, and stayed steadily almost at the same level up to 2000. The following years after 2000 have seen an increase in the number of traffic accidents.

The number of road deaths has changed both inside and outside urban areas. The decrease in the number of deaths on the roads of urban areas since 1994 is much more noticeable than on rural roads. What has changed considerably, however, is the ratio of the absolute number of deaths happened outside urban areas and those happened in urban areas: it was 1.2 in 1991, 1.1 in 1994, and even 3.5 in 2005. The number of deaths outside urban areas dropped two times, and the number of those happened in urban areas — 6.1 times during the observed period.

The increase in the number of road injuries is obvious both on the roads of urban areas roads and on rural roads. The years 1994 and 1995 were exceptionally bad in respect to the roads of urban areas as the number of injured people was particularly high then. In most

years the number of people injured in accidents on the roads of urban areas exceeded the same indicator concerning rural roads. (2006. aastal ... 2007)



Figure 6 Traffic accident ratio indices, 1991–2006

Source: 2006. aastal Eestis toimunud inimkannatanutega liiklusõnnetuste statistika, 2007.

Table 3 Traffic accidents, 2000–2002, 2003–2005

	Annual average		Change	
	2000-2002	2003–2005	Number	%
Traffic accidents	1 852	2 166	+313	+16.9
per 10,000 of inhabitants	14	16	+2	+17.9
outside urban areas	795	902	+106	+13.4
%	43	42	-1	-3.5
in urban areas	1 057	1 264	+207	+19.6
%	57	58	+1	+2.7
Killed in traffic accidents	209	167	-41	-19.8
per 10,000 of inhabitants	1.53	1.24	-0.29	-19.0
outside urban areas	145	128	-17	-12.2
%	70	76	+6	+9.6
in urban areas	63	40	-23	-37.4
%	30	24	-6	-22.0
Injured in traffic accidents	2 385	2 805	+420	+17.6
per 10,000 of inhabitants	17.5	20.8	+3.3	+18.9
outside urban areas	1 154	1 327	+173	+15.0
%	48	47	-1	-2.2
in urban areas	1 231	1 478	+247	+20.1
%	52	53	+1	+2.1

Source: 2006. aastal Eestis toimunud inimkannatanutega liiklusõnnetuste statistika, 2007.

When in previous years, the number of people killed in traffic accidents has decreased in general, then since 2003 it has been increasing again. Similarly, the number of deaths in 2007 is most likely going to be higher than it was in 2006.



#### Figure 7 **Persons killed in traffic accidents, 2003–2007**<sup>a</sup>



### Estonia in comparison with other European countries

Despite a decrease in the number of people killed in traffic accidents, Estonia is still among countries with a high traffic hazard in comparison with other European countries. At this point, the problem is also the lack of suitable comparable figures.

We can carry out a reliable road traffic safety comparison only with respect to countries that have a similar level of car ownership, which means that we can compare countries in which the number of motor vehicles per 1,000 inhabitants is similar. A better indicator for assessing road traffic safety is traffic volume; however, this data are missing for many countries or they are unreliable. The best and most available criterion for assessing road traffic safety is the number of traffic accident related deaths per one million inhabitants. At the same time, this indicator may not necessarily show if the respective country's road traffic safety policy is better or worse. Differences may also be caused by very different traffic conditions caused by various geographical and socio-economic factors:

- climate and geographical conditions,
- division of vehicles by type,
- traffic management,
- importance of international traffic,
- density and quality of road network,
- land usage and planning,
- population density,
- traffic behaviour,
- standard of living, etc.

It should also be taken into consideration that not all countries have started using the definition<sup>a</sup> of a person killed as recommended by the UN. In addition to that, also the definition of a person injured has not been jointly defined, which makes comparisons between countries less reliable. Some countries register only serious injuries that require medical care, the definition thereof is often based on the time spent in hospital (24, 48 or 72 hours), while other countries take into account even minor injuries (European ... 2007).

Table 4 shows the number of persons killed in traffic accidents per one million inhabitants in European countries during the years 2000–2005. Since the countries vary in size, then a more objective view is provided by comparing the number of deaths per 1,000 of population. It will take a long time for Estonia to reach the average level of the EU, although Estonia's indicator in comparison with the respective indicators of Latvia and Lithuania was 1.7 times better in the year 2005.

<sup>a</sup> Died within 30 days following the traffic accident.
Country	Persons killed	l in traffic acci	dents			Persons killed
	2001	2002	2003	2004	2005	per 1 million inhabitants (annual average for 2001–2005)
Malta	16	16	16	13	17	39.0
Netherlands	993	987	1 028	804	750	56.1
Sweden	583	560	529	480	440	57.8
United Kingdom	3 598	3 581	3 658	3 368	3 337	58.8
Norway	275	310	280	257	224	58.8
Switzerland	544	513	546	510	409	68.5
Denmark	431	463	432	369	331	75.0
Finland	433	415	379	375	379	75.9
Germany	6 977	6 842	6 613	5 842	5 361	76.7
Ireland	412	376	337	379	399	94.5
Italy	6 691	6 739	6 065	5 625	5 462	105.7
France	8 162	7 655	6 058	5 530	5 318	108.7
Austria	958	956	931	878	768	109.9
Slovakia	614	610	645	603	560	112.7
Spain	5 517	5 347	5 400	4 749	4 442	120.2
Belgium	1 486	1 306	1 214	1 162	1 089	120.3
Luxembourg	69	62	53	49	46	123.5
Hungary	1 239	1 429	1 326	1 296	1 278	129.8
Slovenia	278	269	242	274	258	132.4
Czech Rep.	1 334	1 431	1 447	1 382	1 286	134.8
Estonia	199	223	164	170	169	136.9
Cyprus	98	94	97	117	102	139.2
Portugal	1 670	1 668	1 542	1 294	1 247	141.7
Poland	5 534	5 827	5 640	5 712	5 444	147.5
Greece	1 880	1 634	1 605	1 670	1 658	153.0
Lithuania	706	697	709	752	760	210.3
Latvia	558	559	532	516	442	224.8
EU25	51 255	50 569	47 488	44 176	41 976	103.0

#### Table 4 Persons killed in traffic accidents in the European Union, 2001–2006

Source: Country Reports on Road Safety Performance, 2006.

Table 5 shows that the situation during the last five years has been improving at a slower pace in Estonia than in the EU countries on average – we have fallen even behind Latvia. Figure 8 shows the number of persons killed during the periods 2000–2002 and 2003–2005. This explicitly shows that Latvia and Lithuania have the highest number of people killed per 1,000 inhabitants in Europe. Estonia is positioned at the top of the second third.

#### Table 5 Persons killed per 1,000 inhabitants, 2001–2005

(year 2000 = 100%)					
Country	2001	2002	2003	2004	2005
Austria	98	98	95	88	77
Belgium	101	88	82	78	73
Cyprus	87	83	84	100	85
Czech Rep.	90	97	98	94	87
Denmark	86	92	86	73	65
Estonia	98	110	81	85	84
Finland	109	104	95	94	93
France	101	94	74	67	64
Germany	93	91	88	78	71
Greece	92	80	78	78	78
Hungary	103	120	111	109	108
Ireland	97	87	77	85	88
Italy	103	106	95	87	-
Latvia	89	89	92	90	78
Lithuania	111	110	112	120	122
Luxembourg	91	80	67	62	58
Malta	104	103	102	82	107
Netherlands	91	90	93	73	67
Poland	88	93	91	92	88
Slovakia	98	97	103	96	89
Slovenia	89	86	77	87	82
Spain	95	91	92	78	71
Sweden	98	94	89	80	73
United Kingdom	100	101	103	94	93
EU25	100	98	92	85	70
Norway	80	90	81	74	64
Switzerland	100	94	99	92	73

Source: International Road Federation, 2007.



Figure 8 Persons killed per 1,000 inhabitants, 2000–2002, 2003–2005



Figure 9 shows that the situation in Estonia is improving. We are among the average also in comparison with other European countries. On the whole, the number of road deaths is decreasing in all countries; only Lithuania and Hungary experience setbacks.



Figure 9 Persons killed per 1,000 inhabitants, 2003–2005 (the years 2000–2002 = 0%)

Source: International Road Traffic and Accident Database, 2007.

AT — Austria	DK — Denmark	HU — Hungary	LV — Latvia	SE — Sweden
BG — Bulgaria	EE — Estonia	IE — Ireland	NL — Netherlands	SI — Slovenia
CH — Switzerland	ES — Spain	IT — Italy	NO — Norway	SK — Slovakia
CZ — Czech Rep.	FI — Finland	LI — Liechtenstein	PL — Poland	UK — United
CY — Cyprus	FR — France	LT — Lithuania	PT — Portugal	Kingdom
CY — Cyprus	FR — France	LT — Lithuania	PT — Portugal	Kingdom
DE — Germany	GR — Greece	LU — Luxembourg	RO — Romania	

In Estonia, the consequences of traffic accidents in which people get killed or injured are rather serious (Table 6). The probability of getting killed in a traffic accident is twice as high in Estonia as in the observed countries on average.

The ratio between the injured and the dead in traffic accidents is a road traffic safety indicator in which differences among countries are quite big. This ratio is around 70–80 in most countries with a high level of car ownership. In 2003, there were 11.8 injured persons for every person killed in a traffic accident, the countries' average value was 24.3.

