Jens B. Grøgaard (ed.)

Estonia in the Grip of Change

The NORBALT Living Conditions Project

Fafo

JENS B. GRØGAARD(ED.)

ESTONIA IN THE GRIP OF CHANGE

THE NORBALT LIVING CONDITIONS PROJECT

AUTHORED BY:

JAN DIETZ
MART EINASTO
TONE FLØTTEN
JENS B. GRØGAARD
BIRGIT JACOBSEN
DAGMAR KUTSAR
ÜLLE MARKSOO
JON PEDERSEN
STEINAR TAMSFOSS
AADNE AASLAND

FAFO REPORT 190

ISBN 82-7422-149-4

Cover page: Agneta Kolstad
Printed in Norway by:
Falch Hurtigtrykk

CONTENTS

FAFO'S PREFACE

The present report is an offshoot of the NORBALT Living Conditions Project. In many respects, NORBALT is a continuation of the pioneering effort made in 1990-91, when Fafo and its Moscow-based affiliate Soteco carried out a living conditions survey in Lithuania. The favourable reception enjoyed by this project, which was the first in its kind in one of the transitional economies, spurred further contacts with representatives of other countries in the region. Soon, the idea of a repeated survey, comprising not only Lithuania but the entire Eastern Baltic Rim, was launched as a joint initiative by Terje Rød Larsen, then Fafo Director, and Baltic diplomats in Brussels. It was decided that the project should cover the three Baltic states of Estonia, Latvia and Lithuania, as well as the Kaliningrad enclave and St. Petersburg in Russia. Survey goals were formulated in close cooperation between Fafo and authorities and professional bodies in the Baltic countries. The project marked a new departure in several ways. With the exception of Lithuania, Scandinavian-style living conditions surveys had not been conducted in the region before, and secondly, the scope of NORBALT was almost breathtakingly broad, as it comprised five parallel surveys in five separate areas, and no less than 16.000 households.

Success, it is fair to say, was not a matter of course. It gives me great pleasure to record that the first main stage of the NORBALT project has now been successfully finished with the simultaneous publication of four country reports, for Estonia, Latvia, Lithuania and Russia (St. Petersburg and the Kaliningrad enclave) respectively. Numerous individuals and institutions have contributed to this happy result. Our Estonian, Latvian, Lithuanian and Russian partners are too many to be counted here; for due acknowledgement, please consult the editor's preface in each report. On the Norwegian side, we owe a particular debt of gratitude to Deputy Foreign Minister Helga Hernes and her successor Siri Bjerke. Both have been firm supporters of the project. At Fafo, I want to pay tribute to the two project managers, Erik Hansen (Russia) and Aadne Aasland (the Baltic countries), who have worked with impressive energy, commitment and professional skill. Professor Knud Knudsen and Jens B. Grøgaard join ranks with Hansen and Aasland as conscientious editors. Research Director Kåre Hagen has provided valuable advice. I wish to thank Special Adviser Jan Dietz for helping to organise the project. We are also grateful to Julia Ferkis for her contributions.

All five areas are in the middle of a transition for which there are no precedents or ready prescriptions. Notwithstanding the uncertainties, there are grounds for believing that the living conditions of ordinary citizens can be improved. Up-to-date, reliable socio-economic knowledge is an essential requirement, maybe even the key to progress. Our ambition has been that the project should play a useful role in current work to modernise local scientific capabilities. Above all, we hope the four

reports can be put to good practical use by policy planners and decision-makers. The NORBALT material is exceedingly rich, and should be made the most of in future research. In the next phase, therefore, we hope it can be utilised in Baltic-Nordic comparative studies of living conditions.

The project has been funded through generous grants from the Norwegian Ministry of Foreign Affairs and the Norwegian Ministry of Defence.

Dag H. Odnes
Director General

EDITOR'S PREFACE

At present, Estonia is in the middle of a comprehensive process of 'systemic' change, marked by risks and uncertainty as well as new opportunities. Democracy is being built, and 'people, your government has returned to you'![1] Four years ago, in late 1991, inflation reached the incredible figure of 90 per cent per month. The introduction of the national currency *kroon* helped stopping this runaway trend, and monthly inflation was soon reduced to four to five per cent. The medicine required, however, has also had adverse effects on «the patient», turning Estonia from a society with equality, but with limited personal freedom, into a society marked with lots of opportunity, but with rising inequality as well. How do the randomly selected Estonian residents view and respond to the changes that have taken place in their living conditions?

Estonia in the grip of Change is written by a group of Estonian and Norwegian researchers. The authors have had considerable freedom in their approach to each chapter. Thus, the contributions are diverse, and there may be some differences in points of view. However, this should be regarded as a normal part of an academic discourse. The report contains twelve chapters, covering population, the structure of households and housing conditions, health, education, work and work-place environment, economic resources, social contact, political attitudes and expectations, as well as a discussion of the social structure of Estonia today. The introductory chapter by Dagmar Kutsar provides concepts and information which help us to interpret survey results, and to understand recent events in the Estonian transition. Even though a certain common structure has been attempted throughout the report, the chapters may be read separately.

In social science one faces rather contrary theories of knowledge and understanding -pointing to the need for some kind of perspectivism: On the one hand, obviously the quite arrogant hypothesis asserting that it is those operating with the largest distance (to the phenomenon), who as a rule present the best diagnosis. On the other hand, there is the very opposite view that true insight and knowledge rest on familiarity with the phenomenon at hand. As a distant observer of recent developments in the Estonian political, economical, cultural and social transformation, I must stress that the second claim holds true! My Fafo colleagues and I were lucky to have Dagmar, Ülle and Mart in our team as fellow researchers. On behalf of the Fafo team I would like to thank them for their kind cooperation and impressive contributions to the various parts of this report!

The present study is the result of a joint effort by several Estonian and Norwegian institutions and persons: The project has enjoyed the warm backing of the

[1] Vaclav Havel in his New Year's Adress in 1990.

Estonian government represented by Marju Lauristin and Toomas Vilosius, Ministers of Social Affairs. The Estonian Ministry of Social Affairs (EMSA) had the overall responsibility for the field work and the preparation of the data set, while the Estonian Statistical Agency (ESA) carried out the interviews and provided the team of researchers with a data set of high quality, collected in a professional and efficient manner. Overall scientific responsibility has rested with Fafo. During the field work, Fafo's role was to assist ESA in the training of supervisors, to provide inputs concerning the organisation of field work, and to control the implementation of interviews all over Estonia. The total response rate is quite impressive - *91 per cent of the gross sample* - and the quality of responses is very good, indeed!

The excellence of a living condition survey depends to a large extent on how the field work has been conducted. It was carried out by 122 interviewers, 17 supervisors and five data-entry operators. Mart Einasto (EMSA) have had the overall responsibility for the project. The set up and execution of the field work has been led from ESA by Urve Kask and Henri Soova. In this they also received valuable assistance from Dagmar Kutsar (the University of Tartu). The execution of and the day-to-day administration of the survey were led by three specialists from ESA, Helve Lôhmus, Viive Maasalu and Eha Jurs. Victor Borisevych had the responsibility for the creation of the data-entry template and the training of personnel. Thank you very much, indeed!

Many people at Fafo have been involved in the Estonian project during its various stages, starting with prepatory work, negotiations, project design, sample design, field work, preparation of the data set for analysis and commenting on draft chapters. My thanks are due to Tor Bukkvoll, David Drury, Julia Ferkis, Tone Fløtten, Erik Hansen, Jon Hanssen-Bauer and Geir O. Pedersen for their vital contributions. I feel particularly indebted to Aadne Aasland, Jan Dietz, Birgit Jacobsen, Jon Pedersen and Steinar Tamsfoss, for their close cooperation and generous support during the editorial work, including assistance on calculation of weights, assessments of uncertainty margins and control for design effects (Jon and Steinar), and as commentators on draft chapters and as discussion partners (Aadne, Jan, Birgit and Jon). Agneta Kolstad handled the final production of the report with great efficiency and appreciated flexibility. Susan Høivik and Jan Dietz provided valuable advice on language and style - to be honest, their suggestions were indispensable!

Despite all this vital support and assistance there may still be mistakes, misunderstandings and possibly even some stupidities in the report. The responsibility for this, of course, rests with the editor!

Oslo, February 1996

Jens B. Grøgaard

CHAPTER 1

THE IMPRINT OF THE TRANSFORMATION ON LIVING CONDITIONS IN ESTONIA

Dagmar Kutsar

INTRODUCTION

During the past six or seven years, Estonia has - like the other post-socialist countries in East and Central Europe - experienced major changes. In 1991 the country gained its independence from the collapsing Soviet Union; in 1992 the national currency *'kroon'* was introduced and in 1993/94 the Russian Army left the country. By 1994/95 Estonia had started to show clear signs of socio-economic and political stabilisation.

This section focuses on welfare resources and well-being as closely related phenomena; the aim is to reach a more adequate understanding of the results of the living conditions survey. According to Wiman (1990), *welfare resources* are something which can be observed or studied from outside. They encompass all the objective resources for living that a person has - housing, income, savings, car, furniture, clothes, personal health, education, friends, children, etc. Welfare resources form the basis for needs-satisfaction. *Well-being*, by contrast, refers to the subjectively perceived quality of life, i.e. command over one's own life, realisation of goals, security and confidence, social participation, belongingness and even alienation.

SOCIETAL CHANGE AND THE WELFARE RESOURCES OF HOUSEHOLD

During the Soviet occupation 1940-1991, Moscow controlled more than 90 per cent of the Estonian industry. By the late 1980s, the national economy had reached a crisis. The demand for goods and services outstripped supply, average prices soared while the purchasing power of the rouble plummeted. In the early 1990s, fear of the impending monetary reform and accelerating inflation gave rise to panic, and people began to empty their bank accounts and hoard everyday consumer goods. The rouble suffered from the growing inflation; the standard of living fell and the cost of living reached new heights.

During the period of transition from a Soviet republic into an independent country (1990-1992) Estonia remained within the sphere of influence of the rouble

and the Soviet economy, until the monetary reform of June 1992. Despite the ongoing reconstruction, the economy has not yet reached the normal level and structure of production. Low wages, unemployment, and lack of social guarantees have made *'poverty'* and *'economic survival'* the central themes for many in Estonia today.

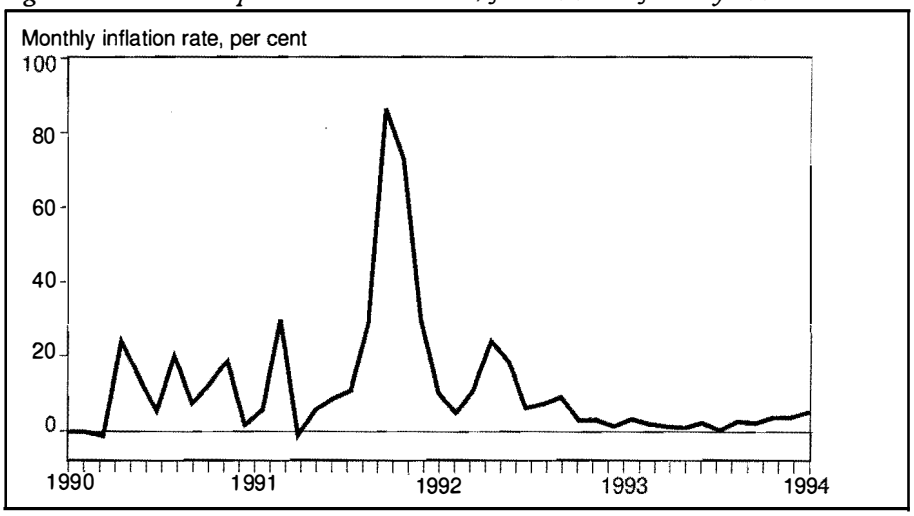
From 1989 until the monetary reform in 1992, the total inflation rate reached 4,000 per cent. The introduction of the national currency *'kroon'* stopped this runaway trend, and today inflation stands at around four to five per cent per month (Figure 1.1). The monetary reform has provided greater financial security for the Estonian people and enabled them to become independent of the Soviet economy.

The rapid decrease in production, together with inflation and unemployment - all processes characteristic of the first stage of the societal transition - have restricted the material resources of the people. In the period 1991-1993 purchasing power was reduced by 32.5 per cent, on average. Falling standards of living and price reform have influenced the consumer behaviour of households (Kutsar and Trumm 1995, 1993).

The failure of the social security system has made it more difficult to cope with everyday life, especially for people living on welfare (the retired, disabled, single mothers, families with young children, students etc.). The reduction of social benefits and services is related to the lack of funding to maintain benefit levels adjusted to the rate of inflation and, in some cases, to the restrictions in the social welfare system itself.

Before the reconstruction started, housing expenditure had been relatively low because housing costs had been largely financed by government subsidies. Low-cost, low-quality housing dominated the picture. Food prices were kept low with the help of state subsidies, whereas the prices of consumer goods were considerably higher because of a sizeable sales tax. The characteristic feature of the reconstruction of Estonia's national economy is the liberal price reform aimed at equalising price levels

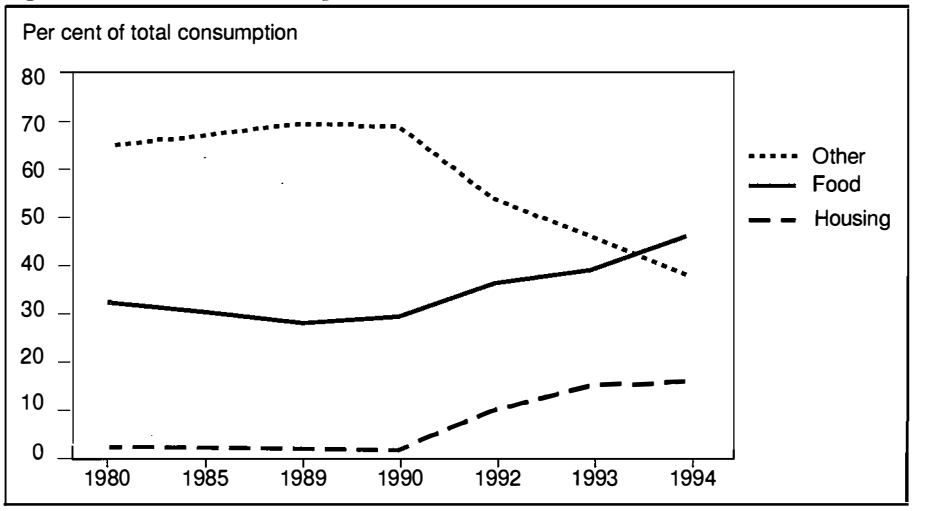
Figure 1.1 Consumer price index in Estonia, June 1990 to January 1994



Source: Statistics Estonia

to the world level. All state subsidies for food, housing and other everyday goods have now been eliminated, totally transforming the existing price structure (Figure 1.2).

Figure 1.2 Household consumption structure 1980 to 1994. Per cent



Source: Statistics Estonia

Social deprivation is typical of a reforming society. In 1992, 63 per cent of the households involved in the *Estonian Household Budget Survey*, spent more than half of their income on food; the possibilities of other needs-satisfaction were extremely limited. The trend now shows some improvement, but over half of the households can still be said to be socially deprived (Table 1.1).

As Ringen (1987: 134) has put it: "Poverty in terms of how people live is not the same as poverty of low resources". If a person or a family who has a colour television set, a car or a decent apartment has to spend more than half of all income on food, can no longer use the car because of expensive petrol, cannot regularly go to the theatre or visit friends – then what is the effect on the lifestyle of this person

Table 1.1 Households below poverty line in Estonia 1992-1992. Three definitions of poverty. Per cent

	Share of households below poverty line (%)		
Definition of poverty line	August 1992	January 1993	January 1994
50% median income	13	7	8
50% or more on food	63	55	38
Minimum food basket per capita	14	8	9
Number of surveyed households	239	419	577

Source: Estonian Household Budget Survey

or family? He/she/the whole family has to give up the accustomed way of life because of changes in society and the new financial situation. A specific feature of the transformation in Estonia is that people still own their welfare resources, but are not able to use them.

Societal Change and the Well-being of Individuals

In recent years people in Estonia have been exposed to a dual process of transformation of their society: the transition from a totalitarian to a democratic society, and from a planned to a market economy. This has resulted in pressures on the people to engage in political, social and economic re-construction, pressures which demand the ability to adapt to change and to re-construct personal identity. Changes on the societal level lead to the development of new patterns of interpersonal relationships: competition for the now-inadequate supply of jobs, the increasing role of monetary relations among people, the growing need to be able to fight for one's way of life. New situations create new demands for all, requiring the readiness to further one's knowledge and skills; everyone is now expected to show an enterprising spirit, and that in a large scale. The mass media present conflicting explanations of events, making the future seem less clear-cut; this, in turn, increases tension among people. Unrealistic social expectations create social myths, feelings of personal failure, and distrust of the authorities.

Well-being acknowledges the *possibilities* as well as *limitations* for action in the context of social change. In general, Estonia's process of transformation has been tense for all those involved, by decreasing the personally perceived quality of life, i.e. well-being. But there are some social groups whose well-being has suffered more than others. A survey on social stress and coping (Kutsar 1995) verified that the recent societal transformation has put people of older age groups and of non-Estonian origin at greater risk of severe psychological de stress.

Individual factors determining the levels of well-being

In a situation of rapid societal change, individuals often find themselves unable to keep pace as changes occur. For that reason, rapid change, even when it is essentially positive, can bring emotional tensions and fear of loss of cognitive control over the situation. The result may be feelings of powerlessness and dissatisfaction, accompanied with a decrease in the levels of subjective well-being.

The life philosophy of planned economy and paternalistic care of the state produced '*learned helplessness*' and lack of '*self-help mentality*'; both of which are additional factors in today's diminishing levels of well-being. Lack of self-help mentality suppresses one's own activity and entrepreneurship leaving the individual passively waiting for help that society used to provide. When people become aware that there is no help any more, they are overwhelmed with discontent and

confusion. On the other hand, denial of the old social and political order as cognitively *wrong*, excludes habitual coping strategies and places the individual in a situation of even greater uncertainty.

People overwhelmed and distressed by multiple social change find themselves rejected and excluded from the new society and its development. Loss of social participation favours loss of personal identity, loss of command over one's life, and the development of alienation - resulting in a decrease in overall personal well-being. In times of social transformation, alienation is a problem of over-choice rather than under-choice. The individual now has to make many choices: between different social groups, parties, even nationalities and countries. On the other hand, persons who are socially involved have command over their own life; as active members of voluntary organisations or power groups, they can influence the government and the whole development of society, serving higher levels of well-being as a personal adaptational outcome.

Social demand and preference as personal challenge

Social demand aims at fostering new and purposeful developments in the country, and social preference is given to those people who are presumably able to meet the new demands. Parallel to this development, some social myths intervene in the process, setting up old against young people, men against women, the representatives of the indigenous nationality against those of other nationality groups, people with former experience against those acquiring new social experience or even, against those lacking experience.

Age is seen as a social-cognitive factor, determining the levels of well-being through socially given challenges where younger persons are preferred. This is connected with their rapid socialisation process, flexibility in changing habitual lifestyles and re-orienting to new jobs, meeting new demands, and last but not least, with their incorrupt and unspoiled social experience.

The goal has been set as achieving a *normally functioning society* as quickly as possible. To this end, the development of post-socialist Estonia favours young men. Even if married, they have greater opportunities for professional growth and self-realisation, in comparison with married women with dependent children.

The re-construction of the Estonian national state creates an extra burden of tensions for the non-Estonian population, who find themselves in the position as outsiders. Due to their problems of speaking and understanding the state language (Estonian) leave them without authentic information, and also decrease their cognitive control over the new life situations, and thus their levels of well-being. Many non-Estonians also find themselves in a social vacuum: their friends and relatives have left the country, and visa restrictions complicate making visits and keeping close contacts.

In a country emerging from decades under a totalitarian system, the meaning of an individual's previous experience is changing. For example, a person who had been doing well in former times may now be not preferred, his/her previous

experience may well be evaluated as invalid. This is an enormous social-cognitive factor in diminishing the levels of individual well-being.

Four positions of welfare resources and well-being

How are the objective welfare and subjective well-being of a household interrelated? A look at this can give some insights into the processes that Estonian households are currently experiencing (Figure 1.3).

Position One: Welfare resources and accumulation of new welfare resources correspond to a high level of well-being (Figure 1.3 (a)). Households able to respond to new challenges have successfully applied their potential in the production of resources for their own life. As a rule, the decrease in their welfare has been of short duration. Objective welfare and subjectively perceived quality of life may contradict each other in that the households experience *'Western consumerism'* outside the country but only limited opportunities to develop the same themselves. Having positive attitudes towards the development and further perspectives of the state, they are ambitious to achieve *normal* society and to put *'Western consumerism'* to work as quickly as possible. The share of households in this group forms between five and ten per cent; and according to prognoses this share is on the rise.

Position Two: Positive welfare resources accompany subjectively perceived low well-being in some families, because the accumulation of welfare resources has decreased noticeably (Figure 1.3 (b)). Being subjectively unsatisfied with objectively satisfactory living conditions, represents, according to Zapf (1984: 24-25), the *'dissatisfaction dilemma'*. This is found on a large scale among households in transformation due to the problems of economic and psychological coping with societal change.

A decrease in the accumulation of people's welfare has caused a situation that precludes the normal development and growth of the household. This situation is especially threatening for young families. The unexpected situation awakens desires to restore the former way of life and develops a feeling of being excluded from the habits and traditions of the former life-style. Hvinden (1994:2) refers to Georg

Figure 1.3 The four well-being positions

		Subjectively perceived quality of life (well-being)	
		Positive	Negative
Objective welfare	Positive	(a) Positive concordance (well-being)	(b) Dissonance (dissatisfaction-dilemma)
	Negative	(c) Adaptation (satisfaction-paradox)	(d) Negative concordance (deprivation)

Source: Adapted from Zapf (1984), in Glatzer and Zapf (1984: 25)

Simmel's essay written at the beginning of the century, where he states that poverty may be interpreted as a *social relationship*, and not only as a *lack or deficiency of means*.

Position Three: Because the accumulation of objective welfare has decreased or stopped for some households, they lose their earlier acquired welfare resources (e.g., they must sell their car, move into a smaller flat, etc.). Facing serious problems of economic survival, they are socially deprived (Figure 1.3 (c)). Who are these households? First of all, these are households of people of retirement age, mothers taking maternity leave, the handicapped, etc: People who in every way are dependent on the welfare system. The breakdown of the previous welfare system has produced a remarkable decrease in their resources, and many people have fallen into deep poverty. Second, there are people who, after losing their jobs or permanent incomes, unexpectedly find themselves among the groups at least temporarily, needing social welfare services. They feel powerless to improve the situation and confused as to what will happen to them in the near future.

Position Four: Here, the low level of welfare resources and decrease in the accumulation of new resources coincide with subjectively feelings of positive well-being (Figure 1.3 (d)). People who can adapt their personal standards to the undesired situation, manage to cope with it, and a state of mental satisfaction is produced. Being satisfied with the state of poor living or being in a state of resignation, give no incentive to take action. Those having resigned even do not feel a real need to restore their former life style.

Conclusion

The transformation process in Estonia has led to a deep economic depression and a concomitant decrease in people's welfare. The new social situation creates problems of coping with everyday life. As a result, many people and households experience lower levels of well-being. The reflection of societal change on the households has been in some cases adaptive; in others, destructive, even threatening the very survival of the household.

Now, with Estonia in its fourth year as an independent state, the national economy has passed its bottom level and begun an upswing. Moreover, the understanding of new socio-economic and political system is acquiring a clearer form, and Estonia is increasingly accepted on the international level. All that is already reflected in the people's increasing welfare and well-being levels.

CHAPTER 2

POPULATION

Birgit Jacobsen

INTRODUCTION

Throughout the centuries Estonia has been an area of dispute between different peoples and cultures: it has been seized by the Danes, the Swedes, the Germans and the Russians. Different peoples have flowed across the country, making their contributions to its current demographic landscape. Demography materialises historical events and reflects the political struggles and priorities of the past. The restoration of the Republic of Estonia in August-September 1991, in the aftermath of the failed coup in Moscow, gave to its people a fresh start. However, as the country heads on its way towards a democratic society based on a developed market economy, it must also build on the predetermined demographic structure which forms its work-force and influences its future social needs.

This chapter describes the development of Estonia in terms of the *natural increase* (fertility and mortality) and *migration processes* (emigration, immigration and urbanisation) of its population. Dealing with these questions requires a brief introduction to the demographic history of Estonia, with an emphasis on the Soviet period. The statistical information presented here is basically drawn from official statistics[1]. Data from our living condition survey conducted in Estonia during 1994 (NORBALT 1994), add some new information to the overall picture.

Geography

Situated in the north-eastern corner of Europe, the Republic of Estonia borders on Russia, Latvia and the Baltic Sea, and lies close to Finland. With a total area of 45,227 square kilometres, including 4,133 km^2 of sea islands and 2,827 km^2 of inland waters, Estonia is approximately the size of Denmark. Administratively Estonia is divided into 15 counties, and the capital Tallinn is located at the mouth of the Finnish Bay. Lowlands, partly covered by forests, characterise the country. The average elevation is 50 metres, and the highest point lies only 318 metres above sea level.

[1] This information is based on various population censuses assembled by the Statistical Office of Estonia. Information about births, deaths, marriages and divorces is currently recorded by the Civil Registration Office of Estonia.

Language

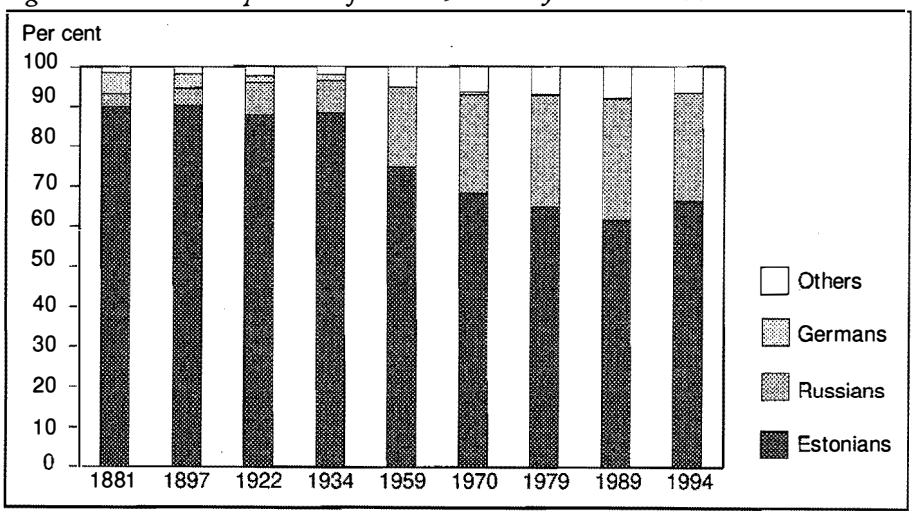
Estonian is a non-Indo-European language, belonging to the Finno-Ugric family. This is the same group of languages as Hungarian, Finnish and the language of the Laplanders of Northern Finland, Sweden, Norway and Russia. Standard Estonian is based on the north Estonian dialect.

Historic and Demographic Context

The first Estonian census was conducted in 1782. Moving to our century, we may note that the birth rate was 25.0 (births per thousand inhabitants) from 1910 to 1914. From 1920 to 1924 it fell to 19.6, and from 1934 and onwards the birth rate remained below 16. This, of course, represents a dramatic decline in fertility. In the 1920s and 1930s, the birth rate actually tended to fall more rapidly than the death rate (deaths per thousand), resulting in a lower overall rate of natural population increase (Raun 1991: 129). Compared to other European nations at the time, Estonia's birth rate ranked among the lowest, whereas its death rate remained relatively high. At the same time the death rate in Estonia was considerably lower than elsewhere in the Soviet Union or in most other Eastern European countries (*Infant Mortality 1994*: xxix).

The chart (Figure 2.1) displays the ethnic composition of Estonia for selected years from 1881 to 1994 according to official statistics and the NORBALT 1994 survey. There was a vast emigration from Estonia in the mid-19th century, mainly to Russia. Raun (1991: 90) estimates that ethnic Estonians constituted more than *90 per cent* of the total population until the distorting effects of World War I. In the

Figure 2.1 Ethnic composition of Estonia, selected years 1881-1994. Per cent

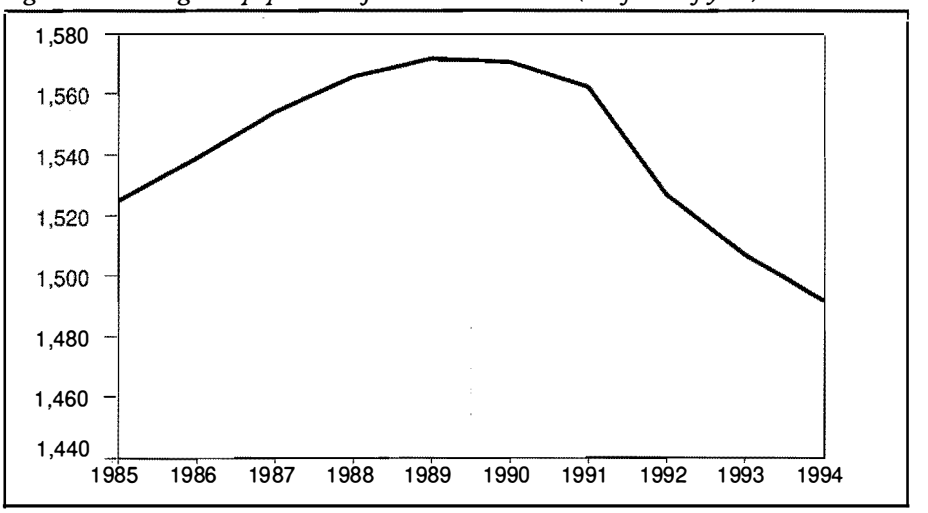


Sources: Raun (1991: 247) and NORBALT 1994. Raun shows the ethnic composition selected years 1881-1989

inter-war period Estonia experienced a significant emigration to the west. From 1920 to 1929 net migration was clearly negative. Yet another wave of emigration occurred as a consequence of the treaty concluded between Stalin and Hitler on 23 August 1939: From October 1939 to January 1941 close to 21,400 Baltic Germans left Estonia (Lugus and Vartia (eds.) 1993: 29). Mass deportations and mobilisation during the war, as well as mass emigration in the 1940s, had disastrous effects. The Estonian population fell from 1,136,000 in 1939 to 854,000 in 1945 – *a 25 per cent decrease!* In addition to the population decline of approximately 200,000 during World War II, a considerable number of Estonian men, including veterans of the German army and members of the Home Guard, were deported during 1945-46. Finally, Raun stimates that 50,000-80,000 people were involved in the deportations associated with the forced collectivisation of Estonian agriculture in March 1949.

Meanwhile considerable numbers of non-Estonians immigrated to Estonia in connection with the Communist take-over. Migration of Russians, Belarussians and Ukrainians during the five years succeeding World War II contributed to a net inflow of 240,000 persons. About *half a million* people immigrated to Estonia during the half-century of Soviet occupation (*The Baltic States* 1991: 15-16). Of the large numbers of Estonians who were deported eastward, some returned to their native country from the interior of the Soviet Union (Raun 1991:181-2). Immigration of young people from the east contributed to an increase in birth rates: 1945-49 witnessed one of the highest birth rates for several decades (20.6 per thousand inhabitants). Then, birth rates declined again. Between 1950 and 1953, the average birth rate dropped to 18.3 per thousand inhabitants, and during the 1970s and early 1980s it stabilised around the level of 16. Estonia regained its pre-World

Figure 2.2 Changes in population from 1985 to 1994 (as of end of year). In thousands



Source: *Statistical Yearbook* (1994)

War II population size at the beginning of the 1950s (Lugus and Vartia (eds.) 1993: 30).

In the census data collected by the Statistical Office of Estonia in 1994 all persons defining themselves as permanent residents or who intended to stay in a municipality for more than six months were accounted as resident population. The resident population of Estonia has been decreasing steadily since 1990, when it was 1,571,684. As of 1 January 1994, this figure had dropped to 1,506,927 of which the total of urban population amounted to 1,058,814 (*70 per cent*). Figure 2.2 illustrates the decline of the population below the 1985 level. The Statistical Office of Estonia estimates the population in 1995 to 1,491,583 persons. The withdrawal of active-duty Russian troops from the country contributed significantly to this decline.

URBANISATION

Most of the population in pre-war[2] Estonia lived in the countryside. And yet, the Soviet censuses between 1959 and 1979 ranked Estonia first among the republics in level of urbanisation. This was caused partly by a combination of natural population increase in urban areas and migration from rural areas within Estonia, but, the major source of urban growth was immigration from other Soviet republics (Raun 1991: 204-6). The post-war industrial expansion in Estonia resulted in rapid urbanisation, with the urban population in *1953 exceeding 50 per cent*. One aim of the urbanisation process was to obliterate the traces of traditional rural life. State farms were to function as urban factories. Tallinn, Narva and Kohtla-Järve experienced the most intensive population growth due to immigration from Leningrad and Pskov Oblast. Tallinn doubled its population, from 133,700 inhabitants in 1944 to 260,800 in 1955 (Raun 1991: 183).

According to official Estonian statistics, at least *two thirds* of the total population lived in towns and cities in 1994. Age groups are quite evenly distributed in rural and urban areas (Table 2.1). Urbanisation of agricultural areas has to a certain

Table 2.1 Resident population by age-bracket (working age) and urbanity

	Total population	Urban population	Rural population
Below working age (children 0-15)	339,323 (22%)	226,540 (21%)	112,783 (25%)
Working age (men: 15-59, women: 15-54)	840,790 (56%)	603,524 (57%)	237,266 (53%)
Above working age	326,814 (22%)	228,750 (22%)	98,064 (22%)

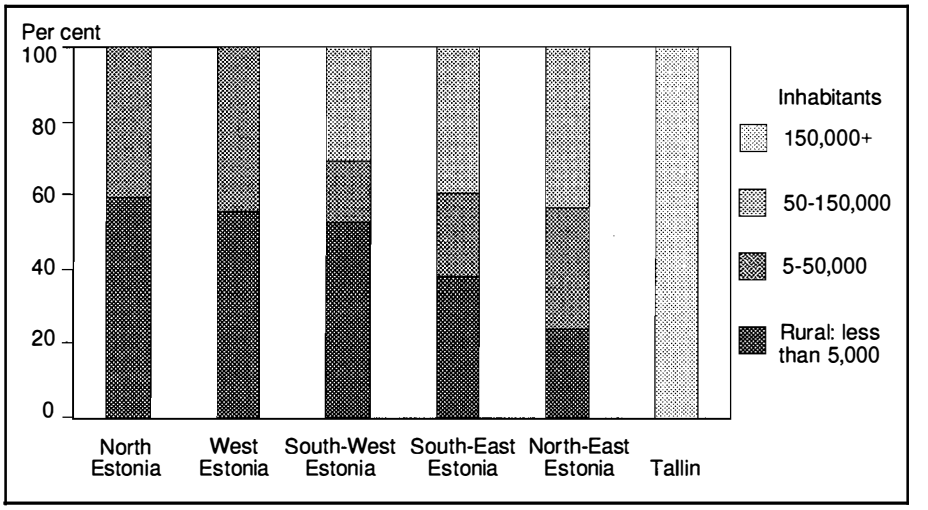
Source: *Statistical Yearbook* (1994: 50-51)

[2] World War II.

degree reduced the mobility of young people to other central areas. Population density in 1994 was 34.5 inhabitants per square kilometer. Harjumaa was the heaviest populated region with more than 130 inhabitants per square kilometer. For Ida-Virumaa the figure is 62, and in Tartumaa 50. The western counties of Hiumaa, Saremaa, Läänemaa and Raplamaa are the least densely populated, with less than 14 inhabitants per square kilometer. Five cities have a population above 50,000 inhabitants: Tallinn (442,679), Tartu (105,844), Narva (79,094), Kohtla-Järve (72,659), and Pärnu (51,963).

Figure 2.3 illustrates the degree of urbanity in different regions as of late 1994. The country is divided into six regions: (1) Tallinn – the capital; (2) North Estonia – Harjumaa, Raplamaa, Järvamaa; (3) North- East Estonia – Lääne Virumaa, Ida Virumaa, Jôgevamaa; (4) West Estonia – Hiiumaa, Saaremaa, Läänemaa; (5) South-West Estonia – Pärnumaa, Viljandimaa; (6) south-east Estonia – Tartu, Tartumaa, Valgamaa, Vorumaa, Pôlvamaa.

Figure 2.3 Degree of urbanity in different regions. Population 18 years of age or older. Per cent

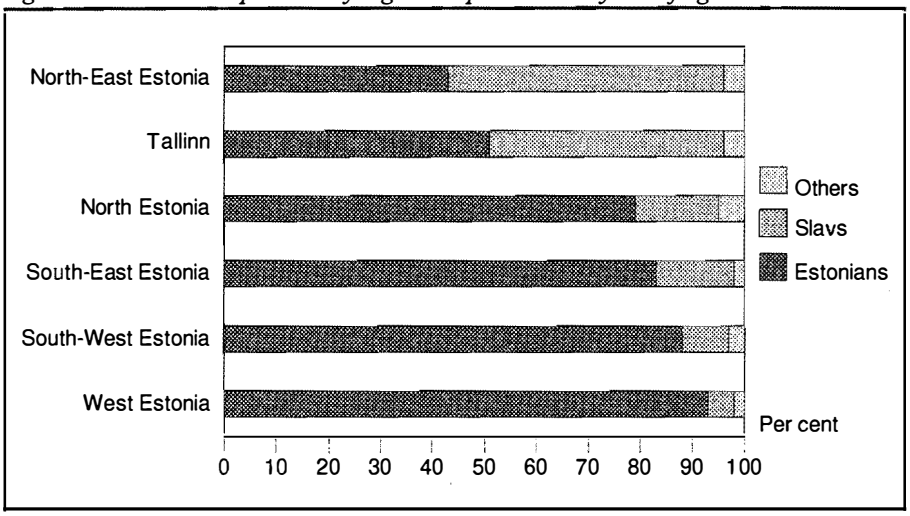


The northern part of Estonia consists of areas with *both* the highest proportion of rural population *and* the highest proportion of urban population. In the region of Harjumaa, Raplamaa and Järvamaa (North Estonia), close to six in ten resident young people and adults live in rural areas, while Lääne Virumaa, Ida Virumaa and Jôgevamaa (North-East Estonia) have a rural population of close to 20 per cent only. In South-West Estonia, with the counties of Pärnumaa and Viljandimaa, close to half the population live in the countryside, while at least three in ten live in urban areas with more than 50,000 inhabitants.

Language and Bilingualism

Figure 2.4 shows the ethnic composition of Estonia by region. According to our survey, close to 40 per cent of the population 18 years of age or older in North-East Estonia are ethnic Estonians. In Tallinn this proportion increases to 50 per cent, while 46 per cent are of Slavic origin[3].

Figure 2.4 Ethnic composition by region. Population 18 years of age or older. Per cent



Bilingualism in Soviet Estonia was practiced in the same manner as in all other Soviet republics. While non-Russians were expected to be fluent in Russian, Russian-speakers were not expected to learn or use Estonian. Russian became the dominant language in public life, especially in the urban centres (Karklins 1994: 151). The concentration of Russians in urban areas in many ways enforced their isolation from the ethnic Estonian population. Pre-war legislation granted all minorities of the Estonian Republic the right to attend schools of their mother tongue. During Soviet rule these schools were shut down, and it became compulsory to communicate in Russian. As a result, Russian migrants had no incentives to learn Estonian. In some parts of Estonia today Russian completely dominates as the language of instruction. In Sillamäe, Narva and Kohtla-Järve meagre *0.6*, *1.7* and *16* per cent of the population, respectively, are taught in Estonian. In larger towns the figure is 44 per cent, in Tallinn 48 per cent. One quarter of the language instruction in Tartu and Pärnu is in Russian (*Estonia in Facts*, February 1994).