Country	Killed	Injured	Severity of accident (persons killed per 100 persons injured)
Austria	931	34 466	2.7
Denmark	432	6 196	7.0
Finland	379	5 599	6.8
France	6 058	86 987	7.0
Germany	6 613	327 556	2.0
Greece	1 605	11 830	13.6
Netherlands	1 028	23 260	4.4
Portugal	1 542	27 733	5.6
Spain	5 400	61 313	8.8
Sweden	529	14 876	3.6
Estonia	164	1 931	8.5

### Table 6 Severity of traffic accidents in European countries, 2003

Source: International Road Traffic and Accident Database, 2007.

### Figure 10 Persons killed per 100,000 passenger cars, 2004



<sup>a</sup> Data of 2003.

Source: International Road Traffic and Accident Database, 2007.

AT — Austria BG — Bulgaria CH — Switzerland CZ — Czech Rep. CY — Cyprus	DK — Denmark EE — Estonia ES — Spain FI — Finland FR — France CB — Grapsco	HU — Hungary IE — Ireland IT — Italy LI — Liechtenstein LT — Lithuania	LV — Latvia NL — Netherlands NO — Norway PL — Poland PT — Portugal PO — Romania	SE — Sweden SI — Slovenia SK — Slovakia UK — United Kingdom
DE — Germany	GR — Greece	LU — Luxembourg	RO — Romania	0

As it is shown in Figure 11, the indicators and trends of the Baltic countries are very similar to one another, differing considerably from those of the Western European countries.



## Figure 11 Persons killed per one traffic accident in the Baltic countries, 1992–2002

Source: International Road Traffic and Accident Database, 2007.

## Road traffic safety programmes

Road traffic safety has been included in many studies both in a national and in an international context. Many countries have passed road traffic safety enhancement plans. For example, the EU has set out to decrease the number of road deaths 50% by the year 2010.

#### Table 7 Objectives of road traffic safety programmes in European countries, 2006

Country	Objective
Austria	50% less road deaths by 2010 (compared to the years 1998–2000)
Belgium	50% less road deaths by 2010 (compared to the years 1998–2000)
Czech Rep.	50% less road deaths by 2010 (compared to the year 2002)
Denmark	40% less road deaths and serious injuries by 2012 (compared to the year 1998)
Finland	Less than 250 road deaths by 2010
Greece	50% less road deaths by 2010 (compared to the year 2000)
Hungary	50% less road deaths and injuries by 2015 (compared to the year 2001)
Ireland	25% less road deaths by 2006 (compared to the years 1998–2003)
Latvia	50% less road deaths and 20% less injuries by 2006 (compared to the year 1999)
Lithuania	50% less road deaths and 20% less injuries by 2010 (compared to the year 2004)
Malta	50% less road deaths and 50% less injuries by 2014 (compared to the year 2004)
Netherlands	Less than 580 road deaths by 2020
Poland	Less than 3500 road deaths by 2010
Portugal	50% less road deaths by 2010 (compared to the average of the years 1998–2000)
Slovakia	50% less road deaths by 2010 (compared to the year 2002)
Slovenia	50% less road deaths by 2005 (compared to the year 1995)
Spain	40% less road deaths by 2008 (compared to the year 2003)
Sweden	50% less road deaths by 2007 (compared to the year 1996)
United Kinadom	40% less road deaths and serious injuries by 2010 (compared to the year 2000)

Source: Country Reports on Road Safety Performance, 2006.

Estonia, too, has passed a national road traffic safety programme (NRTSP), the main objective of which sets out to limit the number of road deaths to one hundred persons or less in the year 2015.

Thus, it appears that Estonia's goal is slightly more modest than that of the European Commission. In order to meet the objectives of the EU, no more than 102 people may be killed in traffic accidents in Estonia in the year 2010 (the number of road deaths was 204 in the year 2004).

The activity plan of the NRTSP for the years 2003–2015 is the following.

- The NRTSP has three stages:
  - From 2003 to 2006: the most important, the quickest and cheapest measures shall be implemented;

- From 2007 to 2010: measures implemented in the first stage and proved to be efficient shall be continued, by making use of more complex and expensive means;
- From 2011 to 2015: the results of the first two stages shall be analysed, and complex, expensive and postponed measures shall be applied.
- The road traffic safety programme should come into effect smoothly with the help of the so-called sliding three-year activity plans.
- At the same time, activities and results of the previous year shall be analysed and evaluated, and the activity plan for the next three years shall also be modified.
- The Ministry of Economic Affairs and Communications in cooperation with other concerned ministries (taking into account the road traffic safety plans of local governments) will present the said activity plans to the government for approval.

## Figure 12 Persons killed in traffic accidents in Estonia during the years 1989–2006, and objectives of the road traffic safety programme for the years 2004–2015



Source: Eesti rahvuslik liiklusohutusprogramm aastateks 2003–2015, 2007.

The main activities of the five fields of the NRTSP are:

- shaping of attitudes,
- training,
- enforcement,
- traffic environment,
- planning.

Principles for ensuring the main activities are as follows:

- comprehensive approach (all fields are developed simultaneously);
- cooperation (all agencies, organisations, associations, unions and enterprises who are connected to road traffic safety will be included);
- legal regulation and sufficient financing of the activities;
- supporting of voluntary initiative;
- working at a regional and local level.

The activities of the NRTSP have unfortunately stayed at a fairly declarative level. Even though the NRTSP received approval from the government in 2002 and was discussed in the *Riigikogu*, the 2004–2006 activity plan was not supported by the ministries. Therefore, the activity plan for the first stage (including the financing programme) was not introduced. In 2006 the Estonian Road Administration initiated the preparation of the activity plan for the second stage (2007–2010) of the NRTSP.

### Summary

Even though the traffic situation in Estonia shows some signs of improvement, no major breakthrough in the attitudes and behaviour patterns of the Estonian people has yet been achieved. Rapid car ownership increase, growth of traffic and the addition of many young drivers or drivers with little experience into the twirls of traffic are not smooth or painless processes. Paradoxically, the better condition of roads has also hindered road traffic safety to some extent. Better roads bring about faster driving speeds while traffic behaviour has not become safer.

Even though the number of people killed in traffic accidents has generally decreased, the year 2006 experienced a setback. Nonetheless, the number of persons killed in traffic accidents in Estonia is still within the predicted limits of the Estonian road traffic safety programme. According to the vision of the road traffic safety programme, no more than 100 people may die in traffic in the year 2015. The programme objective for 2005 was less than 213 road deaths (the actual number of deaths was 169), the maximum limit for 2006 was 202 (the actual number of deaths was 204). The preliminary data for 2007 do not look very optimistic either.

Unfortunately, the measures of the national road traffic safety programme have not been fully implemented. No comprehensive and coordinative work involving various fields of activity can be detected; cooperation at national, regional and local levels is moderate; supplements to the legislation have not been completed and the question of financing is practically unsolved. In addition to that, voluntary initiative is not tied to national goals, and work at regional and local levels is ineffective or disregards the objectives of the NRTSP. At the same time, it is obvious that achieving the final goal of the road traffic safety programme might be jeopardised without a new activity plan acceptable for the government.

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# THE ROLE OF CULTURE AND SPORT IN SOCIAL COHESION

#### Yngve Rosenblad Statistics Estonia

Social cohesion is often determined through employment. At the same time, a full life also includes all activities and relations outside work — family life, social relations, participation in cultural life and informal networks.

The Council of Europe defines social cohesion as "capacity of a society to ensure the welfare of all its members, minimising disparities" (Concerted... 2005: 9). It is based on social ties that promote people's well-being and it is tied to concepts such as equal access, respect for human dignity, autonomy, responsible participation, personal development, relations, sense of belonging, and shared values. Social cohesion is like a tree, the roots of which are relations, trust, values, emotions, knowledge, i.e. the social and cultural capital (Concerted... 2005: 43).

Culture is the creator and keeper of shared values in the society; therefore, cultural and sporting activities strengthen cohesion with society's values and attitudes. These activities are often social, thus they help to avoid isolation, strengthen social networks and enhance the sense of cohesion with the society. Cultural self-expression and activities play an important role also in the development of an individual. To sum up: cultural capital of the society and its members influences social stability and cohesion to a great extent. (Rosenblad 2007)

It is important to include all social groups in order to ensure stability. Certain groups of population, such as people living in the periphery, non-Estonians, the poor, and families with children, tend to be in a disadvantageous situation in terms of participation in social life.

The following shall examine the role of culture and sport as promoters of social cohesion through the availability of services and through the active participation of social groups in cultural life. Availability will be described by the supply of cultural services while demand is shown by participation rates. Participation in social life is examined through the membership of cultural associations.

When examining the supply of cultural services, it must be taken into account that since the market economy does not ensure sufficient availability of cultural and sports services to all social groups, this is subsidised by the state. People's participation in cultural life is useful for the state; therefore, the state promotes both the supply of (such as the VAT incentive) and participation in cultural activities (such as school trips to St. Petersburg and Paris, planned at a state level). Supply and demand are not in a direct correlation in culture. Cultural activities are a part of people's life style and in the free society each individual has the right to choose such activities himself. To put it figuratively: a great deal of people would never enter an exhibition hall, even if it was on their way home and there was no ticket fee.

Official statistics has been used to distinguish between various time trends regarding the availability of cultural life and the relevant services. The activity of participation in cultural life is examined on the basis of data from cultural ad hoc modules of the Estonian Labour Force Survey (2004) and the Estonian Social Survey (2006). The Labour Force Survey sampling includes the working-age population (15–74-year-olds); the Estonian Social Survey includes the at least 16-year-old inhabitants of Estonia.

Provision of A precondition for participation in cultural life is its diversity and its good performance in the society, or in other words — the sufficient supply of cultural goods and services is what matters.

The biggest changes in the network of cultural establishments took place at the beginning of 1990s together with fundamental changes in the society. The work of several state cultural establishments was rearranged and numerous private cultural organisations were founded. By now, the situation has become more stable.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cinemas			10	10	10	11	12	10	10	10	11	12
Stationary theatres			18	18	19	19	19	19	19	17	17	15
Museums (incl. branches)	118	119	114	117	179	183	182	190	200	210	209	209
Public libraries	604	603	602	599	597	585	578	576	573	564	562	568

Table 1	Cultural	establishments,	1995-2006
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Source: Data of Statistics Estonia

There were only around ten cinemas left by the second half of the 1990s, and only six counties out of fifteen had a stationary cinema. The opening of the first multiplex cinema in 2001 in Tallinn brought about a significant change in the Estonian cinema market. The movie theatre, with its 11 screens, made the cinema scene even more Tallinn-centred than before. The number of screened films grew rapidly within the last five years, crossing the amount of 250 in 2006 (Table 2). The US film production still prevails; however, after joining the European Union, there is a slight growth in the number of screened European, Russia, and Asian films. The number of Estonian films being shown has also increased during the last years, both due to a more active film production and also better distribution conditions (such as the Cinema Bus ---- Kinobuss).

The number of museums has grown considerably during ten years and they have also started to show more variety. In addition to big state museums, mostly rural municipalities' and farm museums grew in number, but many companies, institutions and schools also set up their own museums.

The theatre scene, too, has started to display more variety. The number of state theatres (9) remained the same during the independence period; in respect to city theatres, Kuressaare City Theatre provided an addition to Tallinn City Theatre in 1999. Several private theatres also found their place next to state theatres and a number of theatre companies without a stationary playing location and single projects were launched. However, the majority of theatre plays were still brought to the stage in state and town theatres: 250 productions and 3,500 performances a year during the last decade (Table 2).

Even though the arrangement of concerts became highly divided (concert agencies, the third sector, local governments), the state concert institute Eesti Kontsert is still the biggest concert organiser. The selection of music genres and the number of events offered by Eesti Kontsert grew almost by half during the last ten years.

The public libraries network was optimized during the last decade, which is why their total number fell noticeably in the new millennium. However, most of the libraries were not entirely closed down; they were just put under a joint management.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Screened films	160	242	206	177	172	183	199	161	163	181	210	256
Production by state and												
town theatres	386	247	245	253	271	285	295	267	270	257	244	272
Performances by state and												
town theatres	3 280	3 465	3 269	3 435	3 452	3 761	3 614	3 763	3 424	3 171	3 201	3 228
Concerts by Eesti Kontsert	572	597	658	672	800	787	850	740	869	1 091	1 078	

#### Table 2 Cultural events, 1995–2006

services

Source: Data of Statistics Estonia.

Prices of cultural The ticket prices of cultural events have increased several times during the last ten years. When in 1995, one could buy a cinema ticket for 16 kroons and a theatre ticket for 25 kroons, then in 2006 ticket prices had increased more than fourfold (Table 3). The increase in price is considerable even though inflation decreased the real value of money almost twofold during this period. The mean price of cinema ticket was slightly cheaper than the mean price of theatre ticket during the period under observation, but this was mostly due to the cheaper services offered by rural cinemas and by the Kinobuss. The multiplex cinema Coca Cola Plaza had its customers pay 120 kroons - a sum already comparable to a theatre ticket — for an evening cinema session in 2006.

> Even though museum ticket prices also rose considerably during the past ten years, their prices still remained more affordable in comparison to other cultural establishments.

Nevertheless, the ticket prices' scale was still rather wide — while many small museums requested no fee at all, then visiting KUMU Art Museum cost 75 kroons.

#### Table 3 Mean price of ticket, 1995–2006 (kroons)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cinemas	16	26	30	44	46	46	58	58	63	63	68	66
State and town theatres	25	31	38	45	49	58	64	74	89	100	96	116
Museums	3	4	3	4	5	5	6	7	7	9	13	15

Source: Data of Statistics Estonia.

The relative availability of cultural services can be seen better not by looking at absolute prices but rather by comparing them with the average wages and salaries. Here the tendencies differ by different types of culture (Figure 1). The theatre ticket prices rose by approximately one-fifth compared to the average gross wages and salaries during the last ten years, the museum ticket prices rose by more than a half.

If the mean price of theatre ticket comprised more than 1% of the average monthly wages and salaries throughout the entire period, then the ratio of a cinema ticket to the wages and salaries increased rapidly until 1998 and also passed the 1% line. In the new millennium, wages and salaries rose faster than the mean price of cinema ticket, and going to the cinema became more affordable again. The ratio of a museum ticket price to the average gross monthly wages and salaries was fairly stable throughout the observed period, being around 0.1%.

#### Figure 1 Mean price of theatre, cinema and museum tickets, 1995–2006



Changes in attendance of cultural establishments

ce The number of visits to cultural establishment dropped steeply at the beginning of 1990s, but during the last ten years the number has been constantly increasing (Table 4). In 2006 there were almost one million visits to theatres, more than one and a half million visits to cinemas, and even more visits to museums. The number of books borrowed from libraries dropped slightly in recent years, but this was mainly due to the development of e-services in libraries.

In a restricted culture room, single cultural events can have the power to affect the number of visits considerably. This is especially noticeable in case of visits to cinema — the box-office hits that were screened in the years 2002 and 2006 attracted a larger audience than usual into cinemas.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Theatres	758 <sup>a</sup>	755 <sup>a</sup>	959	967	952	921	985	1 002	1 058	938	843	922
Cinemas	1 012	1 005	961	1 061	875	1 074	1 304	1 531	1 246	1 151	1 120	1 572
Concerts by Eesti Kontsert	76	94	119	149	211	194	202	166	201	226	243	
Museums	975	1 145	1 276	1 240	1 378	1 539	1 575	1 524	1 636	1 726	1 762	1 883
Public libraries (units lent)	12 159	13 643	14 549	15 352	15 761	14 012	13 504	13 135	12 963	12 655	11 679	10 717

## Table 4 Attendance of cultural establishments, 1995–2006 (thousand)

<sup>a</sup> State and town theatres

Source: Data of Statistics Estonia.

Statistics on attendance clearly shows the total number of visits but it does not distinguish between repeated visits and it does not show the percentage of tourists in the total number. Survey statistics is better in finding out which share of the population attends cultural events and how often. According to the 2006 Estonian Social Survey, 60% of the people who were 16 years of age or older visited a cultural establishment or attended an event during the previous 12 months, and 25% visited a sporting event (Figure 2). The percentage of people frequently visiting cultural establishments (at least once in three months) was considerably smaller — 30% visited libraries, one-fifth visited theatres and concerts, and the number of those going to cinemas, museums and sporting events was less than a half. Only one person in fifteen was a well-rounded participant in cultural life (went to the cinema, library, theatre or concert, and museum or exhibition during the year).

#### Figure 2 Attendance of cultural events and establishments during the past 12 months, 2006



Source: Estonian Social Survey, 2006.

Even though Estonians are, despite relatively high ticket prices, among the more active visitors of cultural establishments in Europe, the high percentage of people who have not attended any cultural events during the year becomes very apparent in Figure 2. Two-thirds of the population did not go to the cinema, museum, library or exhibition during the year, and almost a half did not attend any theatre performances or concerts.

Although the Estonian people are rather active in participating in cultural life, the sociodemographic differences were still quite significant. There was an especially big difference in accessing cultural services in the early 1990s (Järve 1999), but differences between Estonians and non-Estonians, between richer and poorer people and between urban and rural populations are still noticeable.

The 2006 Estonian Social Survey reveals that two-thirds of Estonians but only half of non-Estonians visited a cultural establishment or event during the previous 12 months. Figure 3 shows that Estonians participated more actively in cultural life also by all types of culture. The number of non-Estonians who had visited theatre, concert, museum, exhibition or

Participation in cultural life by ethnic origin cinema at least once during the previous 12 months was about 25% less in comparison with Estonians; the difference was even bigger with respect to sport.



Figure 3 Participation of Estonians and non-Estonians in cultural life during the past 12 months, 2006

Source: Estonian Social Survey, 2006.