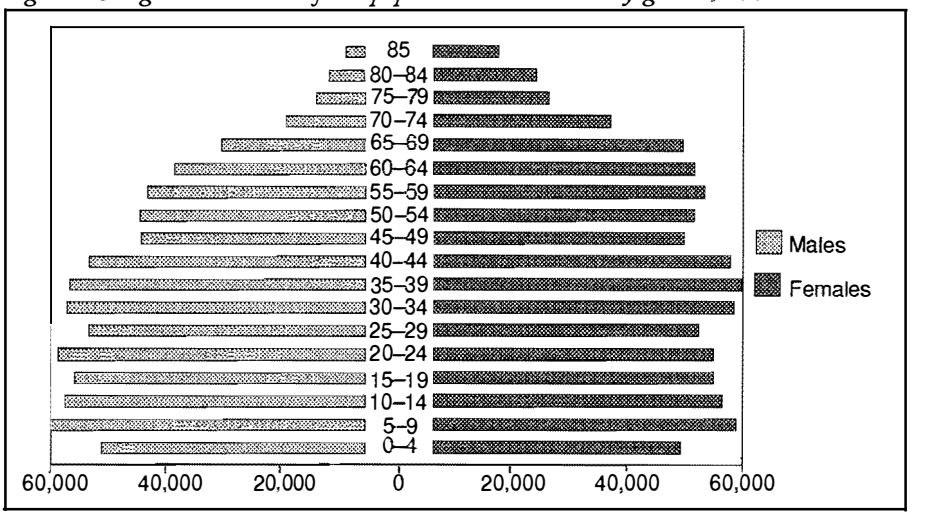
After five decades of compulsory language instruction in Russian, Estonian reappeared as the official language: in 1987 it was declared the official language of Estonia.

[3] Slavs include Estonian residents with Russian, Ukrainian and Belarussian ethnic affiliation (nationality).

Fertility and Mortality

Changes in population are a function of the total number of births and deaths (*natural increase*) and net migration (*mechanic increase*). Let us look first at fertility and mortality. Despite the impact of the many radical and devastating events experienced by modern Estonia, its population increased very slowly over the period from 1920 to 1988 (Lugus and Vartia (eds.) 1993: 31). Men constitute 47 per cent of the total population in Estonia at present. Figure 2.5 shows the age structure of the total population in 1994 by gender. We can observe a marked decline for men born after the war. This level remains stable until men reach the age of 60, and then it steadily goes down. Women probably did not suffer the same losses during and after the war, but a reduction is noticed among women aged 45-54 as well. For women the reduction really starts when they reach the age of 70.

Figure 2.5 Age distribution of the population in Estonia by gender, 1994



Source: *Statistical Yearbook* (1994: 50)

A confusing element here is the fact that immigration from the Soviet republics during the 1950s and onwards contributed to an artificial enlargement in particular age groups. As immigration of young people of reproductive age accounted for both a significant part of the working population and the number of births in the post-war period, these immigrants now contribute to a significant part of the ageing process of the country.

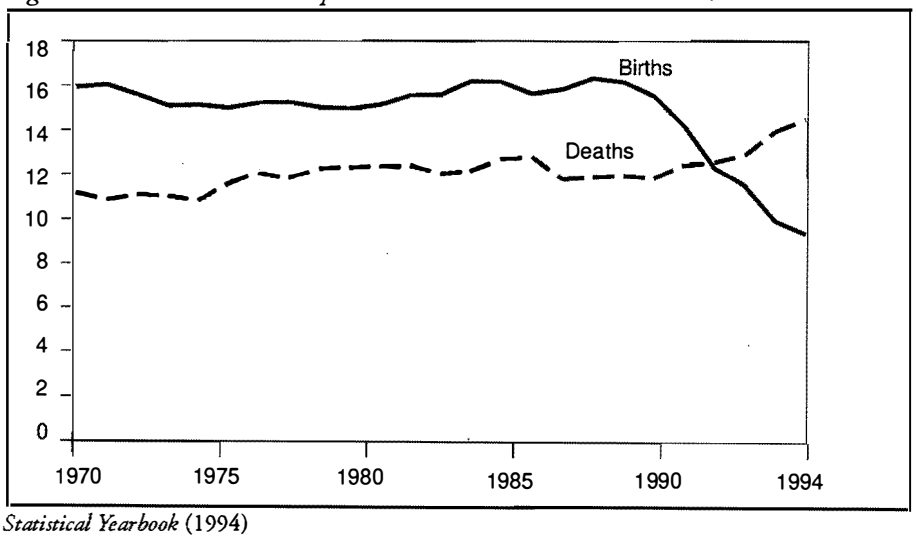
Emigration has reduced the number of people of working age, but economic stagnation and reconstruction of industry also have reduced the demand for labour. The total population is ageing, whereas the birth rate has been declining since 1988. At the same time the death rate has increased as well. In 1991 the two curves crossed with the birth rate felling below the level of the death rate (Figure 2.6). It may be

quite temptating to view this developmental pattern as a consequence of the current transition to capitalism in Estonia, and the concomitant economic and social turbulence. However, we should exercise some caution – some of it may be caused by classificatory changes (e.g. a change in the definition of abortions). We return to this later.

Low birth rates can result from at least three factors: First, they may be caused by a low number of women being of reproductive age. Second, reductions in birth rates occur when women of reproductive age decide to have fewer children. Third, women may decide to have children later in their reproductive period. The first two of these reasons are of specific relevance to Estonia. Beyond this, changes in birth rates are closely related to changes in educational level and labour-market participation among women of the reproductive age. In most societies an increase in the educational level and/or in labour-market participation of women, will – everything else being equal – reduce fertility.

In comparative perspective, however, the tendency to lower birth rates in Estonia is *not very distinctive.* Most Western European countries are now facing serious reductions in the younger age groups and have to cope with a growing population of «elderly» people. In Estonia the situation is different, since Estonians die at an earlier age. The relatively high death rates are probably linked to factors like exhausting and risky working conditions in old-fashioned production units (especially relevant to men), together with the effects of a high alcohol and cigarette consumption habits – especially among men. In general the death rate is a function of the age composition of the population and the life expectancy of various age groups (and gender). The increase in observed death rates in Estonia after 1988 is due to a combination of an ageing process and a decline in life expectancy among both men and women.

Figure 2.6 Births and deaths per thousand inhabitants in Estonia, 1970–94

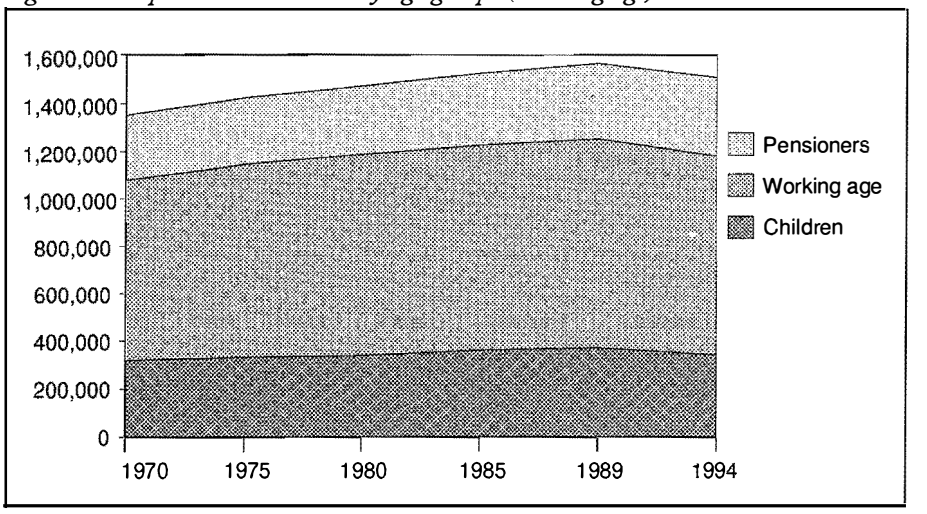


Statistical Yearbook (1994)

Average Estonian life expectancy at birth was 56 years in 1932–34. This gradually increased to 70 years in the 1970s, a level sustained until 1990. In 1989, life expectancy for the new-born males was 65.7 years, and 74.7 years for women. During the four ensuing years of transition to market economy, there has been a severe decline in life expectancy. By 1993, life expectancy had dropped to 62.4 years and 73.8 years for men and women, respectively. Thus, in the course of only five years average life expectancy has been reduced by 2.4 years, with the most dramatic reduction among the male population. Women in 1993 seemed to outlive their men by 11.4 years, as compared to 9.0 years in 1989. Women also retire at earlier than men, at the age of 55 and 60, respectively. Women constitute two thirds of the population above working age. On average, they live for *19 years* as pensioners, while men live on average barely *3 years* after retirement. At present, the Estonian authorities are raising retirement age step by step (six months per year), until a new branch-off point is established – 60 years of age for women and 65 years of age for men. If the life expectancy among men stays at the same level as today, this of course means that most Estonian men will never reach the retirement age!

Figure 2.7 gives the population 1970-1993 by age groups, according to the current definition of working age (1994). The highest life expectancies can be found in Harjumaa, Pôlvamaa, Pärnumaa, Tartumaa and Valgamaa. Counties with the lowest life expectancies for men are Lääne-Virumaa, Viljandimaa, Läänemaa, Jôgevamaa and Hiumaa, and for women the counties of Läänemaa, Jôgevamaa, Hiumaa and Lääne-Virumaa. In urban areas, life expectancy is 66.5 years for men and 75.5 years for women. In rural areas it is 63.8 years for men and 74.0 years for women. Thus, especially men are prone to be affected by urbanity.

Figure 2.7 Population 1970–94 by age groups (working age)



Explanation: Below working age (children 0–15), of working age (men: 16–59, women: 16–54), above working age (old-age pensioners)

Sources: *Population Statistics*, Estonia (1970-1989); *Statistical Yearbook* (1994)

Table 2.2 displays life expectancies in the major cities of Estonia. Narva and Kohtla-Järve are below the average level for both men and women. The Table also illustrates the negative rates of natural increases in most of the largest cities of Estonia as of 1992. Official statistics for 1979-1989 show an increase in the number of people reaching retirement age (55 or more among women/60 or more among men), together with a reduction in the potential work force (age groups 16-54/16-59 respectively).

Table 2.2 Life expectancy in the major cities of Estonia by gender (years of age). Natural increase in multi-city administrative districts per 1,000 inhabitants in 1992

Life expectancy	Natural increase		
	Men	Women	Both
Tartu	67.1	76.8	1.2
Pärnu	68.0	75.7	0.2
Sillamä	..	..	-1.2
Tallinn	66.8	75.1	-2.6
Narva	65.9	74.4	-2.9
Kohtla-Järve	64.6	74.1	-5.1

Source: *Life Tables*, Counties (1986-1991: 56-60) and *Statistical Yearbook* (1993: 35)

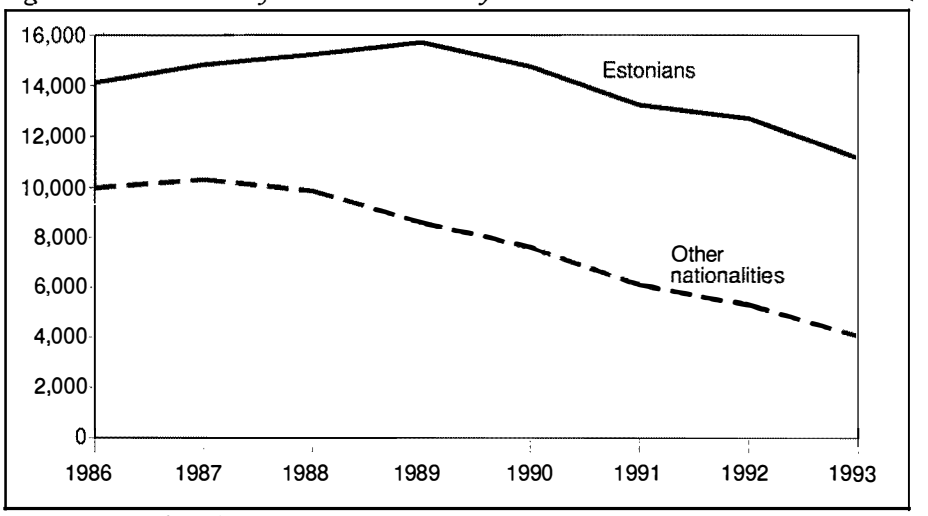
Birth rates in Estonia reached their lowest level in 1967 (14.2 per thousand inhabitants), a figure which was actually less than the Soviet average (Misiunas and Taagepera 1993: 193). During the 1970s and 1980s birth rates were stable, fluctuating at around 16. From 1989 we observe a similar and parallel reduction of live births both among ethnic Estonians and Estonian residents of other ethnic affiliation (Figure 2.8), but live births among non-Estonians had started to decline already in 1988 – only 10 births per 1,000 inhabitants in 1989. The corresponding figure for ethnic Estonians at that time was 15 per 1,000 inhabitants. The numbers of births have decreased for all age categories of women. Approximately two thirds of the total number of live births are to women aged 20-30 (Lugus and Vartia (eds.) 1993: 35).

In Estonia, a child's nationality is defined according to the nationality of the mother. Prior to 1992, the Ministry of Health of the USSR defined live births as follows: Cases where mother's pregnancy did not exceed 28 weeks, and/or a child's weight at birth was under 1,000 grams, and/or whose height did not exceed 35 cm, were not included in the number of live births if the child died within the first week. This definition made it possible to include some births in the abortion statistics, increasing the number of abortions, reducing the number of deaths, and reducing the number of births compared to countries which employed the definitions of the West (read: the definition recommended by WHO[4]): «This fact must also be taken

[4] The World Health Organisation of the United Nations.

into consideration when analysing the death statistics of children under one year of age and comparing them with international numbers» (*Statistical Yearbook* 1994: 42). In Estonia today, specification of live and still births is based on the definition recommended by WHO. A live birth is considered to be a birth with a gestation period of at least 22 weeks and where weight at birth is at least 500 grams.

Figure 2.8 Live births by mother's nationality 1986–1993



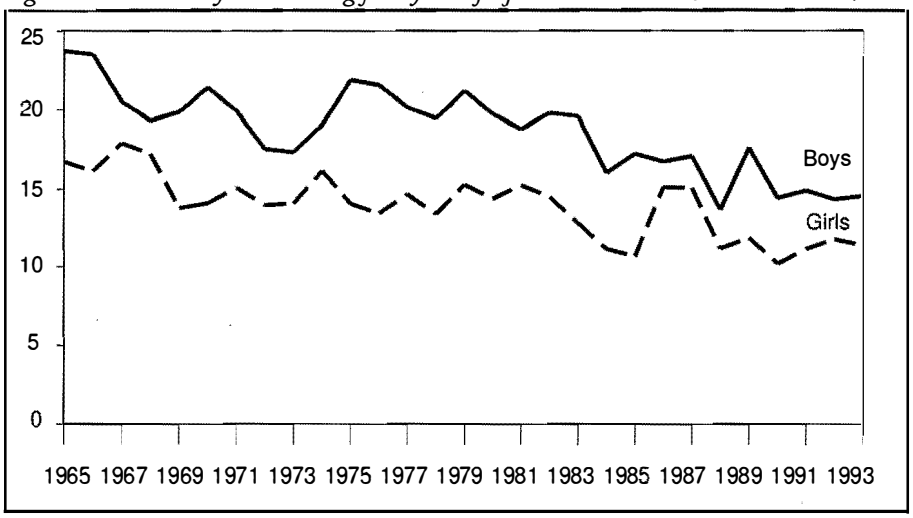
Source: *Statistical Yearbook* (1994: 52,57-58)

The ethnic Estonians' share of the total number of births in 1993 reached 73 per cent, as compared to 59 per cent in 1986. In the 1980s the abortion rate was higher than the birth rate: 120 to 140 abortions per 100 births (*The Baltic States* 1991: 16). The total number of abortions has fallen by approximately ten thousand cases from 1980 to 1993, with a sharp decrease in 1990. This is in line with the general reduction of live births in Estonia. While one woman in ten between the ages of 15 and 49 had an abortion in 1980, the registered number in 1993 was reduced to one in fourteen. However, per 100 live childbirths, abortions increased from 159 to 169. Deterioration of living conditions causes many young people to choose not to bring children into their world.

In addition to the above mentioned changes in classifications, there may be an increasing number of abortions not reported in these statistics. Data on abortions are based on doctor's reports of health-care institutions as well as on reports from licensed private practitioners. Due to the break up of Soviet institutions, the exactness of abortions statistics has worsened. Newly established private health care institutions may not report upon their abortion number. Still, a notable decrease in abortion rates evolved in the beginning of the 1990s (loc. cit). The current ratio of abortions to births is 1,197:1,000 in Estonia, as compared to 209:1,000 in Finland (Lugus and Vartia 1993: 36).

Infant mortality may be regarded as an important indicator of a country's development level. The infant mortality rate of Estonia has displayed a weak decline since the 1960s. But, at a level of 14.6 for male infants and 11.4 for female infants in 1993 (Figure 2.9), it is still 2-3 times higher than in most Western European countries. In 1991 the number of deaths under 1 year of age per 1,000 equalled 13.5, which is a quite a high figure compared to Nordic statistics. Only Greenland had that high level (13.5). In 1992 the corresponding figure was 5.9 in Norway, 5.3 in Sweden, 5.2 in Finland and 6.5 in Denmark. In 1994 the average infant mortality rate rose to 14.5 – 16.0 for male and 12.8 for female infants respectively. One explanation for such a high death rate among children during their first year of life may be poor medical care system and malnutrition[5].

Figure 2.9 Mortality rate during first year of life in Estonia 1965–1993. Per 1,000



Source: *Infant Mortality*, Counties 1965-1993

Free and Forced Migration

When Estonia regained its independence in 1991, an important question was who had the right to become an Estonian citizen. While the passport regulations of the USSR had permitted all residents to travel freely within the borders of the Union, these regulations would no longer be valid in the independent Estonia. After prolonged discussions, Estonian authorities decided that applicants for Estonian citizenship would have to pass a proficiency test in the Estonian language. In addition these applicants had to document three (later reduced to two) years of residency, besides swearing an oath of loyalty to Estonia. The existing Estonian Law on Citizenship, first enacted in 1938, gave automatic citizenship to persons who held

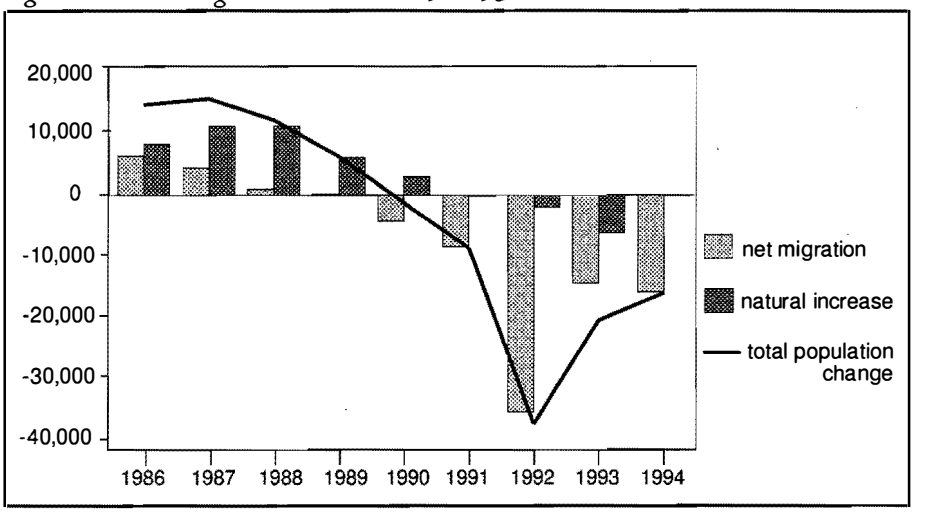
[5] Up to 1992, deaths of children below one year of age as well as prenatal deaths were registered according to the Soviet coding methods. Since 1992 Estonia has employed the international definition of WHO (Statistical Yearbook 1994: 43).

Estonian citizenship before the 16th of June 1940, and their descendants, whereas ethnic Estonians who lived abroad in the inter-war period had to apply for citizenship (*Estonia Today*, 14.2.95). The enactment of a new civic law was an important step in the nation-building process, a process which spurred the emigration of Russians from Estonia in the early 1990s.

Though falling, net migration was positive in 1986-1990 and counted 7,510 people (Figure 2.10). However, 1990 represented the first year with a negative net migration; in the three ensuing years (1991-1993), total net migration reached -55,640. The number of registered emigrants remained approximately the same in these periods, but immigration to urban areas was reduced to one sixth, and to rural districts to one tenth of the former level. Emigration reached a top level in 1992 when net migration counted -33,827 people, most of them leaving urban districts. In 1994 net migration «normalised» at -15,200. Urban net migration fell from -72 in 1988-1990 to -8,366 in 1991-1993. The cities most affected by these migration waves are: Tallinn (-7,919), Tartu (-2,735), Narva (-1,012), Kohtla-Järve (-762), Rakvere (-498) and Sillamäe (-328). Together these cities made up 96 per cent of the total net migration in 1993.

The randomly selected individuals of the living condition survey were asked about the nationality of all household members. According to our survey 66 per cent claim that their nationality is Estonian, and 27 per cent claim Russian nationality. The remaining seven per cent belong to other smaller ethnic groups – Latvian, Lithuanian, Belarussian, Ukrainian, Jewish, Finnish and a small group of 'others'. Respondents were also asked about their place of birth. Our data show that *48 per cent* of all ethnic non-Estonians are born in Estonia, *36 per cent* are born in Russia, ten per cent in Belarussia, Ukraine and Moldova. A fairly large second generation of Russians born in Estonia is thereby represented in the population.

Figure 2.10 Net migration to Estonia 1986-93



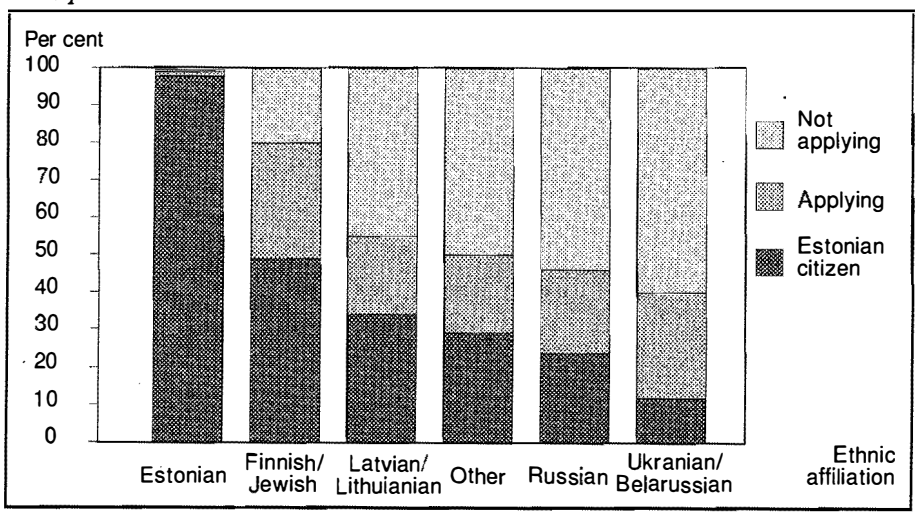
Source: *Statistical Yearbook* (1994: 79)

According to our data set, *seventy-three per cent* of the total population held an Estonian citizenship in 1994; nine per cent were applying for citizenship, whereas *18 per cent* were without Estonian citizenship and did not apply (non-citizens). That is, at the time this survey was conducted, about 400,000 residents were non-citizens. One third of whom applied for citizenship. As the ethnic Russians are the most significant group of immigrants, it is interesting to see whether there was a large group of Russians without Estonian citizenship. Of the population who reported Russian nationality, approximately one quarter (24 per cent) had acquired Estonian citizenship, one quarter (22 per cent) were applying, while more than half of the Russian population (54 per cent) were still non-citizens (Figure 2.11). Of the adult population 18 years or older there was a higher share of Russians born in Russia who appeared to be non-citizens (62 per cent), than among Russians born in Estonia (39 per cent). With regard to the first group, 24 per cent were applying, and in the second group 19 per cent were applying for Estonian citizenship.

Of Estonia's total Russian population, eighty-two per cent resides in Tallinn and North-East Estonia. In Tallinn 26 per cent of the Russians have acquired citizenship, 23 per cent are applying, while 51 per cent are defined as non-citizens. The corresponding figures for North Estonia are 17 per cent, 36 per cent and 36 per cent, respectively. Lack of citizenship may create a potential for social tensions in these areas, if those who have no intention of leaving Estonia begin to feel that their former position in the society has sunken dramatically. On the other hand, the Law on Local Government Elections allows non-Estonian citizens permanently resident in Estonia to vote in local (municipal) elections.

On 19 January 1995 the *Riigikogu* (Estonian Parliament) passed a more comprehensive Law on Citizenship. There have been some modifications since, but in general all applicants have to meet the language requirements to achieve Estonian

Figure 2.11 Estonian citizenship by ethnic affiliation. Residents 18 years of age or older, per cent



passport (citizenship). Article 9 of the Estonian Constitution guarantees the same fundamental rights to non-citizens and Estonian citizens. It has been argued that the unprotected status of non-citizens to a certain degree compels Russians to choose Russian citizenship even if they would prefer the Estonian. The deadline for getting Russian citizenship was set to 12 July 1995, but this deadline had already been extended several times before (RFE/RL Information Unit 6.2.95). For those unable to hold the passport of the country of their choice, the Estonian Government issues Alien's passports, as well as temporary travel documents to ensure that these people can still leave Estonia and return (*Estonia Today*, 14.2.95). If all conditions are satisfied they are granted a long-term residence permit. For the present, only immigrants or foreigners who can document that they have no opportunity to get citizenship in another country are granted passports.

One puzzling finding from our living condition survey is the fact that age does not affect inclination to apply for citizenship. The young age groups of ethnic Russians born in Estonia have no higher frequencies of application than older age groups. One reason for not applying might be that Russian non-citizens intend to move back to Russia or another (CIS) country. This, however, is not confirmed in our material. There are marginal groups planning to emigrate; only around five per cent of the Russian adult population[6]. The main destinations are reported to be CIS-countries or Eastern European countries. Another, and probably better, hypothesis is that many ethnic Russians feel they have no chance whatsoever to pass the basic proficiency test in Estonian. There is much to indicate a Russian population in Estonia with few incentives to return to Russia, where the perspectives of getting an apartment and socialising into new environments and working conditions are scant indeed. The remaining non-ethnic Estonians have come to stay, a fact that must be taken into consideration when the further development of Estonian society is to be determined. This decision naturally will be influenced by the political situation in the country, as well as by the residents' anticipated possibilities of leaving Estonia for another country.

Divorce and Marriage Rates – Future Perspectives?

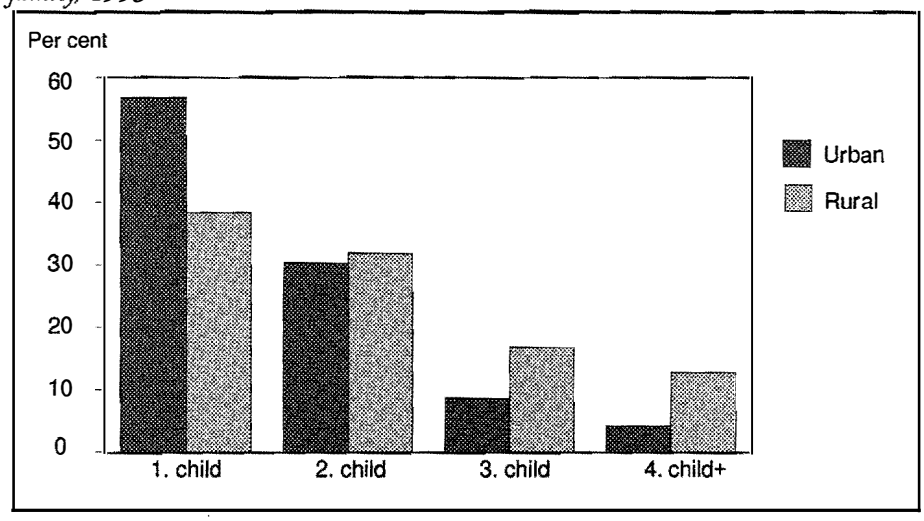
Average family size in Estonia, was among the lowest in the Soviet Union during the 1950s and 1960s. The divorce rate ranked among the highest, increasing sixfold from 1953 to 1980. It is quite difficult to explain differences in levels of divorces, but the high labour-force participation among Estonian women probably

[6] According to the results of a Russian Minorities Research Centre poll, only eight per cent of the ethnic Russians in Estonia believe that their rights are being violated. Ninety-three per cent said they would remain in Estonia and only four per cent were interested in obtaining Russian citizenship (*The Baltic Independent* May 5-11). However, a Russian Public Opinion Foundation poll in Russia found that many Russians believed that ethnic Russians in Estonia and the other former Soviet republics are subjected to discrimination and need their protection (*Ogonek* no. 19). One Russian in three believe that the borders of Russia should be expanded to include Russian areas in other republics, while 46 per cent are opposed to such steps.

is one important contributor (read: high degree of economic independence from men), as is alcoholism among men and possibly even crowded housing conditions. Limited space may also shed some light on the high rate of abortions in Estonia. Still, the poor access to reliable contraceptives probably is the basic contributor to the high frequency of abortions in all former Soviet republics[7].

The rapid urbanisation and industrialisation process that prevailed during the Soviet regime assigned many social features to Estonia that are typical of a modern Western society. Women's participation in the work force was not only accepted but even morally required in the Soviet society. This contributed to the highly institutionalised and well-developed public child-care system. The urban way of life also discouraged young couples from having large families: one or two children appears to be the most common number (Figure 2.12). Now undergoing processes of privatisation, many kindergartens are closed down and much of the responsibility for the daily care-taking of children is left to grandparents or other relatives.

Figure 2.12 Live births in urban and rural districts by the succession of children in the family, 1993



Source: *Statistical Yearbook* (1994: 60-61)

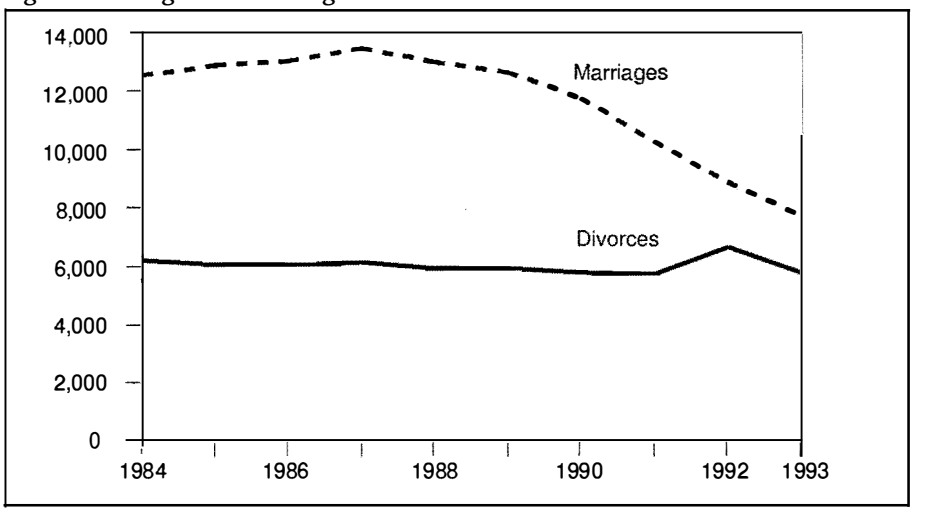
As to age of marriage, one in three women born around 1960 married before the age of 20. Four in ten men born around 1960 married before the age of 23 (*The Baltic States* 1991: 16). Registered marriages dropped swiftly from 1989 to 1993

[7] Rein Taagepera (1993) describes the problems of housing shortages during the 1970s and early 1980s like this: «Personal reasons such as divorce were no grounds for receiving new housing, and many ex-couples, sometimes remarried, were forced to live side by side in cramped quarters; one can imagine the tensions and frictions. In schools, a large portion of older children attended night shifts because of space shortage-and that in a country with a low birthrate! The number of abortions surpassed that of live births because abortion was effectively the only birth control device available. Inadequate housing was the primary reason women mentioned for avoiding having even a single child» (ibid op.cit: 103-104).

(*Statistical Yearbook* 1994: 78). Due to the unstable period of economic and political transformation, people postpone having a family (Kutsar 1995: 38). According to our living conditions survey, the civil status of the respondents 18 years of age or more was as following: seven per cent of the adult population are cohabiting, 56 per cent are married, while another 17 per cent are unmarried; ten per cent are widowed, two per cent are separated and nine per cent are divorced. Of the age group from 20 to 34 years of age, 48 per cent are married, six per cent are separated or divorced, while 35 per cent are unmarried. One in ten is cohabiting, which appears to be twice as many as in the age group above 34 years. In fact, a large number of women giving birth out of wedlock are actually cohabiting (Lugus and Vartia (eds.) 1993: 40).

Figure 2.13 shows two major trends. First, the frequency of marriages is reduced, probably as a clear-cut result of the serious problems connected with economic transition. Young people are evidently choosing not to marry. Second, the divorce rate is standing firm. There is a tendency for people to fail to register their separation if they have no intention of remarrying. This phenomenon emerged during the Soviet time and still affects behaviour. Registered divorces increased markedly in 1991-1992. New registration requirements explained the sudden increase of divorces, as people who had separated a long time ago registered in this period. It is noteworthy that of all registered marriages in 1993, 33 per cent were remarriages, compared to 25 in 1983 and 19 in 1973 (*Statistical Yearbooks* 1993: 82 and 1994: 78). It would seem that people already married once do not hesitate in giving a new relationship a try during this period of transition.

Figure 2.13 Registered marriages and divorces 1984-1993



Source: *Statistical Yearbook* (1994: 78)

CHAPTER 3

HOUSEHOLD COMPOSITION

Aadne Aasland

INTRODUCTION

Although the individual tends to be the primary unit of analysis in a living conditions study, the welfare of any individual will to a large extent be determined by the amount of resources distributed through the household in which he or she lives. In the Estonian living conditions survey it was therefore seen as important to include analysis on the household level. Information about the household and each of its members was collected, and such household characteristics were then ascribed to each randomly selected individual in the survey. A household was defined either as a single person living alone, or as persons who were living together and who pooled their economic resources together. Respondents in the survey were asked to list the persons with whom they lived together in the dwelling, and who shared at least one meal per day, or who used the food supplies of the household if meals were not shared. It should be noted that in this survey, it was the respondent who provided information about the other members of the household. By appropriate weighing of the collected data about respondents, households and individuals in the households (see methodology *Appendices 0.1-0.2*), a large amount of information could be extracted both on the individual and on the household level.

In this chapter we give a general overview of the composition of Estonian households and classify them into different types. Since the individual normally shares the living conditions of the other members of the household, the way in which a household is composed will often be decisive in determining individual welfare resources. Larger households can benefit from economies of scale, as major consumer durables such as a washing machine or a TV can be shared among several persons. It is common knowledge that in relative terms, it is both cheaper and less time-consuming to prepare a meal for a large family than for just one or two persons. On the other hand, many people seek the freedom and independence connected with smaller household units, and wish to establish a household on their own or together with their nuclear family if they have the chance to do so.

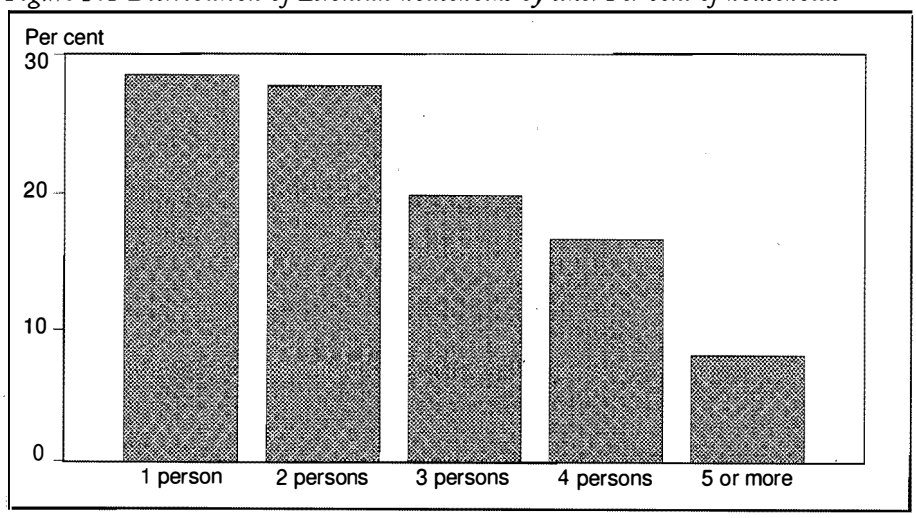
Fertility and mortality rates are not the only factors determining the size and composition of households. Often decisive are «soft» factors defined within a socio-economic, legal and cultural framework, i.e. which have sociological characteristics. Let us take single parents as an illustration: The distribution of single-

parent households will – in addition to several other factors – depend on the cultural and religious values in a given society. Socio-economic factors related to general welfare and legal factors such as support arrangements for single parents, will largely determine whether it is possible for a single parent to live alone with the child(ren) or whether she (in most societies it is usually a she) will choose to live with her parents. The outcome will have important implications for the welfare of the single parent, her children and all the members of the parents' household. In this study then, in addition to giving a descriptive presentation of the Estonian household structure, we will seek to shed light on major findings with a basis in our knowledge about Estonian society, and we shall also suggest some of the implications of the household structure for living conditions in Estonia today.

Household Size

When analysing household size in Estonia, one can both use the household and the individual as the primary unit of analysis. In this section we will start with the household. The distribution of Estonian households according to their size is illustrated in Figure 3.1. More than half the households are either one-person or two-person households (29 and 28 per cent respectively). The average size of a household is 2.5 persons. These figures are identical with the figures for Latvia, while Lithuania has a somewhat smaller share of one-person households (23 per cent) (Knudsen 1996; Aasland (ed.) 1996). The proportion of one-person households is somewhat lower than the corresponding figure in Norway, but the average size of a Norwegian household was 2.4 persons in 1992 (Statistics Norway 1993: 295). However, in an international and even in a European context, households in Estonia

Figure 3.1 Distribution of Estonian households by size. Per cent of households

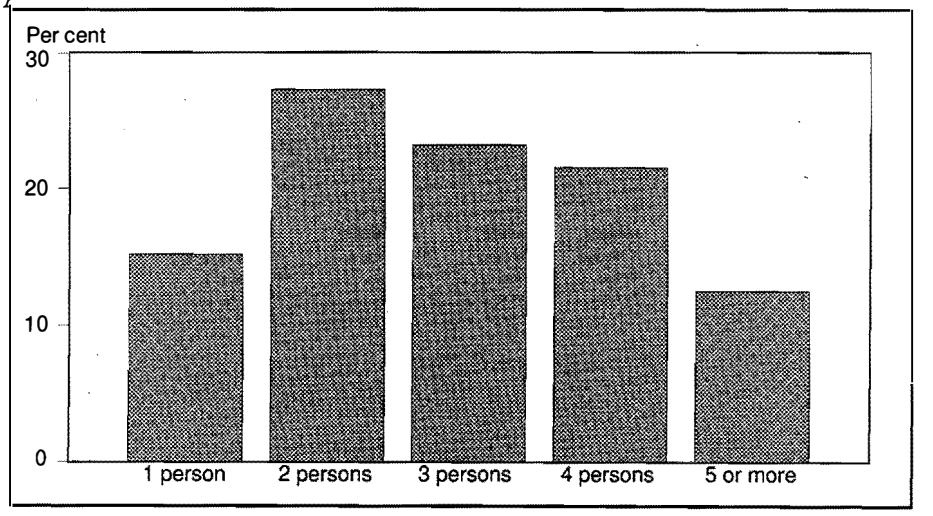


must be considered to be rather small. The processes of industrialisation and urbanisation were the main factors in decreasing the average household size in Estonia.

There are very few large households in Estonia: only eight per cent have five members or more. Intuitively one would expect that these large households to be more common in rural than in urban areas. Our data confirm this, as 14 per cent of the households in rural areas had five or more members in 1994, while the corresponding percentage in the cities was six per cent only. However, the average size of a household is only slightly larger in rural than in urban areas. It is also noteworthy that the capital city Tallinn, is not characterised by much smaller households than the country as a whole. In fact, the proportion of one-person households there is slightly lower than the average. The main reason for the small overall differences between urban and rural areas is probably the fact that the Soviet-style apartment blocks were the most typical buildings in both types of settlements, and these favoured a smaller household size. Private farm-houses, with enough space for many members, are only gradually replacing the old collective farm-houses built in accordance with Soviet housing norms.