The non-Estonians' lower attendance percentage at cultural events was largely due to the fact that the cultural services targeted at the Russian-speaking population were less available (in the 2004 survey, too, more non-Estonians than Estonians complained with respect to several types of culture that they were dissatisfied with the choice offered in respective establishments). Out of eleven state and town theatres, only the Russian Theatre in Tallinn is oriented to the Russian audience; in addition to that, the state also regularly subsidises three theatre studios in Ida-Viru county but their attendance numbers are several times smaller than those of state theatres (Eesti ... 2007). In case of cinema services, however, the Estonian and Russian-speaking population are treated quite equally since films are traditionally shown with both Estonian and Russian subtitles. At the same time, the Russian-speaking population is more used to films being dubbed, while Estonians are more accustomed to reading subtitles. Nevertheless, there is a reason to expect bigger attendance of cinema among non-Estonians due to the opening of a multiplex cinema in Narva in 2006.

Even though surveys refer to the relatively high interest in reading of the Russian speaking population, the book selection of libraries is aimed more at the Estonian speaking population. At the same time, the Russian-language books are often cheaper and their selection fairly large because of the big market in the East (Lõhmus, Lauristin, Salupere 2004: Kultuuritarbimise ... 2006). The 2004 survey also showed that the percentage of non-Estonians who go in for (or had done so in the past) cultural activity themselves was also smaller in comparison with Estonians. The difference was even twofold with regard to singing (one-fifth of Estonians, and one-tenth of non-Estonians, were practising it or had practised it); surprisingly, the same difference was revealed with regard to dancing. (Rosenblad 2007)

Participation in An active cultural life is tied to urban lifestyle, since most cultural establishments are located cultural life by place of in cities, there are more cultural events in cities and participation is easier there. Four out of the twelve cinemas in operation are located in Tallinn, and in 2006 they made up four-fifths of the total number of visits to cinema (Facts... 2007).

> The theatre network is even more Tallinn-centred: six out of eleven state and town theatres are located there. The percentage of guest performances (performances given outside the stationary theatre) by state theatres rose at the end of 1990s and reached the level of 30% at the beginning of the millennium, but the number has dropped again during the last years. The state and town theatres gave only every ninth performance outside the theatre towns (Tallinn, Tartu, Pärnu, Viljandi, Rakvere, Kuressaare) in 2005 (Eesti... 2007).

> Museums and libraries have the best regional representation among cultural establishments. While the number of museums increased in rural municipalities (mostly on private initiative),

residence

then the number of libraries decreased by 26 in rural areas during the period 1995–2006. The rearrangement of library network was to a large extent an unavoidable process connected with the decreasing population and increased technical requirements set for libraries. Rural population decreased so fast that even despite the fact that some libraries were closed down the number of people per library dropped nonetheless in most counties.

## Figure 4 Participation of urban and rural population in cultural life during the past 12 months, 2006



Source: Estonian Social Survey, 2006.

The regionally disproportionate division of cultural services becomes also apparent in the number of visits (Figure 4). 32% of urban residents and 23% of rural residents had been to the cinema at least once during the previous year. A similar difference also occurred in attendance of theatres, concerts, museums and exhibitions. Only libraries and sports competitions saw a higher percentage of rural resident visits in comparison with the urban population. Libraries often have a substantially bigger role in rural areas, serving also as a meeting place, an Internet access point and a cultural establishment.

In the 2004 survey, rural residents mentioned that the main reason hindering them from attending cultural events was the distance of cultural establishments from their place of residence. Since the rural population often needs to drive far from their homes in order to attend events, it is rather costly and time-consuming and it also brings about transportation problems.

Rural residents do not lag behind the urban residents in cultural hobbies — the number of people involved in singing or dancing was even one-third higher in rural areas. Cultural hobbies also partly help to compensate for poorer possibilities to visit theatres, cinemas and concerts.

Participation in<br/>cultural life by incomePeople's opportunities to participate in cultural events are greatly connected with their<br/>income. Families with a higher income can spend more money on culture (*Kreitzberg 2005*).<br/>According to the 2005 Household Budget Survey, the average spending on free time<br/>differed more than fivefold in the poorest and the richest income quintiles (*Rosenblad 2007*).

The 2004 Labour Force Survey revealed, as expected, that richer population groups were more active in visiting cultural events and establishments and they were in general more actively involved in cultural hobbies. Figure 5 compares the richest and poorest income groups in terms of visiting cultural events, and a difference is obvious in all types of culture (the biggest difference occurred in visiting cinemas and the smallest difference in visiting libraries). A big difference in the number of visits to museums shows that the cultural activity of richer and poorer people does not only depend on financial opportunities because visiting museums does not generally put a strain on the wallet.





Source: Labour Force Survey, 2004.

## Changes in hobby education

People deal with cultural hobbies mostly through the network of hobby schools and clubs. Almost 300 hobby schools held education licence in 2007; almost half of these schools were municipal property and the rest were privately owned. Even though local government-owned hobby schools were supplemented with several privately launched schools offering musical and art education, the network of municipal hobby schools has also expanded during the last ten years. When in 1995, there were 70 of such music and art schools, then in 2004 there were already around a hundred of them (Table 5). The total number of youth studying in these schools grew by a third during this period — there were more than 12,000 students in local government-owned music and art schools.



### Figure 6 Students of municipal hobby schools and sports schools, 1995–2005

Source: Data of Statistics Estonia.

The structure of sports training has changed considerably during the last ten years. In the 1990s more emphasis was on municipal sports schools, but in the new millennium the majority portion of sports training was put on sports clubs. The system of sports clubs has made a significant progress after the restoration of independence — in 2005 almost 70,000 children (up to 18 years of age) were training in sports clubs. At the same time, the number of sports schools increased during the past years again as a result of the launched private sports schools, which in 1998 comprised one-third of all sports schools, and in 2005 the respective share was already two-thirds.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Music and art schools											
schools	70	82	86	86	90	91	91	94	95	97	
students, thousand	9.2	10.2	10.3	10.6	11.4	11.6	11.7	11.8	12.2	12.4	
Sports schools											
schools	56	57	59	57	55	54	43	42	54	55	64
private sports schools				22	22	23	26	25	35	35	42
students, thousand	21.1	21.2	20.6	20.4	20.2	19.6	12.7	13.3	14.0	13.4	17.0
in private sports schools				5.3	5.6	6.0	6.5	6.7	7.7	6.9	10.3
Sports clubs											
operating sports clubs	456	579	713	734	856	866	1 056	1 038	1 224	1 512	1 599
young athletes, thousand	14.5	26.1	30.5	29.9	37.2	37.5	58.8	49.2	60.2	69.1	69.1

#### Table 5 Sports, music and art schools, and sports clubs, 1995–2005

Source: Data of Statistics Estonia.

Even though counties with a smaller number of population had even more hobby schools (for example, Hiiu county had two municipal art and music schools in 2004, which makes one per 5,000 persons; the ratio was 1:50,000 in Tallinn), education opportunities are still worse in rural areas because of the smaller number of schools, the curricula offered, greater distance and worse transportation opportunities.

Participation in<br/>cultural life through<br/>the third sectorMost of the dialogue between the citizens and the state takes place through the non-profit<br/>sector, which is, aside from organised joint activity, one of the main functions of these<br/>institutions.

The third sector experienced a rapid development during the last decade. Even though the percentage of cultural societies dropped in the non-profit sector, their total number still grew significantly. In 2006, there were more than 10,000 non-profit institutions operating in the field of "Other community, social and personal service activities" (Class 92 by *EMTAK*, a major part of which is comprised of culture and sport) — this makes more than a twofold growth during the past ten years.

#### Number, thousand 25 20 Non-profit sector in 15 total 10 Community, social and 5 personal services category 0 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006

### Figure 7 Non-profit institutions and foundations, 1995–2006

Source: Data of Statistics Estonia.

Sports clubs comprised the biggest part of non-profit institutions in the field of culture and sport — more than 2,000 clubs in 2007. There were more than a thousand hobby clubs, almost the same number of associations promoting local life, a bit less children's and youth associations, art unions, and associations promoting culture and education. There were more than 300 cultural societies of national minorities and about a hundred artistic associations.

According to the 2006 Estonian Social Survey, one quarter of the population participated in the activity of voluntary organisations during the previous 12 months. The participation activity in the work of such organisations was similar among urban and rural residents, but

the difference between Estonians and non-Estonians was twofold in favour of Estonians. A similar difference was also characteristic of the employed and unemployed people — only 12% of the latter participated in the work of voluntary associations during the previous year.

Regarding voluntary organisations, people participated most frequently in the work of societies and groups related to hobbies and leisure activities — every seventh person during the past 12 months. Young people were slightly more active in participating in the work of organisations that promoted their hobbies — a quarter of people aged between 15–19. People in retirement age were less active — on average it was one in ten persons who was related to the work of any such associations. Significant differences in belonging to hobby associations could also be noticed in terms of employment and ethnic origin — the employed persons were more active than the unemployed and the number of Estonians was almost three times higher than that of non-Estonians.

## Summary

Inclusion of the members of society in cultural life promotes social cohesion, creates and strengthens the shared values, offers opportunities for self-realisation and participation in community life, and strengthens social ties. For that reason, the state is also interested in people's active inclusion in cultural life, but cultural activity varies greatly among different population groups. This is to a large part due to the unequal availability of cultural services. Extremely strong polarisation that characterised the early 1990s is still present among social groups. Despite an increase in prosperity, cultural services have not generally become more available. Maintaining the level of cultural services in rural areas is evermore expensive because of the decreasing population there. At the same time, recent tensions at national level show how important it is to involve various population groups in a shared space of values.