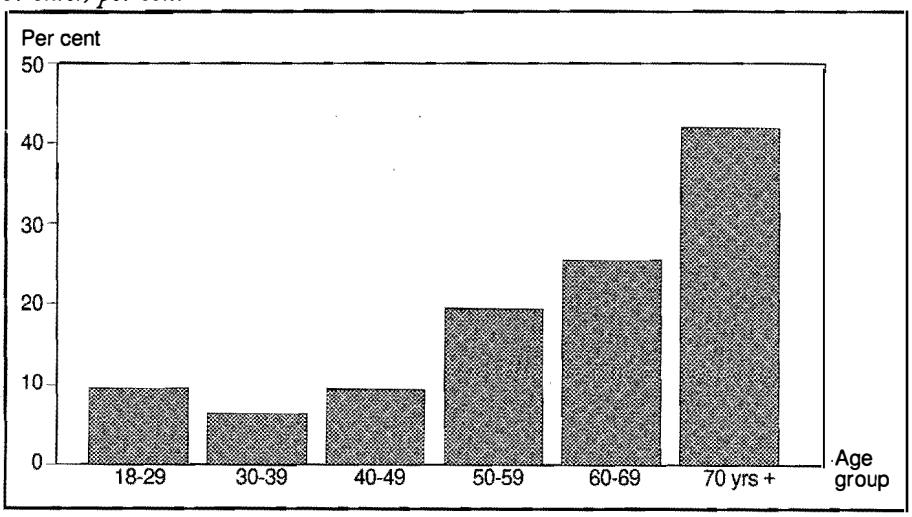
As mentioned, household size can be described in two ways. What we did above was to use the household as the basic unit of analysis, and count the proportion of households according to their size. We will now proceed by studying how many individuals who live in households of different sizes, which means that we must take the individual as the basic unit of analysis. This distribution is illustrated in Figure 3.2. While 29 per cent of Estonian households are one-person households, only 15 per cent of the population live in such a household. Similarly, one in eight (13 per cent) of the Estonian population lives in a household with five or more persons. When the individual is used as the basic unit of analysis, we further see that more than half (57 per cent) of the respondents lived in households with three or more

Figure 3.2 Proportion of households of various sizes. Respondents 18 years of age or older, per cent



members, while those living in smaller households were in a minority. Age is the variable which is most strongly correlated with household size. Higher age increases the likelihood of a respondent living alone, as can be seen in Figure 3.3. Especially elderly people 70 years of age or older have a high likelihood of living on their own (42 per cent). Only 17 per cent of the respondents in this age group live in households with at least three persons. That more women than men live on their own in this age group is caused by the higher life expectancy for women. At the other end of the age pyramid, young adults between 18 and 29 do not have more than ten per cent likelihood of living on their own. Young people tend to live with their parents until they marry, and some even continue to live with their parents until they can find or afford a place on their own. This tendency is, however, not as strong as in Latvia, where only five per cent of those in the same age group lived by themselves. Compared to the Scandinavian countries, parents seem to support their children longer in the Baltic states, mostly because of the strained economic situation. Young people do not, as a rule, have the resources to buy or rent an expensive flat in the Estonian housing market. This is clearly an example of how socio-economic conditions influence the size of households. The structure of a household depends not only on the desire to establish a household on one's own, but also on the economic opportunities for doing so. Naturally, as people grow older their likelihood of being married increases; in the age group from 31 to 40 only seven per cent of the respondents live in one-person households. Almost 40 per cent of the respondents in this age group live in households consisting of four persons, as this is typically the age when most respondents have children still too young to have moved out. Children (below 18) are, as expected, those most likely to live in large households. Almost one third of all children live in households consisting of five people or more. For comparison, the same is true of only six per cent in the age groups above 50.

Figure 3.3 Proportion of respondents living alone, by age. Respondents 18 years of age or older, per cent



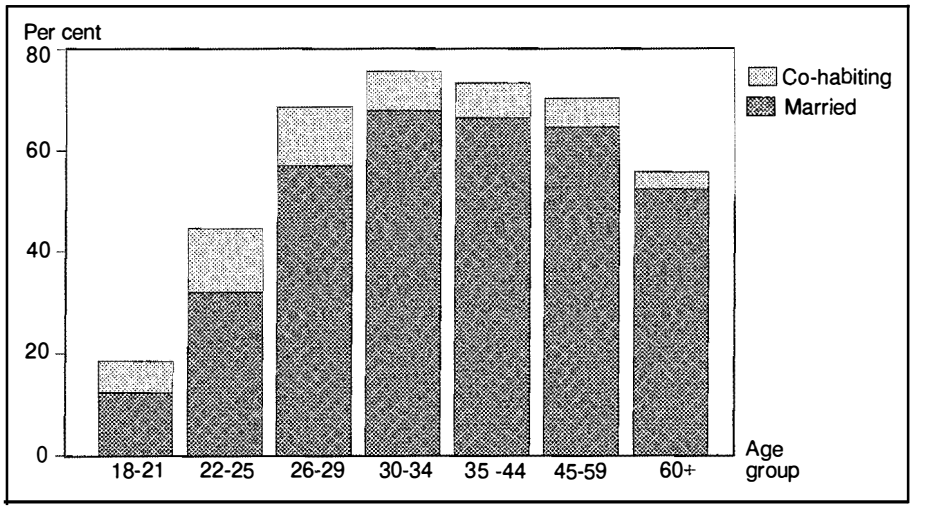
Family Patterns and Household Types

Many aspects of living conditions are, as mentioned above, linked to families and households and do not depend solely on the individual. Housing standards, income and expenditure patterns are to a large extent shared by all members in a household. The household also has an important function as a source of social contact. Moreover, for policy planning related to, for example, government transfers and provision of public services, the household structure is crucial. The question we will ask in this section is therefore, who lives with whom, and during which phases in the life-cycle?

More than six in ten of the Estonian adult population are either married (56 per cent) or co-habiting (seven per cent). There are 17 per cent who are unmarried and have never been married, while 10 per cent are widowed and 11 per cent either separated or divorced. This has important implications for Estonian family structures. Figure 3.4 shows that most Estonians get married when they are between 21 to 29. It is also in these age groups that co-habiting is most widespread, but co-habiting does not compete with marriage as the most common way of living together in Estonia. Three quarters of the respondents in the age-group from 30 to 34 were either married or co-habiting; after this, divorces and deaths outnumber new marriages, causing the fall in overall marriage rates which can be observed in the Figure.

Life cycles, fertility and mortality patterns as well socio-economic and cultural conditions all influence household structure. There is an enormous number of potential household types based on characteristics of age, marital status and family relations within the household, making it necessary to simplify the picture so that the number of household types becomes manageable and also amenable to further

Figure 3.4 Married and co-habiting, by age. Respondents 18 years of age or older, per cent

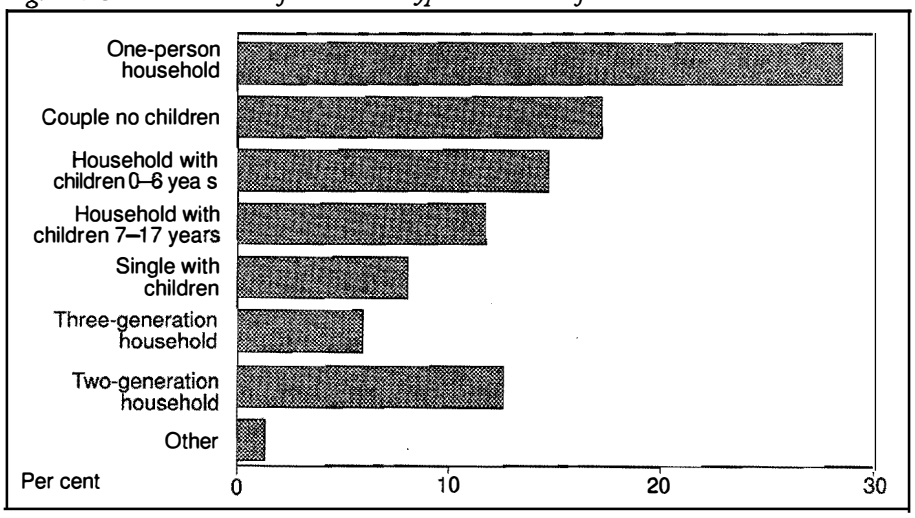


analysis. The main types can, when needed, be split up further into smaller subgroups. The first criterion for the classification is whether one person lives alone or with other people. The number of generations in the household is a second criterion. A third criterion is whether there are dependent children (below 18) and small children (below six) in the household. The final criterion is whether at least one married or co-habiting couple lives in the household.

These criteria and information in the survey provided the basis for classifying households in the following eight groups: one-person households, households where a couple lives alone with no children, households with dependent children above seven years of age and below 18, households with dependent children where at least one of the children is less than seven years of age, households with single head and dependent children, three- generation households, two-generation households with no dependent children, and finally other types of households (typically siblings or non-relatives living together). This household typology can, as was the case with household size, be studied both at the household and at the individual level. If we first use the household as the basic unit of analysis, we find the number (proportion) of various household types in Estonia as illustrated in Figure 3.5.

Four out of ten households in Estonia include a dependent child, and 18 per cent have at least one child six years of age or younger. Here it should be mentioned that it is rather uncommon to have more than two children. Half of all families with dependent children have one child only, while three quarters of the rest are families with two children. This low number of families with many children must be seen in connection with the low birthrates which were discussed in the *population chapter* (chapter 2). Households with a single breadwinner and dependent children often tend to be particularly vulnerable in terms of welfare, and it is therefore important to differentiate between these households and other households with children. In Estonia eight per cent of all households consist of a single parent or other adult (for

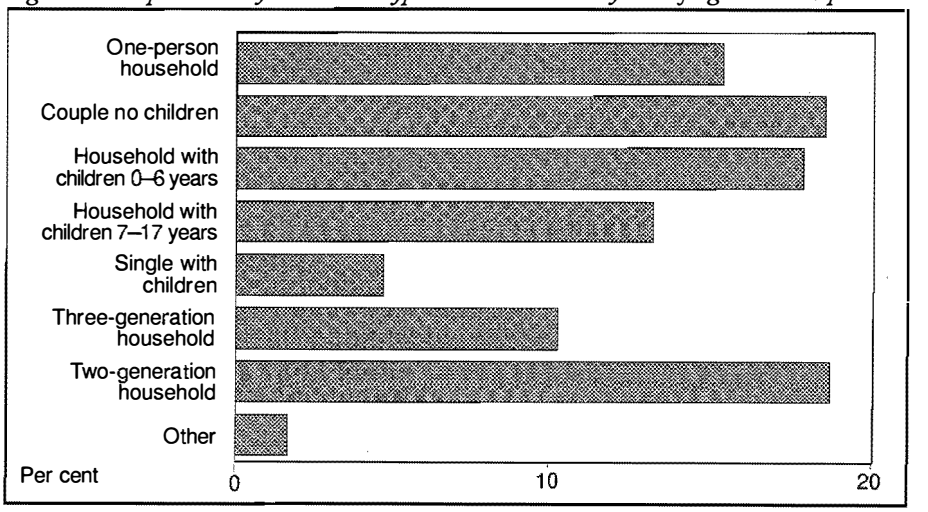
Figure 3.5 Distribution of household types. Per cent of households



example grandparent) with children below 18. Usually the single breadwinner is a mother: in 90 per cent of the cases it is a female. It should also be emphasised that a considerable proportion of Estonian children live in households with only one breadwinner, although there are on average fewer children in these families than in households with more than one adult. According to our survey data, this applies to 19 per cent of children and teenagers below 18 years of age. Their living conditions are likely to be affected by the type of household in which they live.

Members of three-generation families are, on the one hand, likely to be less vulnerable than other households, as there are more adults who can share the responsibilities of bringing up children, doing housework and so on, which should release more time for others to spend on economic activities. On the other hand, one could expect such households to be most widespread where there is the need for supporting one or more members, especially elderly pensioners. A third generation which is economically inactive can often represent an economic liability on the household, but this will in many cases be compensated for by the contribution such persons make within the household. Seen as a proportion of all Estonian households, three-generation households are not all that common: they make up six per cent of all households in the country. However, if taking the individual as the unit of analysis, we see that the proportion of the Estonian population living in three-generation households is rather significant. Figure 3.6 shows that more than one in ten lives in this type of household. Due to the interesting distribution processes at work in such households, they should be analysed separately. Although we have seen that one-person households are far more common than three-generation households when seen as a proportion of all households in Estonia, Figure 3.6 also shows that the actual number of people living in these two types of households is almost exactly the same. Another interesting finding is the fact that many live in

Figure 3.6 Population by household types. Individuals 18 years of age or older, per cent



two-generation households even when there are no dependent children. This is an indication of a tendency where two generations often continue to live together until the children marry and start their own families. The age and process of home-leaving will be discussed at greater length in the chapter on *social networks and security* (chapter 10).

Households in Estonia often include relatives other than children, parents and grandparents; when such extended families do not include an additional generation, they are not classified here as a separate type of household. For example, 16 per cent of all households with dependent children above six included additional relatives or non-relatives. There can be many reasons for the formation of such extended households, but one would expect that households which have managed the transition process relatively well support more vulnerable relatives who otherwise might have become outsiders. We shall later see if we find support for such a hypothesis in our data.

Dependency and Consumer Ratios

The economic resources of an individual will to a large extent be determined by his or her income, but the income-generating capabilities of the household in which the individual lives are also important here. In many households there are people who depend on others for their economic security or living standards. Thus, people can have a high degree of economic welfare without necessarily having an individual income. On the other hand, we cannot draw conclusions about the welfare of each individual in a household simply by identifying the economic resources of each or all household members. To do so requires detailed knowledge about the often complicated distribution system within a household. There can be no doubt, however, that a household with many breadwinners and few consumers will have potentially more income to distribute among the household members, regardless of how this distribution is arranged.

In this section we shall discuss some measures that can show the degree of dependency within Estonian households. Two ratios were constructed on the basis of information about age and labour force activities of each member in the household. The first measure, called the *dependency ratio*, shows the *proportion of household members outside regular working age*. We define relatively wide dependency categories (below 65 and above 16), partly since people often work also after regular retirement age. A dependency ratio of 0 means that there are no household members in the dependent age groups. The closer the dependency ratio approaches 1, the greater the proportion of dependent members in the household. The distribution of households according to this dependency ratio is shown in Figure 3.7.

The majority of households (57 per cent) include at least one dependent member, while 43 per cent do not have any members in the typical dependency age groups. In one of five households people of dependent age outnumber those not

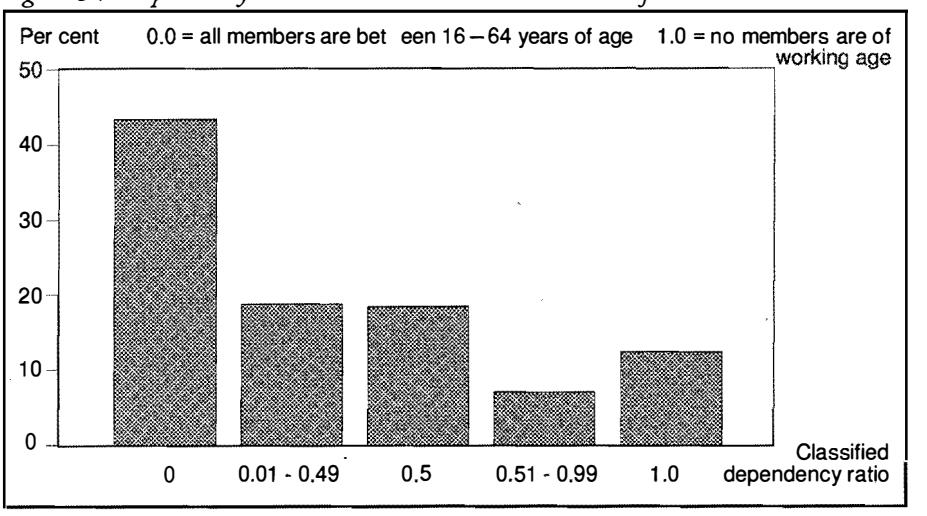
of dependent age. Many of these households consist of elderly people and persons living alone. Such households are likely to be more vulnerable in economic terms.

A perhaps better indication of economic dependency is, however, obtained through the so-called *consumer ratio.* This measures *the proportion of consumers* – or, rather, non-producers – *in the household.* The consumer ratio gives the proportion in a household who are unemployed, outside the labour force, or below working age: in other words, those who depend on help and support from other household members, or private/public transfers of income for their welfare. Thus, this ratio in many respects gives a more nuanced picture of the actual level of dependency in the household. The dependency ratio and the consumer ratio are constructed in the same way, so that a high consumer ratio (*1* or *close to 1*) implies that there are many consumers and few producers in the household, while a household with a consumer ratio of *0* consists solely of persons active in the labour market. Here it should be emphasised that substantial work may be carried out by persons not defined as producers in the survey, as such work takes place outside the official labour market.

Figure 3.8 shows that 30 per cent of the households have a consumer ratio of 1.0, which means that there are no producers and only consumers in these households. Naturally, most of these households consist of pensioners. However, 13 per cent of the households where the respondent was below the retirement age still had a consumer ratio of 1,0. All incomes in these households are based on transfer incomes from the state, outside help or some form of informal or grey economic activities. In nearly half the households the number of consumers exceeds the number of producers. Estonia's low retirement age is a major reason for this.

The consumer ratio in a household is largely dependent on the type of household and the age of those comprising it. The highest average consumer ratio is found in households with a single head and with dependent children (0.69). In these

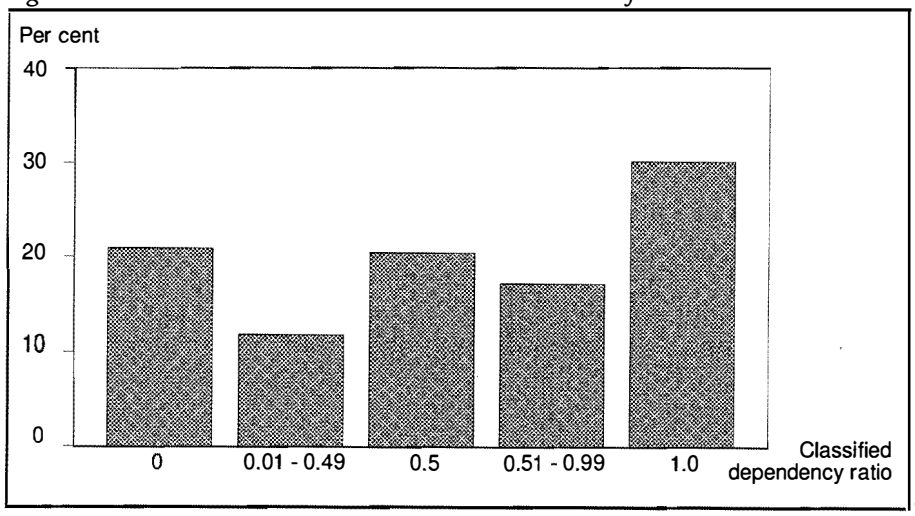
Figure 3.7 Dependency ratio levels in households. Per cent of households



households there would normally be one breadwinner and one or more children who need to be supported. However, 30 per cent of these households do not even have one person in the labour market, so that the family requires state support or help from outside the household. Households with small children and three-generation households also have higher than average consumer ratios (0.60). In the first case there are many parents, usually mothers, who are home with the children during their first years. The relatively generous monetary compensation during maternity leave contributes to this. As the children grow older the women usually return to the labour market, and the average consumer ratio for households with children above 7 is lower (0.52). In one-person households and households with a couple without children the important factor in determining the consumer ratio is the age of the household members. Average consumer ratios for these household types are 0.58 and 0.55, respectively, but if we look at the households where the respondent is below retirement age, the consumer ratios are much lower (0.28 and 0.25).

What, then, does the consumer ratio say about Estonian realities? It should be stressed that the consumer ratio is a formal way of classifying households and it must be studied in the context of other household variables, especially household incomes. It is not necessarily so that households with a relatively high consumer ratio are worse off than households where everyone is out in the labour market. Families where one of the members has a high salary can afford to have many children and, perhaps, also to have one of the parents stay at home with the children. Also, in households where grandparents or others help with the housework and shopping, this can free the labour-market members in the household from such tasks, which can often be taken out as a larger salary for the household as a whole. In a society characterised by a large differentiation between low and high wages, one could expect that it may be more important for the household that those of its members

Figure 3.8 Consumer ratio levels in households. Per cent of households



who are active in the labour market have a high salary than to have a highest possible proportion of producers.

However, our data show that the consumer ratio and the household income per capita are strongly correlated (a correlation of 0.53). This suggests that the proportion of consumers in a household is an important indication of the household's economic resources and shows the relevance of the consumer ratio variable. It is interesting to note that the correlation is somewhat lower for households with two or more adults and dependent children than for other types of households. The effect of each additional child on the household per capita income is, however, significant as well. This may be one important reason in explaining the low fertility rates in Estonia.

Retired people with small pensions and no extra income also tend to improve their living standards if they live together with others. In this way the household can serve as a buffer against the severe and often unpredictable economic and social effects caused by the transition in Estonian society.

Conclusions

In a society like that of today's Estonia, where the government, due to economic constraints and a changed ideological outlook, has freed itself from many former responsibilities of the state, much more of the responsibility of the welfare of the individual falls on the household. It becomes vital for the households to have a large proportion of their members in the labour force. However, the work which is done by persons of non-working age can also play an important role in the household economy.

It follows from this chapter that characteristics of the household size and type of households are important background variables which must be considered alongside individual characteristics when discussing living conditions. The role of the household is most crucial when individuals otherwise would have become outsiders, for example if they lose their jobs, or find it hard to get a footing in the labour market.

Since households can compensate for some of the economic hardship at an individual level, those who are most at risk are those without a support network. They are people who do not have relatives or others to support them, or people who live in households where economic hardship is a characteristic shared by all the household members.

CHAPTER 4

HEALTH

Mart Einasto

INTRODUCTION

This chapter applies the NORBALT survey to discuss the health condition of the Estonian adult population as of late 1994. It includes some indicators on unhealthy behaviour, on environmental strains as well as on health-promoting activities.

Any system of health care rests on at least three closely related corner-stones: First, its ability to provide services of approximately equal quality to the whole population (its *coverage*). Second, how such services are financed (the *rendering* of services). Third, its ability – in co-operation with other institutions (schools etc.) – to prevent disease and ill-health through the spread of knowledge about healthy behaviour. We start with a brief presentation of the present Estonian health care system and some of its changes during the recent years. How has the new system functioned in practice so far?

The old system

The Soviet Union granted free health care services to all. Even though this system clearly operated at several levels, it became extremely hospital-centred. At the first level, the population was divided into 'health regions'; each with its own *regional physician*. These doctors usually had a narrower specialisation than the case with general family physicians in other countries. At second level, the Soviet system offered services provided by medical specialists at polyclinics and/or at hospitals. Here we should note that Estonians suffering from ill-health had free opportunities to turn *directly* to a medical specialist at the second level, and referrals to hospitals and specialists became quite common. The former system of the Soviet Union was heavily centeralised, and Moscow provided Estonia with the resources needed to run the institutions at all three levels of national health care.

Introducing a system of health insurance

As Estonia regained its independence from Moscow, the deficiencies of the old structure became apparent. Too little attention had been paid towards educating people to take responsibility for their own health through the spread of information about health-promoting behaviour. Possibly more pressing – health care now had to be decenteralised, and here the costs of the old system manifested itself. The Estonian health authorities looked to Germany to find how to escape from this

impasse. New principles of national *health insurance* were introduced. Health care became financed by a *tax* on wages (paid by the employer). To assess the amount of services needed, a point-mark system was worked out, in which every service received a certain amount of points, and every point was ascribed a certain monetary value.

This change has at least three important consequences: First, the health insurance principle actually introduces a fee for health care services. Second, more medical specialists enter the lower levels of health care. By this the monitoring of health care and its rendering become vital, as most specialist services are more expensive than services provided by generalists. Third, the insured were only those from whom the tax could be deducted, although the solidarity principle dictated that retired people, children below the age of 18, students, registered unemployed and the spouses of insured persons, were covered too. All the same, for the first time Estonia faced a situation in which potentially some persons *would not be covered by the insurance*! Our first task is to estimate the size of this group, and to indicate who they are.

Some Indications on the Present Working of the System

Who is not covered?

Thirteen per cent of the adult population (18 years of age or older) claim that they lack health insurance. Since this insurance principle is new and relatively unknown, we counted those who had a job, but who were studying as full-time students, and the retired people. These two groups of Estonian residents are in fact covered by the insurance system through 'the act of solidarity'. *Seven per cent*, or more than half of those who considered themselves as uninsured, proved to be either students or pensioners. Thus, the real size of the uninsured is seemingly *six per cent* of the population. Who are they?

Close to six out of ten are men and nearly seven out of ten belong to the lowest income quintile (the lowest 20 per cent in personal income). Nine in ten are actually unemployed, and some of these clearly belong to the category of 'discouraged workers' – i.e. people who seem to have lost all hopes of paid labour (18 per cent of the uninsured, according to our estimate). The uninsured are also slightly overrepresented among Estonian residents without Estonian citizenship (37 per cent).

Private or voluntary health insurance scarcely exists in Estonia. One reason for this is that the state health insurance covers almost all health care services. Another reason is the low income level of most employees, of managers at most levels, and of the self-employed at present. Our survey shows that only 28 respondents (of potentially 4,555) mentioned that they have self-insurance, and only 12 claimed

that they were insured through their job. Thus, less than *seven per thousand* of the adult population would occur to have self-insurance. Since these persons are covered too, we can state that the guarantee for health care services is high despite the radical changes in the organisation of health care – about *95 per cent* of the total population are in fact covered. On the other hand, this of course means that the remaining *five per cent* potentially face severe problems at present!

Personal charges

The second question is whether people have to pay for health care themselves or not. According to Estonian law the vast majority are covered by the new health insurance system, and at least these people (95 per cent) should be offered services free of personal charges. What does our survey tell us about this?

First, we observe that *14 per cent* of our respondents had had contact with a physician within the last two weeks – a considerable amount of people indeed! These persons covered 19 per cent of Estonian adults suffering from a chronic (long-term) diseases, 30 per cent of the disabled, and 37 per cent of those reporting an acute illness. Of course, suffering from illness does not imply that a person will go to a doctor, and some visits are obviously made by persons neither suffering from acute illness nor from chronical illness[1]. Of those who stayed home from school or work within the last month, 44 per cent had been in contact with a physician. Even though one can be excused from work because of illness, if one has an agreement with the employer, many Estonians still face the need for medical certification. The reason for this is quite understandable – to stay home from school or work without a certificate, was strictly forbidden during the Soviet period. We can observe a difference due to income level and state of employment late 1994. Among those who did not consult a doctor, there were ten percentage points more poor and twice the proportion of unemployed, as compared to those who did go to a doctor.

This circle of observations is closely related to whether people have to pay anything in addition to the amount provided by their health insurance. At the moment there are four situations where personal fees may be demanded: First is where the services demanded by the patient exceed the capacity of hospitals or clinics. In such cases, the hospital usually applies to the risk fund of the Estonian sickness fund. If the board turns down the application, it is possible to apply directly to the government (which as a rule does not help), or to pay the necessary sum of money by oneself. Second, the local government has the right to enforce a visit fee. This fee is usually very low – some kroons only – but it still may represent an obstacle to the very poorest, e.g the unemployed who receive some 180 kroons per month in unemployment benefit only, or to state pensioners living on some 400

[1] A model specifying these relations through linear regression (not shown here), is able to explain only nine per cent of the variation (variance) in the reported number of visits to institutions of health care (all three levels included). Acute illness has by far the strongest net effect on this propensity (beta=.25), but being disabled or being chronically ill (without being disabled) play some role too - everything else being equal. Age and sex do not have significant effects on the propensity to visit a doctor, when we control for the distribution of acute and chronic illness.

kroons per month (1994). Third, payment may be connected with the use of new diagnostic and procedure technology. The sick person is offered an opportunity to receive a diagnosis or procedure on an apparatus that is more convenient or has no queue, but then will have to pay for the service. The fourth possibility is that the doctor may refer the patient to his (her) own private practice. How many people had to pay for medical care out of their own pockets?

Persons who had contact with health care institutions were asked to specify what kind of contact they had, including the number of contacts, i.e. whether they contacted a private or state medical institution (or both), and whether the services had to be paid for or were free of charges. We did not ask how much the person had to pay. *Twenty two per cent* of those who had contact with medical institutions had to pay partly or completely by themselves. This covered around 18 per cent of the reported contacts with various medical institutions. Twenty four per cent of the contacts related to illness or injury and 12 per cent of the preventive (prophylactic) contacts were paid for partly or completely by the patient. Patients mainly paid for diagnostics and procedures. Thus, it is not possible to speak about a definite "outclass" of people in the Estonian health care system. However, there is a clear tendency toward the formation of such a group, and this should be taken into consideration in the further reforming process. Moreover, the discrepancy between the proportion of those covered by the health care insurance and those who had to pay for their consultation could be termed striking – we leave the judgement to the reader!

A top-level trend?

Has the reform so far reduced the propensity to seek help at the upper levels of Estonian health-care? Here we differentiated between contacts on various levels – a phone call to a regional physician, visiting the latter, visiting a specialist or a hospital, receiving help at home etc. We found quite a considerable proportion of contacts at the upper levels of medical services in Estonia (hospitals, clinics, medical specialists). One third of the contacts reported had been at the primary level, covering contacts with local doctors and district therapists. Nine per cent reported contacts at both primary and upper level, while *56 per cent* (!) had contact on the upper level only. Three per cent either visited healers or had other kinds of contacts.

The questionnaire also asked about the kind of contact – whether prophylactic (preventive), or because of some illness or injury. Of all contacts with a doctor, 59 per cent turned out to be curative (due to illness), and 32 per cent were preventive. One case in ten involved after-treatment following an illness or an injury. Finally, we found that 12 per cent of the respondents had been in hospital in the course of the last year (excluded are stays in nursing homes or maternity hospitals). The average length of hospital stay was *14 days* (median score).

Concluding remarks

In assessing the Estonian health care system on the basis of the questionnaire data, we must conclude that, as a whole, it still functions quite irrationally. Considerable resources are spent on treating illness, too little attention is paid to preventive measures, and treatment tends to be on a quite high level of health care rather than local physicians. Finally, the average stay in a hospital is very long compared to the case in most highly developed countries of the West. In the further reform process, more attention should be paid to developing first-level health care services. Moreover, more emphasis should be put on preventing illness.

Subjective Health

In assessing the health condition of people, we take as our basis the World Health Organisation's (WHO) definitions. Health is regarded as a condition for physical, mental and social well-being and welfare, not merely an absence of disease. Of course, responses to a questionnaire do not allow us to assess health with medical precision. Our indicators are fairly subjective, but they do shed some light on the health condition of Estonian young people and grown-ups as of late 1994. We start our judgement of people's health condition with the question: "How would you in general evaluate your health condition?" The respondents presented their evaluation on a five-point scale ranging from 'very bad', through 'satisfactory' to 'very good'. This measure indicates people's *subjective health* or *perceived general health condition.*

Age, gender and income

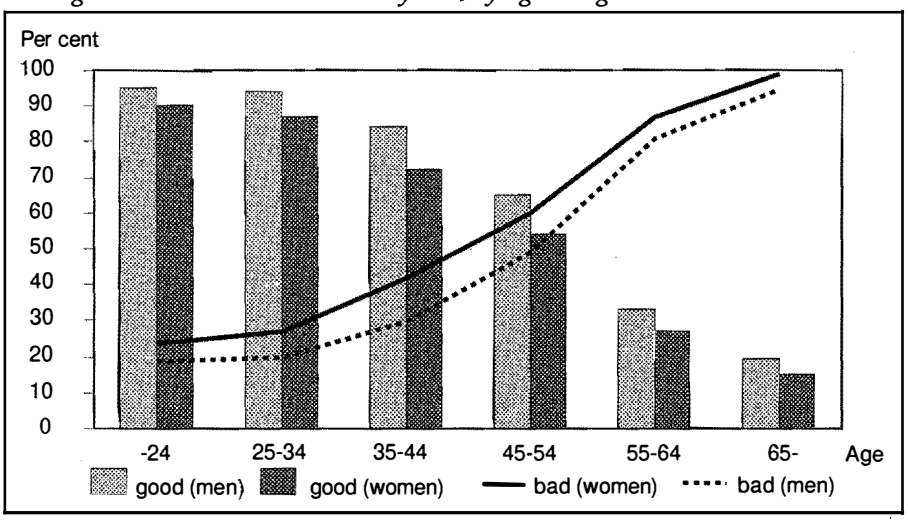
Forty-seven per cent regard their general health condition as satisfactory. We will concentrate on those who say they are totally satisfied with their health (good or very good), and those who say they are not (bad or very bad). Subjective health is clearly related to three individual hallmarks: *age*, *income* and *gender*. Old persons report a poorer health condition than do the younger ones (Figure 4.1). The proportion of Estonians who say that their general health is bad or very bad increases with increasing age; likewise, the proportion who regard their general health as good or very good decreases with increasing age. Actually, this connection is clearly *non-linear*[2]. This finding is scarcely surprising –as the organism grows older, health condition deteriorates, and this is reflected in perceptions of their health condition.

Gender influences subjective health too – slightly but significantly[3]. Women seem more skeptical about their health than men – in all age groups. This is prob-

[2] Putting people into ten-year groups reveals that the drop in the proportion of people who report a good or very good health condition from one age group to the next one also increases with increasing age (at least among Estonians 18-64 years of age).

[3] This difference even survives control for design effects. Still, it should be regarded as a small difference.

Figure 4.1 Proportion of people who regard their health as good or very good, and of those who regard their health as bad or very bad, by age and gender. Per cent

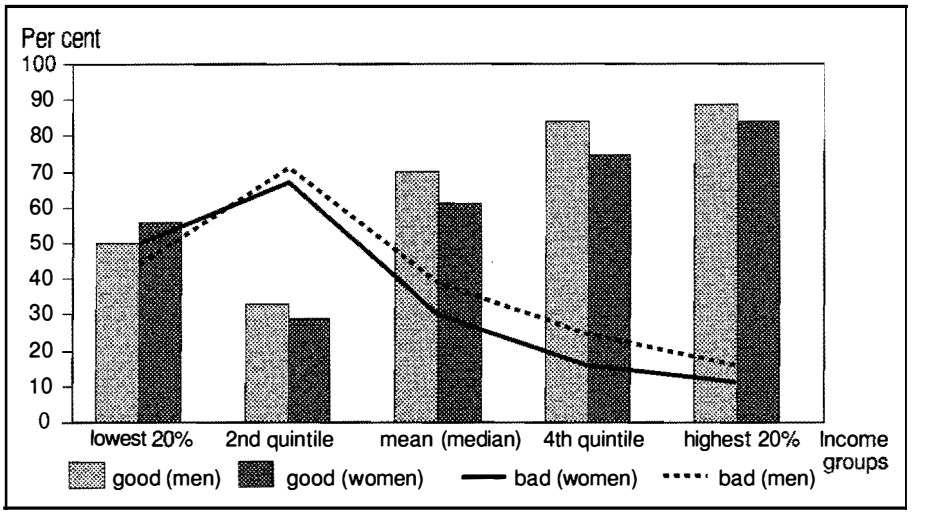


ably related to certain stereotypes – complaining about health is not «manly», or to put it in other words – health can be poor, but this is not acknowledged by many men (even to themselves). Men and women also have different lifestyles – there are more risks in men's lives. From smoking and consumption of alcohol, to having dangerous jobs, we notice a tendency for men to face more risks than women. All this gives logical and sad results – male life expectancy at birth is some *ten years shorter* than for women (cf. chapter 2). This difference between the two genders is reduced step by step with increasing age – among Estonian adults 40–49 years of age, women can be expected to outlive men by 6–7 years; among those aged 50–59, the difference is 5–6 years, and among residents 60–69, women are expected to outlive men by 3–4 years[4]. Judged relative to life expectancy itself, the gender differences are very large indeed among people in their 40s and 50s. That this large objective difference between the two genders is not reflected in their health appraisal, is probably due to *a selection effect*: The dead do not speak. Those who probably would complain about deteriorating health, are overrepresented among those who die early, and this leaves the scene to the more healthy segments of the male population. We believe that the small difference between the two genders in subjective health observed in our 'snapshot' of the population is produced by a combination of differences in sensitivity towards deteriorating health and the above-mentioned effects of selection.

A third important factor influencing subjective health is income (figure 4.2). The higher the income, the higher is the number of people who consider their health to be good or very good. This is also quite natural – high income can allow a person

[4] Source: Life Tables. Counties 1986-1991: 2.

Figure 4.2 Proportion of people who report their health as good, and of those who report their health as bad, by gender and income level. Per cent

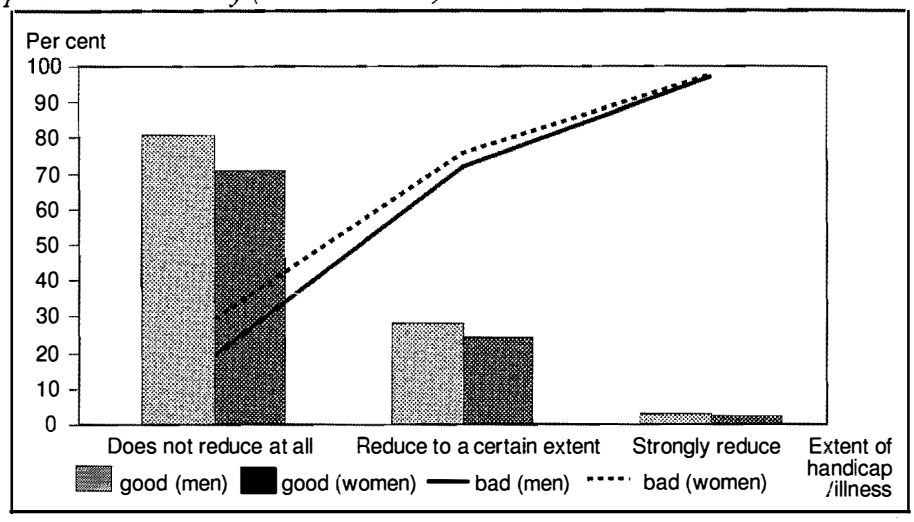


to live a more healthy life. Food and choice of clothes are more varied, and working conditions are less dangerous. Still, we observe an exception from this rule. People in the lowest income quintile (the lowest 20 per cent in income), report by far a better health condition than those in the second income quintile – both among men and women. The explanation is that the lowest income quintile has a higher share of young people; because many of them are pupils or students or unemployed, they are extremely low income earners. Many young single mothers taking care of small children who survive on child benefit, alimony etc. and the heads of families with many children are also found here. Teenagers and the young people of course, have by far the best general health condition. By contrast the second income quintile consists basically of elderly people.

Chronic and acute diseases

Chronic (long-term) diseases strongly influence health appraisal. Naturally, having a permanent handicap or lasting disease reduces one's subjective judgement of health, but this relationship is by no means straightforward. One important 'mediator' linking long-term illness and subjective health condition at its extremes, is *perceived work ability*. Figure 4.3 reveals the relation between subjective health at its extremes, perceived work ability related to health problems, and gender. The proportion of people who say they are in good health is strongly reduced as work ability (related to health) decreases. Of course, having a chronic illness also increases the propensity to regard oneself as ill in a direct manner -everything else being equal – but here we observe a strong indirect influence too, mediated through people's perceptions of the extent to which illness reduces their ability to work (*Appendix 4.1*).

Figure 4.3 Proportion of people reporting good health and bad health, by gender and perceived work ability (related to health). Per cent



In fact, teeth can serve as a good indicator, probably mediating a relation between health and age (possibly life-style too, but not income). Comparing the extremes of perceived general health condition, nine in ten of those who say their health is good or very good have all their teeth. Among those missing all their teeth, 85 per cent regard their health to be poor (bad or very bad). Teeth as an health-indicator is not 'sensitive' to gender, income or chronic illness, while it is 'sensitive' indeed to differences in subjective health condition. Thus, the number of missing teeth can be used as an indicator of health condition in cases where we prefer to ease the influence of e.g. income and gender on health condition.

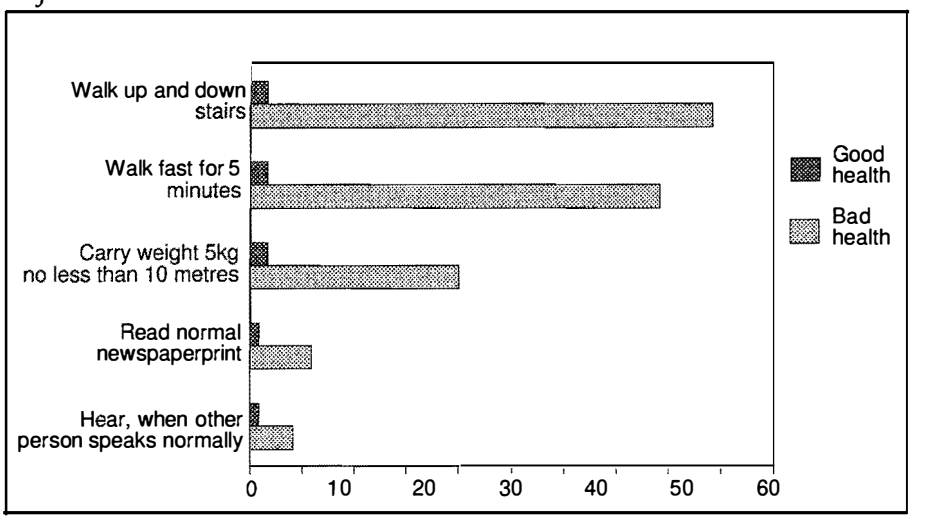
Now we try to evaluate the meaning of good or bad health through a de-composition procedure. We do this according to the WHO approach – assessing separately physical, mental and socio-economic well-being (welfare) and their effects on health appraisal.

Physical Ability and Subjective Health

General condition

In order to assess physical well-being, we asked several questions about the person's physical abilities. As indicators – suggested by the World Health Organisation (WHO) – we use *five* questions about various everyday activities, asking whether the respondents can perform these without special effort (see Figure 4.4). Though limited in number, this approach can capture important aspects of peoples opportunity to operate freely in everyday life. If the level of ability is low, it is difficult to speak about sufficient physical well-being.

Figure 4.4 Proportion of people reporting problems in five fields of physical ability, by subjective health at its extremes. Per cent



Close to eight in ten respondents had no difficulties in performing the five mentioned tasks. Difficulties performing all five tasks, were mentioned by *one per cent* only. Naturally, this is strongly reflected in people's health judgement. If there were complaints even about one of the activities mentioned, 40 per cent regarded their health as poor (bad or very bad). Where there were complaints regarding two activities, the share of people perceiving their health as poor, increased to 63 per cent. And in cases where the respondents report difficulties in performing at least three of the tasks mentioned, close to eight in ten regarded their health condition as bad or very bad. Further, among those having difficulties with one or more of the mentioned activities, 64 per cent were women. Those reporting difficulties were mainly elderly people – 68 per cent were older than 55, only 17 per cent were below 45, and 60 per cent were pensioners. Seventy-eight per cent had a chronic illness or were disabled – actually 19 per cent had a disability category. Figure 4.4 shows the gross distribution of problems mentioned by those reporting at least one of the five physic problems. The chart compares people who reported bad or very bad health with people who reported good or very good health.

Poor ability to hear and see clearly dominates among those who report at least one of the indicators on failing physical health condition. In second place comes lack of ability to carry a weight of 5 kg less than 10 minutes. Ranked third comes inability to walk fast for 5 minutes and inability to walk up and down stairs – possibly because many people living in flats do not have stairs inside their flats. This rank is not influenced by subjective health, if we compare its extremes, but the gross distribution of problems are somewhat influenced by subjective health at its extremes. Of course we must stress that the propensity to report problems in performing these tasks is strongly influenced by general health condition. Still, we may claim

that problems related to hearing and seeing increase the propensity to report a poor general health condition, somewhat more strongly than do the problems related to other physical tasks as walking ability.

Some consequences of chronic illness and disability

Forty-six per cent of the Estonian adults state that they suffer from some chronic illness. Most of them are elderly people – actually 68 per cent are above age 54, and only six per cent are below 35. There are more women among the chronically ill than men – 64 per cent are women.

Two further remarks are needed: Most of the Estonian adults who report a chronic illness today have suffered from this for several years. Ten per cent claim that they became ill before the age of 11, one in three before the age of 26, and one half before the age of 35. So a considerable part of these disorders clearly developed in younger years. Second, it is not correct to state that these people are ill to the extent that it prevents them from working or enjoying an active life. One fifth find that their chronical illness does not reduce their ability to work, six in ten think that they are hampered only a little, whereas only 18 per cent claim that they are seriously inhibited from working – most of these people were disabled.

Having a long-term illness and/or a disability category has a noticeable influence on perceived general health condition (health appraisal). The proportion who regard their health as good is *five times higher* among those reporting no illness, than among those suffering from long-term illness, and the share of people who regard their health to be poor, is *ten times higher* among the chronically ill than among those without long-term illnesses. The effect of certified disability on health appraisal is even stronger than this.

Figure 4.5 Proportion of those suffering from chronic illness who report at least some problems in doing everyday activities (nine items). Disabled versus non-disabled. Per cent

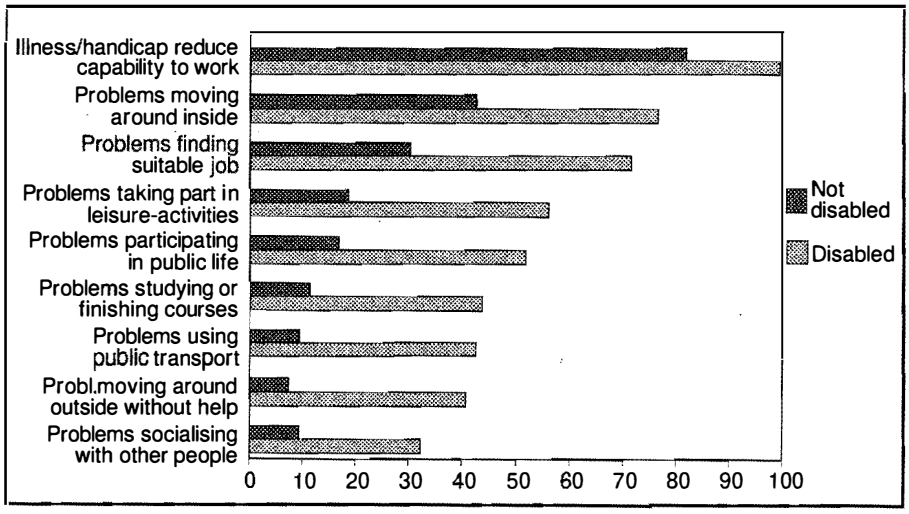


Figure 4.5 clearly confirms that this make sense. When we presented those who suffer from chronic diseases with a list of nine quite concrete activities which possibly might being limited by health problems, we found a strong effect of medical certification. Performance in all the nine activities is far more limited when the person has a disability category. The vast majority of all those in poor health claim that their illness reduces their ability to work – whether they are disabled or not. Limitations on various social activities and the ability to move around are quite sensitive towards this certification. Still, a majority of the disabled are capable of socialising with others (seven in ten), to move around outdoors without help from others, to use public transport and to study and finish courses (six in ten).

Mental Well-being and Subjective Health

Here we look at how health appraisal is affected by mental well-being and stress. The questionnaire presented a list of seven indicators on mental problems. These were 'a sudden feeling of scare', 'nervousness or shakiness', 'feeling tense or keyed up', 'having headaches', 'feeling depressed', 'having too many worries or fear about things', and 'a feeling of not being needed'. Respondents were asked to assess the degree of personal disturbance during the last week, on a four-point scale running from 'was not bothered at all', through 'seldom', through 'fairly often', to 'very often'.

Ten per cent of the Estonian residents 18 years of age or older had none of these symptoms, while *36 per cent* had some of them infrequently ('seldom'). Furthermore, 29 per cent reported that they had one or two symptoms fairly often or very often, and 25 per cent had three or more symptoms frequently.

Who complained about mental instability? The majority of those with such problems are women – 63 per cent of the female respondents stated that during the last week they often or quite often had some of the symptoms, as compared to 44 per cent of the men. Of course, mental illness is related to physical ability, and through physical ability to age. The elderly are more likely to report such mental and psychological problems than the middle-aged, and the middle-aged more likely than young people. Still, in today's Estonia this difference is fairly weak. About half the respondents below 35, did not complain about at least one of the presented symptoms fairly often or very often.

Indications concerning psychological problems are also related to educational level. People with little education tend to 'grumble' more than the well-educated. Even though this difference is to a certain extent related to age differences, it is quite robust, surviving control for several variables in a specified model (cf. Appendix 4.1). These problems are clearly related to chronic illness – seven in ten report at least one of the seven possible symptoms. Finally, it is interesting to note that reported mental problems and stress are influenced by the profession of the respondents – small-enterprise managers, teachers, clerks, service workers, and skilled workers in

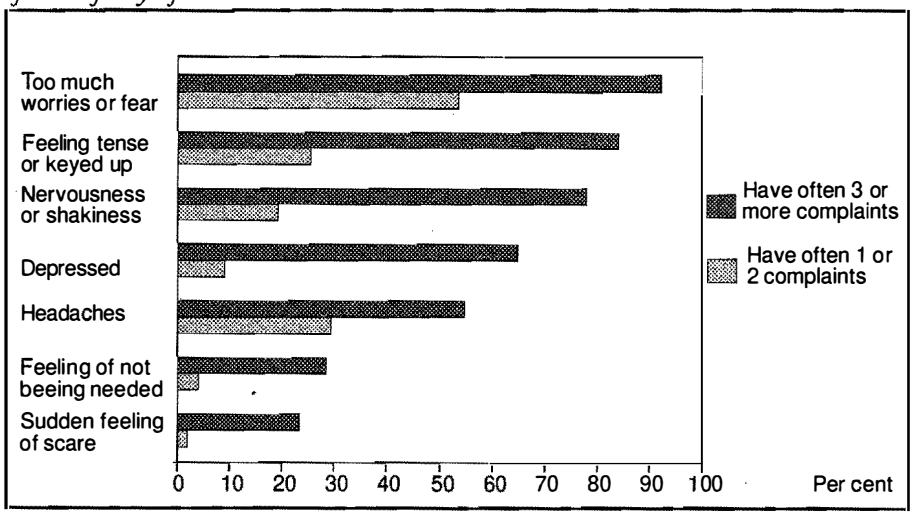
agriculture reported more complaints than people in other occupations – and these people generally have to communicate with others a great deal.

What kinds of problem do people experience most? The most widespread are worrying and feeling of unease about certain things, followed by inner tension and nervousness. A feeling of being not needed by anybody occurs much less. So do complaints about headaches and sudden feeling of being afraid. The rank of problems mentioned is hardly influenced by the number of complaints being made.

Let us try to estimate the influence of psychological tension on health appraisal. Looking at the above-mentioned groups we notice a big difference. In groups where no complaints occurred or where such complaints appeared only occasionally due to some tension, about 85 per cent regard their health as good. Actually 67 per cent of those who consider their health to be good, belong to this group. Among those who have complained about 1–2 symptoms of psychological tension and stress, 58 per cent appraise their general health condition to be good. Among those mentioning at least three symptoms, however, only 26 per cent regard their health as good. Of all those who consider their health as poor, 50 per cent belong to the last mentioned group, and among those presenting at least one complaint, the figure is 80 per cent. These differences cannot be seen as expressions of statistical coincidence – mental health clearly has a very strong influence on general health appraisal.

The above observed tendency appears clearly in the frequency of intaking tranquillisers[5]. Of the people who did not mention symptoms of mental illness, 93 per

Figure 4.6 Problems among respondents who experience at least one mental problem often or fairly often. Per cent



[5] We would like to point out that the question about tranquillisers occurred at a much earlier stage in the questionnaire, so the respondents did not direct their answers to questions about mental health.

cent did not take any tranquillisers at all, seven per cent did take them from time to time. Among those who experienced these symptoms rarely, 83 per cent had never used tranquillisers, and only one per cent used them regularly. Of those reporting one or two symptoms, every fourth used tranquillisers from time to time, and four per cent used them regularly. Of respondents experiencing at least three symptoms of mental tension and stress, every eighth person took tranquillisers regularly, and almost half of them from time to time.

In about half of the cases all the medicines used were prescribed by a doctor, and in one fifth of the cases at least a majority of medicines taken were suggested by a doctor. About a third of the respondents used only non-prescription drugs. In fact, those who reported several symptoms of psychological problems had a slight tendency to use non-prescription drugs more than those reporting but a few symptoms.

Economic Hardship, Social Activity and Subjective Health

It is extremely complicated to evaluate social and economic well-being (welfare). On the one hand one might expect well-being to be positively related to economic opportunities. This, however, is not always the case. Many persons who are relatively well-off compared to others, do not express feelings of being satisfied when asked, and vice versa. Allowing respondents to express opinions always confronts the observer with both dissatisfaction dilemmas and extreme tolerance towards harsh conditions and environments (adaption to the new realities of life) – as argued in our introductory chapter (chapter 1). On the other hand, when we ask people we are somehow obliged to take their responses seriously – to open up for 'pure subjectivity', so to say. The questionnaire inquired into people's economic situation by presenting a list of five basic goods like milk and milk products, medicines, meat etc., and five goods/activities like sweets for the kids, visits to restaurants, cinemas, theatres, travels etc. – in sum ten indications of basic needs and social activities that all required some monetary expense. Respondents were asked to judge if they lacked the money to buy some of this goods/participate in such activities, on a scale ranging from 'never' to 'often'.

Sixteen per cent of the adults did not have to give up any of the listed goods/activities, while *one per cent* often lacked the money to acquire/participate all the ten items on the list. We find a strong and consistent statistical relation between the experience of economic hardship and failing health. The propensity to lack both basic goods and the means to participate in social activities requiring some money, influences the general health condition quite strongly. A closer look at this relation reveals that the lack of basic goods has by far the greatest importance. Lack of basic goods influences the health condition, as does the lack of money to participate socially. Thus, economic welfare clearly is one of the factors affecting health.

Risk Factors Damaging Health

Various habits and activities may be regarded as risk factors that may damage the health condition of a person and thereby reducing his (hers) feeling of well-being, especially in the long run. We look at five potential risks – heavy smoking, heavy drinking, drug abuse, dangerous working conditions and problematic everyday conditions. Do any of these five risks influence the perceived health condition?

Smoking

Thirty-four per cent of the Estonians 18 years of age or older smoke regularly, while *seven per cent* have a smoke from time to time, but not every day. Thus, a majority of the Estonian young people and grown-ups appear to be non-smokers at present (61 per cent).

Further, three in four smokers are men. While *52 per cent* of the males smoke every day, and six per cent smoke from time to time, the corresponding figures for the females are *18 per cent* and seven per cent, respectively. Not surprisingly, you either smoke daily or you do not smoke at all – at least this is the case among Estonian men. Smoking is clearly a highly habit-forming activity.

The majority of the smokers are young or middle-aged, two thirds being between 25 and 54 years old. Actually, more than half the men in this age group smoke regularly or from time to time, and among men 35–44 years of age, *66 per cent* regard themselves as smokers. Smoking is a habit which clearly affects all social strata. Among the wealthier Estonians, 43 per cent appear to be smokers, and among the unemployed more than half smoke regularly or from time to time.

Men are also the most intensive smokers: 48 per cent consume a packet of cigarettes per day, and 43 per cent more than a packet. Among women smokers, a third smoke less than ten cigarettes per day, while only 17 per cent consume more than a packet of cigarettes per day. Moreover, the more wealthy a person is, the more intensively he (she) smokes.

Let us take a closer look at those who have a smoke from time to time (seven per cent of the total). With them arises the question whether they have restricted their smoking and are dropping the habit, or whether they just 'control' their habit. One fourth of these males and one tenth of these females say they have once been heavy smokers, and possibly fit into the category of people trying to give up the habit. The rest have seemingly been less intensive smokers all the time; with them, of course, there is a danger that smoking can become permanent. How many have given up smoking? Fifteen per cent of those who appear to be non-smokers today did smoke some time ago – half of these smoked regularly. Most of these people (83 per cent) had given up smoking more than two years ago.

One could expect the unhealthy habit of smoking to affect the perceived general health condition of Estonians negatively. In fact, it does not. Among young people and adults who regard their health condition as good or very good, 54 per cent appear to be non-smokers, seven per cent to be 'partysmokers', while 37 per

cent smoke regularly. Among those who regard their health condition as satisfactory, the proportion of non-smokers increases to 60 per cent, whereas among those who perceive their general health condition as bad or very bad, the proportion of non-smokers increases to 67 per cent – an observed 'perverse' relation between smoking and health at present[6].

Three factors probably contribute to this. Heavy smokers are overrepresented among young men not yet suffering from ill-health due to smoking and/or ageing. Second, one might expect that if health is growing worse, the first logical step would be to give up smoking: in other words, people smoke up to the point which their health allows. Third, and most important: Heavy smokers die at an earlier age than do non-smokers. We are probably observing the effects of prior selection, possibly even strengthened by the tendency for those surviving a long life as heavy smokers to be equipped with unusually strong physical and mental constitutions.

Alcohol

Like the other Nordic nations, Estonia has a high consumption of alcohol – she clearly belongs to the so-called 'belt of spiritus' sweeping through Russia, Finland, the Scandinavian peninsula, Iceland and Canada. Fifty-three per cent of the men and 31 per cent of the women consumed some alcohol during the past week. Another 20 per cent of both genders took some alcohol in the course of the period covering one week to one month ago. Only one in ten men and one in five women reported that they did not consume alcohol during the past twelve months. A vast majority of Estonians clearly take some alcohol, and close to half the young people and grown-ups consume alcohol every week or at least once every second week. Compared to the drinking habits of 'the wine belt' of the European continent, this may still be considered to represent a low consumption of achohol, but Estonians probably compensate for this through the amount of alcohol consumed when they drink – which certainly is the case in other Nordic nations like Finland, Sweden and Norway!

The highest rate of consumers was observed among the young and middle-aged – close to half had some alcohol during the past week. Among the elderly less than a third consumed some alcohol during the past week. Wine and weak cocktails appeared to be most popular, followed by beer, and finally by strong drinks. 43 per cent of the respondents had no drinks within the last fortnight, one in four had 1–2 drinks; 3–7 drinks were consumed by 17 per cent, eight per cent had 8–14 drinks, and the remaining seven per cent consumed 15 or more drinks the last two weeks.

[6] A linear regression model (not shown here) controlling this 'perverse' relation between smoking and health condition for age differences, establishes a small expected (positive), but clearly insignificant statistical relation. Further a systematic comp rison between various groups of former heavy smoker , people who did smoke from time to time, and people reporting that they never smoked, reveals no significant difference in subjective health, controlled for the age of the respondent. Finally, there is no statistical interaction between smoking and age on perceived general health condition. All this strengthens our suspicion that selection effects operate beyond ('behind') our cross-sectional perspective.

Does alcohol consumption influence people's subjective health condition? Again we find no tendency for reported consumption of alcohol – a potentially unhealthy habit – to influence perceived general health condition (in a cross-sectional perspective). Actually, if there is a statistical relation, it is 'perverse'. The highest proportion of those who reported a bad or a very bad general health condition is observed among the non-consumers of alcohol. This, however, is due to the operation of prior selection effects, and to the fact that young people have the best health condition and also report the highest consumption of alcohol at present.

Drugs

The use of drugs is a relatively new phenomenon in Estonia – during Soviet times there were no close ties with the developed countries, where such vices could be imported from. Estonia had no big circles of consumers nor providers. In our survey, only, 1.3 per cent (54 persons) stated that they had tried drugs, 3 persons confessed having used them, and one person admits that he still uses drugs. Of the 54 who admitted that they did try drugs once, seven in ten said that they tried hashish or marihuana. The rest mentioned pills or some unspecified drugs. A few respondents admitted the use of heroine, LSD, amphetamine or cocaine. The use of drugs among Estonians may of course be underreported – as probably is the case with smoking and drinking too –, but it seems reasonable to conclude that this problem is not widespread as of late 1994. On the other hand, it is very likely to become a problem as Estonia enters the sphere of the West.

Dangerous working conditions

Questions about dangerous working conditions were presented only to the economic active part of the population – those reporting an earned income, in cash or in kind, from employment or self-employment, during the last week of the reference period. We asked about exposure to generally unfavourable working conditions covering chill, heat, noise, polluted air etc. (ten items), dangerous working condition related to technology (machines) and the type of employment (explosives, heights, corrosives etc.), and finally the physical and mental 'wear and tear' of work facing the employed and self-employed every day at work (Table 4.1).

Clearly we observe a tremendous variety in such negative experiences, with most strains accumulated in manual labour (cf. chapter 8). We also observe that physical discomfort, inconvenient and physically exhausting conditions at work, high risk factors, and mental exhaustion from work affect the subjective health of employed and self-employed at present – even if these differences are controlled for variations in age, gender and the educational level of the respondent. Environmental strains clearly influence health. Still, we believe that those really suffering from ill-health and injuries due to exhausting and damaging working conditions, are found in the group of people who are economically inactive at present (the group of 'outsiders' as compared to the employed and unemployed) – and these people were not asked about their prior working-life experiences.

Table 4.1 Environmental strains, dangers and physical and mental exhaustion (index) confronting Estonian employed and self-employed at work, by perceived general health condition (N=2,656). Average scores

Health condition	Strains	Dangers	Physical exhaustion	Mental exhaustion
	(scale:0–10)	(0–7)	(0–10)	(0–1)
Very good	1.6	0.5	3.1	0.35
Good	2.2	0.7	3.7	0.38
Satisfactory	3.0	1.0	4.6	0.36
Bad	3.2	1.0	5.3	0.42
Very bad	3.2	0.7	5.2	0.50
All	2.7	0.8	4.3	0.37

Problematic everyday conditions

Everyday conditions cover everything from polluted air and bad housing conditions, to the lack of economic means to satisfy basic needs. Both the lack of money to secure a decent material standard of living and insufficient housing condition reduce the perceived health condition of an individual in most age groups – slightly but significantly. Admittedly, however, the elderly who suffer from ill-health are also overrepresented among Estonians facing both financial limitations and bad housing conditions at present.

Healthy Behaviour

In an introductory remark we claimed that too little attention had been directed towards educating people to prevent diseases through healthy behaviour. We close this chapter by indicating what Estonian adults do to preserve and promote their physical strength and ability.

Activities promoting health

Do people take actions themselves to promote and retain their health, and do such actions improve their perceived general health condition? Respondents were asked about eight activities which may improve their health condition (Figure 4.7). We can distinguish three types of actions – those related to eating habits, those related to improving knowledge and those related to training and physical activities, including spending some time in fresh air and having rest days.

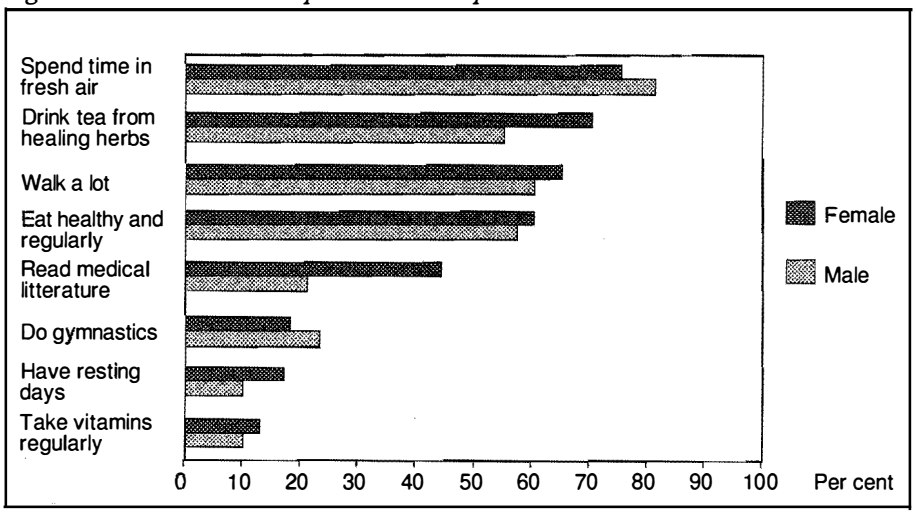
Of the eight actions presented to the respondents, four dominate: A vast majority spend time in fresh air (seven to eight in ten), and at least half the young people and adults walk a lot and eat in a healthy manner – i.e. eating healthy food regularly and drinking herbal teas – women somewhat more than men. Close to half

the women try to improve their knowledge through reading medical literature, as compared to one in five men only.

Somewhat strikingly, perhaps, is the limited number of young people and adults who take vitamins regularly, doing gymnastics and having rest days (ranging from one in ten to one in five only). Estonians work long hours and many have several jobs. This may of course reduce their opportunity to exercise regularly and to have a sufficient amount of rest days. In addition, average wages and pensions are quite low, and vitamins must be regarded as quite expensive. Still, we are probably observing a combination of external limitations operating at present and the lack of willingness to preserve and improve individual health. Age plays a minor role, with one exception: The residents 25–34 years of age behave in a somewhat less healthy fashion than those who in the other age groups. Women do care a little more than men, and there is a tendency for healthy eating habits and other activities to increase with increasing educational level. These differences are, however, very small. There is no significant difference due to ethnic affiliation or having Estonian citizenship (or not). And, finally the relation between healthy behaviour and income is actually 'perverse' (negative). The high income-earners behave somewhat less rationally in this respect than do those with a below average income level! Still, the difference must be regarded as quite minor – too.

Subjective health is improved when people do exercises, walk a lot and spend time in fresh air – controlled for sex, age and household income per capita. We do not observe a similar effect of healthy eating habits (including taking vitamins regularly) because healthy eating is overrepresented among the elderly who report the worst health condition. Comparing radically, however – i.e. ignoring those who report a satisfactory health condition – we observe that healthy eating does influence health appraisal. Around 70 per cent of those regarding their eating habits to be healthy, report that their health condition is good or very good, while only 28

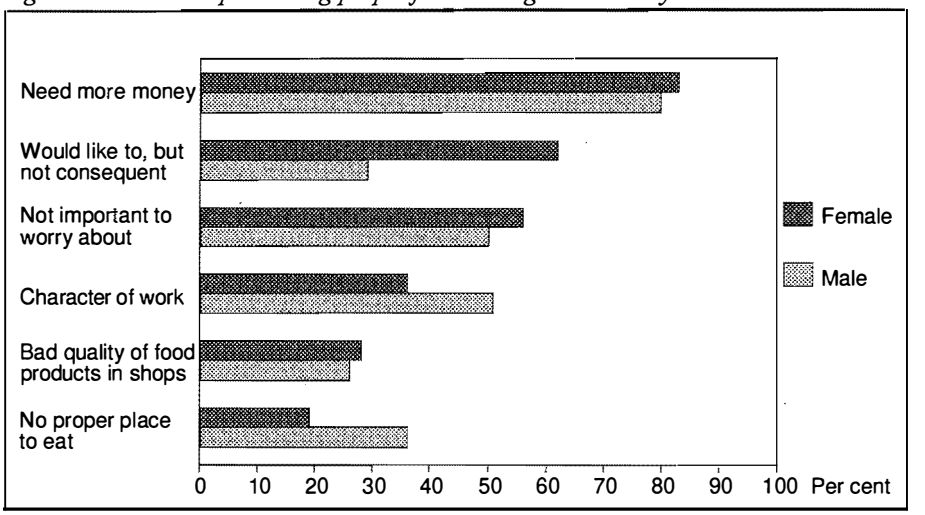
Figure 4.7 Actions taken to preserve and improve health. Per cent



per cent claim that their health condition is bad or very bad. Among those reporting unhealthy eating habits, 56 per cent consider their health to be good or very good, while 44 per cent claim that it is poor. Comparison of the extremes, then, reveals an expected relation between perceived general health condition and eating habits.

Let us take a closer look at the reasons presented by the individuals as to why they are not able to eat in a healthy way (Figure 4.8).

Figure 4.8 Reasons preventing people from eating in a healthy manner. Per cent



Healthy eating habits

Healthy eating is an extremely important aspect of healthy behaviour, immediately recognised by the person him(her)self. Eating spoilt food and having too much or too little food cause immediate effects on health. So every person has at least some notion about healthy eating habits. 24 per cent of the young people and adults claim that they eat at regular intervals during the day, 53 per cent answered «yes, more or less», while 22 per cent replied «no». We did not ask at what time people had their meals, but it was noted how many meals the respondents normally had per day, and how many of these meals were hot meals. The majority have two (17 per cent), three (68 per cent) or four (11 per cent) meals a day. People usually have one (41 per cent) or two (26 per cent) hot meals per day. Three in ten have all their meals with warm food. Cold food is eaten by only one per cent of the interviewed – obviously the most vulnerable section of Estonia's population today.

The chart (Figure 4.8) reveals a mixed picture of the subjective reasons presented for unhealthy eating habits. The vast majority of people who admit that their eating habits are somewhat unhealthy, explain their behaviour by the need for more money. We should add, however, that there is no close relationship between healthy eating and the income level of the respondent and his (her) household. Of course

lack of money may indicate that the individual has other obligations and suffers from high expenditures. Close to half the respondents blame the character of their work (including having no proper place to eat), and one third claim that food products in the shops are of poor quality. Still, many, especially among the women, admit that they would like to eat healthy, but that they lack the willpower to act consequently. Moreover, more than half the respondents claim that they do not worry about their eating habits! All in all, we can observe important external strains probably outside the control of the individual at stake, but we do indeed observe lack of individual concern as well.

CHAPTER 5

EDUCATION

Jens B. Grøgaard

Human history becomes more and more a race between education and catastrophe
(H.G. Wells in «Outline of History»)

INTRODUCTION

Some important changes in the educational system

The Estonian system of education has strong historical roots. The first university – *Academia Dorpatensis Gustaviana* – was established in 1632 in Tartu, and illustrates the close links with the Nordic countries[1]. As the 18th century drew to a close, *half the population* had passed the threshold of literacy. These landmarks compare favourably with educational developments in many other Nordic and European nations at the time. During the first period of independence (1918–1940) a six-class school system, using *the Estonian language*, was introduced. The government also extended the possibilities for further training by developing a network of vocational schools (World Bank 1993: 168). With the Soviet annexation of Estonia came yet another system of education, adapted to the needs and priorities of the centrally planned economy – and with it the forced adoption of *Russian* as the general language of learning. According to the World Bank Report «this period saw extensive development of highly specialised vocational and technical training and an emphasis on science» (loc. cit). The educational system of the USSR was based on a nine-class basic module, from which led a common secondary and/or a secondary specialised path. On top of this, a system of colleges and universities was introduced, offering learning and training ranging from the level of «unfinished higher» education to the level of «scientific degrees». The questionnaire made use of this classification of the respondents' educational level and type of schooling (*Textbox 5.1*)

Introducing educational reforms

Reforms inspired by the educational structure of the West, were introduced in 1988 – in other words, before the disintegration of the Soviet Union and the achievement of Baltic independence. The present system of schooling has the following structure: compulsory education (1st–9th grade), followed by an upper secondary

[1] In particular Sweden, and of course her famous warrior king Gustavus Adolphus II.

module based on three different routes – one academic (10–12th grade), one technical (10–12th grade or 10–14th grade), and one vocational (10–12th grade). Finally, there are colleges, universities and institutes of higher education. At present, Estonian higher education is divided into two branches: an academic branch oriented towards science, and a non-academic, professionally oriented branch. The principle language of instruction is *Estonian*. Graduates of Russian secondary schools may begin their university studies in Russian. Starting with the second and third academic years, however, all students are required to use Estonian exclusively.

The academic upper secondary education («grammar schools», «high schools») qualifies for studies at the university level leading towards a diploma, normally completed at the age of 23 or 24 (17th grade). This theoretical path also enables teenagers to specialise in technical disciplines at the age of 19 to 20 (13–14th grade). In most societies recruitment to the academic route is largely determined by specific combinations of cognitive ability (read: good marks) and social background (read: high social status).

Vocational schools primarily prepare teenagers for the labour market as skilled or semi-skilled manual workers. Pupils can leave school after one year only (10th grade) or after three years of studying and training (12th grade). This educational path does not qualify for further education, but of course opens the gate to further qualification, training and learning at the place of work. The bulk of the pupils seeking vocational schooling normally have social and cognitive attributes that are the opposite of those shared by pupils wanting to enter grammar school, or to put it in a friendly way: The lion's share of these pupils are practically oriented young people, who come from an environment dominated by blue-collar work, hurrying towards the entering gate of the labour market!

Textbox 5.1 Educational level of randomly sampled Estonians 18 years of age or older by gender. Per cent.

Educational level	Males	Cumulative	Females	Cumulative
No education	(.5)		(.5)	
Primary (4–6th grade)	8		9	
Basic (7–9th grade)	24	32	18	27
Secondary common	27		29	
Secondary specialised	26	85	28	84
Unfinished higher education	2		2	
Higher education	13	100	14	100
Scientific degree	(.2)		(.4)	

Question: «What level of education do you and the other members of your household have?»

The third educational choice at the upper secondary level is to attend a technical school. This path of training qualifies for university studies after the 14th and final grade, or prepares the pupil for the labour market as a technical expert or as a specialised blue-collar or white-collar worker.

Our living conditions survey (NORBALT 1994) reveals traces of all these three 'systemic changes' in Estonian education since the end of the First World War. Most Estonians 70 years of age or older got their education during the first period of independence, while many Estonians in the 55–69 age group experienced two educational systems. Estonians 25–54 years of age, i.e. the lion's share of our respondents, were primarily exposed to the Soviet educational structure, while the children, teenagers and young people of 1994 face the westernised system emerging towards the end of the 1980s.

The educational level among Estonians late 1994

A snapshot of the Estonian population 18 years of age or older as of late 1994, shows that close to one in three has completed basic education only (maximum 9th grade), that virtually everybody has gone to school (99.5 per cent), that close to 55 per cent have completed some education at the upper secondary level (theoretical or vocational), and that at least 15 per cent have been enrolled at institutions of higher education. We should add that the World Bank Report of 1993 documented quite impressive transition rates throughout the whole educational system of Estonia around 1990[2]. The educational level and profile of women are slightly different from those of men. In most age groups Estonian women have attained higher educational levels than men. Among Estonians 60 years of age or older, there is a tendency for males to have reached the highest educational level. Still, we cannot conclude that this actually was the case some 40 to 50 years ago, because well educated men probably live longer than men with a low educational level. If this is the case, any snapshot of the current population of Estonia will overestimate the educational level of older generations of males[3]. Differences between the sexes are anyhow quite small, even remarkably so.

We will open our discussion of education and learning by taking a glance at the situation of the very youngest – toddlers entering kindergarten. Then we will proceed with a discussion of the present educational level and profile of teenagers,

[2] «In 1990 almost 96 per cent of the 18,000 graduates from compulsory schooling (grade 9) went on to upper secondary education of the same type. Almost half of the 9,520 graduates of academic upper secondary education (grade 12), proceeded to higher education (27 per cent) or technical schools (18 per cent). Completion rates in 1989 were 91 per cent in compulsory education, 92 per cent in academic secondary, 86 per cent in vocational schools, and 60 per cent in higher education» (ibid op. cit: 169–170).

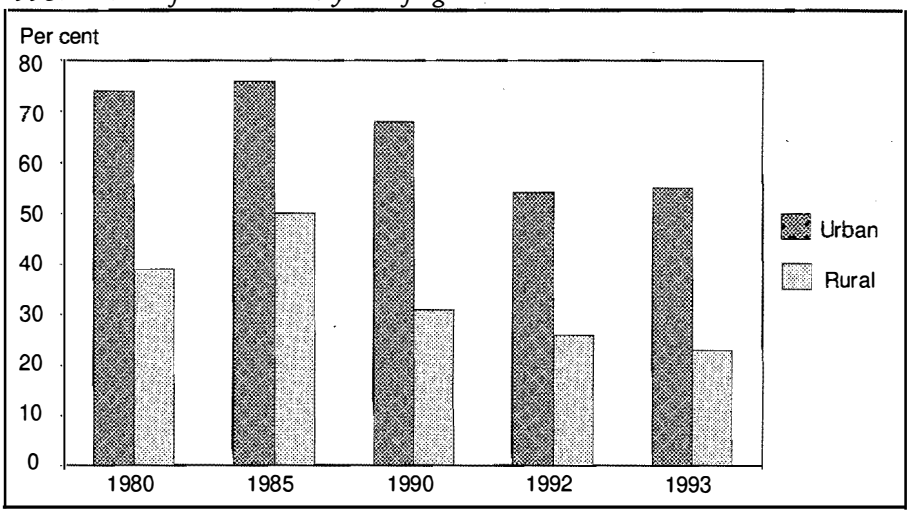
[3] Charles Tilly (1984) states that one should be careful drawing diacrone conclusions (changes occurring over time) based on syncrone observations (cross-sectional data). Going backwards in time, we are confronted with the possibility of prior selection effects. As an element in a prediction of future events, we are of course faced with uncertainty and freedom of choice. A cross-sectional view may establish cross-sectional illusions (Boudon 1974a). Even though this is one of the limitations of surveys like ours, a retrospective formulation of the questions may to a certain extent ease or even compensate for such problems.

young people and grown-ups. We expect to find vestiges of several educational systems, including the educational revolution sweeping both sides of the 'iron curtain' during the 1960s and 1970s. To what extent does present Estonia fit into «normal» Western patterns of social and economic reproduction as mediated through education? Does (and did) education pay, and to what extent do the rewards – if observed – respond to differences in age, gender, citizenship, urbanity and so on? In times of transition, which are often periods of economic uncertainty, tension and even hardship for many people, one might expect to observe a reduction in the drive towards higher education. Was this the case towards the end of 1994?

Kindergartens and the Care of Children

An economic system encouraging high labour-market participation rates among women, must in some way address the need for proper childcare. Families must either be put in a position to pay for the care of their children through private means (tax releases, transmissions, subsidies, etc.), or the parents must be offered suitable public (state) childcare. The USSR solved this problem by setting up a huge number of kindergartens owned and operated by the state. Has the introduction of market economy mechanisms changed this situation? The chart (Figure 5.1) presents an answer.

Figure 5.1 The coverage of kindergartens in rural and urban areas of Estonia 1980–1993. Percent of children 1–6 years of age



Source: *Statistical Yearbook* (1994: 91)

A significant reduction in the coverage rate of kindergartens since 1990

Even though the proportion of children attending kindergartens is and has been much larger in urban than in rural areas, the coverage of kindergatens dropped significantly in both areas from 1980 to 1993. The overall coverage rate in Estonia

at present is close to 45 per cent of children 1–6 years of age. In comparison, 56 per cent of the Norwegian children 1–6 years of age attended a public or private kindergarten as of late 1994, and the coverage rate of children 4–6 years of age was more than 60 per cent.

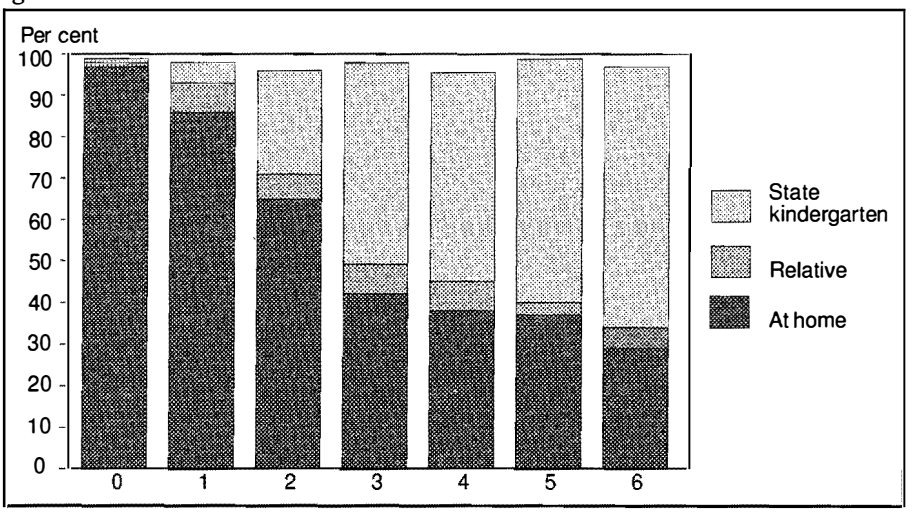
The recent reduction in the coverage rate probably results from both supply-side and demand-side factors: According to official Estonian statistics, the number of kindergartens dropped 12 per cent from 1985 to 1993, while the number of pupils enrolled in kindergartens was reduced with close to 30 per cent in the same period (*Statistical Yearbook* 1994: 91). We will use the survey to illustrate the point.

The age of the child is of great importance

Of the children born in 1994, 97 per cent stay at home, while one per cent only attend state kindergartens (Figure 5.2). Among children three years of age in 1994, 42 per cent stay at home, seven per cent are taken care of at a relative's residence, while 49 per cent stay in public kindergartens. Among children six years of age, close to 30 per cent stay at home. Now 63 per cent enter a state kindergarten. The chart also shows that the distribution of private care – employing a nanny or paying for a place in a private kindergarten – is extremely limited as of late 1994.