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## **REGIONAL DEVELOPMENT OF SOCIAL COHESION**

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Most indicators of social cohesion also have a regional aspect. The present approach examines mostly the volume and availability dynamics of the spheres that are closely connected with the social cohesion of activities and services. The main evaluation criterion of availability is distribution of income. Proceeding from that, regional social cohesion has been assessed from two aspects: labour market and income.

Having work is a factor that influences social satisfaction considerably and through that it also influences social cohesion. Work is the main source of income for people and the size of income has a direct influence on people's abilities to perform or receive activities and services that increase social cohesion.

In case of sufficient income, influence of the regional aspect in social cohesion becomes less noticeable. For example, it is possible to go from a distant rural village to a theatre in Tallinn if one has a car and money to buy petrol for it. Since visiting theatres costs much more for people living in rural areas than for residents of Tallinn, such activities may be cancelled due to lack of money — in such a case, geographical location can considerably decrease social cohesion.

There is no serfdom in Estonia — people can freely choose their place of residence. This choice is influenced by the availability of a suitable job and an acceptable location, but mostly it depends on a person's financial opportunities. A suitable place of residence is related with a person's needs.

M. Ainsaar (2006) has studied the regional differences of happiness and satisfaction and reached the conclusion that there is no statistically important difference in the feelings of satisfaction between the urban and rural residents in Estonia. Being supported by the study by Ainsaar, the authors of this article underline that the restricted (geographically) availability of resources and activities or services must not necessarily mean that social cohesion is small.

In the opinion of several authors, the strength of the third sector of the society is related to social cohesion of the society, as joint activity which can be described as active, voluntary and intended for the development of the whole society, can be performed only in the conditions of strong social cohesion. At the same time, joint activity in turn increases social cohesion. The strength of civil society is the third topic discussed in this article, the indicator of which is the number of non-profit institutions per 1,000 inhabitants.

## Labour market

In order to measure social cohesion in the labour market, it would be necessary to describe an ideal labour market in terms of social cohesion. Obviously, everyone should be able to find a suitable job for himself in such a labour market, meaning that there should be no unemployed persons in a socially cohesive community. Measuring the unemployment rate alone, however, is not enough. Ideally, all people should contribute, according to their abilities, to the development of society — this means that in a socially cohesive community there should be no people who live off the others and do not contribute to increasing the prosperity of the society.

Unemployment is measured by looking at the percentage of unemployed persons among the labour force, i.e. the economically active part of population (unemployment rate). The lower the unemployment rate, the higher the social cohesion of a community. At the same time, it should be kept in mind that a complete lack of unemployment may have an adverse effect on the development of economy and this, in its turn, may affect social cohesion.

Employment rate is a suitable indicator to assess which is the total number of these persons who actively contribute to the development of society. At the first glance, it may seem that the society is more cohesive if the employment rate is 100% — still, it is not so. Notably, there are persons who cannot work on grounds of ill health, members of the society need to acquire education and cannot because of that take part in the working life, women have to give birth and bring up children, etc. One may ask which the employment rate of the ideal cohesive society is. According to estimations it is around 75%, but the topic definitely requires a more in-depth study. Nowadays, the pressure for the increase of employment rate is very big, but the possible negative consequences thereof are seldom dealt with. L. Meri (2005) has said (bearing in mind the Soviet era when the employment rate in Estonia was bigger compared with the present time) that the decrease and degradation of the share of family in the society constitutes the price of employment, and such a turn will lead to grievous consequences.

## Figure 1 Average annual employment and unemployment rates in Estonia among the 15–74-year-olds, 1997–2006



Source: Labour Force Survey, 1997-2006.

Despite the problems with regard to determining the ideal levels from the aspect of social cohesion, the employment and unemployment indicators suitable in order to assess the social cohesion of labour market. Changes in the employment and unemployment rates in Estonia during the years 1997–2006 are presented in Figure 1. The employment rate has constantly been increasing and the unemployment rate decreasing since 2001. We can definitely state that social cohesion at the labour market has increased since 2001.

The following section deals with the regional differences in the social cohesion of the labour market. Initial data, which are the employment and unemployment rates of the 15–74-year-olds in 1997–2006 by counties are presented in Table 1. The question is: How to evaluate the differences at county level of these indicators from the aspect of social cohesion? The authors of the present article feel that this must be addressed from two aspects. Firstly, it is important to find out if the situation has improved in each country according to the selected indicators, and secondly, we must see if differences between counties have increased or not.

(1										
County	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Employment rate	)									
Harju	62.9	62.6	61.3	60.1	60.4	62.0	62.5	61.8	64.2	67.6
Hiiu	63.4	63.2	56.4	59.8	60.8	55.0	61.7	61.0	64.2	67.6
Ida-Viru	55.7	52.9	49.0	48.8	49.7	49.2	47.6	48.2	50.9	56.7
Jõgeva	51.3	51.2	49.4	44.4	44.1	44.0	44.7	45.6	44.5	50.8
Järva	56.9	58.3	56.4	56.6	55.9	54.7	52.2	59.7	59.6	58.3
Lääne	56.6	59.0	55.9	53.1	51.2	53.1	51.9	58.1	57.6	53.5
Lääne-Viru	55.9	57.1	52.6	49.6	56.5	55.7	54.8	52.7	57.2	59.3
Põlva	49.7	50.8	42.8	39.6	46.1	42.4	43.8	45.2	46.6	46.4
Pärnu	62.0	58.7	52.3	53.0	51.5	54.5	57.9	55.4	53.2	56.5
Rapla	57.2	55.6	53.7	50.3	55.4	53.0	55.8	57.0	56.0	62.5
Saare	54.4	55.2	50.4	55.8	56.3	55.1	55.9	55.7	52.6	54.6
Tartu	54.5	53.3	53.9	54.4	52.3	54.7	59.2	60.0	57.5	62.5
Valga	55.0	54.5	53.5	51.4	50.6	50.4	53.8	52.2	51.5	56.7
Viljandi	55.1	55.7	53.2	56.3	54.3	55.8	56.1	55.5	55.3	60.6
Võru	49.2	47.8	44.5	44.7	47.3	44.9	43.4	47.7	51.1	54.2
Estonia	58.5	57.7	55.3	54.7	55.2	55.9	56.7	56.8	57.9	61.6
Unemployment ra	ate									
Harju	8.5	9.1	10.2	11.5	11.6	8.6	9.6	9.6	7.5	4.3
Hiiu			11.0	9.5	7.8	10.8	5.9	5.7	7.2	
Ida-Viru	13.3	14.7	20.0	21.1	18.0	18.9	18.2	17.9	16.2	12.1
Jõgeva	14.6	12.6	11.4	16.9	20.5	16.0	15.8	13.7	16.9	13.1
Järva	10.5	9.8	14.2	15.8	15.7	13.9	13.2	9.5	5.6	6.2
Lääne	9.1	8.2	11.7	14.8	15.4	15.1	11.3	5.3		
Lääne-Viru	7.9	6.2	9.4	13.6	9.0	7.3	6.4	7.4	5.8	5.7
Põlva	12.7	12.2	21.1	22.8	17.6	14.8	13.7	14.9	12.4	8.4
Pärnu	5.3	7.4	10.2	11.0	10.6	7.7	7.5	6.3	5.9	••
Rapla	9.1	10.8	14.2	16.3	9.4	9.7	5.0	6.7		
Saare	11.1	9.5	16.2	12.0	9.4	7.4	6.5	4.1		••
Tartu	10.0	9.1	10.0	11.4	9.5	5.8	5.3	5.0	4.5	6.0
Valga	10.6	9.8	11.1	12.7	13.9	7.5	7.9	11.1		8.6
Viljandi	10.2	9.3	10.8	11.4	14.8	13.1	9.2	9.1	4.9	4.6
Võru	11.8	10.6	13.0	15.8	10.1	8.2	10.4	7.0		
Estonia	9.6	9.8	12.2	13.6	12.6	10.3	10.0	9.7	7.9	5.9

Table 1 Average annual employment and unemployment rates among the 15–74-year-olds by counties, 1997–2006 (percentage)

Source: Labour Force Survey, 1997-2006.

**Employment rate** 

While employment has grown steadily since 2001 in Estonia as a whole, then no county has experienced such a steady growth (Figure 2). A clear contrast here is Saare county in which there is no growth to speak of. The situation in Viljandi and Jõgeva counties was stable from 2001 to 2005, and the year 2006 saw a rapid growth. At the same time, attention should be paid to the fact that the employment rate was lower in 2006 in four counties compared to 1997.

In Estonia's regional development strategy there has, among other things, been mentioned a regional policy goal according to which the average annual employment (measured as an employment rate according to the methodology of International Labour Organisation) of any county shall not be lower than 45%. No county in Estonia had the indicator below the specified limit in 2006; however, Jõgeva, Võru and Põlva counties were repeatedly below that line during the period from 1997 to 2005.

Figure 3 shows the difference of employment rates, calculated by subtracting the indicators of the county with the lowest rate from the county with the highest rate. This difference has started to increase during the last years, and it reached its peak of the period 1997–2006 in 2006.