Several factors contribute to the strong correlation between the likelihood of children entering a kindergarten owned by the state and the age of the child: First, all Estonian parents receive some economic support during the first one and a half years following the delivery of their child. Second, access to public childcare is, in principle, limited to children 1–6 years old, although a few exceptions can be observed. Third, if one of the parents, for instance the mother, decides to stay home she is allowed to keep her job for three years. Fourth, scarcity of kindergarten places is probably a function of children's age and differences in manning (or actually «femaleing»). Two grown-ups usually take care of seven to eight children 1–3 years

Figure 5.2 Enrolment of children 0–6 years of age in state kindergartens by childrens age. Per cent



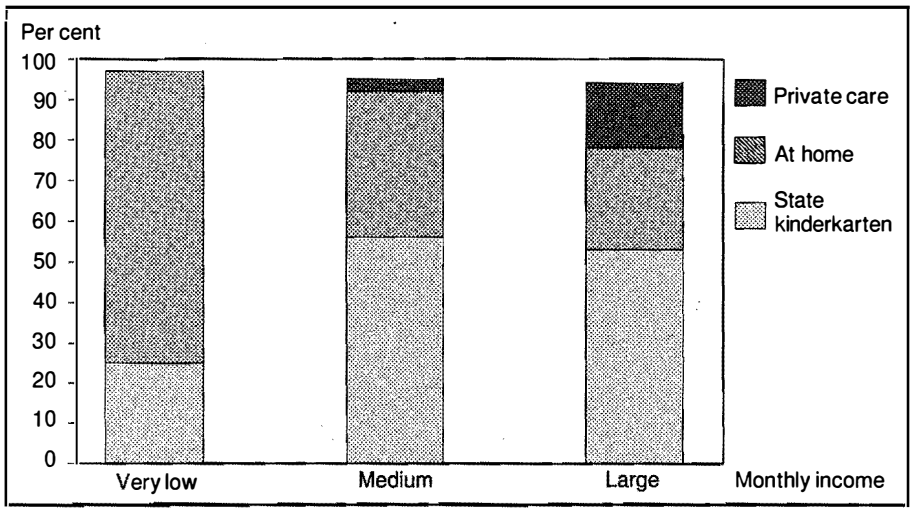
of age, while the number of children 4–6 years of age looked after by the same staff, normally increases to some 16 to 18 kids. If the family can afford the fees, it is probably easier to obtain a place in a kindergarten when the child passes the age of 3–4 than when the child is 1–2 years old.

Economic resources and the composition of households make a difference

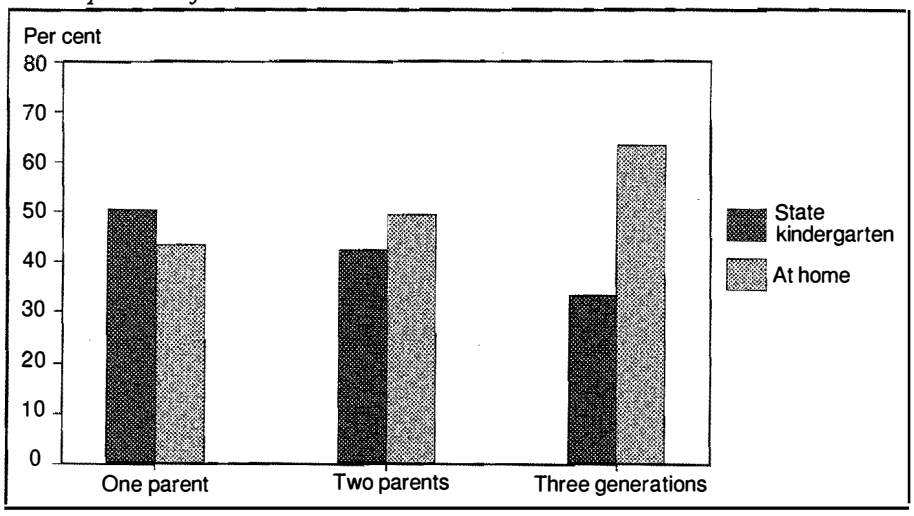
The next two charts (Figure 5.3) show the distribution of the three dominant types of childcare (and learning) as a function of the economic situation of the household (A) and the structure of the family involved (B). If we compare three different economic situations indicated by the reported gross monthly household income per member of the household, we observe a dramatic reduction in the proportion of

Figure 5.3 Children entering state kindergartens, private care (including kindergartens) or staying at home as a function of parents' economic resources and the structure of the family/composition of the household. Per cent of children 0–6 years of age

A: Economic resources



B: Composition of the household



children staying at home as per capita income increases: 72 per cent of the children living in low income households actually stay at home, while 25 per cent stay in a kindergarten owned by the state. In the medium income bracket (700–940 kroons per household member per month) close to 60 per cent of the children are pupils in state kindergartens. In the upper income bracket (1,200 kroons or more) some 55 per cent of the children stay in state kindergartens; parents in this group can afford to compensate for inadequate public services through use of various forms of private care, ranging from privately owned kindergartens to employing a nanny. 16 per cent of the children receive private care, while 20 only per cent stay at home. This tells us that a significant minority of families hardly can afford the relevant fees, but that most families can!

In addition the structure of the family and the composition of the household influence the ways in which parents take care of their children: In households with one parent only, 50 per cent of the children 0–6 years of age stay in a state kindergarten, while 43 per cent remain at home with one of their parents. In nuclear families, i.e households consisting of both parents and their children, the corresponding figures are 42 per cent and 49 per cent. In households containing three generations, one in three children enter a kindergarten owned by the state, while 63 per cent are looked after by a grown-up in the household. Of course, there is also the possibility that the grandparents can look after the children when the parents leave for work. In times of economic uncertainty grandparents may in fact provide an indispensable safety net in this regard. One should also consider the special situation of large families. These families need higher incomes, but at the same time they enjoy greater flexibility, as childcare can more easily be organised within the family – without additional costs!

A model presenting some answers

A set of intriguing questions remain to be answered: Which factors actually influence the choice of childcare the most – the age of the child, the economic situation of the household, or the structure of the family? Do other characteristics matter, such as the number of children, the age of siblings, the degree of urbanization and the educational level of the parents? Are both parents important, or does the issue hinge on the mother and her socio-economic and other characteristics? In order to answer such questions, we must construct an empirical model (discussed in *Appendix 5.1*).

A model specified through logistic regression can provide a correct classification of the actual type of childcare for close to 75 per cent of the children involved. Thus, the model is by no means perfect, but it identifies some significant results: First, the age of the child has a far greater impact on the probability of entering a kindergarten, whether owned by the state or in private hands, than the economic situation of the household and the structure of the family[4]. Still, small children belonging to large families have a significantly lower probability of attending a kindergarten than children from small families – *ceteris paribus* (i.e. taking into con-

[4] Refers to net controlled or partial effects (ceteris paribus).

sideration the family's economic situation and the children's age). This observation indicates that private compensations play a vital role. The probability of attending a kindergarten also increases significantly, step by step, with an increase in the socio-economic resources of the household. Both parents count; however, the resources and priorities of the mother matter most. At the same time, a substantial minority of families obviously cannot afford the fees at present. The odds express the relation between, on the one hand, the probability of *having* a child in a kindergarten (the numerator) and, on the other hand, the probability of *not having* a child in a kindergarten (the denominator). The model shows up a tremendous difference in odds between families at the opposites poles in the hierarchy of incomes. In families in the upper income bracket (some 1,200 kroons or more per person per month) the odds of having a child in a kindergarten is close to 20 times higher than among families classified as low income households (i.e. with a per capita income close to subsistence minimum) – controlled for the age of the child involved, the degree of urbanization and the structure of the family (read: access, civic compensations and freedom of choice). The number of siblings and their age composition do not matter, at least they have no direct effect. Such characteristics are related to other factors, and could of course be taken into account allowing for mediated or indirect influences on the probability of a child attending a kindergarten. Finally, the degree of urbanity counts. Attendance rates correspond to differences in the supply of kindergartens between urban and rural areas.

In conclusion, economic resources pose severe limitations on the access to public (and private) childcare for a significant minority of Estonian parents, but these factors do not seem to represent a major obstacle for the majority. General limitations, i.a. supply – side characteristics, seem to be unequally distributed geographically – we observe stronger limitations in rural areas than in urban areas. But at the same time the scarcity in rural districts is slightly but significantly offset by differences in the distribution of family types. Clearly, large families, which are more often found in rural areas, have greater freedom of manoeuvre and choice than small families.

Some Aspects of Social Reproduction late 1994[5]

Primary and secondary sources of educational inequality

Raymond Boudon (1974a,b) discussed some important aspects of social reproduction in modern societies by pinpointing two profound educational «mechanisms» – the so-called *primary* and *secondary* outcomes of social background on performance and endurance at school. First, pupils' achievement (read: marks) in most societies is a function of parents' educational level, social position and econom-

[5] Thanks to colleague and friend Kristine Nergaard at FAFO for help and assistance in preparing and manipulating the dataset, which has facilitated this part of the analysis (she actually did most of the job!).

ic resources. This cognitive aspect of social inequality is a primary source of educational inequality among children, teenagers and young people[6]. Secondary sources of educational disparities come on top of this «primary mechanism». Even among pupils with good marks at the compulsory level, the propensity to choose e.g. grammar school at the age of 16 in preference to vocational training or paid work, is heavily influenced by social background. Third, even when marks are good, and when the teenager decides to continue his education at a grammar school, the inclination to attend colleges and universities is also influenced by the socio-economic characteristics of the parents[7]. Is this the case in Estonia too?

Signs of a clear-cut reproduction mechanism?

Even though the Estonian living conditions survey lacks indicators on cognitive ability (marks at school), it allows us to study some aspects of social reproduction mediated through schooling. Figure 5.4 demonstrates the reported educational level among Estonians 16–27 years of age living together with at least one of their parents or grandparents, as a function of their age and the educational level of their parents (grandparents). It takes time to attain higher education. If there actually is a consistent relation between social background and educational performance in Estonia at present, we would expect this influence to grow with increasing age: Metaphorically, social inequality in education assumes the shape of a sunrise – some would undoubtedly claim without its beauty.

The chart clearly bears out that such an interaction is at work among young people living together with their parents and/or grandparents as of late 1994. If both parents have completed an unfinished higher education (score=5) or more, their

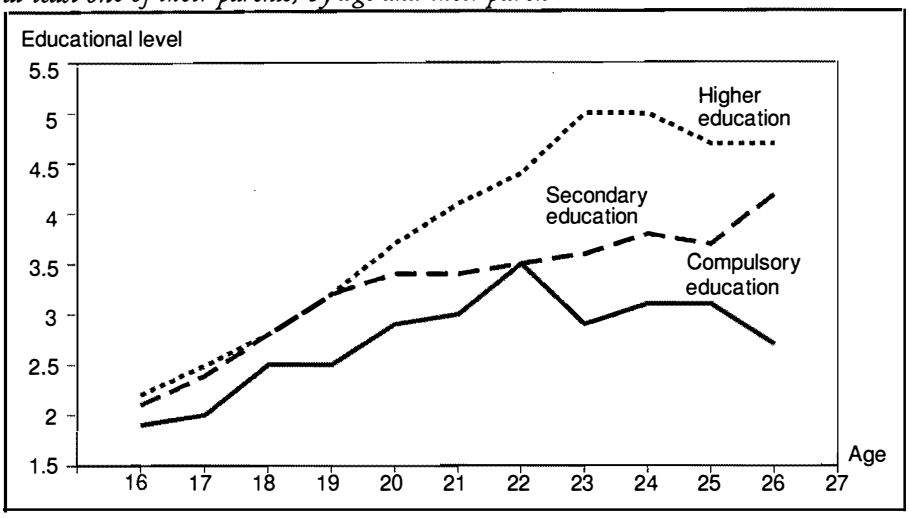
[6] A representative survey among Norwegian boys 19–23 years of age in 1990 documented that the correlation between the occupational status of the father and his sons IQ-score at the age of 18 was (Pearsons r=) .3–.4, dependent on the specificity of the social classification. This means that an increase in social status with one unit (one standard deviation) «produces» an 0.34 average (standarised) unit increase in IQ-score (Grøgaard 1993).

[7] Boudon argued that the main reason for this was that social and financial costs of schooling increased many times (exponentially) with a one unit decrease in social position (*the positional view*) – a reasonable explanation of course: When pupils with low status choose a limited, practically oriented education at the secondary level and then quit school, they behave rationally. There are at least three competing explanations. First, the *socio-biological view*, which holds that educational inequality is related to social differences in apitude and milieu (read: genotypes and phenotypes). Second, the *cultural view* that there is a significant relation between social position and the cultural (cognitive) resources in the family. Finally, the traditional view, that educational inequality is mainly produced by the relation between social background and educational orientation (*the value explanation*). The Norwegian survey from 1990 actually presents a good case for the traditional sociological view on social reproduction mediated through educational choices. Norwegian boys with good marks in school (i.e. high IQ-scores) but with limited practical ability (low score on «technical insight») normally choose theoretical education at the secondary level (at least eight in ten) independent of their social background. When both marks and practical ability are good, social position has a significant effect on their educational behaviour. If the father has a white-collar job, more than eight in ten boys prefer to continue schooling at a grammar school. Most of them continue at a college or university afterwards. Less than 40 pct of boys in the identical ability group scoring low on social status, i.e. the father being a blue-collar worker, prefer grammar school. Most of them choose vocational training. In fact, all behave in a rational manner; the children literally choose to specialise in their speciality, but their perception of what their speciality actually is, seems to be heavily influenced by their social background! (Grøgaard 1993).

sons and daughters will usually reach the same educational level. If both parents have completed secondary education, either common or specialised (scores 3 or 4), their children are likely to attain an education at a slightly but significantly higher level. If both parents have compulsory training only, their children will probably end up with an education below the secondary common level. Other combinations of parents' educational level «produce» a pattern of educational performance among their children (as a function of age) within the interval of achievement illustrated in Figure 5.4.

The $50,000 question remains to be answered: What about the educational level of young people who have already left home? In this case we lack direct information on their parents' education. Obviously, children leave home for many reasons.

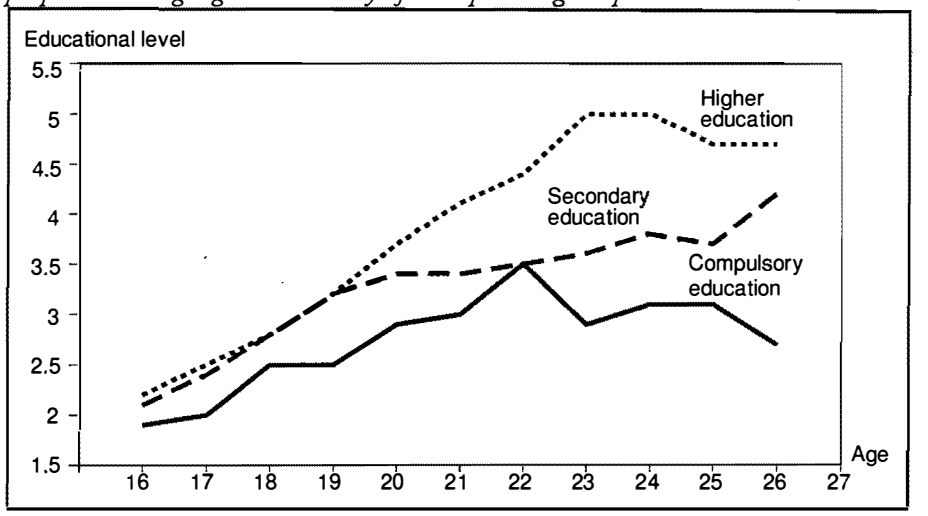
Figure 5.4 Average educational levels among Estonians aged 16–27 living together with at least one of their parents, by age and their parents educational level. Scale 1–7



Explanation: Educational level 1=primary, 2=basic(7–9), 3=secondary common, 4=secondary specialised, 5=unfinished higher, 6=higher education, 7=scientific degree. Compulsory education=both parents report compulsory education, Secondary education=both parents report secondary common or specialised education, Higher education=both parents report unfinished higher education or more.

Some leave to get further training and education elsewhere, others search for paid work, yet others enter matrimony or find a live-in. Remaining reasons may safely be left to the imagination of the reader. Figure 5.5 compares the average educational level of Estonians 16–29 years of age living together with parents (or at least with one of their grandparents) and Estonians of the same age *not* living together with parents/grandparents. The two groups have similar educational profiles of performance as a function of age, clearly an *indication* that the observed relation between

Figure 5.5 Reported educational level by age among Estonians aged 16–29. Young people living together with their parents/grandparents (at least one of them) compared to young people not living together with any of their parents/grandparents. Scale 1–7



parents' educational level and that of their children (Figure 5.4) *could be* representative of all Estonian young people[8].

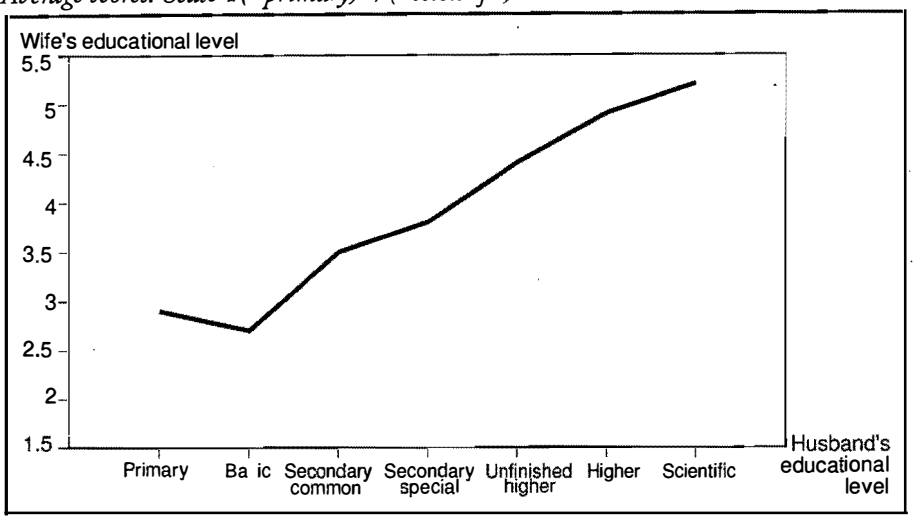
A useful caveat is that significant effects flow from the educational resources of both parents, i.e. both parents matter or make a difference in respect to the achievement of their children. This cultural and cognitive sensitivity of educational ambition and orientation is quite similar for Estonian boys and girls. Finally, one can observe separate effects of economic strength and resources too, indicated by the level of monthly gross household income. We should stress that age has the strongest influence on educational achievement of all the competing factors – *ceteris paribus*. In all social strata there is a strong and consistent increase in reported educational levels with increasing age, but age in itself has the strongest effect on educational performance by far, provided both parents are well educated! (Model specified in *Appendix 5.2*)

Birds of a feather flock together?

Let us close the discussion of social reproduction by looking at what one might call the more private reverbations of education. Do Estonians show the same educational sensitivity as other Europeans when choosing partner? The chart (Figure 5.6) sheds light on the issue: There is a strong and consistent relation between the educational

[8] Some 40 per cent of the Estonians 16–29 years of age have established their own household, either alone or together with siblings, cohabitors, spouses or others (but not together with their parents or grandparents). This proportion is of course heavily influenced by age. It drops to 28 per cent for youngsters 16–24 years of age, and to 15 per cent for youngsters 16–20 years of age.

Figure 5.6 Educational level of wife by that of the husband. Cohabitors included. Average scores. Scale 1(=primary)–7(=scientific)



level of spouses and live-ins in Estonia as of late 1994 (Pearsons r=.6)[9]. A considerable part of the inclination to choose a partner from a specific category (36 per cent) seems to be related to differences in education, and, indirectly, to differences in cognitive ability and orientation. Secondly – if we allow ourselves the *proviso* that there may be prior selection effects – we notice a significant reduction in the strength of this association among young couples having small children (r=.45). This could be interpreted as an indication of a softening of social and cultural segmentation in contemporary Estonian society or as a sign of the onset of 'modern' attitudes and values.

Of course other forces come into play, as reflected in the old adage «if I am rich I am strong, if I am rich I am clever, if I am rich I am attractive» (the Goethe mechanism[10]). Or consider the sociological claim and common wisdom in this well known blues phrase: «Yo' daddy's rich and yo' ma is good lookin'»[11]. Nevertheless, Estonia is characterised by what American researchers call *assortative mating*, and this selective partnership mechanism is bound to influence social differences in the educational performance and the educational choices of the emerging generations (Jencks et. al. 1972: 271).

[9] Christopher Jencks and his colleages observed the correlation r=.5 in IQ-scores (and educational level) among American spouses round 1970 (Jencks et.al 1972: 273). Their estimate of the «true» correlation among all American spouses was r=.6.

[10] «Wenn ich sechs Hingste zahlen kann, sind ihre Kräfte nicht die meine? Ich renne zu und bin ein reicher Mann, als hätt ich vierundzwanzig Beine» (Goethe in Faust I, 4th scene, George Lukàcs 1975: 124; Karl Marx 1844/1975: 152). Through this claim, the Mephisto character illustrates how access to money extends human capability!

[11] A ph ase from «Summertime» (text: Debouse Heyward).

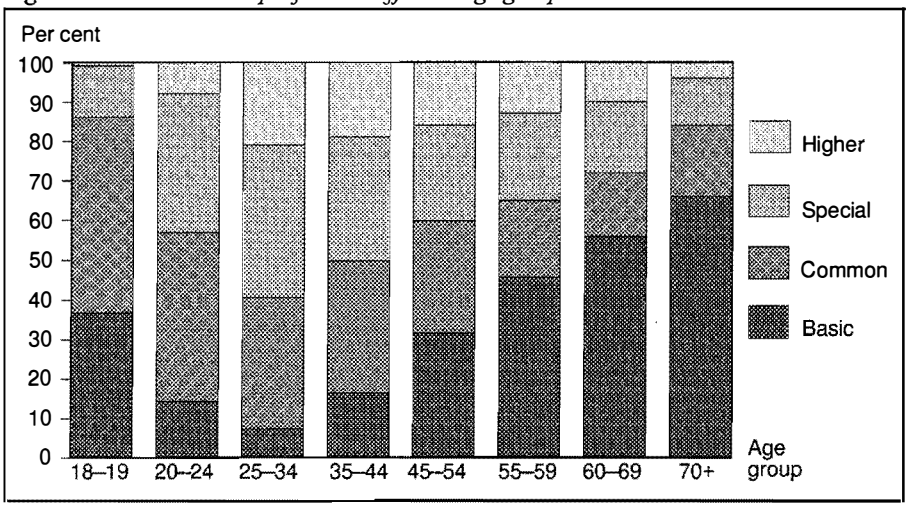
A Glimpse at earlier Educational Revolutions

Figure 5.7 presents a snapshot of the educational profile of different age groups in Estonia today. Of course, there are substantial differences between the generations in educational level and profile, reflecting a succession of changes over time in the capacity and structure of the educational apparatus, the shape of the labour market and, above all, the economic, cultural and social conditions of the people.

Estonians 25–34 years of age report the highest educational level of all age groups: 22 per cent have completed education at college or university level, seven per cent have ended their schooling at compulsory level (maximum 9th grade), close to 40 per cent report secondary specialised education, and one in three report that they have completed secondary common education. Then the educational level drops successively as a function of increasing age. In comparison, some 60 per cent of the retirement pensioners have basic education and close to five per cent were never enrolled at school. Actually more than 35 per cent report that they completed primary level only (at most 4–6th grades). Due to the selection effects mentioned above, this difference in educational attainment between the various generations is probably greater than shown in the chart.

Based on our classification of age groups, the educational revolutions of the past can be interpreted as forming *a linear process*, smoothly lifting the educational level of the majority of Estonians from compulsory education only to upper secondary schooling, while bringing about a doubling of the proportion completing some kind of education at college or university level. The chart also illustrates the consequences of the last 'systemic change', the most important of which appears to be that the upper secondary paths of education in Estonia have come to resemble the

Figure 5.7 Educational profile in different age groups. Per cent



Explanation: Basic=unfinished secondary education included no education, Common= secondary common education, Special=secondary specialised, Higher=higher education included unfinished higher education

structure commonly found in the West: We discover a decrease in the proportion of Estonians 20–24 years of age reporting a completed higher education, and a rapid increase in the proportion of Estonians 20–24 years of age and 16–19 years of age respectively, who report having an education at the upper secondary level. In our view, this pattern is produced by combinations of three factors: (i) systemic changes, expanding the lowest level of secondary education to the 12th or 14th grade, (ii) a possible reduction in transition rates (delays, increased propensity to combine education and paid work, etc.), and (iii) the impact of uncertainty and hardship, which probably is most felt at the top and bottom rungs of the educational ladder, in the shape of reduced educational aspirations. If it is true that the financial and social costs of further education increase exponentially with a decrease in social status – as claimed by Boudon – the developments described above are understandable and quite easy to explain[12]. Saying this, we must remind ourselves that 'opportunity knocks, when pressure emerges'. Our data actually suggest that many of these young drop outs at least receive a short-term gain measured in prestige and money. We will turn to this issue later. Let us now take a closer look at the data:

A process operating at both ends of the educational ladder?

Among Estonians 19 years of age in 1994, *25 per cent* report compulsory education only. Some of these young people will undoubtedly receive upper secondary education (academic, technical or vocational) during 1995 or 1996. 47 per cent have completed secondary common education (read: mostly theoretical), 25 per cent secondary specialised (read: mostly vocational), while three per cent only have completed an unfinished higher education. Among young people 22–23 years of age, *17 per cent* ended schooling at the compulsory level (9–10th grade), 37 per cent report having a complete secondary common education – some undoubtedly being on their way to colleges and universities – while 13 per cent have finished higher education, and one in three an education at the secondary specialised level. Among Estonians 28–29 years of age in 1994, some *eight per cent* concluded their education after the 9th or 10th grade, 40 per cent completed secondary specialised education, close to one in three concluded their education at secondary common level (11th grade), while 25 per cent report some education at college or university.

We should be careful drawing simple conclusions from such (cross-sectional) observations, but there seems to be a slight (though significant) reduction in the drive for higher education, in combination with at least *a doubling* in the share of youth dropping out of school at the compulsory level. In times of transition one expects to find extended combinations of educational delays (first schooling, then work, then further education, and so on) and processes that are especially active at the extremities of the educational hierarchy – one probably being an increase in the number of low status boys and girls wanting to enter the gate of the labour market

[12] Read: Reduced material standards of living will 'produce' a reduction in the strive towards education, particulary among youngsters with low scores on measures of socio-economic resources!

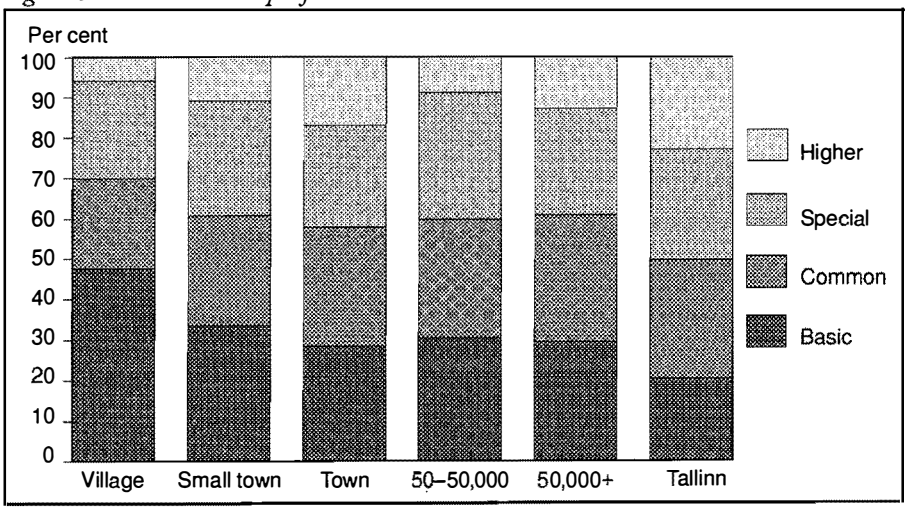
as soon as possible (i.e. an increase in the proportion doing so with compulsory education only), another being a decline in the number of 'working class' and 'middle class' young people climbing the upper steps of the educational ladder. Some are at least climbing at slow speed, with one foot on the educational ladder and one foot in the labour market – *to the extent that the combination is possible.* Many young people wanting higher education apparently 'take their time' fulfilling their goals and aspirations.

Other differences in educational level and profile

An increase in the degree of urbanity is associated with a significant increase in the average educational level of the population. This difference mainly appears at the extreme points of the educational hierarchy – as a reduction in the proportion ending schooling and training at the compulsory level, and as an increase in the proportion of Estonians having at least an unfinished higher education. The geographic distribution of educational profile and level that can be observed below is probably attributable to regional differences, such as variations in the availability and access to educational institutions (capacity of the system and types of education), and local peculiarities in the demand for labour. The 'mediator' in Figure 5.8 is, of course, waves of young people migrating to metropolitan areas to pursue their educational and occupational aspirations.

The chart by no means allows us to conclude that the desire for education is greater among young city-dwellers than among rural young people. In order to draw such conclusions, we would need a longitudinal design controlling for differences in inflow and outflow of young people in different regions. Some move to the city to get upper secondary and higher education, and then move back to their home village or small town searching for work, others choose to stay to benefit from the opportunities that their education may have opened up for them.

Figure 5.8 Educational profile in rural and urban areas. Per cent



When one looks at the educational performance of the ethnic groups in Estonia, only small variations come to light. There are, however, some visible differences. Persons *without* Estonian citizenship report the highest average educational level at present, followed by Estonian citizens. Persons applying for Estonian citizenship report the lowest average score of the three groups mentioned.

Subjective health makes no difference: Young people reporting good health have the same educational performance, seen as a function of age, as young people reporting bad or very bad health. The pretty strong correlations – between age and educational level among both young males and females, among young people of different nationalities (ethnic groups), among young people in both urban and rural areas and, first and foremost, among young people of both good health and ill-health – indicate that Estonia already has covered quite a distance on the road towards *equality of educational opportunity*!

Education and Social Stratification

The dual character of education and training

Modern societies tend to give schools a set of tasks ranging from *training* to *integration* and *differentiation* of pupils. This «Janus character» of educational institutions creates tensions in their purpose and actual functioning. A central goal of any national system of education is to teach new generations to become useful citizens by acquiring knowledge and basic cognitive, practical and social skills based on common values. In a democratic society one expects schools to impart democratic attitudes and tolerance (values), to stimulate childrens creativity, self-esteem and critical senses (personal growth), and to improve the ability to co-operate with others, to be polite, to be trustworthy and to develop respect for others (social skills).

The dual character of schooling becomes evident when these common goals are confronted with the main purpose of education, namely to stimulate learning, and to evaluate the cognitive performance of the pupils through a marking (and grading) system. This differentiation of children, teenagers, young people and grown-ups through marks and educational achievement, opens the gate to further education, and later on to attractive and profitable occupational positions for some, while it closes the gate to others. In other words, education creates equality and inequality at the same time! The persistence of this dualism probably derives from society's need to reproduce incentives and endurance in schools and in the labour market. In most societies there is a close relation between the social stratification of individuals and their educational level and profile. One intriguing question is, how close this relation is in Estonia as of late 1994.

Inequality in the returns on education

The sociology of labour relations states that education influences the stratification of individuals in the labour market. This stratification can be measured along a range

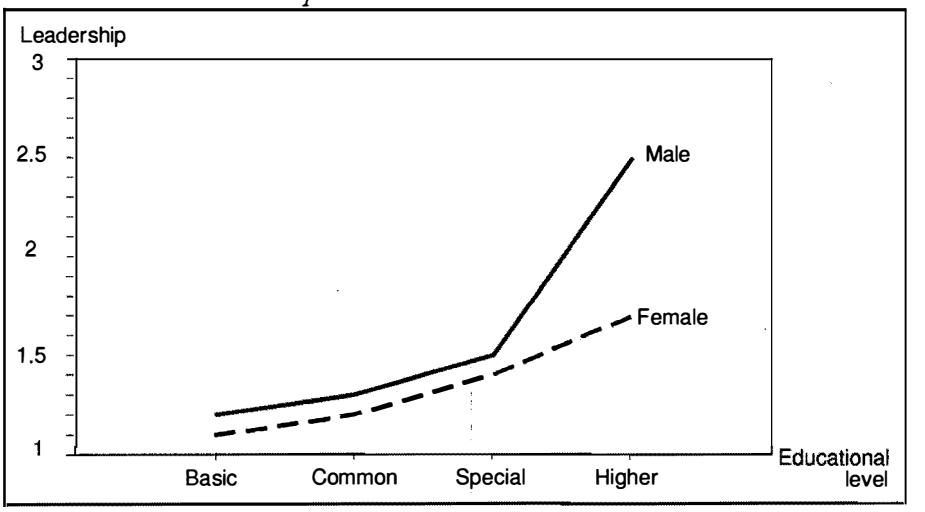
of job characteristics and benefits accruing from labour, which may or may not be interrelated: Some relevant examples could be (i) autonomy in deciding work schedules, methods and pace of work, (ii) influence over decisions that affect others, (iii) exposure to environmental strains at the work place, and (iv) differences in the returns of labour, as measured in money, prestige, occupational status, etc. A Norwegian inquiry into labour related environmental issues in the late 1980s (Tom Chr. Pape 1993), documented that such strains were accumulated in manual labour. However, there were a couple of exceptions: high-ranking functionaries and persons working in close contact with clients and customers, reported more stress and greater problems in relaxing during their spare time than manual labourers and lower-ranking functionaries did.

Let us proceed by visualising the positional and monetary returns on education among Estonians 25–54 years of age in late 1994. The survey allows some evaluation of the value of education among Estonians at present. To what extent did it pay to complete more education, and to what extent are the benefits influenced by other individual attributes like sex and citizenship?

The monetary and positional advantages of education differ between men and women

First, we can ascertain that the proportion of persons employed in leading positions increases step by step with rising levels of education (Figure 5.9). Second, there is a significant difference in the return on higher education among men and women in the age group 25–54. Technically speaking, there is a rather strong interaction between sex and educational level on both income and occupational status

Figure 5.9 Average return on education among women and men 25–54 years of age. Indicator: Score on leadership

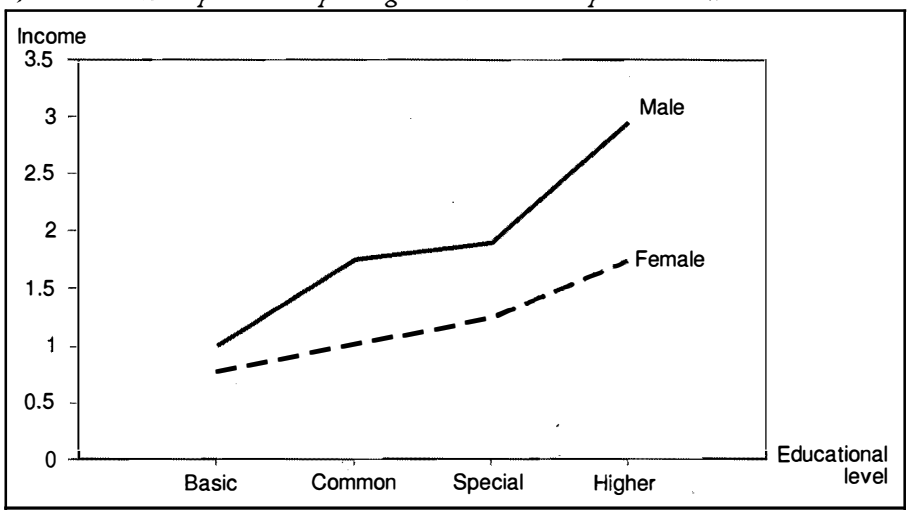


Explanation: Scale 1–4: 1=ordinary employee, 2=leader–lower rank, 2.5=self-employed, 3=leader–middle rank, 4=leader–top rank. All respondents have some kind of employment (at least one hour paid work last week)

(leadership index). It should be noted that the two charts present average outcomes. This means that even among Estonian males with a high educational level and solid working-life experience, many never advance beyond the rank of ordinary employee, and even among Estonian females with low educational level and limited labour-market experience, some already have manoeuvered into superior positions!

We expect employed and self-employed females reporting some kind of upper secondary education to receive close to 1,000 kroons per month (Figure 5.10). Women with at least unfinished higher education get close to 1,500 kroons per month – or close to four times the estimated price of the minimum food basket (subsistence level) in 1994. Men in the labour force (the unemployed excluded) reporting a similar educational level receive a monthly pay close to 1,600 kroons and 3,000 kroons, respectively. The expected differences in incomes between males and females increase successively with increasing educational level.

Figure 5.10 Average monthly gross income among men and women 25–54 years of age. 1,000 Kroons. Respondents reporting at least one hour paid work last week



Elements of individual compensations

However, one should also note the existence of an important explanatory factor that actually is unrelated to educational level as such: The effect of education is mediated through the integration in the labour market, which in turn is heavily influenced by the division of work at home. In all age groups men work more than women. Further, men are integrated into the labour market at an earlier stage. Hence, they achieve an initial advantage which in the first instance can be converted into higher status and subsequently into higher pay. Some of the differences in wages disappear when average weekly working hours are accounted for, but not all. There are still major variations that must be related to sex! In Norway this unexplained residual category is called the «female deduction».

Manual labour suffers environmental strains

In addition, chapter 8 will inform us that education has some effects mediated through its influence on the distribution of occupational positions (*indirect effects*). The questionnaire asked the respondents to assess their autonomy of work, i.e. their freedom to decide what to do, when to take a break and so on, and it also included a «battery» of questions investigating variations in the strains of their working environment, covering various physical aspects as well as (subjective) feelings of stress, danger and mental exhaustion. A simple, additive measure counting the number of possible strains, i.a. draught, heat, chill, dust, welding smoke, fumes from solvents, polluted air, strong vibrations and noise, is of course quite sensitive to differences in educational level. Estonians labour force participants 18 years of age or older who only have compulsory education, encounter on average close to *four* of these strains, while Estonians who have completed higher education experience *1.4* strains. Similar (additive) measures indicating danger – like working high above the ground level, being exposed to acids or corrodents, explosives, chemicals, dangerous machines, etc., and having to endure painful working positions – tell the same story: All measures correspond strongly and consistently with variations in educational level.

Comparing mental exhaustion, however, reveals an opposite picture: Now, businessmen, lawyers, physicians, top ranked civil servants, the so-called creative intelligencia, the teachers and the nurses report more stress and pressures than do skilled and unskilled manual labourers. People doing work which require cognitive skills, or who work in close contact with clients and customers, feel mentally exhausted, while people doing work which require physical skills and strength, feel physically exhausted at the end of the working day – in Estonia as well as in Norway. Still, if we simply count the mere number of strains, the manual labourer seems by far to carry the heaviest burden!

Negative yields – education, unemployment and exclusion from the labour force

We have seen that education serves to differentiate Estonian labour force participants. The selection mechanisms may be active several times over. It is possible, for instance, that education provides protection against unemployment and exclusion in the present Estonian labour market, but one may also ask whether the economic and educational changes after 1988–90 are rendering superfluous the existing specialised educational profile at the secondary and college levels. Is education above all a personal resource, which might not ward off unemployment but which might improve the chances of returning to the labour market if one in fact has lost one's job?

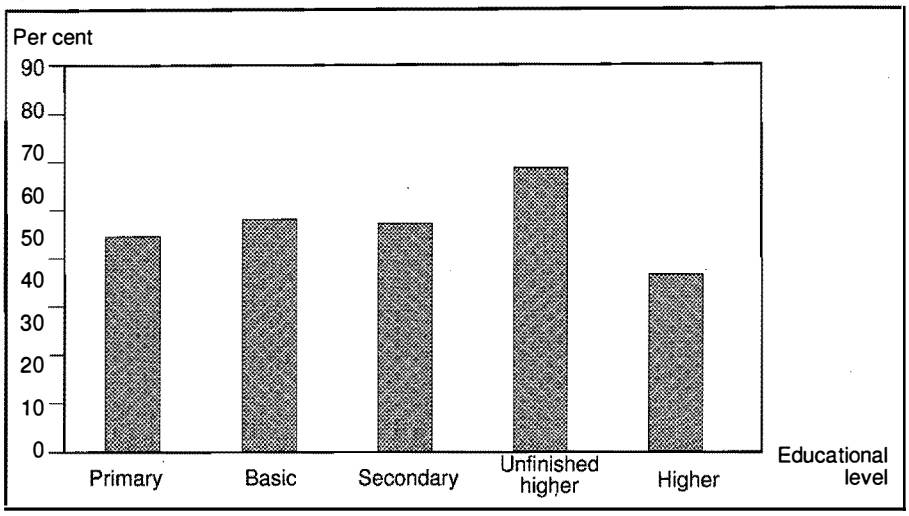
Let us start our discussion looking at individual perceptions. Is the fear of losing one's job connected with the educational level of the respondent? Figure 5.11 clearly shows that education is a negligible factor in trying to explain Estonian fears of dropping out of the labour market. The single most important factor is subjective health. The figure illustrates that many adult Estonians are afraid of losing their jobs

as of late 1994, actually a proportion of around 50 per cent for all educational levels. This anxiety is widespread, and can be found among both men and women, in all ethnic groups, and in all age categories. We would claim that the scope and level of fear is more interesting than the differences that can be found between the various groups of people.

Figure 5.12 illustrates that educational attainment is an essential ingredient in successful labour market integration in Estonia today, a point which is valid for both men and women. Unemployment – as measured according to ILO's definition (job seekers without earned income) – is also influenced by educational level, but only

Figure 5.11 The fear of losing one's job among Estonians 25–54 years of age reporting at least one hour of paid work last week, as a function of educational level (A) and subjective health (B). Per cent

A: Educational level



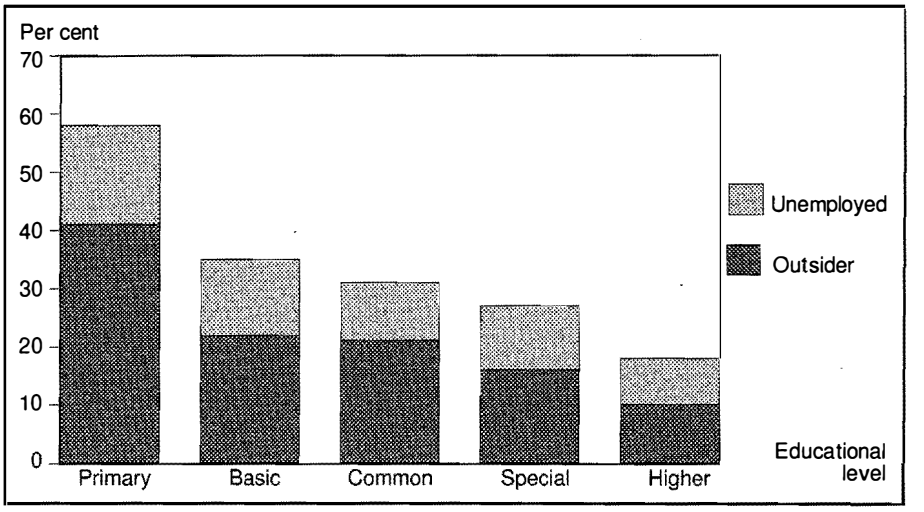
B: Subjective health condition

when one adds unemployment and exclusion does education emerge as the paramount factor. Estonian women account for a larger share of the unemployed and the 'outsiders' (excluded) than men throughout all educational categories, but some of this difference disappears when one controls for maternity leave – i.e. the fact that in Estonia, as in most other countries, it is mother that usually stays home with the children.

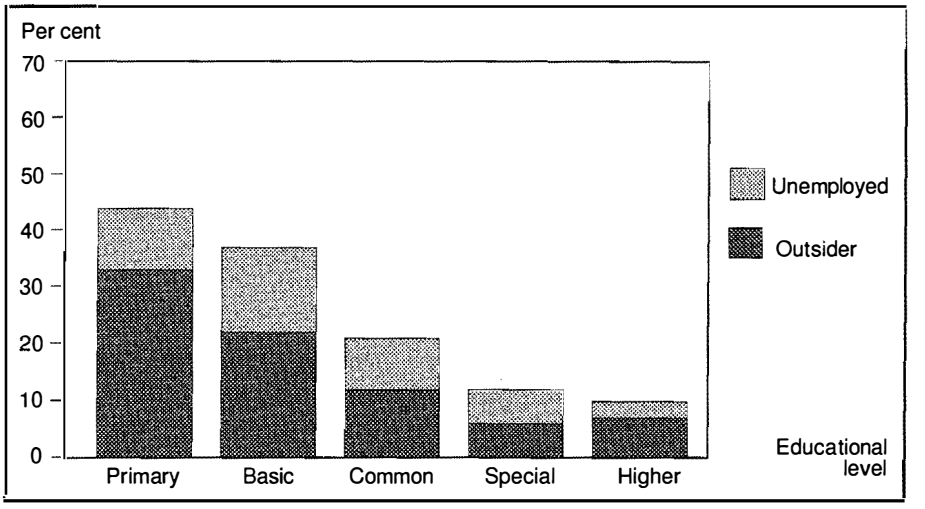
Then, Figure 5.12 provides a snapshot of the turbulence to be found both at the entry and at the exit points in the labour market. Unemployment is unquestionably the greatest among Estonian youth (18–20 years old), and particularly so among young women. This observation probably illuminates the fact that young

Figure 5.12 'Outsiders' and unemployed 25–54 years of age as a function of educational level and sex. Per cent

A: Females



B: Males



women tend to attain higher education levels than young men in the dominant social strata. Job opportunities seem farther between for young women than for young men. Beyond that, the Estonian labour market at present generally appears to be strained. Various mechanisms of exclusion operate in the labour market. Keeping in mind that we are only able to observe the outcomes of dynamic process at given moments in time, we should not be too surprised to find a moderate level of unemployment for elderly persons with low levels of education *and* modest records of labour-force participation! These older women and men are probably past active job seeking, and when they are queried, they answer that they are no longer actively looking for work. They have perhaps given up (and become 'discouraged workers'). Among older Estonians who are still active, the educational level is of great importance for their integration in the labour market.

There is a consistent relation between the proportions of the unemployed and the educated both among men and among women, and above all there is a clear connection between the lack of earned income (without active job-seeking) and educational level among both sexes. Among Estonians 25–55 years old reporting a maximum of six years of education, half of them are either unemployed (17 per cent) or outside the labour force (32 per cent). In the case of 7–9 years of schooling (unfinished secondary education) 23 per cent do not belong to the work force, whereas 15 per cent are active job applicants without earned income. Where secondary common education has been attained, 27 per cent are either unemployed or outside the work force. In the age group 25–54 with specialised secondary education, 11 per cent are outside work force, while eight per cent are unemployed. Of those with minimum unfinished higher education in the same age group, eight per cent are not members of the labour force, and six per cent are unemployed. In fact, only when a gradualist perspective on integration is applied, i.e. when outsiders (non-participants) are included, can an unequivocal link between educational level and a secure position in the labour market be established. The consequences of having a low education can be rather severe in contemporary Estonia, and the poignant truth is that higher education does not provide guarantees against unemployment or exclusion, although it definitely gives protection!

How should we interpret the gap between the actual selection for work, unemployment and non-participation (exclusion) – as shown in the NORBALT survey – and the uncertainty and fear of losing one's job prevalent among Estonian adults? Two mutually exclusive interpretations present themselves. The 'phenomenological' interpretation holds that the individual actor knows how the shirt should be fitted, and that the task of the observer as a distant observer, is to construct models based on the actor's own models (common sense perceptions) of his (hers) role at the social scene (Schutz 1967). The opposite viewpoint, which might be termed 'behaviourist', postulates that it is the person with the greatest distance that is able to give the most correct diagnosis. A symphatetic interpretation would have it that the fear of losing one's job has a rational foundation, since the selection for unemployment is far less sensitive to variations in education than non-participation

(exclusion) is. The fact that fear is so prevalent and so insensitive to educational resources, at least indicates that the respondents are very much concerned with the present, whereas our survey largely measures medium-term consequences of educational performance.

Does the transition to capitalism influence the relation between education and social mobility?

Now, we will have a closer look at some prominent dynamical features of the transition to a market economy in Estonia. The winners so far are clearly men, definitively not women. Who are they? Does the change from communism to capitalism, reveal traces of some radical changes in the observed and expected monetary and occupational returns on labour? Searching for answers to such questions, we must allow ourselves two *provisos*: The first one is related to problems of drawing diacrone conclusions (over time changes) based on cross-sectional observations. If we compare scores on any achievement of various age group, the observed differences should be explained as a combination of differences due to age *and* generation. A cross-sectional perspective does not allow us to separate these two potential effects! Second, we must extend the range of statistical significance[13]. We will use six different charts to illustrate the argument (Pictorial representation: Figures 5.13A–F).

The rewards on labour in a stable economic system – the case of Norway

The first chart (Figure 5.13A) shows the connection between educational level, average (classified) annual income and age, among Norwegian males 20–55 years of age at the peak of 1993. This is a typical pattern of the educational rewards *in a stable capitalist economic system*. We observe three separate developmental paths, *and* the establishment of three different income levels among grown-ups as a function of their educational performance and age. The expected (average) maximum reward on higher education among men is close to 300,000 NOK, somewhat less in the public sector, somewhat more in the private sector. The expected annual rewards on secondary education – as theoretical, technical, administrative or vocational training – is close to 250,000 NOK. The males completing compulsory education only, receive an on average monetary reward somewhat less than 200,000 NOK per year. We also observe that the less educated men establish themselves in

[13] Until now we have used a five per cent criterion of significance – in most cases a one per cent criterion. This means that a proposition claiming that there is *no observed difference whatsoever* (the zero-hypothesis), will be rejected if the observed difference allows this rejection with less than five per cent chance of being wrong (one per cent respectively). In Figure 5.13E,F this probability of being wrong must be extended to some 20 per cent, possibly 30 per cent, due to the fact that some of the cells containing members of the minority groups have a very limited number of observations (mostly 20–30, some close to 10 only). If we extend the number of observations by including labour market participating women, we of course observe a negative shift in the average returns on education (in all age groups), both among residents with Estonian citizenship and among residents without such citizenship. At the same time, *the shape of the Figures* (5.13E,F) *«survive» this extension of observations*. The robustness of shapes (patterns) at least strenghten us in our conviction that the pictorial representation of selection mechanisms in present Estonia actually identifies the winners and the losers of transition to capitalism so far.

the labour market at an earlier stage (age) than do the men with a higher educational level. At the same time their prospects for radical increases in income level are quite modest, compared to the well educated males climbing the tallest ladders of seniority and prospects of advancement! Let us use this snapshot of Norwegian monetary rewards on education as a frame of reference, as a device to help us interpret some of the consequences of the present Estonian transition to capitalism.

No radical changes in the positional hierarchy so far?

Viewing the average positional returns on education as a function of age among male respondents who report at least one hour paid work last week, *does not* so far indicate *radical changes* in the positional hierarchy during the transition from a planned economy towards a market economy (Figure 5.13B). Actually, we observe three quite stable paths of advancement as a function of educational differences – quite similar to what we expect to find in a stable market economy (read: the case of Norway). However, the well educated young men 20–34 years of age are possibly advancing to prominent positions at a higher speed than did prior generations of well educated young males[14]. Second, the chart indicates that young male drop-outs from secondary schools during the 1980s also have advanced more rapidly than prior generations of young males with basic education only. Ten years ago, these men had but very few prospects of obtaining a positional rank above the level of ordinary employees. Third, higher education did pay, as measured in social positions, *even among the males* populating the occupational hierarchy of the command economy.

... but the monetary returns on higher education have increased tremendously

Figure 5.13C shows that the seeming stability of positions *does not correspond* to the distribution of pecuniary rewards on labour between different generations of well educated males! Measured in pure money, the path of rewards as a function of increasing age, is by no means stable – the winners of transition are *the well educated advancing and ambitious young males 25–34 years of age.* On average, these males report a personal income *ten times the level* of the estimated prize of a basic food basket as of late 1993 (read: subsistence), *twice the income level* of the males 25–34 years reporting upper secondary education, and actually even *40–50 per cent above* the observed average wage level of prior generations of males with the same educational achievement. This informs us that the transition to capitalism in Estonia, primarily visualises as an increased wage differential, more than as greater inequality in prestige and occupational status!

[14] Quite surprisingly, we do not observe a significant higher proportion of self-employment among the well educated males 25–34 years of age than among the highly educated males 35–54 years of age (13–14 per cent in both age groups). This observation supports the impression of a quite stable positional hierarchy so far.

A future demand for private pensions?

The fourth chart (Figure 5.13D) includes the reported personal incomes of all male residents 18–69 years of age (i.e. students, unemployed, 'outsiders', disabled and pensioners too). Now, the shape of the curves indicating the monetary rewards, are changed dramatically as a consequence of the present transition to capitalism. First, we have already stated that compulsory education gives but little protection against exclusion from labour force. All male residents included, the average reward on basic education is at best twice the level of subsistence, and most retirement pensioners with compulsory eduction only, receive a monthly fee slightly above 500 kroons – or slightly above phsychological minimum. But, in our opinion – the real losers of transition, are *the pensioners with college and university education*! We can hardly believe that the newly emerging elite of well educated young males will accept a retirement pension based on the present «as you go-system». We predict that this elite will demand possibilities of financing private pensions and life insurance for themselves. Of course, the political challenge facing Estonian society, will be to develop instruments of funding which motivate (or possibly even force) these winners to contribute to the funding of universal schemes (i.e. all-encompassing pension schemes).

So far we have discovered that the prominent winners of transition to capitalism are highly educated males 25–34 years of age. Now we ask the intriguing question, does other means of integration into society, as ethnic affiliation or the achievement of Estonian citizenship influence this selection of males?

Estonian citizenship makes no difference among technical experts ...

The fifth chart (Figure 5.13E) illustrates that the present rewards and future prospects of male residents reporting a secondary specialised education (read: the technical experts and skilled manual labourers of Estonia today) do not respond to differences in citizenship, as good luck would have it! The average monthly wage of the specialists with Estonian citizenship are quite similar to the expected monthly wage of the specialists without Estonian citizenship – in all the presented age groups. Then, such differences, if observed, must be valid for the well educated population of males only.

... but citizenship does influence the selection of the newly emerging elite!

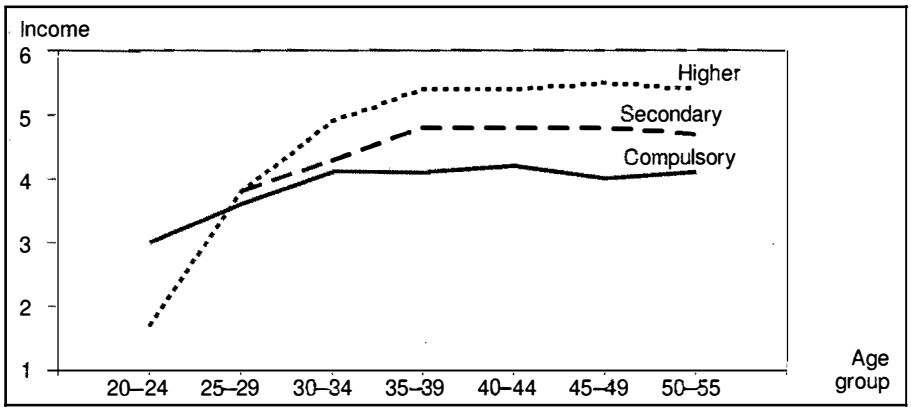
The final chart (Figure 5.14E) clearly is instructive. There is a tremendous difference in the expected monetary rewards on labour between the well educated males 25–34 years of age *with* Estonian citizenship, and the well educated males at the same age *without* Estonian citizenship. Now we have to allow ourselves to «squeeze» our data, beyond normal accepted limits of significance: The chart also possibly reveals the traces of prior elites of non-citizens 54–59 years of age and citizens 45–54 years of age, soon leaving the scene![15]

[15] The adage states: If you torture the data long enough, they will finally confess! (Richard J. Schonberger 1986 op.cit) Of course, we should have listened to this warning!

Pictorial Presentation of the Argument

1: The frame of reference–prospects of education in a stable capitalist society

Figure 5.13A Average gross annual income among Norwegian men 20–55 years of age in 1993 by educational level and age (classified gross annual incomes in Norwegian kroner, NOK)

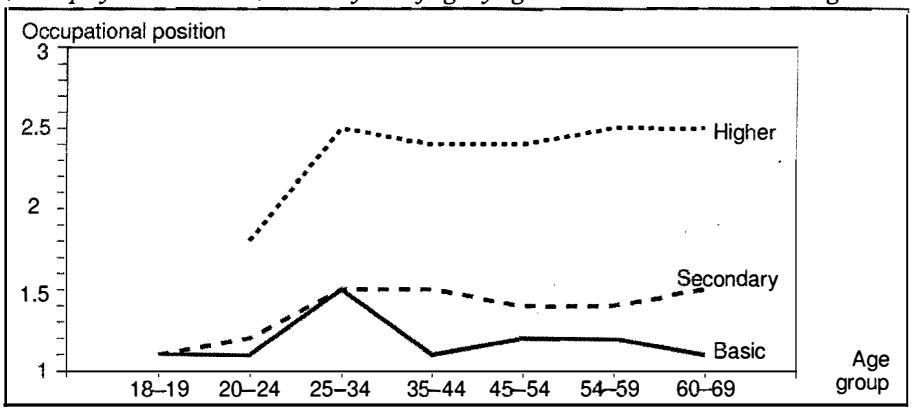


Explanation: A representative sample of more than 3,000 Norwegian males in 1993. Scale 1–8; 1=0–59,000 kroner, 2=60,000–99,000 kroner, 3=100,000–159,000 kroner, 4=160,000–199,000 kroner, 5=200,000–299,000 kroner, 6=300,000–399,000 kroner, 7=400,000–499,000 kroner, 8=500,000 kroner or more. Source: MMI Omnibus 1993

***A quite different picture in Estonia – measured in occupational positions and in monetary rewards on business and labour?**

2: Seemingly modest changes in the positional hierarchy

Figure 5.13B Expected occupational position among labour-force participating males (unemployment excluded) 18–69 years of age by age and educational level. Average scores

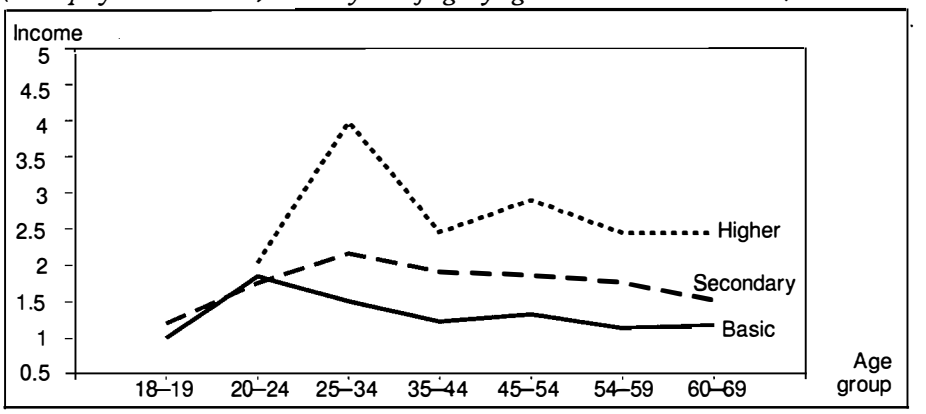


Explanation: Scale; 1=ordinary employee, 2=leader lower rank, 3=self-employed/leader middle rank, 4=leader top rank).

*** Does the transition to capitalism influence the distribution of monetary rewards, controlled for differences in educational level (and age)?**

3: Clearly, yes – we observe a tremendous change in the distribution of personal incomes! – The winners of transition so far, are young males 25–34 years of age reporting higher education

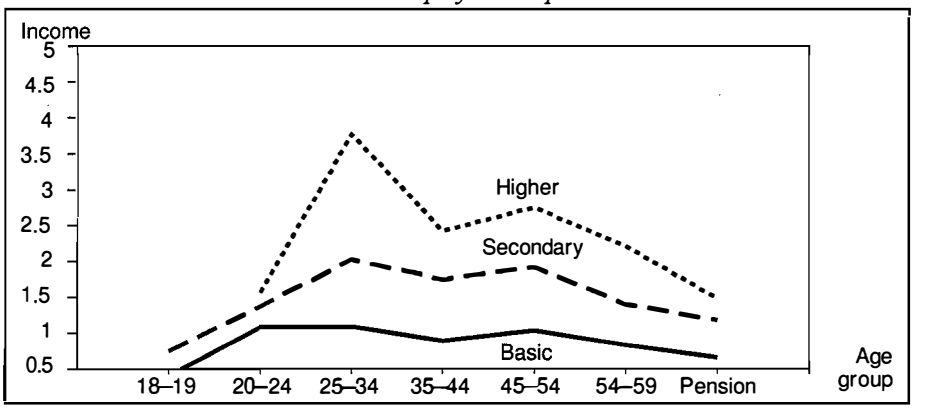
Figure 5.13C Expected gross monthly income among labour-force participating males (unemployment excluded) 18–69 years of age by age and educational level. 1,000 kroons



* Who are the losers among the males?

4: Possibly the well educated pensioners – a new demand for private pension schemes?

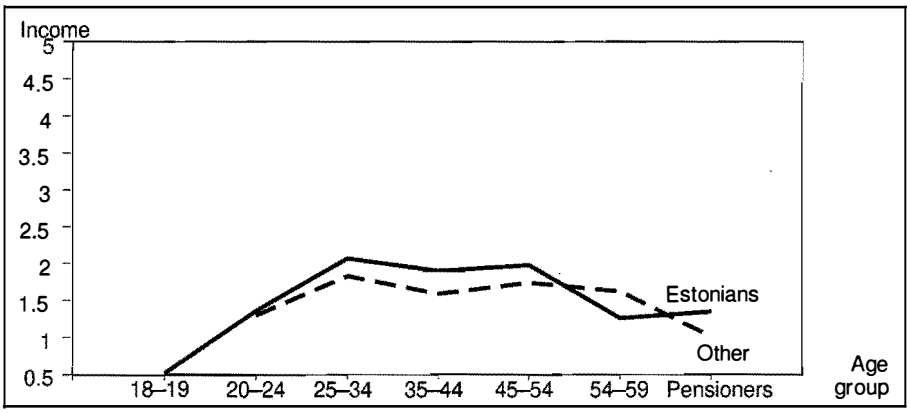
Figure 5.13D Expected gross monthly income among males 18–69 years of age by age and educational level. 'Outsiders', unemployed and pensioners included. 1,000 kroons



* Does citizenship influence the ongoing selection of young males?

5: Not among technical experts and skilled labourers – the males reporting secondary spesialised education do not, considered as a group, belong to the winning team at present

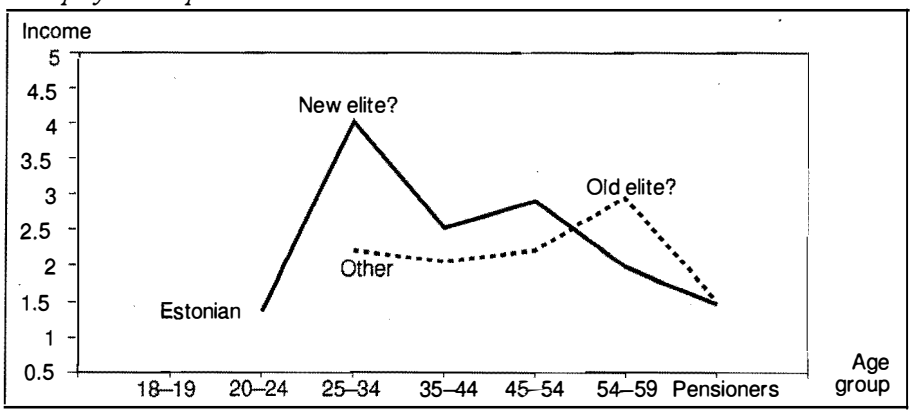
Figure 5.13E Expected gross monthly income among males 18–69 years reporting secondary specialised education by age and citizenship. 'Outsiders', unemployed and pensioners included. 1,000 kroons



* If so, who are the winners?

6: Here we suddently see the signs of the newly emering elite and the one(s) leaving the scene – the ultimate winners of transition are the well educated males 25–34 years of age with Estonian citizenship

Figure 5.13F Expected gross monthly income among males 18–69 years reporting higher education (included «unfinished higher level») by age and citizenship. 'Outsiders', unemployed and pensioners included. 1,000 kroons



Some social-psychological aspects of educational inequality

Political science has documented a close relation in most Western societies between the educational level, confidence in the personal ability to control environments, interest in politics, and above all, *voluntary participation* in political life and in various (formal) organisations. In this respect, public demands for educational expansion, appears as one of the important means to mobilize individuals in support of democracy and civil society. Textbox 5.2 shows the respondents' answers to two questions – the first indicating general interest in politics, the second suggesting confidence in the ability to understand events. Respondents have been classified according to citizenship. Figure 5.14 presents the distribution of answers to these questions according to the educational level of the respondents.

Textbox 5.2: Suggestions on political interest and personal efficacy:
A: Question: «Are you interested in politics?»
General interest in politics among randomly sampled Estonians 18 years of age or older, according to citizenship. Per cent.

	Estonian citizenship	Applying for citizenship	Not applying for citizenship
Not at all	18	22	24
Not very	40	41	39
Interested	37	33	32
Very interested	5	4	4
100%=N	3187	399	821

B: Question: «Politics is such a complicated issue, that for a person like me it is very difficult to understand what it is about»
The responses of randomly sampled Estionians 18 years of age or older on a proposal that politics is too complicated for me, according to citizenship. Per cent.

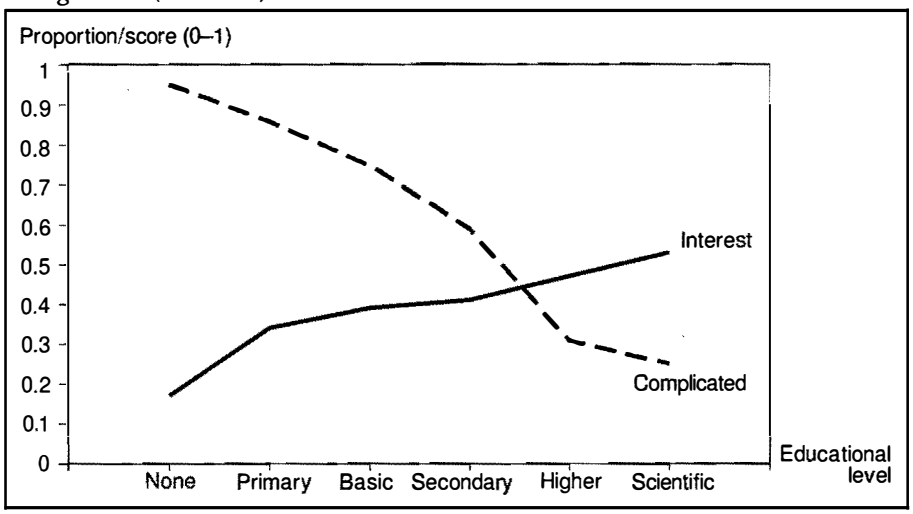
	Estonian citizenship	Applying for citizenship	Not applying for citizenship
Agree	55	71	74
Disagree 45	29	26	39
100%=N	3187	399	821

First, we observe a moderate interest in politics in general among Estonian youth and grown-ups at the end of 1994: Four in ten say they are «interested» or «very interested» in political issues. Then, perhaps somewhat unexpectedly, we observe that this general interest applies irrespective of citizenship. This is not the case with our measure of personal efficacy, or possibly even *perceived self-efficacy*[16]. Responses to the proposition that politics is too complicated («for persons like me») clearly

[16] See Albert Bandura (1977) and B.R. Hergenhahn (1976/1982: 336, 358)

reveal some sensitivity to differences in ethnicity and citizenship: Whereas close to half the respondents reporting Estonian citizenship as of late 1994 disagree with the statement, close to 75 per cent of individuals without Estonian citizenship (and not applying for such citizenship) state that they agree. The chart (Figure 5.14) shows that the responses to both questions are quite sensitive to differences in the educational level of the Estonian residents.

Figure 5.14 Interest in politics and propensity to regard politics as too complicated as a function of educational level. Estonians 18 years of age or older. Proportions and average scores (scale 0–1)



Explanation: Complicated: proportion who agree that politics is too complicated. Interest: average score on interest in politics. Scale «not at all»(=0), «not very interested»(=.33), «interested»(=.66) and «very interested»(=1)

Education and interest in politics

There is a consistent and quite strong relation between interest in political issues and the educational level (and profile) of Estonians. Of course, several other individual attributes (and resources) influence the distribution of answers to the two questions concerning politics, though not as strongly and consistently as the effect of educational differences. First, most Estonians express moderate interest in politics in general. The average score is close to «not very interested» for low-scoring groups, and close to «interested» for high-scoring groups. Second, we actually find that the interest in politics increases with age – perhaps surprisingly. Then political interest increases with increasing gross income (and probably purchasing power) – slightly but significantly. Estonian citizenship hardly influences the general interest (or perhaps we should say disinterest) in politics controlled for differences in age and educational profile and level. Third, sex makes a difference: Males seem to be more interested in political issues than females, and this interest increases, quite moderately however, with an increasing number of memberships in organisations. In this respect, membership in a political party or a political organisation is the

dominant characteristic. These findings point in the expected direction, possibly with an exception for the effect of age – but no connections are so strong as those existing between education and interest in politics, when other attitudes are left out of the reckoning.

Education and personal efficacy

If interest in politics is in fact reflected at the educational level, one may definitely assume that confidence in one's own ability to understand the political game will be influenced by one's own educational attainment. While 95 per cent of the persons without education answer in the affirmative when asked if politics is too complicated, this only holds true for 75 per cent of Estonians who have completed compulsory schooling, for 60 per cent of Estonians with secondary common or secondary specialised eduaction, for 31 per cent with education from college, and for 25 per cent with an academic training. In other words, there is clear, consistent connection between the cognitive aspects and the political interest imparted through the educational level. One of the most important goals of the educational system is precisely to stimulate people's cognitive skills and self-esteem. A well-functioning educational system anywhere aims to produce well-informed, astute and self-confident residents.

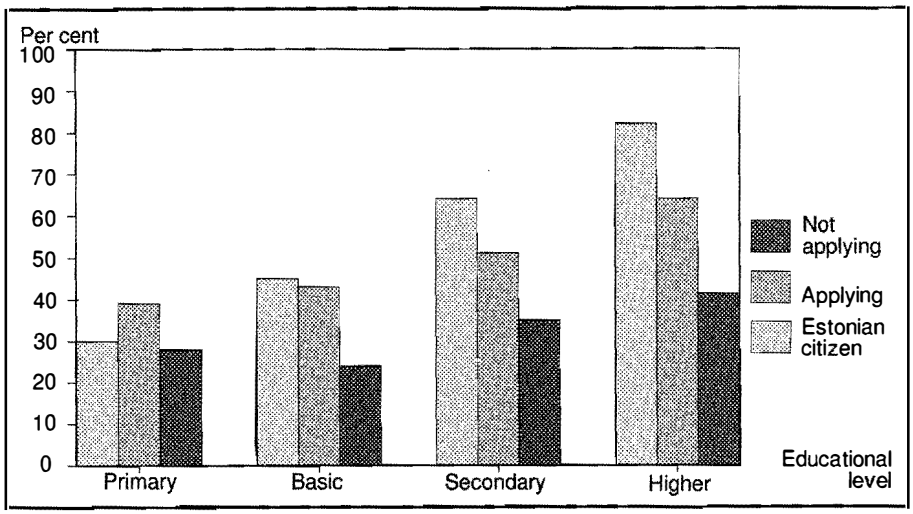
A model that sets out to explain the response to the question about whether or not politics is too complicated to understand (*Appendix 5.3*), is able to classify three out of four respondents correctly. It is somewhat easier to point out characteristics and resources that «explain» why people say they agree with the statement (83 per cent) than it is to explain why people disagree (63 per cent).

Educational level is the most important factor, followed by sex – women having substantially weaker confidence in their ability to follow political developments than men have – and by occupational status (by implication the degree of integration in the labour market). Further, more older than younger people think that politics is difficult, even if the oldest expressed the greatest general interest in politics. However, the propensity to perceive politics as difficult is greater in the low-eduaction groups than in groups with e.g. college education. We also observe that there are rather significant differences (net effects) between ethnic groups, the crucial issue being whether the respondent is an Estonian citizen or not. Purchasing power also has an impact, and we may note net and gross relations between memebership of organisations and the propensity to answer that one disagree to the statement about the complexity of the political game (that is before we control for other attitudes). Figure 5.15 illustrates the problem.

Education and future prospects – occurrence of fatalism among Estonian residents today?

The chart (Figure 5.15) shows a strong *statistical interaction* between educational level and citizenship on the propensity to claim that there are no reasons to make plans for the future, among Estonian residents at present. In other words, the sensitivity of attitudes on the future in regard to educational level and profile is quite

Figure 5.15 Proportion of Estonians 18 years of age or older expressing disagreement with statement suggesting pessimism (and even fatalism), according to citizenship and educational level. Per cent



Question: «There are no reasons to make plans for the future, they will not be fulfilled anyway» (options: agree/disagree/do not know/refuse to answer)

strongly influenced by the ethnicity and citizenship of the respondent! We believe that the response to this statement indicates that pessimism is widespread among residents 18 years of age or older without Estonian citizenship as of late 1994, and possibly that there is a degree of fatalism – owing to the pace of political and economic change.

The attitude of respondents reporting Estonian citizenship is quite sensitive to educational level. While at least eight in ten of the highly educated disagree with the statement about future prospects, 70 per cent of Estonian citizens with primary education only (at most 4–6th grade) agree. If authorities wish to reduce pessimism (and for that matter fatalism) among Estonian citizens, the point of departure for policy recommendations has to be that the educational level and profile of the people must be raised! Among respondents without Estonian citizenship (and not applying for such citizenship), close to six in ten of the highly educated reply that there are no reasons to make future plans, a result slightly below that of the less educated in the same group, *but far above* the level of the highly educated residents with Estonian citizenship (i.e. representatives of the ethnic majority group). More education in itself would hardly be the right prescription for the minority groups; other measures that can serve integration in a more direct manner are clearly needed – related to politics, formal integration into the society, and probably related to language. At any rate we may claim that as of the end of 1994, the minority groups are characterised by rather low scores on personal efficacy, widespread pessimism (and possibly even fatalism), while natural Estonian citizens exhibit the 'classical' pattern of sensitivity towards cognitive ability, cultural resources, etc., mediated through their educational level and profile!

CHAPTER 6

LABOUR MARKET SITUATION

Ülle Marksoo

INTRODUCTION

Work clearly is a vital social activity. It represents the major source of income, and labour market participation may be a basis for further learning, personal growth, social contacts and possibilities of self-realisation. This in turn means that loosing one's job may have highly damaging economic, social and personal consequences. During the current transition to capitalism, the labour market has been one of the most dynamic spheres of the Estonian economy. The socialist economic system was characterised by apparent full employment. Everybody had the right to a job, and participation rates were high among both genders. Unemployment as a social and economic problem was virtually unknown. On the other hand, this full employment was achieved by creating and preserving a huge number of jobs – a system which would have minuscule chances of surviving in an economic regime based on market principle. Confronted with such demands, many jobs were deemed both inefficient and unnecessary.

Until the end of 1993, the working-age population was defined as males 16–59 years of age and females 16–54 years of age. Effective from 1994, retirement age will increase by six months every year, until 2003. Then retirement age will be 60 for women and 65 for men. According to the 1989 census of Estonia, *54 per cent* of the total population were engaged in "socially useful" work – earning a wage or a salary or receiving some other type of income. Since 1990 the number of wage-earners has decreased by 157,500 persons – close to a *20 per cent* reduction. This dramatic change can be related to the latest waves of emigration (cf. chapter 2), but it also involves a modification of the sectoral structure of employment, activated through the operation of severe processes that excluded many from the sphere of labour. At the beginning of 1994 Estonia had 654,000 employed persons, or around 43 per cent of the total population and 72 per cent of those of working age. The NORBALT survey of 1994 measures employment and unemployment according to ILO definitions and methodology:

An *employed* person is a person who either receives payment in cash or in kind for at least one hour during the reference period (the past week), or who is regarded as self-employed, receiving a profit or family gain in cash or in kind. This employment measure includes people temporarily off work on maternity leave, vacation

etc. We have included family workers as well. An *unemployed* person is one who meets four criteria: He (she) is of working age, has no income from work, is currently available for work, and has taken specific steps to get work (see definitions in *Textbox 6.1*). Unemployment covers *job-seekers without earned income* (from labour). The labour force (*work force*) consists of people who are either employed or unemployed, according to the above mentioned definition. In this chapter, employment and unemployment are discussed separately.

Textbox 6.1 Employment and unemployment according to ILO definition

Employment
Employed persons comprise
(a) persons who report at least one hour of paid employment in cash or in kind during the reference period
(b) persons formally atta hed to a job through prior work, but who are temporarily not at work during the reference period
(c) self-employed persons who perform some work for profit or family gain in cash or in kind during the reference period
(d) persons who operate a business enterprise, a farm or a service undertaking and who are temporarily not at work during the reference period for any specific reason
Unemployment
Unemployed persons comprise
(a)persons without income from work as an employee or as a self-employed during the reference period
(b and who are currently available for work during the reference period
(c) a d who are seekin work, i.e. who have taken specific steps during a specified reference period to seek paid work as an employee or through self-employment
Work force/labour force
People who are either employed or unemployed
Unemployment rate
Unemployment as a proportion of work force (employed plus unemployed)

EMPLOYMENT

According to our living conditions survey, the employment level of the Estonian population was *44 per cent* as of late 1994[1]. This observation confirms that Estonia has experienced a severe reduction in employment level during the years of transition since 1989. At present the proportion of working-age population participating in economic activity (read: employed) is close to 71 per cent. Moreover, 48 per cent of the employed and self-employed (family-workers included) are women. Figure 6.1 shows that the employment level in Estonia still is quite impressive compared to many Western European countries, especially with respect to employment among women 35–54 years of age.

[1] Slightly above 42 per cent when those temporarily not at work are included, close to 44 per cent when both temporary 'outsiders' and family-workers are included.

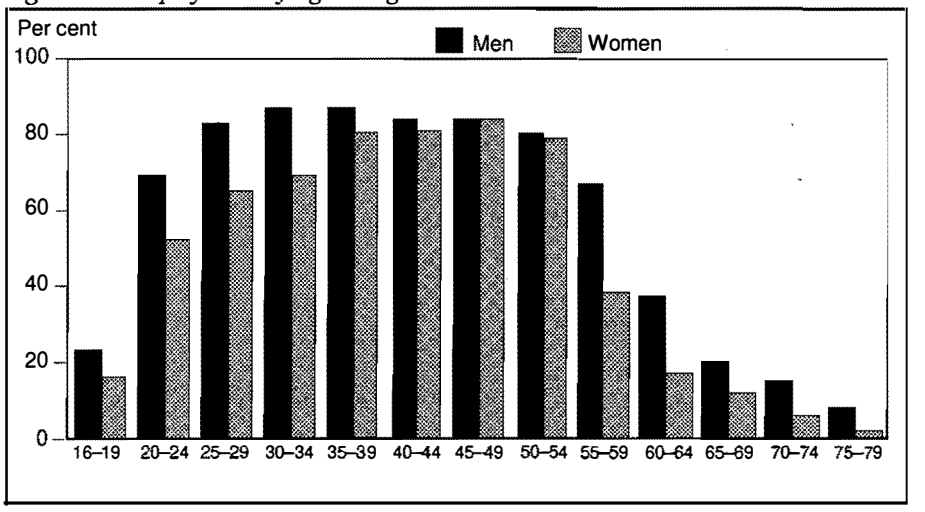
From Figure 6.1 we can observe, first, that the proportion of employment among the young people (16–25 years of age) is quite low – 42 per cent only. At this age many are still pupils at secondary level or students at institutions of higher education.

Second, men are integrated into the labour market at an earlier stage than women. There are probably somewhat better working opportunities for unskilled men than for unskilled women in Estonia today. This in turn sheds light on the educational performance of women as compared to men. In addition, of course, we observe some consequences of the division of labour between the two genders. Some women of reproductive age are on maternity leave or stay at home taking care of their children.

Third, we observe a convergence of employment rates between men and women aged 45–49 (at the level of 84 per cent). While employment among women 16–49 years of age increases step by step with increasing age, employment among men peaks already at 30–34 and thereafter declines with increasing age. A closer look at the data reveals that this decline among men is due to a combination of an increase in unemployment level and intensified exclusion of men from labour force (read: reduction in participation rate).

Fourth, men leave working life more slowly than do women, but our survey indicates that the participation rate among the elderly of both genders – due to self-employment and employment in the informal sector – has remained quite high: 20 per cent of the pensioners report some kind of employment as of late 1994. The corresponding figure in the official statistics is 15.7 per cent. According to the 1989 census, 29.4 per cent of the Estonian pensioners were working. After the introduction of the economic reforms, these elderly workers were among the first to be dismissed. Officially the number of Estonian workers having passed retirement age continues to decline. We observe that close to 40 per cent of the pensioners work

Figure 6.1 Employment by age and gender. Per cent



during the first five years after retirement. The straitened financial circumstances of the elderly obviously force them to seek additional sources of income[2].