Figure 2 Employment rate of the 15–74-year-olds by counties, 1997–2006.



Source: Labour Force Survey, 1997-2006.



Figure 3 Absolute difference in the employment rate of the 15–74-year-olds in counties, 1997–2006

We can claim, on the basis of employment rate and from the aspect of social cohesion, that the social cohesion of counties has increased at the labour market, except in Saare county where the situation has remained fairly stable. However, the employment rate differences between counties have increased, and hence, the cohesion between counties has decreased.

Surveys have shown that the borders of such differences do not run by county borders. The Estonian Labour Force Survey does not enable to evaluate the labour market situation in a smaller unit than a county. Data from the Estonian Tax and Customs Board and the population register enable us to make a comparison at the level of cities and rural municipalities. We can calculate the percentage of recipients of gross income among the 15–74-year-olds, which is an indicator corresponding to the employment rate. The results show that differences between local government units are considerably bigger than those between counties. For example, in 2006, the percentage of recipients of gross income among the 15–74-year-olds entered in the register was slightly above 26% in Piirissaare and Peipsi rural municipalities, and more than 60% in the cities of Keila and Saue; and we can see that Estonia was divided into two areas along a provisional line that runs from Vaivara rural municipality to Tahkuranna rural municipality.

Map 1 Recipients of gross income among the 15–74-year-olds by local government units, 2006



Source: Data of Estonian Tax and Customs Board.

Source: Labour Force Survey, 1997-2006.

**Unemployment rate** The unemployment rate of Estonia was 13.6% in the year 2000 and dropped to 5.9% by 2006; therefore we can definitely say that unemployment was not a problem in 2006 throughout Estonia. Unemployment decreased in all counties in comparison to the year 2000. The current method for measuring the level of unemployment — the Estonian Labour Force Survey — is not sufficient means any more for measuring unemployment in six counties, because it does not enable to measure decreased unemployment accurately enough. The unemployment rate exceeded 10% in Ida-Viru and Jõgeva counties — which are clearly problematic counties. There are obviously problems also in Valga and Põlva counties where the level of unemployment was more than 8%. The rest of the counties as a whole are free from the problem of unemployment, but this does not exclude problems at the local government unit level. We can assess the situation by using data from the Labour Market Board, which show the number of people registered as unemployed. This data is not directly comparable to the data of the Labour Force Survey but they still do give us an idea of the situation. Map 2 sums up the differences in the registered unemployment at the local government unit level in the year 2006. The authors feel that according to this indicator, areas in which the indicator is below 2% can definitely not be considered problematic. Some problems can be noticed in areas in which the indicator exceeds the 4% line. Two areas which are, according to the registered unemployment indicators, clearly in a worse condition in comparison with the rest of Estonia, are a great part of Ida-Viru county and also some regions of some of the local government units in Valga and Võru counties in Southeastern Estonia. Closer attention should also be paid to local governments located by the Väinameri Sea in Western Estonia.

#### Map 2 Registered unemployment by local government units, 31 December 2006<sup>a</sup>



<sup>a</sup> The 16–60/62-year-olds are included.

Sources: Data of Estonian Labour Market Board and Statistics Estonia.

When looking at the regional differences in unemployment, attention must be paid to the fact that even though Ida-Viru and Jõgeva counties are located side by side and have the highest unemployment rate, the situation in their labour markets is nevertheless different because, in terms of employment, Jõgeva county is also among the last in Estonia but Ida-Viru county is distinctly in the average group.

## Average monthly gross income per employee

The average monthly gross income per employee constitutes basis for evaluating the level of income of the population. Data about the years 2002–2006 were received from the Estonian Tax and Customs Board. A methodological overview of the used data can be found in the Statistics Estonia publication titled "*Linnad ja Vallad arvudes*. Cities and Rural Municipalities in Figures" (*Sõstra and Lehto 2006*). Just as with labour market cohesion, we also examine an employee's average monthly gross income from two aspects. First, a general evaluation for changing the gross income was provided in single regions, then also changes in regional differences were explored.

The average monthly gross income per employee in Estonian was 5,893 kroons in 2002 and 9,110 kroons in 2006. Compared to the previous year, an employee's average monthly gross income grew 498 kroons in 2003, 582 kroons in 2004, 860 kroons in 2005, and 1,277 kroons in 2006.

It is important that the average monthly gross income per employee grew faster than the prices of goods and services. Compared to the previous year, the gross income grew more than the consumer price index during the years 2003–2006 (Figure 4). The change was the biggest in 2006 compared to the previous year — the consumer price index rose 4.4% and the average monthly gross income per employee increased 16.3%.

Figure 4 Change in the consumer price index and in the average monthly gross income per employee in comparison with the previous year, 2003–2006



Source: Data of Estonian Tax and Customs Board, and Statistics Estonia.

The average monthly gross income per employee increased in all counties and local government units during the years 2002–2006. The growth of gross income in the counties was faster than that of consumer price index every year. Single local governments did have years in which the average monthly gross income per employee grew less than the consumer price index, but the rising trend of income exceeded the consumer price index growth in all local government units.



Figure 5 Average monthly gross income per employee in Harju and Ida-Viru counties, 2002–2006

The average monthly gross income per employee varied in counties. The indicator was the highest in Harju county and the lowest in Ida-Viru county during the years 2002–2006 (Figure 5). The difference in kroons between the counties with the highest and lowest gross income grew but the difference in ratio remained the same (1.5) throughout the years. Only Harju county had the gross income per employee higher than the Estonian average during 2002–2004; Harju and Tartu counties — during 2005–2006.

The highest average monthly gross income per employee during the years 2002–2006 was in Viimsi rural municipality, and the lowest in Piirissaare rural municipality (Figure 6). The difference between local governments with the highest and lowest gross income was 6,441 kroons in 2002 and 9,661 kroons in 2006. The difference was more stable in ratios — slightly more than threefold during the years 2002–2005. Even though the difference in kroons between the local government units with the highest and lowest gross income was the biggest in 2006 (9,661 kroons), the difference in ratio was the smallest (2.9 times).

Figure 6 Average monthly gross income per employee in Viimsi and Piirissaare rural municipalities, 2002–2006



Source: Data of Estonian Tax and Customs Board.

Maps 3 and 4 show the growth of income in local government units. In 2002, the average monthly gross income per employee exceeded 7,000 kroons in 9 local government units, and in 2006 the average gross income was below 7,000 kroons in 16 local government units. The average monthly gross income was the highest in the local government units located near Tallinn.

Source: Data of Estonian Tax and Customs Board.



Map 3 Average monthly gross income per employee by local government units, 2002



#### Map 4 Average monthly gross income per employee by local government units, 2006



Source: Data of Estonian Tax and Customs Board.

Table 2 provides an overview of the division of local government units by average gross income per employee and by counties in 2006. The average monthly gross income was above 8,000 kroons in all units of Harju and Hiiu counties (see Map 4). Ida-Viru, Pärnu and Tartu counties had local government units in all gross income ranges, meaning that differences in the counties were the biggest. The average monthly gross income per employee in the local government units of Viljandi county was between 7,000 and 9,000 kroons. Big differences within counties probably cause problems in how the entire region functions.

	Kroons				Total no.
County	<=6999	7000–7999	8000-8999	>=9000	of units
Harju	-	-	6	18	24
Hiiu	-	-	3	2	5
Ida-Viru	5	13	3	1	22
Järva	-	5	5	2	12
Jõgeva	1	7	5	-	13
Lääne	-	3	8	1	12
Lääne-Viru	-	7	7	1	15
Pärnu	1	10	9	1	21
Põlva	1	12	1	-	14
Rapla	-	2	6	2	10
Saare	-	3	12	1	16
Tartu	4	5	10	3	22
Valga	1	10	2	-	13
Viljandi	-	11	4	-	15
Võru	3	8	2	-	13
Estonia	16	96	83	32	227

## Table 2 Local government units by average monthly gross income per employee and by counties, 2006

Source: Data of Estonian Tax and Customs Board.

## **Development of civil society**

Not all non-profit institutions must necessarily promote increased prosperity in the whole society. Namely, not all non-profit institutions are created voluntarily. The objective of the work of some non-profit institutions may be to protect the interests of a small group, and such an activity is more likely to decrease social cohesion of the whole society, even though these institutions are also an expression of the social activity of community members.

The indicator measuring the development of civil society is the number of non-profit institutions and foundations per 1,000 inhabitants. Part of the aforementioned shortcomings can be eliminated when analysing associations according to their fields of activity. This way we can give a substantive assessment on all non-profit institutions or foundations that have been entered in the register. This is how the development of the third sector has been studied before (*Kasemets and Siplane, 2000*). Membership numbers can be found out through a targeted special survey. The authors of the present article used the Centre of Registers and Information Systems data in determining the number of non-profit institutions and foundations and their fields of activity.