Employment structure

Estonia experienced major shifts in the employment structure from 1992 to 1994. While the number of employees declined in manufacturing, agriculture, energetics and transport, it increased in trade, everyday services, finance and in the social sphere of the economy. Figure 6.2 reveals the employment structure as of late 1994 according to the NORBALT survey.

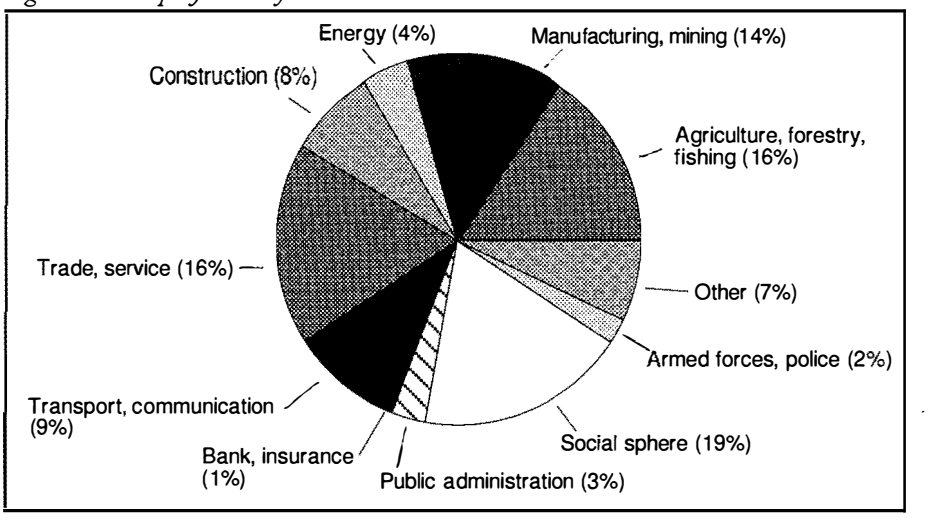
In terms of employment level, trade and services is the largest sector at present – covering close to 18 per cent of total employment. Three other sectors have similar employment capacity: The sector for education, science, health and social care covers 16 per cent of the employed and self-employed. Likewise for the primary sector of agriculture, forestry and fishing; while heavy industry, mining, light industry and food processing (read: industry and mining) had an employment capacity of 14 per cent as of 1994.

We stress that this picture of the Estonian employment structure is somewhat different from the one revealed by the official statistics, since the latter include wage-earners only. Our measure embraces all employed people, included the self-employed and family-workers. This means that our estimate of the size of the agricultural sector is larger than the official estimate based on wage-earners. A great many people in the countryside who lost their jobs as a result of the collapse of the collective farms, now work as farmers earning their living from their own land. These producers are not reported as 'agricultural workers' in the official statistics. Another reason for the high share of people employed in agriculture and forestry (16 per cent) is the recent increase in employment in forestry.

There are some important differences in employment between the two genders. Close to half the women are employed in two sectors – 26 per cent in education, science, health and social care, and 22 per cent in trade and everyday services. Women are also slightly overrepresented in light industry and food processing. Men are overrepresented in the primary sector, in heavy industry and mining, in energy, gas and hydroelectric production and in transport, post and communications. Even though women clearly outnumber men in trade and everyday services, this is a large sector among men as well. Only the primary sector employs more men than trade and everyday services at present.

[2] If the salary is higher than the state pension, the working pensioner only receives 50 per cent of the state pension. If salaries are less than the state pension, working pensioners keep their pension. The state pension was 360 EEK per month in the period 1 November 1994 – 31 March 1995. From 1 April 1995 it was increased to 410 EEK per month. The reader should note that this payment level is close to the price of the minimum food basket of Estonia as of late 1994 (estimated by Statistical Office of Estonia). E.g. a pensioner at present earning 800 EEK per month at work, receives 205 EEK per month in pension. The average pension per month in 1994 was somewhere between 500 and 600 EEK; it increased to approximately 800 EEK during 1995.

Figure 6.2 Employment by sector. Per cent



We also note some interesting differences between Estonian citizens and residents without Estonian citizenship: Non-citizens obviously dominate heavy industry and mining, while residents with Estonian citizenship clearly dominate the agricultural sector. Finally, non-citizens are somewhat overrepresented in transport, post and communications, whereas Estonian citizens hold the lion's share of employment in education, science, culture, art, health and social care. The rapid growth of employment in private business, and in the tertiary sector in general, represents a major change in the structure of the labour force in recent years.

Employment status

The vast majority of Estonian workers are employees (91 per cent). Indeed, 94 per cent of the women are found in this category. There are more than twice as many men as women in the employer/self-employed category (seven per cent and three per cent, respectively).

In most economic activities the share of employees – as distinct from owners or self-employed – exceeds 95 per cent of total employment in that activity. The exception from this rule is agriculture. After the latest reorganisation of collective farms, the share of employees in new share-holding companies is only 79 per cent, while the share of private farmers has increased to 17 per cent of total agricultural employment. The share of employees is also somewhat lower in trade and everyday services (86 per cent). Here the self-employed or owners make up 13 per cent of total employment.

Table 6.1 Employment status by gender. Per cent

	Ordinary employee	Self-employed/own	Family busines	Other	100%=N
Males	89	7	3	1	3001
Females	94	3	3	-	2786

Table 6.2 Ownership structure by gender. Per cent

	Men	Women	All
Public sector	36	50	42
State organ/enterprise	32	42	36
Municipal organ/enterprise	4	8	6
Cooperative sector	7	6	7
Private sector	52	41	47
Joint-venture	2	1	2
Share-holding company/ private company	50	40	45
Other	5	3	4
100%=N	2988	2773	5761

Ownership structure

The ownership structure of the economy has been changed substantially. In 1989 close to 98 per cent of the Estonian labour force was employed by the state – the sector of collective farms included. One of the major changes in employment in recent years has been the shift towards private activities, together with the collapse of the state-owned sector of the economy. Small and medium-sized enterprises – both these that have been privatised and the newly established businesses – have been intensively creating new jobs, absorbing parts of the displaced labour force released from the former public sector. By the end of 1994, the private sector generated over 55 percent of Estonia's GDP. The share of persons employed in the private sector has increased very rapidly.

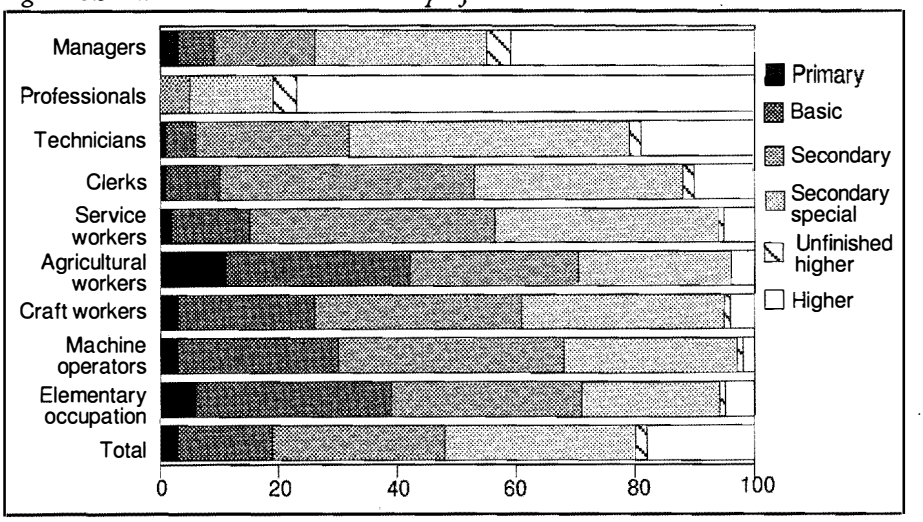
This aspect of transition is clearly confirmed by our survey (Table 6.2). We observe that as of late 1994, 47 per cent of the employed, are occupied in private firms and share-holding companies (half the males and four in ten of the females). The public sector covers 42 per cent of total employment, while close to seven per cent work in the corporate sector (mostly in agriculture). Private firms and share-holding companies dominate in agriculture and forestry, light industry, building and trade. State companies still dominate in heavy industry, mining, energy production, transport and the social sphere.

Educational level

A main indicator of the quality of the labour force is its educational level. On this indicator, the Estonian labour force emerges as rather highly qualified. According to the survey, close to 17 per cent report higher education, two per cent have an incomplete higher education, 31 per cent have secondary specialised education and 30 per cent report general secondary education (secondary common level).

Public administration, education, science, culture and health care have the highest proportion of well-educated employees and self-employed – 30 per cent of the

Figure 6.3 Educational level in various professions. Per cent



people working in these sectors report that they had completed higher education. Other sectors are dominated by those with education at secondary common or secondary specialised level. The lowest level of education is found among those in the primary sector – in agriculture and forestry. Figure 6.2 characterises the education level of various professions, according to ILO classification[3].

Professionals have the highest educational level of all occupational groups at present. Here 76 per cent have completed education at university or college level, while 18 per cent report a secondary specialised education. The group consisting of legislators, senior officials and managers is also well educated. Among these employed and self-employed, 74 per cent have either completed education at secondary specialised level or have entered institutions of higher education. Technical experts ('technicians') and other specialists mostly report education at secondary specialised level. Most agricultural workers have only basic education or secondary common education (around 60 per cent). There is a positive correlation between educational level and professional position. As we see from Figure 6.3, most of those with higher education (85 per cent) are found among the top three occupational levels – either as managers, as professionals or as technical experts (technicians). Likewise, 75 per cent of those with only primary education, and 81 per cent with basic education, are found in the four lowest occupational positions (in elementary occupations, as machine operators, as craft workers or as agricultural workers).

Table 6.3 reveals some interesting differences between the occupational orientation of the two genders. Men are clearly overrepresented among skilled and unskilled manual workers, as craftsmen and assemblers, or as plant and machine operators. Women dominate occupations like service workers, shop workers and market sales workers. They are also clearly overrepresented among the professionals

[3] The code defined in ISCO-88.

Table 6.3 Professions by gender. Per cent

	Males	Females	All
*Legislators, senior officials and managers	14	8	11
*Professionals	6	6	11
*Technicians and associate professionals	9	21	15
*Clerks	2	8	5
*Service workers, shop and market sales workers	4	16	10
*Skilled agricultural and fishery workers	3	4	
*Craft and related trade workers	30	9	19
*Plant and machine operators, assemblers	23	5	14
*Elementary occupations	9	13	11
Total (100%=N)	2994	2782	5777

and semi-professionals at present. The problem is that today's the labour market often needs people with entirely different training than what the present Estonian labour force has acquired. There is a mismatch between the skills available and skills required, particularly in specialities oriented to the needs of big farms, and in various engineering specialties. Many specialists who graduated from university some years ago are now faced with problems and challenges of training and retraining.

Working hours

In Estonia the general norm for the working week of employees is 40 hours. This norm was established in 1994. In fact, however, the 'normal' Estonian working week is somewhat longer – *on average 42 hours.* According to the NORBALT survey, 55 per cent of the employed worked 40 hours per week, while 28 per cent worked more than 40 hours. Seven per cent of the employed actually worked more than 60 hours per week.

People in the primary sector, in the construction industry (building) and in the army and the police force reported the longest working day of all Estonians as of late 1994. Two fifths of them worked more than 40 hours per week, and 14 per cent of the agricultural workers worked more than 60 hours per week! Furthermore, almost half the legislators, senior officials, managers and agricultural workers were working more than the average working week in late 1994. The highest number of overtime working hours are reported in share-holding companies, private companies, cooperatives and joint ventures. where the average working week is 43 hours. There is a difference between ordinary wage-earners, who on average work close to 41 hours per week, and the owners of companies or farmers, who are working 50–53 hours per week (on average).

In the public sector employees usually work normal hours. Reduced working time has been established for certain professions such as teachers, physicians and

paramedics. Some 20–25 per cent of those employed in the state and municipal sector work less than 40 hours per week at present. According to our survey, the share of part-time workers (working less than 35 hours per week) was 13 per cent.

Additional jobs

At least *nine per cent* of the employed and self-employed persons in Estonia hold additional jobs. On average these people work close to 16 hours per week in their additional job (Table 6.4). The share of those looking for additional jobs is somewhat between eight and fifteen per cent, depending on their profession. Holding a second job has probably increased in Estonia since 1989. Approximately half of those with additional jobs were working up to ten extra hours per week; 29 per cent worked 11–20 extra hours and five per cent spent more than 40 extra hours per week in their additional job.

It is more common to hold a second job among cultural workers (20 per cent), in public administration (18 per cent), in bank and insurance (16 per cent), in

Table 6.4 Weekly working hours by main activities. Average scores and per cent holding an additional job

Main activity	Average weekly working hours in main occupation	Average weekly working hours in additional job	Proportion of those holding additional job (%)
Agriculture, forestry, fishing	45	20	8
Heavy industry, mining	40	10	5
Light industry and food processing	40	9	6
Energy production	40	10	10
Building/construction	44	13	7
Trade, everyday services	43	16	6
Transport, post, communications	44	16	6
Bank, insurance, real estate	42	23	16
Public administration, state or local	39	12	18
Education, science, health or social care	38	14	13
Culture, art	37	13	20
Army, police	44	40	8
Other	40	19	11
Total	42	15	9

education, science and health care (14 per cent) than in the primary and secondary sector of the economy. Undoubtedly low salaries is a major reason which pushes people to look for additional incomes. One could add opportunities related to personal competence and possibly even energy not used in their main job. There is, however, a positive correlation between educational level and the willingness and opportunity to join additional jobs. Among the workers with scientific degree 45 per cent hold additional jobs, and among the other specialists with higher education, 15 per cent report having additional jobs. Finally, we observe that among the few persons in the police force and the army holding an additional job (eight per cent only), the average working week in these additional jobs is 40 hours!

UNEMPLOYMENT

Registration of job seekers started in Estonia in April 1991. A significant increase in the number of unemployed people was observed by the mid-year of 1992. Interruptions in the former connections between several big enterprises inside Estonia and between entire branches of the Estonian economy and the eastern market, lead to a sharp decrease in production.

Registered and 'hidden' unemployment

According to official statistics, the unemployment rate was *1.4 per cent* as of 1 October 1994. This figure reflects the percentage of people receiving unemployment benefits (see *Textbox 6.2*)[4]. However, the registered number of those seeking paid work was actually twice the level of the registered unemployed. The NORBALT survey shows that close to eight per cent of the Estonian residents 16 years of age or older were seeking paid work. Nine in ten of these job-seekers could be accounted as unemployed according to the ILO definition. Men made up over half (52 per

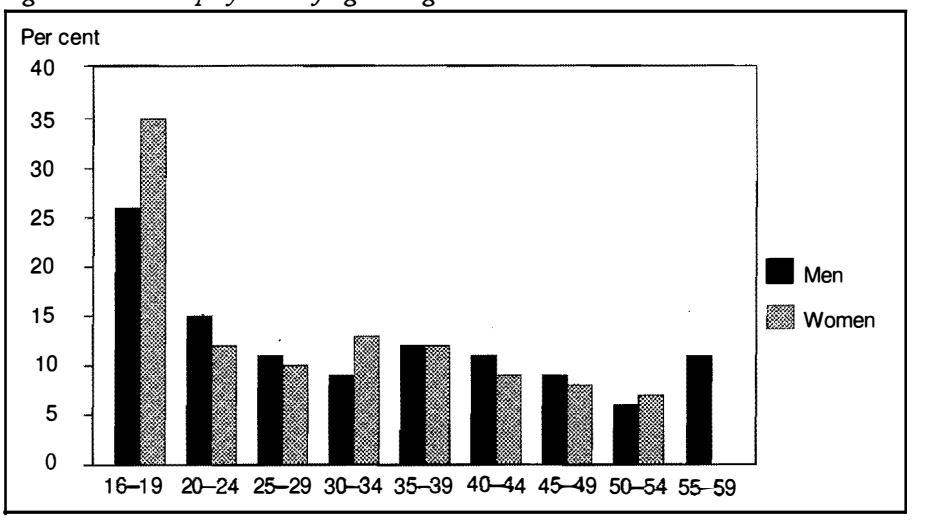
Textbox 6.2 Unemployment registration in Estonia

According to the Law on Social Protection of the Unemployed (passed in October 1994) a person is registered as being unemployed within ten working days after being registered at the state employment office, if he/she meets the following conditions:

- age between 16 and the retirement age;
- unoccupied with paid work or corresponding activity;
- looking for a job;
- has been occupied with paid work or corresponding activity at least for 180 days during 12 months preceding registration at the state employment office; no preceding employment is required of those who reared a disabled child or a child under 7 years of age, persons in hospital treatment, who nursed a sick, disabled or old person, had a disability group or were under arrest or in penal institution;
- has submitted all documents necessary for registration.

[4] We observe exactly the same proportion receiving unemployment benefit in our survey.

Figure 6.4 Unemployment by age and gender. Per cent



cent). We may assume that close to nine per cent of the people of working age and at least *ten per cent* of the labour force were unemployed as of late 1994. The unemployment level among men and women was quite equal.

Figure 6.4 shows unemployment as a function of age and gender among the working-age population. The unemployment rate measures the proportion between unemployment and labour force (employed plus unemployed). What emerges is a classic picture of the relation between unemployment, gender and age. Teenagers, striving to pass the threshold leading into paid employment, have by far the largest unemployment rate – especially young women (35 per cent). Then unemployment stabilises – around ten per cent of labour force for both men and women. In fact can we observe a tendency to increased unemployment level among men 54–59 years of age, but this increase hardly survives a strict test of statistical significance.

Formal and informal strategies of job-seeking

We should separate *formal* from *informal* strategies of job-seeking. Only half of those seeking job opportunities actually register at the employment office and enter the official figures as formal job-seekers. The others use private or informal strategies, such as replying on advertisements in the newspapers, inserting their own advertisements, receiving help from family members, neighbours, friends, asking for work at the work-place etc. Official statistics do not reflect the real situation on labour market. At present there is no unemployment insurance in Estonia, and the rate of unemployment benefit is extremely low – only *180 EEK* per month[5]. This benefit is paid during six months and only in special cases for another three months. The low benefit level is of course one basic reason why people do not bother to register

[5] Respondents reporting that their only source of income was unemployment benefit, report an average income level close to 175 EEK per month – in fact a tremendous reliability test of the information given by the low income earners of the survey!

as job-seekers at an employment office. Obviously, the share of hidden unemployment is relatively high in Estonia at present.

The lion's share of job-seekers are people of working age. Slightly over a third of them are 16–30 years old and nearly two-thirds are below the age of 41. In recent years, youth unemployment has decreased. Many employers prefer young workers for several reasons. Most of them are better educated than the older people; they have by far the best health condition; they are probably the most flexible – many do not have family responsibilities; and they are possibly more open to innovations than the older workers.

The unemployed themselves mentioned three major ways of searching for work: 30 per cent asked friends and acquaintances for help, 30 per cent registered at the employment office, and 27 per cent went directly to the employers or a work-place asking for work. Less than two per cent made attempts to start up enterprises of their own. Further, getting a job through newspaper advertisements does not seem to be a prominent strategy at present (eight per cent only). Whereas men report a somewhat higher propensity than women to use the most offensive and direct job-seeking strategies – marketing themselves face to face with the employer – women show a somewhat higher propensity to register at the employment office. This observation is confirmed by official statistics: Of those applying for work through the employment office, 47.3 per cent were males and 52.7 per cent were females.

Long-term unemployment

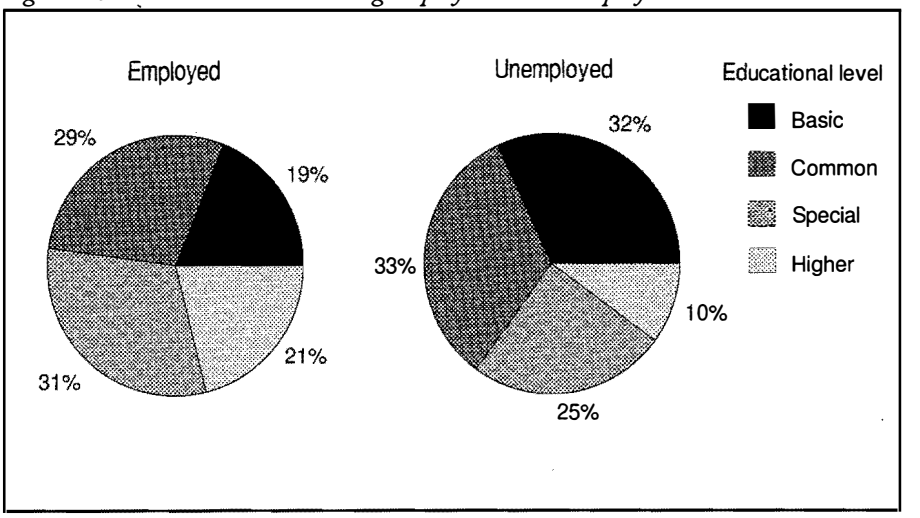
29 per cent of the unemployed had been looking for work less than two months, and 58 per cent less than six months. Long-term unemployment – i.e looking for work at least one year – was *21 per cent* as of late 1994. Rural regions face greater problems of long-term unemployment than urban areas, due to the restructuring of the agricultural sector. Many Estonians lost their jobs when collective farms and state farms were privatised. Since unemployment benefits at best cover the first nine months of an unemployment period, and that many job-seekers (obviously for the same reason) use an informal job-seeking strategy, the official figures on long-term unemployment cannot be considered reliable.

Unemployment and education

Unemployment is to some extent influenced by education. Comparing the educational level of the employed and the unemployed, we find that the unemployed have the lowest average educational level (Figure 6.5). While 21 per cent of the employed have higher education, the corresponding figure among the unemployed is ten percent only. Likewise, the share of workers with basic schooling or less is 19 per cent, while the corresponding figure among the unemployed is 32 per cent.

The duration of the job-seeking period also depends on education level. Well educated people usually find a new job more easily than people with little schooling. The less educated also have a greater tendency to apply for work through the employment office. Job-seekers with only basic schooling or less usually register at an employment office. Those with secondary education mostly apply for work in

Figure 6.5 Educational level among employed and unemployed. Per cent



a direct manner – face to face with the employer, so to speak. Job-seekers with higher education often combine two informal strategies. First, they get information about jobs from friends and acquaintances, then they ask the employer. Among the well educated, registering at an employment office comes in third place.

Why jobless?

More than half the unemployed worked somewhere during the last year, but for some reason they had to stop their job. 27 per cent claimed that they had been laid off (due to job reductions). Over one-fifth (21 per cent) said they left their job voluntarily. 19 per cent reported that their labour contract had come to an end, while 13 per cent said that they had seasonal work. 11 per cent said that the company had closed down, and the remaining nine per cent cited various other reasons. Women left their jobs mainly due to layoffs or voluntarily. Men left their jobs mainly because their contract had ended or due to layoffs. Seasonal contracts also played a role among men.

The informal sector

The informal sector in Estonia is growing rapidly. One fifth of all job-seekers polled by EMOR[6] in 1994 had some income from such work. The share of unemployed persons receiving unemployment benefit was only 19 per cent, whereas 13 per cent of the unemployed earned a living doing various occasional jobs. In addition, people mentioned service work, for example doing home repair, fixing cars, laundering, sewing, hairdressing, childcare etc. (35 per cent), and also selling produce from their own garden or land-plot on the streets or at the market place (14 per cent).

[6] Estonian Market and Opinion Research Centre Ltd.

The outsiders

Close to *nine per cent* of the population 18 years of age or older are not attending school, are not working, are not looking for work and are not among the pensioners. Who are these people? Of this group one-third mentioned that they were on maternity leave. Furthermore, one in four had severe health problems (mostly disabled), some 15 per cent are occupied with homework, and close to one in four cited various reasons for not seeking paid work. One-fifth of those citing various reasons for not seeking paid work, have seemingly lost all hopes of getting a job ("discouraged workers"). These are mostly people with limited skills and a low level of education (cf. chapter 5).

Structural unemployment

Unemployment is a problem for both unskilled and skilled workers. The labour needs of society do not always coincide with the actual skill and educational level of the labour force. Some of today's unemployment in Estonia is of a structural nature. Many jobs now require high qualifications. In conditions where there are few possibilities for additional or alternative training, meeting such requirements is beyond the reach of many people.

CHAPTER 7

ECONOMIC RESOURCES

Tone Fløtten[1]

INTRODUCTION

The economic situation of individuals and households provides an important indication of other living condition indicators as well. From level-of-living surveys conducted in various countries it is well known that economic resources are highly significant for many other aspects of people's living conditions (Vogel 1991). Some would even claim that, together with health, economic resources is *the* basic dimension for assessing living conditions. In most modern societies, it is the availability of economic resources that largely determines the possibility of satisfying daily needs – for food and clothing and many others. In addition, economic resources affect long-term investment, for instance in housing and consumer durables.

This chapter surveys the economic situation of individuals and households in Estonia, asking: *How are economic resources and the feeling of economic well-being distributed among the Estonian people?* Despite the widespread use of the concept «economic resources», some clarification is in order. As a rule, this concept is associated with income and property. Income for a given period of time will, together with the accumulated wealth, serve as an important indication of economic welfare. It may be useful, however, to separate measures of economic resources into two clusters. *Income* is a measure frequently used in welfare analyses to describe the economic situation of individuals, but it can only serve as an *indirect* measure of economic well-being. A person may have a decent income level, and still have financial difficulties caused by debts, high living costs etc. And the converse: a person may manage well on a relatively low income – for instance, if living costs are low, if this person has savings to fall back on, has access to other sources of food supplies, engages in barter, etc. An illustrative example is the recent situation when many Estonians in principle had enough money to obtain high welfare, but the lack of commodities made it hard to transform this wealth into welfare.

An obvious advantage when analysing level-of-living surveys is the variety of measures used to describe a single phenomenon. In these surveys, the economic situation is measured not only by describing the income situation: Often there is also information about possession of various consumer durables and a self-evaluation

[1] The author would like to thank Jens B. Grøgaard and Aadne Aasland for valuable comments to this chapter.

of one's economic situation. These measures can, in a more *direct* way, indicate the economic welfare of an individual or a household. They tell us how a certain amount of income or property is translated into welfare and life-style. By incorporating these measures into the analysis, we can present a more comprehensive description of the economic living conditions of Estonians, as of late 1994.

In the first part of this chapter we will concentrate on income *level*, the *distribution* of incomes and *sources* of income. In the second part the focus will be on how people actually *cope* with their daily needs, and how they *evaluate* their own economic situation. The linkage between income and economic well-being will be discussed at the end.

Economic History of Estonia: A Brief Overview

The economic situation of Estonian individuals and households has undergone massive changes in recent decades. Between 1918 and 1940, when Estonia was an independent republic, her economy in many ways resembled that of other European countries. In this inter-war period Estonia experienced increasing welfare (Lugus and Vartia 1993, Kutsar and Trumm 1993). After the Soviet annexation (1940) the standard of living dropped rapidly. Due to confiscation of property and savings, low salaries, rising prices etc., almost everyone in Estonia could be labelled «poor» after the World War II. During the 1960s this situation changed. Estonia experienced a period of economic growth, and poverty decreased. However, considerable differences remained in the standard of living compared to the situation in neighbouring countries such as Sweden and Finland. Even though Estonia was, in economic terms, one of the leading republics of the USSR, her economy had fallen behind that of most industrialised countries. After some years of positive economic development, the national economy underwent a crisis in the 1980s. The main problem was not shortage of money among Estonians, but rather shortage of goods and services (Kutsar and Trumm 1993).

When Estonia regained independence in 1991, the country was still in a situation of economic crisis. Bolstered by the widespread national desire to reintegrate Estonia in the Western European economic system, the government pursued a program of market reforms and rough stabilisation measures (cf. Chapter 1). In 1992 Estonia experienced a near-hyperinflation (953 percent), but by 1994 inflation had been brought down to 41.7 per cent (Hansson 1995). GDP (Gross Domestic Product) decreased in the early 1990s, while income per capita and the prices, both increased (Statistical Yearbook 1994).

Low wages and increasing (hidden) unemployment[2] combined with higher costs of food and housing have caused difficulties for many Estonians. The political and

[2] According to Hansson (1995) the decline in GDP did not lead to high unemployment. The main reasons for this are the sharp drop in labour-force participation and the fact that the population had been falling by more than one per cent per year since 1992. But, according to (continues..)

economic transformation has been accompanied by deteriorating living conditions for most people. A major problem for all the countries now in transition is that an increasing part of the population is in need of support from the state and the social security system. According to Kutsar and Trumm (1993) many people are facing the threat of poverty, and processes of social differentiation are noticeable. This is a situation well-known from all transition economies, as Atkinson and Micklewright (1992) state:

«It's everyone's hope that the present economic and political reforms in Eastern Europe will lead to marked rises in the national incomes of these countries, narrowing the gap between their standard of living and that found in Western Europe. At the same time, it seems clear that the reforms will do much more than change the average income in the countries concerned – they will also change its distribution. There are losers as well as gainers from the transition to a market economy. Privatisation will benefit some people more than others. Macro-economic adjustments will bear more heavily on some groups than on others» (ibid: 1).

Income Distribution

The focus of this chapter is on income and other measures of economic well-being. However, we should note some problems connected with data reliability. When people are asked to report their own income it is common that respondents *do not* report *all* their income. Money earned from extra work, black market activity etc., for instance, are often not reported. In the case of Estonia, an additional problem is Estonians' unfamiliarity with reporting incomes, whether their own or their household's (Kutsar and Trumm 1991). Thus it is probably correct to see the incomes presented here as somewhat lower than in reality.

Furthermore, what is referred to in this chapter is not disposable income, but *gross income*, which is a rather rough measure. We do not have the information needed to estimate real available (disposable) income[3] in any precise way. To obtain reliable data about disposable income, from which poverty lines etc. may be calculated, a more detailed income survey is required.[4] For these reasons, the tables and figures in this chapter indicate *main tendencies*, rather than exact number of kroons, and we will focus more on the *distribution* of income rather than on income *levels* as such.

(...continued) the ILO definition of unemployment, the unemployment rate in Estonia at present (ate 1994) is close to *ten per cent* of the labour force in most age groups, and actua ly between 25 and 35 per cent among the teenagers in labour force (cf. the chapters on education and labour market situation, Chapter 5 and 6).

[3] Real available income is nominal gross income minus direct taxes and fixed expenditures (Hernes and Knudsen 1991).

[4] From 1979 a systematic family budget survey has been conducted in Estonia, and from this survey a subsistence level is calculated.

Income differences

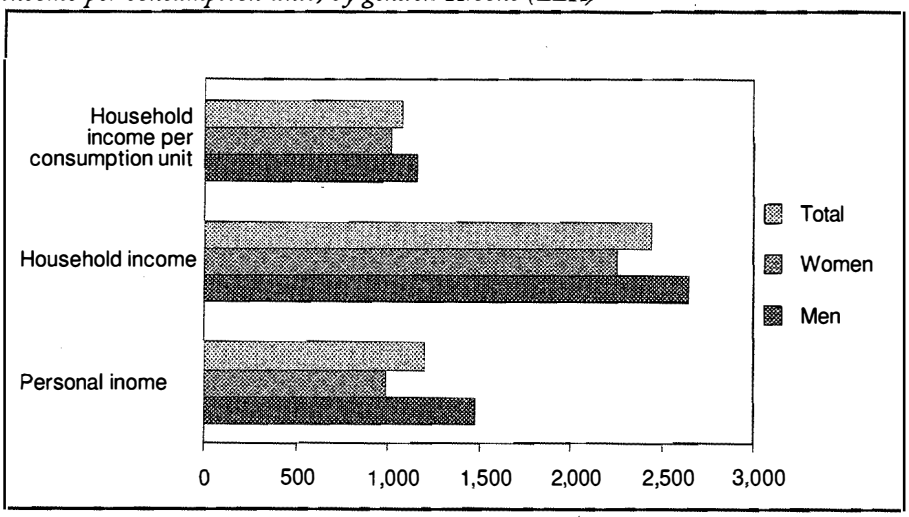
There are several ways to describe income differences. Even though it is important to know the differences in personal incomes, this is not always the best indication of the economic welfare of an individual. Where people live together in households, total household income could be a better measure of the economic standard of a respondent than individual personal income. On the other hand, different household compositions can make total household income an inaccurate measure of the overall economic situation of the household: Large households tend to have a higher household income than do smaller ones, but there are also more people to be provided for.

To be able to compare income levels for households of different composition and size, *consumption units* have been calculated in accordance with the OECD standard. The first adult in the household is given the weight *'1'*, other adults are given the value *'0.7'*, and children below 17 are given the value *'0.5'*. These consumer weights take into consideration both the fact that large households need larger incomes than small households to obtain the same living standard, and the fact that large households can to a certain degree benefit from economies of scale. According to this weighting, a two-adult household needs an income 1.7 times higher than a single-person household to gain about the same standard of living! In the following, all these three measures – *personal income, household income* and *household income per consumption unit* – will be used in the presentation, depending upon the subject discussed.

Age and gender related income differences

There are considerable income differences between men and women in Estonia (cf. Figure 7.1). Women report a personal income of only two-thirds of men's average

Figure 7.1 Average gross personal income, gross household income and gross household income per consumption unit, by gender. Kroons (EEK)

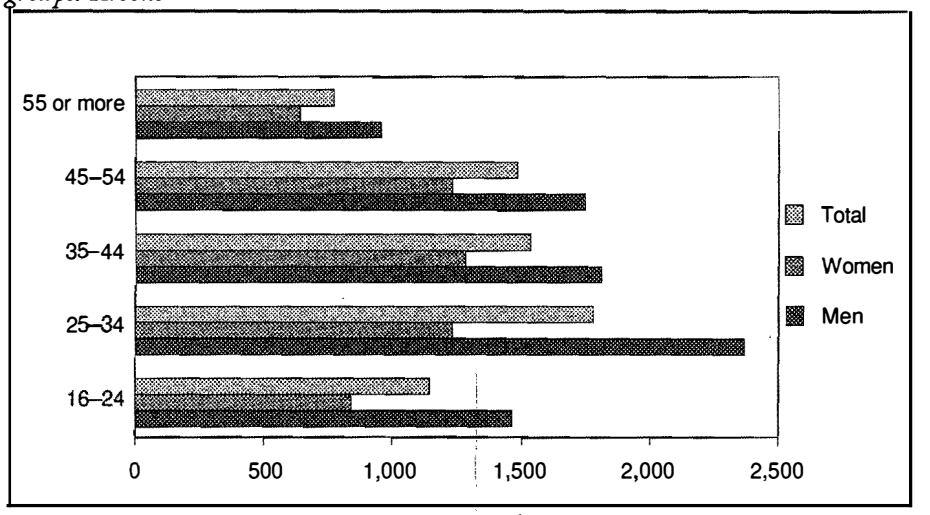


personal income. This pattern is well-known from other income studies, and can be explained by such factors as gender differences in labour-force participation (both currently and over the life-course), in working time, sector affiliation, education, wage level, domestic responsibilities, and to some extent, by wage discrimination (in Norway this has been dubbed the *female deduction*).

Normally, average income is at its lowest among young people entering the work-force. Then income increases as a function of age. Among the middle-aged it gradually levels off, and when a person reaches retirement age, average income decreases. This pattern as seen in Figure 7.2, is close to a typical age-earning profile, common to observations of individual income distribution in other countries as well. One exception in the Estonian case is that average income for men starts to decrease already after the age of 34 (cf. Chapter 5). Income differences between the two genders as a function of age can probably be explained by the combined operation of at least three factors:

* First an observed *exclusion process*. While the participation rate among men drops from around 92 per cent at the age of 35–39 to around 84 per cent by the age of 40–44, it increases successively among women until the age of 45–49 (84 per cent participation rate). Unemployment rates among the two genders 20–54 years of age are quite equal.
* Controlling for variations in working time does not change this pattern (not shown here). Hence, the gender-specific income difference can be explained as a *cohort phenomenon* too, related to the features of the transition to capitalism. The major disturbing factor is the high level of average personal income among men 25–34 years of age. It is among these men that we find the «winners» of the transition process. We do not find the same tendency among women

Figure 7.2 Average gross personal income level for men and women in different age groups. Kroons



Explanation: Those reporting no income a e excluded. If they were included, average income would be a little lower for men and women between 16 and 24 years of age. Otherwise there would be only minor differences.

25–34 years of age, indicating that this cohort phenomenon is indeed gender-specific! As the average personal income level among men reaches its highest level, so do the gender differences. Still, women are in their reproductive phase and lag behind, most likely due to different positions and responsibilities in the family.

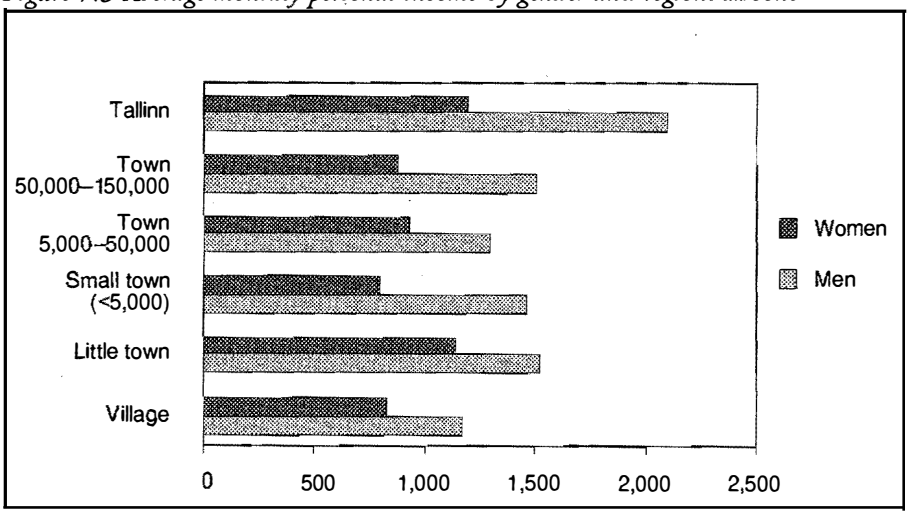
* Third, income differences between men and women are relatively small after the age of 55, since the pension system largely *smoothens out* income differences visible during working age. In many countries gender differences in income are more marked during pension ages, due to women's shorter seniority in paid employment. Under the Communist system, more or less everybody had a right and duty to work, and from this it follows that women's pensions are more like men's in today's Estonia than in many Western countries.

Income in different regions

Income studies in other countries have found that urban residents tend to have higher incomes than people living in the countryside. This traditional advantage might be explained by the fact that urban areas attract more people with high education levels. People have to move to cities to attend an institution of higher education. Then most stay on in the city after completed education. However, it should also be born in mind that lower incomes among the rural population are compensated in part by their own food production (cf. later parts of this chapter), lower prices on flats etc.

As to the general picture in Figure 7.3, the same overall pattern can be seen in the Estonian case, but the influence of region is not very marked, especially not for women. Men living in Tallinn have on average far higher incomes than men resident in other places, but this does not hold for women. Here we cannot find any clear pattern, as women report only slightly higher average incomes in Tallinn than in very small towns.

Figure 7.3 Average monthly personal income by gender and region. Kroons



Explanation: Those reporting no income are excluded

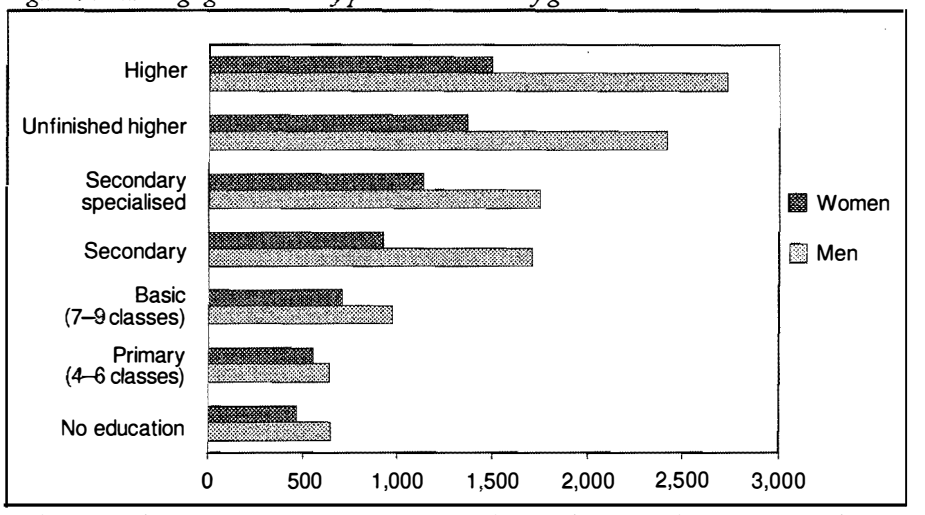
Moreover, the *gender-difference* is higher in the largest towns and in Tallinn than in the rural areas (with an exception for small towns). To make sure that this is not an effect of differences in working hours, we have checked out the gender difference for men and women working full time (not shown here). We found the same pattern, although gender differences in small towns are not so well-defined. Thus, the relative position of women compared to men would seem stronger in the countryside than in the larger cities.