In Estonia the non-profit institutions that have been created non-voluntarily are, for example, apartment associations, because in case of apartment buildings with many owners, apartment associations were created only as a result of legal obligation. Naturally, there are also apartment associations that would operate even without legal obligation and there are associations that are engaged in more than just the apartment building administration, but the number of apartment associations set up on voluntary basis would, according to estimates, be much smaller than it is now. At the same time, apartment associations created on the basis of legal obligation also increase social cohesion because inactive people are involved in joint activity. Therefore, the authors explored development of the third sector taking into consideration also the associations and foundations engaged in real estate administration (non-profit associations and foundations classified by code 703 for their main field of activity in the classification of economic activities *EMTAK*). Although such a treatment does not have an essential impact on the development trends, it does significantly change the interrelated positioning of counties (Figures 7 and 8): Ida-Viru and Lääne-Viru counties fall noticeably in the county rankings.



Figure 7 Non-profit institutions and foundations by counties, 1st January 2007

Sources: Data of the Centre of Registers and Information Systems, and Statistics Estonia.





<sup>a</sup> Except the non-profit institutions and foundations involved in real estate administration.

Sources: Data of the Centre of Registers and Information Systems, and Statistics Estonia.

The development of the third sector was explored on the basis of the same scheme that was used for labour markets and income. First, the development of Estonia as a whole was explored, then evaluations were given on the development of regions, and finally, the changes in regional differences were studied. The situations as they were on 1st January 2003 and on 1st January 2007 were compared.

The number of non-profit institutions and foundations grew in Estonia during the period 2003–2006 from 18,891 to 24,881. The authors have divided non-profit institutions and foundations into 18 groups by their main fields of activity. Figure 9 shows that the number of non-profit institutions and foundations grew during the observed period in all groups except in religious organisations, the registration system of which changed in this period. The fastest change in the number of non-profit institutions took place in the group of institutions and foundations for promoting and supporting regional / local life.

The structure of the third sector, i.e. the sector related to civil initiative, and the field-ofactivity-based division of the non-profit sector, i.e. the citizens' associations, are displayed in Figure 10.

## Figure 9 Change in the number of non-profit institutions and foundations by their main field of activity groups, 2003, 2007











Source: Data of the Centre of Registers and Information Systems.

Map 6 Non-profit institutions and foundations by local government units, 1st January 2007 (per 1,000 inhabitants)



Source: Data of the Centre of Registers and Information Systems.

The number of non-profit institutions and foundations grew in all counties and in almost all local government units during the period under observation (with the exception of Lavassaare and Laeva). The respective growth differed by local government units (Map 5) but the regional positioning did not change significantly. Figure 6 shows the distribution of local government units by the number of non-profit institutions and foundations per 1,000 of population as of 1st January 2007. According to this indicator, the local government units

characterized by a weaker social cohesion are located in the northern part of Viljandi county, and in the western and southern areas of Jõgeva and Lääne-Viru counties. The situation in the Northern and Western Estonia is better than in Southeastern and Central Estonia.

### Summary

On the basis of the indicators presented in the article, it can be concluded that social cohesion increased in all counties and in most local government units. In order to evaluate the changes in the interregional social cohesion, the topic at hand should be explored in more detail than the volume of this article enabled, and most likely also additional data must be collected and additional surveys have to be conducted. The development of the third sector needs to be studied in greater detail. The current data are more appropriate to suggest hypotheses than being a valid source of information in the context of social cohesion. At the same time, the development of the third sector is a crucial component in evaluating the regional development of social cohesion.

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## SOCIAL COHESION IN THE EUROPEAN UNION

#### Urve Kask Statistics Estonia

The European Union is committed to continue to promote social cohesion, equal opportunities and solidarity between generations. These objectives are to be obtained through modernisation of social protection systems and improvement of their viability, thus resulting in a better response to economic and social change and promoting economic growth and employment.

The European Council held a meeting in March 2000 in Lisbon to agree a new strategic goal in order to strengthen social cohesion. This is to be achieved by applying an open method of coordination (OMC) — Member States agree to a measure of joint development of policies without calling into question subsidiarity. It is a flexible method, allowing exchange of experience and coordination of activities develop in a way and to a degree appropriate to the policy in question. First, sustainability and adequate pensions need to be ensured.

As far back as in May 2003, the European Commission proposed to harmonise the work planned with regard to pensions, and social protection and inclusion, health and long-term care, to form an integrated system. Most importantly, the social protection and inclusion strategy of the Lisbon process, which was relaunched in March 2005, concentrates foremost on activities to boost economic growth and employment. Whereas the latter in turn contribute to social cohesion, as well as inclusion.

The harmonised objectives of social protection and inclusion are based on the Nice and the pensions-related objectives on the Laeken indicators, allowing for the present achieved growth in both spheres to be maintained.

The proposals made by the European Commission for achieving the overarching objectives of the open method of coordination (OMC) related to social protection and inclusion are as follows:

- 1) promote social cohesion and equal opportunities for all through adequate, accessible, financially sustainable, adaptable and efficient social protection systems and social inclusion policies;
- interact closely with the EU's Sustainable Development Strategy and the Lisbon objectives on achieving greater economic growth and more and better jobs;
- strengthen governance, transparency and the involvement of interested parties in the design, implementation and monitoring of the policy.

In reaching the objectives to

- 1) make a decisive impact on the eradication of poverty and social exclusion;
- 2) ensure adequate and sustainable pensions;
- 3) guarantee affordable, high quality and sustainable health and long-term care. (*Uue* ... 2005)

Though social protection encompasses the whole population, it is mainly aimed at the inactive population, that is at the population who for various reasons do not wish or are unable to take an active part in the labour market. The linkage between the previous income of a recipient and the benefits received has increased in Estonia in the course of the recent years. Sickness and maternity benefits are income-linked, as well as unemployment insurance, pension insurance and parental benefits. In addition, there is also a tendency to increase social insurance reserve funds. The aim of that particular trend is to increase personal responsibility and reduce the dependence of social insurance resources on the economically active persons' contribution. The Estonian social protection system features nearly full coverage of the country's population and minimal inclusion of social partners.

## Table 1Expenditure on social protection (at current prices) as a percentage of GDP,<br/>2000–2005

	2000	2001	2002	2003	2004	2005
Estonia	14.0	13.1	12.7	12.9	13.4	12.7
EU25	26.6	26.8	27.0	27.4	27.3	

Source: Data of Eurostat.

Even though the proportion of expenditures on social protection remained largely unchanged in the period 2000–2004 amounting to 13–14%, yet in comparison to the year 2000, the expenditures per capita in 2004 increased as much as up to one-third.

#### Table 2 Expenditure on social protection per capita, 2000–2004

(euros)

Î

	2000	2001	2002	2002	2004
	2000	2001	2002	2003	2004
Estonia	387.7	388.9	412.2	455.1	516.6
Source: Data of Eurostat.					

The social protection expenditure rate as a percentage of GDP in Estonia is lower than that in the majority of the countries of Western Europe. In 2004, these expenditures in Estonia amounted to 13.4% of GDP, falling back in 2005 to 12.7%. In contrast, that figure in the EU25 in 2004 was approximately 14 percentage points higher. The highest expenditure rates for social protection were observed in Scandinavia and the countries of Continental Europe. Somewhat lower expenditure rates were noted in Southern European countries. Ireland was the only country whose social protection expenditures were lower than Estonia's, which is likely due to the country's smaller share of older population.

In Estonia, as well as in the EU, the "old-age related benefits" take the lion's share of total social protection spending — 43% in 2004 in Estonia, and 41% in the EU respectively. In 2004, the highest proportion of expenditure on old-age-related benefits was in Poland (55%), followed by Italy (51%). The lowest ratio of old-age-related benefits was recorded in Ireland (18%) where the expenditure on this function did not even amount to one-fifth of the total social protection expenditures.

Next, "sickness and health care" is the second largest item of expenditure In Estonia, the proportion spent on "sickness and health care" accounted for 31%, being higher than the overall EU25 average (28.3%). It is a relatively high indicator when compared to other European Union countries. Higher proportion spent on "sickness and health care" was recorded only in Ireland, Iceland, Norway and Czech Republic.

Expenditure on the fields of "sickness and health care" is followed by the expenditure on "disability", both in Estonia and the EU. It is positive to note that this share has been constantly increasing in Estonia. In the EU the expenditure on disability comprised 8% in 2004, but Estonia spent one percentage point more (9%) on disability, and compared to the year 2000, the growth accounted for 3 percentage points.

Estonia stands out in terms of expenditure rate which appertain to the "family and children" function. In 2004 the expenditure on this function amounted to 12.7% — a large share of the total expenditure spent on social protection. A significantly higher expenditure rate on family and children was recorded only in Luxembourg (17%), putting it at much the same level as in Denmark (0.3 percentage points higher). The breakdown of social protection expenditure is closely connected to political deals. Thus, it can be concluded that the "family and children" function has been a priority in Estonia, and the problem of population's sustainability has been recognized in the society. In 2005, the proportion of social protection expenditor expenditure on "family and children" remained practically unchanged — 12.2%, compared to the year 2004.

	2000	2001	2002	2003	2004	2005
Sickness and health care	32.1	31.9	31.1	31.8	31.5	31.9
Disability and incapacity for work	6.6	8.2	8.9	9.3	9.1	9.4
Old age	43.4	42.5	43.6	44.0	42.9	43.1
Survivors	2.0	1.7	1.2	0.8	0.8	0.9
Family and children	11.9	11.5	11.4	10.0	12.7	12.2
Unemployment	1.3	1.4	1.1	1.8	1.6	1.3
Housing	0.7	0.6	0.6	0.6	0.4	0.2
Social exclusion and other	2.0	2.3	2.0	1.6	1.1	1.0

## Tabel 3 Structure of social protection expenditure in Estonia, 2000–2005 (as a percentage of total expenditure)

Source: Data of Eurostat.

As mentioned previously, insurance of sustainable pensions is at the centre of the EU social policy. Compared to the EU25's average, Estonia's proportion of pensions as a percentage of GDP is more than two times lower. In the list of priority of the European countries, Estonia ranks the second at the bottom of the list with its share of 6.2%, while the lowest ratio was recorded in Ireland, but the age structure is considerably better there. Together with Estonia, Latvia, Lithuania and Cyprus showed the similar share of pensions in GDP. But lower shares were recorded also in Iceland, Slovakia, Czech Republic and Norway.

## Table 4Expenditure on pensions (at current prices) as a percentage of GDP, 2000–2005<br/>(percentage)

	2000	2001	2002	2003	2004	2005
Estonia	6.7	6.0	5.9	6.0	6.2	6.2
EU25	12.3	12.3	12.3	12.4	12.3	

Source: Data of Eurostat.

Measuring social cohesion in the European Union The Council of Europe has defined social cohesion through the contribution provided by every single member of the society. The capacity of a society is obtained through ensuring the welfare of all its members, minimising disparities and enhancing harmonisation. A cohesive society is a mutually supportive democratic community that is pursuing common goals. The Council of Europe highlights the need to reinforce social cohesion in Europe in their social, educational, cultural and health dimensions.

Social cohesion can be defined through social exclusion and vice versa. For Dahrendorf (1995) social cohesion exists in societies which prevent social exclusion, "Social cohesion comes in to describe society which offers opportunities to all its members within a framework of accepted values and institutions. Such a society is therefore one of inclusion." Furthermore, Berger-Schmitt (2000) believes that social cohesion incorporates two main dimensions:

- 1) reduction of social exclusion (disparities and inequalities);
- 2) strengthening of social capital (social relations, interactions and ties).

R. Atkinson and S. Davoudi (2000) have pointed out that social exclusion is a useful concept in drawing attention to changes in contemporary European societies. It made possible to shift the debate from merely focusing on the issues of income, inequality and material exclusion, to incorporating the social and cultural dimensions of the exclusionary processes.

The Council of Europe points out that social cohesion is not only a matter of combining social exclusion and poverty — it is also about increasing solidarity in society. There is a need to take specific measures to help less protected (vulnerable) members of society (Joint ... 2004).

Common European social cohesion indicators are rather known as social exclusion or Laeken indicators. Thus, the social cohesion is indicated by exclusion rate and its change is measured over time. In 2000, the European Commission worked out structural Indicators that are measured in a consistent manner in the field of social cohesion:

- 1) quintile ratio (top quintile and lowest quintile ratio 20%);
- percentage of people below the poverty line before and after social transfers (the poverty line is defined as 60% of the equivalent median income);

- 3) percentage of persistent poverty (the percentage of population having been living below the poverty line for 3 successive years);
- percentage of jobless households; 4)
- 5) low educational level (young people aged 18-24 not attending to education or training, or who have basic or lower educational level);
- long-term unemployment. (Structural ... 2000) 6)

The state-related time series of the social cohesion indicators mentioned above have been presented here to give an overview about the relevant trends in Estonia. The persistent poverty indicator is the only one that we have not calculated so far in Estonia, and that is due to the fact that its data are based on panel data and Estonia commenced this survey only in 2004. Thus, the first relevant data will be available in 2008-2009. The second indicator in the structural indicators' list is the coefficient of variation (at NUTS level 2) of regional unemployment. In Estonia, the NUTS levels 1 and 2 coincide, therefore this indicator cannot be calculated.

Indicator	2000	2001	2002	2003	2004	2005
Ratio of quintiles	6.3	6.1	6.1	5.9	5.9 <sup>b</sup>	5.9 <sup>b</sup>
Population below the poverty line before social transfers, %	26	25	25	25	25 <sup>b</sup>	24 <sup>b</sup>
Population below the poverty line after social transfers, %	18	18	18	18	18 <sup>b</sup>	18 <sup>b</sup>
People in jobless households, %	9.6	11.0	10.8	10.9	9.5	8.5
Jobless households with children aged 0–17, %	8.6	11.2	10.1	9.0	9.6	9.1
Young people aged 18–24 with basic or	14.2	14.1	12.6	11.8	13.7	14.0

#### Table 5 Indicators of social cohesion in Estonia, 2000-2006<sup>a</sup>

3.4

(unemployed for two years and more), %

lower level of education, or not attending

Very long-term unemployment rate

education or training, %

<sup>a</sup> The data of the year 2004 are replaced by the Household Budget Survey data in order to maintain time continuity. <sup>b</sup> Data presented according to the year when the survey (field work) was carried out,

3.0

3.3

28

3.5

Source: Data of Eurostat, and the Household Budget Survey, 2004.

3.9

The Council of Europe has pointed out that the smaller the disparities between the Member States are, the more cohesive Europe is. Estonia is therefore assessed in comparison with the EU25 average indicators.

Poverty is a process where changes occur very slowly and it might take an entire generation until any detectable changes come to pass. According to the 2004 year's income in Estonia, social transfers have cut the poverty rate six percentage points, while the EU average showed 10 percentage points. It is considered to be the social policy efficiency indicator, which shows to what extent the social protection system of a state can alleviate (equalize) the situation in the country. The impact of social transfers in Denmark, Finland and Sweden amounts to approximately one-fifth (19-20%). The indicators of the majority of countries of Continental Europe share the EU25's average (10%), this means that transfers help to alleviate the problem on average 10-16%. Latvia, Lithuania, Malta and Cyprus share the similar situation with Estonia. The figure showed an improvement of one percentage point in 2005 in Estonia, hence transfers help 7% of population escape poverty.

In 2004, the ratio of quintiles, i.e. the indicator that shows inequality, was on average 4.9% for the EU25 countries, in Estonia the indicator was one percentage point higher -5.9%. In 2005, the situation in Estonia slightly improved. The difference in ratio between the lowest and top quintiles had decreased by 0.4 (the respective indicator being 5.5%). As inequality is a slowly changing process, therefore even the slightest improvement is notable. The highest indicator of the quintiles' ratio was in Portugal amounting to 8.2%, and the lowest one was recorded in Sweden — 3.3%.

According to some indicators, Estonia is even in a better position when compared to the EU rates — a) percentage of people in jobless households (the EU average is 9.8%, in Estonia - 6%,); b) percentage of jobless households with children aged 0-17 (the EU average is

Estonia in the **European Union** context

2006 5.5<sup>b</sup>

25 <sup>b</sup>

18<sup>b</sup>

6.0

82

13.2

1.7

9.5%, in Estonia — 8.2%); c) long-term unemployment rate (the EU average is 3.6%, in Estonia — 1.7%).

The percentage of young people aged 18–24, who are not attending education or training, and have basic or lower level of education, had again declined to 13.2% in 2006, while the EU average was higher — 15.1% (the EU's aim is to bring this indicator down to 10% by the year 2010). Though the situation is Estonia is better when compared to the average in the EU, but it might turn out to be difficult for Estonia to achieve this common goal.

The main objectives for the Council of Europe in achieving social cohesion are economic growth and high employment rate. According to the European Employment Strategy, the aim is to increase the overall EU employment rate to 70% (including female employment rate to 60%) by 2010. At present, the EU25 average employment rate is 64.7%, in Estonia — 68.1%. Therefore, it leaves 2 percentage points for Estonia to pursuit the year 2010 goal. The female employment rate measured 57.4% in the EU25, whereas in Estonia it showed 65.3%. Here, the common goal of 2010 for Estonia has been already achieved, and, hopefully, this high rate will be maintained.

According to the European Employment Strategy, by the year 2010, participation in lifelong learning should embrace at least 12.5% of the population aged 24–64. At present, the EU25 average is 10.1%, whereas the figure in Estonia is barely 6.5%. It can be justly said that this is the field where Estonia lags behind the most (as much as 3.6 percentage points) from the EU average, and thus, is six percentage points behind the goal of the year 2010.

In compliance with the goal of the European Employment Strategy, the Member States have to use the potential of all population groups of society in order to increase labour supply. The specific focus is on older employees. Encouraging an active way of ageing can allow older people to stay longer in the labour market. The objective is to increase the effective exit age from the EU labour market by five years by 2010. In 2006, the average retirement age was 60.9 (59.9 in 2001) in the European countries, and 61.7 years (61.1 in 2001) in Estonia. Thus, the average effective exit age from the labour market increased by one year in the EU, while the change of only 0.6 years was recorded in Estonia.

According to the EU objective, the employment rate of older people has to hit the 50 per cent mark by the year 2010. The employment rate of older people in Estonia started to increase in the mid-nineties as a consequence of gradual delaying of the legal retirement age. In comparison with the Member States, the employment rate of older people in Estonia was considerably higher during the past decade. The corresponding figures were 43.6% in the EU25 and 58.5% in Estonia. Thus, Estonia's rate was even 15 percentage points higher, and the country's goal for the year 2010 has been already achieved, too.

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