Income and education

In countries with a market-based economy, income level increases with education. Education becomes an asset, a human capital investment, that can be exchanged into wage in the labour market. Different views have been held about the distribution of earnings in Communist countries. On the one hand, it has been said that Communist regimes were able to compress earning differences in pursuit of social justice. On the other hand, it has been stated that there is no reason to expect earnings inequality to be less under Communism than under capitalism, even though the economies of Eastern Europe have been guided by the principle of distribution according to need, not according to contribution (Atkinson and Micklewright 1992: 76).

Education seem to have the same impact on income levels in Estonia as in Western countries (cf. Figure 7.4). The higher the educational level, the higher is the income. Our data do not allow a precise estimate of over time changes in income differences, due to the cross-sectional character of the data set. We have, however, quite strong indications that these differences have increased during transition. (cf. Chapter 5, *pictorial presentation*).

Figure 7.4 Average gross monthly personal income by gender and education level. Kroons



Explanation: Those reporting no income are not included. There are only 11 persons with a scientific degree (7 women and 4 men) in the sample.

The *gender difference* in income is far greater when the level of education is high than when the educational level is low. This difference could be due to differences in working hours between men and women; but when we controlled for working hours the same pattern emerged. The average income-difference between men and women is more than three times higher for those with higher education than for those with only primary school (not shown here). This indicates an interaction effect between gender and education – meaning that education pays off more for men than for women. Much of this can be explained by sector affiliation and chances of promotion. Women more often than men work in occupations where the chances of promotion are small, and where wages are low, for instance as doctors and dentists (cf. the chapters on education and on labour, Chapter 5 and 6).

Income in different households

Gender differences in income are reflected in income differences among various types of households. When it comes to household income per capita, single-headed households with dependent children rank on the bottom, and these households are generally headed by a woman (cf. Table 7.1).[5] The relative poverty of single mothers is known from other countries as well. In Norway, single mothers have been pin-pointed as a particularly vulnerable group, and public transfer programmes have been created in order to prevent them from falling into poverty. In Estonia there has also been a tradition of providing some benefits for unmarried mothers (Suni 1995), but the social benefits have not been adjusted in line with the rapidly rising consumer price index and the rate of inflation. This has, of course, made it difficult for people living on welfare-benefits to cope with everyday life (Kutsar and Trumm 1995).

Single mothers in Estonia do not differ substantially from other mothers.[6] They do not, on average, have a lower educational level, and there are more single mothers than married mothers working. On average single mothers actually have higher personal income than married mothers. The reason why married/cohabiting parents are better off when it comes to income per consumption unit, is the simple fact that there often are two adult breadwinners in these households. The same situation is found in other countries, for instance also in Norway single-headed households are worse off financially than other households, even though many single mothers are employed. In societies where the family economy is largely characterised by two-breadwinner families, single-headed households are more or less bound to have

[5] Most often, single-headed households are headed by women. Approximately ten per cent of the single headed households are headed by a man. In male-headed households the average household income per capita is 805 EEK, in female-headed households it is 577 EEK. Moreover, when single-headed households are headed by a man, the children are more likely to be older, than when headed by a woman. Those really worst off are single mothers with children between 0 and 6 years of age.

[6] «Other mothers» refers to women living in a two-generation household consisting of husband/cohabitant and their dependent children.

Table 7.1 Average gross income level – personal income, household income and income per consumption unit, by household type. (EKK per month)

	Personal income	Household income	Income per consumption unit
All	1,203	2,441	1,08
Single household	886	886	886
Couple, no children	1,017	1,943	1,142
Household with dependent children below 7 years of age	1,555	3,133	1,219
Household with dependent children 7 years or more	1,525	3,326	1,194
Single head of household, dependent children	1,413	1,558	840
Three-generation household	1,163	3,446	1,009
Two generation household, no dependent children	1,087	2,811	1,171

Explanation: Those reporting no income are included

greater financial difficulties than other families. The social security system would have to be (unrealistically) generous to fully compensate an additional breadwinner.

Low income is also registered for single households – not surprisingly, since single households often consist of single female pensioners, a group known to have scant economic resources. For the rest, the *similarity* of income among different household types is striking. On average we find only small differences in income per consumer unit between couples with no children, households with dependent children, and two-generation households without children. This is actually somewhat surprising, when compared with findings in, for instance, level of living or income surveys from Scandinavia. In Norway middle-aged couples with no children have the highest disposable income per consumption unit, while couples with young dependent children have quite low incomes (NOU 1993: 17). The difference with Estonia is probably due to the fact that it at present has a transition economy, an economy without established capitalistic traits.

Sources of Income

The possibility of enjoying a secure and predictable income is an important aspect of a person's economic living conditions. A certain degree of insecurity will always be present, both when one is provided for by a family member, as the case is for children and for many women, and when participating in the labour market. The breadwinner may die, the family may split up, there is always a possibility of job loss, and the worker may become ill, disabled or pensioned. Because of this uncertainty the state (and/or the employer) often provides various forms of welfare benefits – sickness and unemployment benefits, old-age pensions and so on.

Table 7.2 Proportion who have received income from different income sources during the past year. Per cent

	Men	Women	Total
Pay from work	65.5	51.1	58.0
Income from business/farm work	3.3	1.4	2.3
Income from sale from home production	1.8	2.5	2.1
Income from occasional work/individual commercial activities	6.8	1.8	4.2
Unemployment benefit	1.5	1.5	1.5
Pension, existence-minimum money	24.0	36.1	30.3
Scholarship	0.4	0.5	0.5
Alimony	0	1.6	0.8
Child benefit	2.4	34.8	19.4
Benefit for taking care of a child	0.3	5.4	3.0
Social aid, one-time benefits	1.3	4.1	2.8
Income from renting of flats, cars or other personal belongings	0.1	0	0.1
Dividends	0.4	0.2	0.3
Help from relatives	0.7	2.1	1.4
Compensation for rent of dwelling	1.3	4.2	2.8
Sale of personal belongings	0.3	0.3	0.3

Explanation: Columns do not add up to 100 per cent, because respondents could report more than one source of income

To map the variety and spread of income-sources in Estonia each respondent was asked to list up to five different sources from which she or he had received income during the last year.[7] The major source was income from paid work: more than half of the adult Estonians received wage or salary from employed work (cf. Table 7.2). As expected, more men than women report this kind of income. Estonia has a pension insurance scheme that is regulated by law. Calculation of the old age-pension is based on years in paid work and then as 85 per cent of the minimum wage (Venesaar and Hachey 1995: 34). One in three Estonians 18 years of age or older was receiving a pension in 1994. More women than men report receiving pensions, which can be explained by the fact that women retire earlier than men, and that women also outlive men by several years (cf. the chapters on population, health and on labour market situation).

[7] Most Estonians (65 per cent) report one source of income, one in four report receiving income from two sources, while five per cent receive income from three or more sources. Six per cent report that they have no source of income at all.

Monthly benefits are paid for families with many children and single mothers (ibid). Child benefits support practically all households with children in Estonia, and in the survey one in five reports receiving child benefit. This income-source is reported far more often by women than by men, because the money is normally transferred to the mother.

Except for the three major income sources 'payment for work', 'pensions' and 'child benefits', only small numbers of people report income from other sources. As previously stated, somewhere around one-tenth of the Estonian population may be characterised as poor. All the same, there are not more than three per cent receiving social aid and three per cent receiving rent support. In total five per cent are receiving either social aid or rent support.

In 1994 Estonia introduced a subsistence allowance (poverty-line benefit). If a family, after payment of taxes, has less money for consumption than the cost of the minimum food basket, they may apply for a subsistence allowance that guarantees them the established subsistence level (ibid). However, our data indicate that only a third of the poor families actually received this kind of support in 1994. A closer look at those who report having received social aid during 1994 shows that the proportion of social aid recipients is about the same for all income groups.[8]

There are also few who report receiving unemployment benefit. At the time of our survey, «The Law on Social Protection of the Unemployed» had not yet come into effect, but there were governmental decrees defining social protection of the unemployed.[9] While the official unemployment rate was 3.5 per cent at the beginning of 1995 (Venesaar and Hachey Jr. 1995), less than two per cent reported receiving unemployment benefits two to three months earlier. Even though there may have been an actual rise in unemployment during these few months, this cannot fully explain the gap between the number of unemployed and the number of those receiving unemployment benefit. Many jobless persons do not register as unemployed, because the unemployment benefit is too low, and the disadvantages of registering seem too high (Seemann 1995).[10]

Not unexpectedly, average personal incomes differ depending upon what kind of income sources are reported. Those with income from business or from farm work have the highest average personal income, while people receiving child benefit without also receiving income from work, have the lowest average income. Many

[8] We observe these proportions of people receiving social aid as a function of income level: Four per cent within the lowest income decile, three to two per cent in the following eight deciles, and finally one per cent in the highest income decile.

[9] For a more comprehensive description of the social security system of Estonia and the other Baltic states, se Venesaar and Hachey Jr. (1995).

[10] This situation resembles that in Norway some years ago. Before the Norwegian government introduced active labour market measures, there was a substantial underreporting of unemployment in Norway as well, especially among youth and women. Very often these groups were not entitled to unemployment benefit, and had therefore few incentives to get register as unemployed.

people combine several income sources. Among the pensioners, 17 per cent also receive income from paid work, as do 52 per cent of those receiving social aid (cf. comments to Table 7.3).

Table 7.3 Average gross personal income level, by source of income. EEK

	Men	Women	N
Income from business	3,628	2,037	90
Occasional work/homeproduction	2,144	1,163	259
Income from work	1,914	1,374	2,509
Unemployment benefit/social care	618	1,103	177
Pension	782	675	1,343
Help from friends/relatives	601	652	52
Child benefit	950	572	270

Explanation: Income from business: Of those reporting income from business, one-fourth report receiving income from work, 21 per cent receive a pension and 13 per cent receive child benefit. Occasional work/home production: About 40 per cent of those reporting this source of income receive additional income from work, about 30 per cent receive a pension and about 15 per cent child benefit. Income from work: In addition one in four reports income from child benefit, while nine per cent receive a pension. Excluding those with such additional incomes, however, only to a minor degree affects the average income level. Unemployment benefit/social care: One third of those receiving unemployment benefit receive child benefit, while 18 per cent receive social care. 52 per cent of those receiving social aid report income from work, and 67 per cent report receiving child benefit. Pension: 17 per cent of the pensioners receive income from work. Help from friends/relatives: One fourth of those receiving help from friends do in addition receive child benefit. Child benefit: Almost 70 per cent have additional income from work. In Table 7.4 those with income from work are excluded.

Poverty in Estonia

Poverty can be defined in various ways – from an economic point of view, or in a broader sense of welfare. This chapter uses an economic definition. Still there are some distinctions to be made. One approach to defining poverty is to focus on what people own or possess, as compared to an objectively defined minimum level, for instance a subsistence minimum. This is a definition based on *absolute standards* or a *subsistence definition.* People with economic resources below this minimum level will then be labelled poor (cf. Rowntree 1922). Another approach is to compare the economic situation of people within a given society. If you possess substantially less than others in your society, you may be labelled poor (cf. Townsend 1979, Ringen 1988): i.e. a definition of *relative standards* or a *deprivation definition.* A third approach is to rely more on peoples subjective reports of their own situation. If people say they feel poor, then they are poor. This definition is based upon

perceptions. In the following, poverty will be seen as a combination of the first two definitions, both as being below a given subsistence level, and as having considerably less than others in society. We conclude with a closer look at how people evaluate their own situation, and at the connection between subjective and objective poverty measures.

Poverty as a social phenomenon was almost unknown in Estonia under the Soviet system, even though the standard of living was relatively low. State subsidies kept prices low, and a job paying at least the minimum wage was guaranteed for everyone (Venesaar and Hachey 1995).

As a result of the major changes following the liberation and during the transition to market economy (price liberalization, end of subsidies, inflation, unemployment, exclusion from the labour force, etc.), this situation has changed dramatically. A significant part of the population has experienced a sharp decrease in their income level, and is now facing difficulties managing everyday life. According to studies of the income situation in Estonia, almost one-tenth of the households have a disposable income that does not ensure the minimum physiological level of survival. Households with children and especially single-parents households are at a high risk of being here (Kutsar and Trumm 1995). Income data from the level of living survey are not refined enough to permit this kind of exact calculation, but analysis of gross income reveals the same tendencies (Table 7.4).[11]

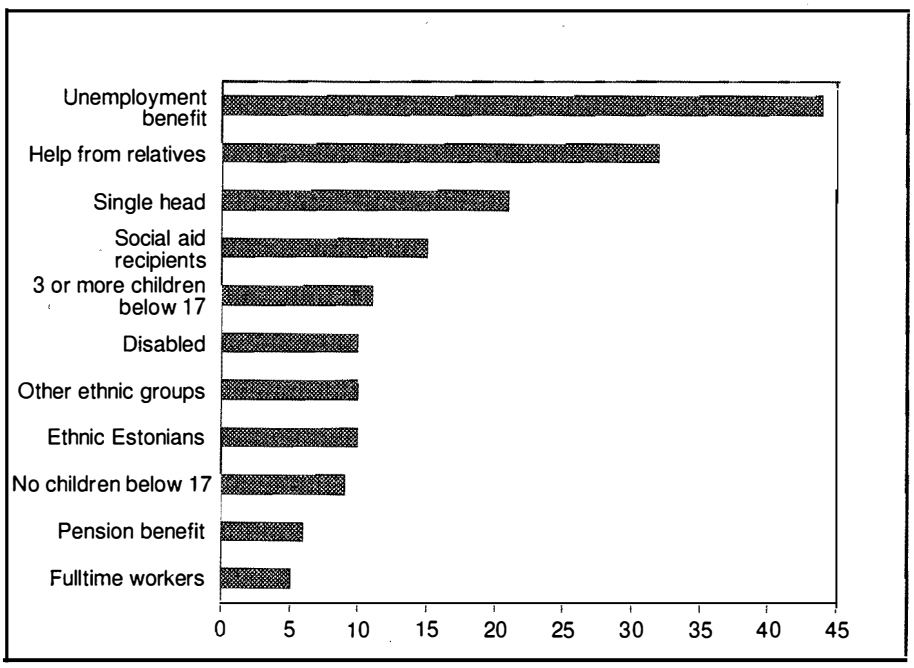
Table 7.4 Income per consumer unit in different household types. Per cent

	<355	356–580	581–800	801–1180	1181–2000	2001	Total
All	10	21	19	19	20	10	99
Single Household	13	43	12	11	15	6	100
Couple, no children	4	15	34	20	16	10	99
Couple, dependent children below 7	11	18	20	19	23	10	101
Couple, dependent children above 7	9	14	14	26	25	11	99
Single head of household dependent children	21	25	17	19	14	5	101
Three-generation household	10	18	22	23	20	7	100
2-generation household no dependent children	10	15	18	23	24	11	101
N	(441	(905)	(887)	(907)	(892)	(417)	(4449)

[11] In any case, the gross incomes are so limited that there probably is no income tax at all.

In October 1994 the cost of the minimal foodbasket to meet physiological needs, as compiled by the National Health Centre of Estonia, was 320 kroons (Venesaar and Hachey 1995). This amount is just a little below the lowest income decile in Estonia (cf. Table 7.4). Not surprisingly, the situation is worst among single-headed households, with one-fifth within the lowest income decile. Moreover, over half of those living alone have an income in the lowest third of the income distribution.[12] According to analyses from the Estonian household budget surveys, thirty per cent of children in Estonia grow up in households where disposable income per household member is below the official poverty-line (ibid). Later on we will have a closer look upon the connection between income-poverty, and other indicators of poverty, as ownership of but a few consumer durables and severe economic hardship.

Figure 7.5 Proportion of those reporting an income per consumer unit within the lowest income decile, according to source of income, and various personal characteristics. Per cent



Explanation: Some of the figures here should be interpreted with caution, due to the limited number of observations in each cell (low number of recipients). This is the case for people receiving unemployment benefit and help from relatives/friends

Figure 7.5 shows the proportion of people reporting a household income per consumer unit within the lowest income decile, according to various characteristics. The figure clearly shows how much the income differs among groups. More than 40 per cent of those receiving unemployment benefit live in families where

[12] In order to pinpoint the groups most at risk of having a low income, we have carried out multiple regression analysis. The results from this analysis are presented in *Appendix 7.1*.

income is within the lowest decile, as do 21 per cent of the single-headed households. Also full-time workers live in families with income below the poverty line. This does not necessarily mean that these workers have extremely low wages: more likely it reflects their greater family responsibilities.

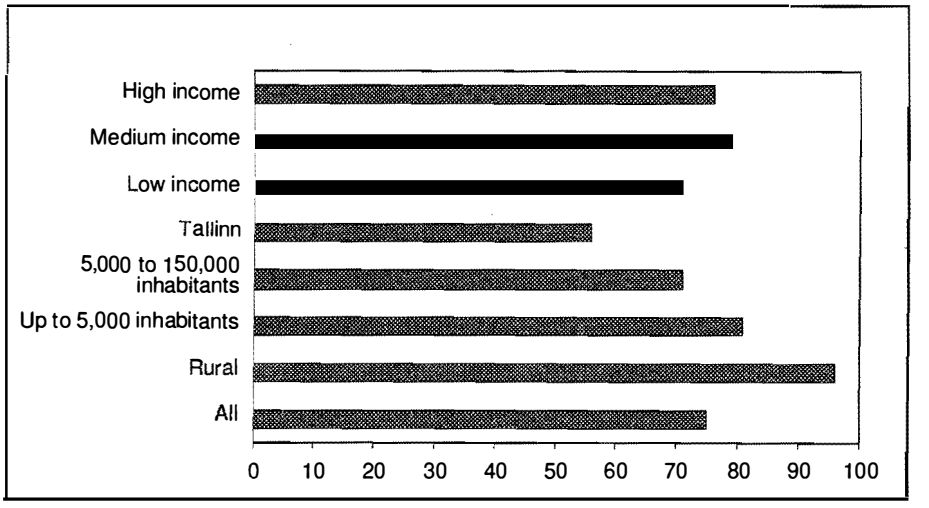
Figure 7.5 presents the share of people worst off in different categories. We must bear in mind, however, that *these groups differ greatly in size.* For instance, only three per cent of the population are receiving unemployment benefit, whereas half of the population are full-time workers and one-third receive pension benefits.

Coping strategies

With ten per cent of the population living below the subsistence minimum, it is important to ascertain what people actually do to cope. As we have already seen very few (two per cent) receive financial help from relatives, at least on such a scale that it is reported as income. Likewise, almost none report income from sales of personal belongings. Many people probably do try to compensate the for low incomes by finding additional job(s); and another strategy, is to receive food-products from relatives or to grow food on one's own land.

Three out of four Estonians, say they have the possibility of receiving certain food products from their own garden, land-plot or farm, or from the village or from relatives' landplots or farms (cf. Figure 7.6). Naturally such opportunities are far more widespread in the countryside (96 per cent) than in the urban areas (56 per cent in Tallinn). It does not seem that receiving additional food is a coping strategy typical of poor people: we find slightly fewer people in the lowest income group with this possibility than in the medium and higher income groups. Perhaps the lack of possibilities to receive food products is part of the cause of poverty. Growing own fruit or vegetables, or getting such produce from friends/relatives, is a widespread

Figure 7.6 Proportion of those reporting possibility to receive additional food, by urbanity and income. Per cent



coping strategy for all of the population in a difficult time – not a strategy only for those worst off. Hence, the unequal distribution may be a result of different possibilities rather than a result of different coping strategies.[13]

Consumer Durables

An analysis of income can only to a limited degree describe the economic welfare of persons or households. What we are able to obtain from our incomes will depend partly on our ability to take rational decisions as consumers (Vogel 1991). The possession of consumer durables can give an important indication of a household's economic welfare, indicating how income has been transformed into material resources. However, we should be careful about making strong assumptions about a household's welfare solely on the basis of information on access to different consumer durables. First, different families may not perceive the same consumer durables as being the most important. Second, a family may have access to some consumer durables and thus not need to own them personally. Third, the quality and age of consumer durables may vary; and fourth, some families may land themselves in economic difficulties because they purchase more consumer durables than they can strictly afford (Aasland (ed.) 1996).

Since the level of living survey conducted in Estonia is comparable to level of living surveys conducted in the Nordic countries, we can compare the stock of consumer durables in six different countries (cf. Table 7.5). The discussion below will cover four groups of durable assets: 'access to means of transportation', 'household machines (appliances)', 'media equipment' and 'ownership of summer home/cottage'.

Household appliances

In most modern homes, a washing machine or regular access to a laundry room is now standard. This is the case in Estonia as well as in the Nordic countries. A majority of Estonian households also own a refrigerator/freezer and a vacuum-cleaner.

Only one per cent in Estonia, however, report owning a dishwasher, as against about one-third of the Nordic households. The dishwasher was introduced in the Nordic market in the 1970s, and its spread can be seen as an indication of the rapid increase in material standards in these countries (Vogel 1991). Due to the economic situation in Estonia during the 1970s and 1980s, it is not difficult to understand why dishwashers are rare. Dishwashers are, together with foodprocessors and microwave ovens, probably regarded as luxury goods, and therefore less widespread. Another reason is that it has not been possible to buy many durables in Estonia, because they were not available until the second half of the 1980s (Lugus and Vartia 1993).

[13] Alternative sources of food supplies are discussed in more detail in the chapter on social structure (*Chapter 11*).

Table 7.5 Adults reporting that different consumer durables are available for the household, Estonia and Nordic countries. Per cent

	Estonia 94	Norway '87	Sweden '87	Finland '87	Denmark '87	Iceland '88
Ownership of summerhouse	19	34	21	27	12	13
Transportation:						
Car	43	83	79	73	73	91
Motorboat/Yatch	2	8	5	4	..	..
Motorcycle	5	..	..	..	..	..
Household machines:						
Refrigerator	93	94	92	80	90	80
Washing-machine	82	99	98	93	71	96
Vacuum-cleaner	82	..	..	..	..	..
Foodprocessor	8	..	..	..	..	..
Microwaveowen	7	..	..	..	..	..
Dishwasher	1	40	37	28	29	28
Media equipment						
Telephone	56	94	99	92	96	98
Video-machine	14	29	25	25	15	57
TV	94	..	97	96	96	98
Videocamera	1	..	..	..	..	..
Photocamera	41	..	..	..	..	..
Stereo	22	..	..	..	..	..
Personal computer	2	..	..	..	..	..

Explanation: ..data not available. Refrigerator: In Estonia, refrigerators; in the Nordic countries: freezer

Source: Vogel 1991 and NORBALT 1994

Means of transportation

Buying a car is normally one of the major investments a household makes, besides buying property. Estonians are worse off than their Nordic neighbours when it comes to access to means of transportation. Less than half have access to a car, as compared to 75 to 90 per cent of Nordic adults. Still, in view of the situation 10–15 years ago, Estonia is improving. The number of cars per 1,000 inhabitants was highest in Estonia compared with the other Soviet Union republics, although it remained on the level of less developed countries. In recent years, the number of cars has increased considerably, mostly on account of imports from Western Europe (Lugus and Vartia 1993).

Table 7.6 Share of population owning car, telephone and summer house, by gender, education level, income level, region, and household type. Per cent

	Car	Telephone	Summerhouse
Men	48	55	19
Women	38	54	18
Lower education	32	41	12
Intermediate education	46	58	20
High education	52	71	28
Low income per consumption unit (Up to 580 EKK)	27	43	12
Medium income per cons. unit (581 to 1,180 EKK)	44	58	20
High income per consumption unit (1,181+ EKK)	57	65	27
Rural	49	44	8
up to 5,000 inhabitants	39	62	19
5,000 to 150,000 inhabitants	39	49	23
Tallinn	42	67	28
16-24 years	41	50	21
25-39 years	48	50	14
40-59 years	47	59	21
60-79 years	31	56	20
80+ years	13	38	13
Single household	16	37	10
Couple, no dependent children	47	60	23
Household with dependent children below 7	52	50	16
Household with dependent children above 7	55	59	21
Single headed household	18	51	13
Three-generation household	52	65	20
Two-generation household, no dep. children	44	60	23

Car ownership is assumed to have drastic effects on lifestyle, as well as indicating rise in welfare. Having a car makes it less essential to live near one's workplace, and the possibility to participate in other activities increases (Vogel 1991).

Car ownership is unevenly distributed in the Estonian population (cf. Table 7.6). Men more often than women report owning a car, indicating that *single women* seldom have cars (single women are often pensioners). Typical car owners have a

high education level and a high income (per consumption unit), they live in the most rural areas and they live together with a spouse and dependent children. The probability of owning a car is lowest when living in a single person- or a single headed-household, indicating both an age, gender and economic hardship effect. Old women do not own/or have access to a car, and must therefore rely upon others when it comes to transportation.

Media equipment

The telephone is, together with the TV set, the most numerous type of equipment in the Nordic countries. In Estonia this applies to TV sets, but only half of the population own their own telephone. Estonia's telephone system is antiquated and improvements are being made piecemeal, with emphasis on business needs and international connections. In 1994 there were more than 150,000 applications for telephones had not been filled.

Telephones are most often owned by people who live in urban areas, by younger people and by people with a high education and income level. There are not many single households who have a telephone.

Summer house

One-fifth of the Estonians own a summer house – less than in Norway, Sweden and Finland, but higher than in Denmark and Iceland. The highest proportion of summer-house owners is found among people with a high educational level and income level, and among those who live in Tallinn.

Consumer durables index

Most Estonian households have one or more of the most typical consumer durables. In order to analyse ownership patterns in greater detail, a consumer durables index has been constructed, consisting of car, refrigerator, washing machine, vacuum-cleaner, telephone and TV. If the score is '0', it means that the household has none of these consumer durables, if it is '6', the household possesses all of them. Grouping the categories, we find that a majority of Estonian households own five or six consumer durables, one-third own three or four, while only nine per cent only of the households own two consumer durables or less (cf. Table 7.7). The distribution of consumer durables varies, as expected, according to background variables. The main findings are as follows:

* Households in Tallinn have more consumer durables than households in more rural areas.
* Large households tend to have more consumer durables than smaller households. Single households and single-headed households have least.
* The higher the income per consumption unit, the more consumer durables. Ethnic Estonians tend to have more consumer durables than people of other ethnic groups living in Estonia.[14]

[14] Due to the nationality of the person interviewed.

Table 7.7 Consumer durables, by place of residence, education level, income per consumer unit, household type and work hours. Per cent

	0	1-2	3-4	5-6
All	1	8	33	58
Rural	1	10	35	54
Up to 5,000 inhabitants	1	10	29	60
5,000 to 150,000 inhabitants	2	9	37	53
Tallinn	1	4	31	64
Low educational level	3	14	39	44
Medium educational level	1	5	32	62
High educational level	0	5	24	71
Low income per cons. unit (1-580 EKK)	2	16	41	41
Medium income per cons. unit (581-1,180 EKK)	1	5	34	60
High income per cons. unit (1,181+ EKK)	1	3	24	73
Single household	5	23	45	28
Couple, no children	0	6	33	61
Couple, dep. children below 6	0	5	32	63
Couple, dep children above 7	0	2	27	70
Single head of household	1	11	47	42
Three generation household	0	5	26	69
Two generation household, no dep children	0	6	29	64
16-24 years	2	13	34	52
25-34 years	1	6	35	59
35-44 years	1	5	29	65
45-54 years	1	6	29	64
55 years or more	2	10	36	52
Ethnic Estonians Estonians	1	8	31	60
Ethnic Russian	1	8	37	54
Other Ethnic groups	2	12	31	51
Not employed	2	12	36	50
1-34 hours per week	1	8	25	67
35 hours or more per week	1	4	32	64

* The higher one's education, the more consumer durables.[15]
* People working full-time have more consumer durables than those not working or working part-time.

Economic Hardship

As we have noted, many Estonians today are facing severe economic difficulties. So far we have concentrated on the distribution of income, and the spread of consumer durables. These indicators cannot, however, tell us how people actually cope with their daily needs. To get a more realistic picture of economic vulnerability, we need to analyse to what extent people are confronted with material problems. Is it difficult to buy the goods they need or want? And is this difficulty an indication of poverty?

The definition of poverty is widely discussed. Most people can probably agree with a general definition, for instance that to be poor is to lack the ability to achieve an acceptable standard of living. The problem arises when we try to be more precise regarding what standard of living is acceptable, and when people actually lack the ability to achieve this acceptable standard. In poverty research, there are two main traditions. The first defines poverty *indirectly* and focuses on income and access to different kind of resources. The other one defines poverty *directly* and focuses on how people actually live (Ringen 1987, 1988). Thus far we have focused on income and lack of resources; in the following we will look into how people satisfy their daily needs.

In the survey ten different questions were asked to reveal the degree of economic hardship. The share of people reporting difficulties in buying different products can be seen in figure 7.7. Quite a substantial number have problems in buying meat-products and sweets, and many Estonians seem to find it hard to afford social activities.

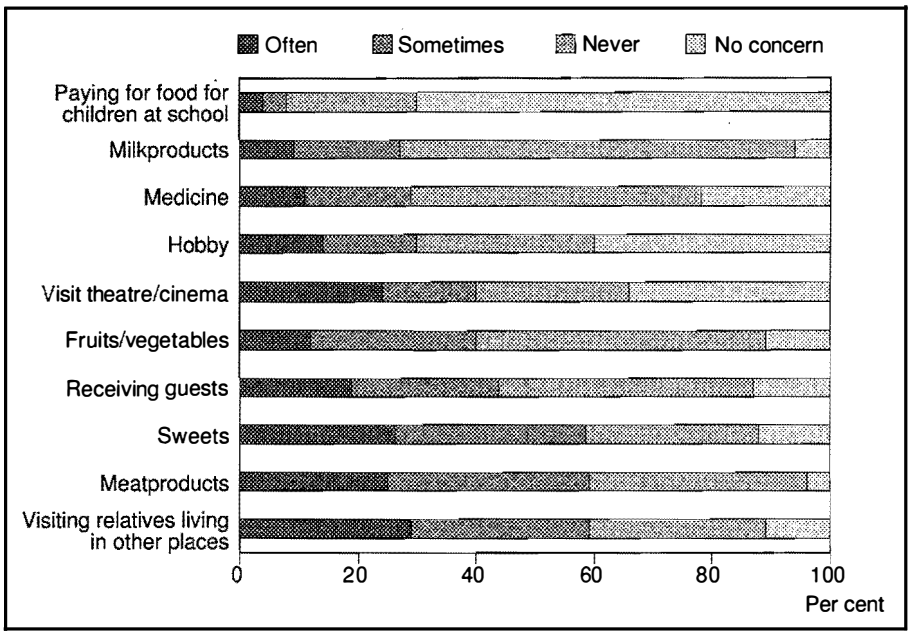
To permit a more detailed analysis on economic vulnerability, let us simplify the list grouping according to how important the various products may be for the individuals.[16] People can be divided into three groups: The first one consists of those who report that they often face difficulties in buying medicines, meat or milk. Group two cover those reporting that they often lack money to buy fruit/vegetables or sweets. Group three indicates problems in affording social activities.

Nearly one in three Estonians report frequent problems in buying essential food products and medicines (cf. Table 7.8). A similar number often have difficulties in buying fruit/vegetables or sweets. Four in ten report problems in affording social

[15] On the basis of the educational level of the person interviewed.

[16] Even though this is a normative question, few would disagree that it is more important to be able to buy medicines and milk than it is to go to the theatre/cinema or to buy sweets.

Figure 7.7 Proportion reporting difficulties in buying products during the last 12 months. Per cent



activities, and as much as one in six indicates problems both in buying basic food products, medicines, fruit/vegetables/sweets, and financing social activities. On the other hand, almost half of the population did not have any of these problems frequently.

Turning to those who are worst off – i.e. those who report problems within all three types of hardship – we find, not surprisingly, that the hardship is unevenly distributed and quite similar to that found when analysing other indicators of economic well-being (cf. Table 7.9):

* More women than men report severe economic difficulties.
* The share of people with severe economic problems is twice as high among those with little education than among the higher educated.

Table 7.8 Proportion reporting that they often have difficulties in buying different products or participating in different activities. Per cent

	Share of people reporting often having difficulties
No problems	47
Often problems buying essential foodproducts	29
Often problems buying fruit/vegetables or sweets	29
Often problems affording social life	42
Often problems with all three indicators	16

* Economic vulnerability is nearly seven times higher among people with low income per consumer unit, than among those with high income per consumer unit.
* There is less economic vulnerability among ethnic Estonians than among other ethnic groups.
* The fewer consumer durables in a household, the higher is the probability of having economic difficulties.

Although the index of economic hardship correlates with other indicators of a household's economic resources, we must stress that this correlation is not perfect. We also find economic vulnerability among high-income households and among households with many consumer durables. In fact, we find economically vulnerable individuals among all groups of Estonians, regardless of gender, household type, place of living, education, and so on.

Table 7.9 Proportion reporting frequent difficulties with all three indicators of economic hardship. Per cent.

	Percent		Percent
All	16	Single household	22
Men	13	Couple, no children	19
Women	18	Couple, dep. children below 6	8
16-24 years	10	Couple, dep children above 7	11
25-34 years	9	Single head of household	21
35-44 years	15	Three generation household	15
45-54 years	12	Two generation household, no dep children	16
55 years or more	26	Ethnic Estonians	13
Most rural	11	Ethnic Russian	23
Up to 5,000 inhabitants	20	Other Ethnic groups	19
5,000 to 150,000 inhabitants	15	Not employed	24
Tallinn	18	1-34 hours per week	12
Low level of education	22	35 hours or more per week	10
Medium level of education	14	0 consumer durables	32
High level of education	11	1-2 consumer durables	26
Low income per consumer unit (0-580 EKK)	27	3-4 consumer durables	21
Medium income per cons. unit (581-1,180 EKK)	17	5-6 consumer durables	11
High income per consumer unit (1,181+ EKK)	4		

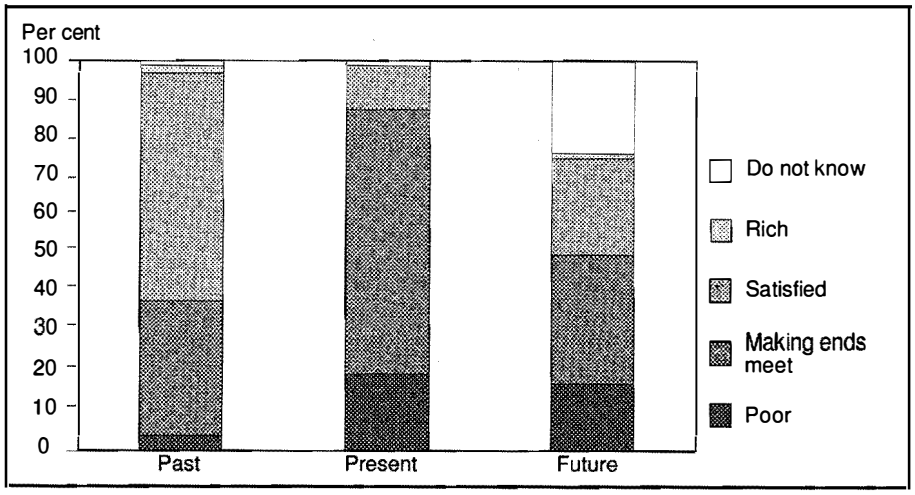
Explanation: 0 consumer durables: According to previously analysed index.

Evaluation of Economic Situation

Our focus has so far been mainly on objective indicators of people's well-being. How do people actually assess their own economic situation? Do they feel rich or poor? Do they fell that the situation has become worse or better? In the survey, three questions were asked to tap people's view of their own situation: a) How are your material conditions at the present time? b) How were your material conditions five years back, compared to today? c) How do you think your material conditions could be in five years time? The results are presented in Figure 7.8. We may draw several general conclusions:

First, the vast majority (68 per cent) regard themselves as being in a position where they «make ends meet» in 1994. About the same proportion of the population regarded themselves as «materially satisfied» in 1989. However, overall there seems to be a slight positive attitude towards the future. The proportion of poor people is 20 per cent in 1994, and 17 per cent think they will be poor in five years' time – practically no difference. But, while the proportion of materially satisfied people is 12 per cent in 1994, one-quarter of the Estonians believe they will be materially satisfied in 1999. The most striking finding is that people are highly uncertain about what the future will bring. One in four cannot even try to assess how their future would be. The vast majority of those who in this way express uncertainty about the future, characterise themselves as poor (23 per cent) or as making ends meet (67 per cent) today.

Figure 7.8 Assessment of own economic situation at present, in the past and in the future. Per cent



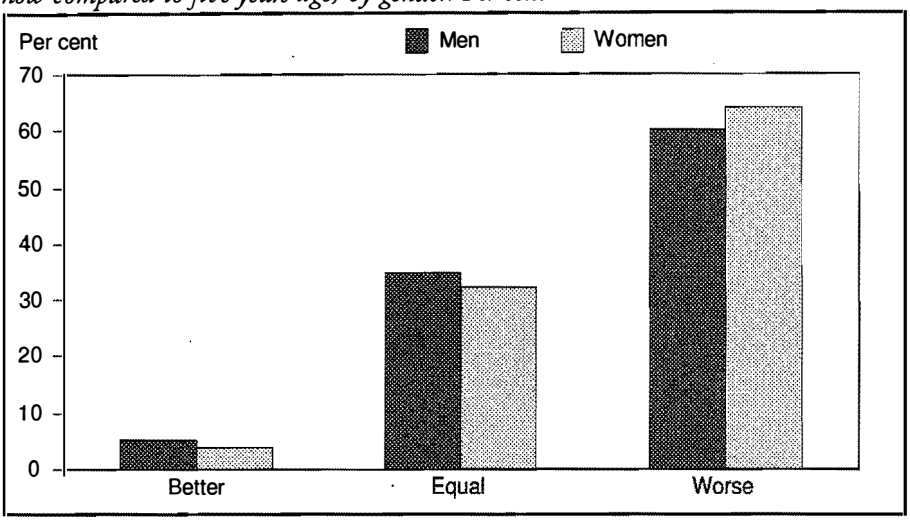
Second, the subjective feeling of poverty has increased on the past five years. One in five characterise themselves as poor today, while only four per cent felt poor in the past. Although we should take care in describing poverty on the basis of subjective poverty definitions, it is worth noticing that the proportion of people who feel poor today, is about twice as large as the proportion of those termed poor according to poverty definitions based on income level. On the one hand this could mean that many of those who feel poor do not have real difficulties coping with their daily needs – they simply feel worse off than others. On the other hand this high incidence of self-reported poverty could indicate that the official poverty lines are set too low to register all those who really are poor. A third explanation may be that the high incidence of self-reported poverty is linked to relative deprivation. People were better off some years ago, and this makes them feel poor today. For policy makers, explaining high self-reported poverty is quite important. Even if people are not poor according to official standards, this represents a political problem, because in policy-making one has to take into account how people actually feel.

In order to distinguish those who primarily «feel» poor from those who may be labelled poor according to other definitions, we have calculated the proportion of self-reported poor who do not report problems in coping with their daily needs, and those with many consumer durables. According to this analysis, 39 per cent of those who label themselves poor have five or six of the most important consumer durables (according to the previously described index). As to economic hardship, 16 per cent of the self-labelled poor did not report that they often had problems within one of the three «hardship groups». At the end of this chapter we will take a closer look at the discrepancies between objective and subjective measures of poverty.

If poverty is to be defined by those who really are worst off, we find that only 1.5 per cent of those who label themselves poor also have trouble within all the three groups of economic hardships, and simultaneously own no consumer durables. However, this way of defining poverty is so very narrow that it could not be expected to capture more people.

The *third* important finding shown in Figure 7.8 is that almost no Estonians would characterise themselves as rich in the past (two per cent), nor do they perceive themselves as rich now, and only one per cent believe they will be rich in the near future. Even though Estonians do not seem to expect a rapid increase in prosperity, we may, however, discern an optimistic mood in the answers given. The proportion of poor people drops, and the proportion of materially satisfied people increases from present to future (from 12 to 25 per cent respectively). It may seem surprising that no more than 25 per cent of the Estonians say they expect to be materially satisfied in five years' time. The people of Estonia have been told that after this transitional period, the situation will stabilise and things will improve. But we can probably say that this is the most realistic attitude, given the present economic situation in Estonia. For policy-makers it is just as well that people do not have exaggerated expectations about their future economic well-being. The greatest problem is probably the risk of having a disillusioned population.

Figure 7.9 Proportion evaluating their own economic situation as better, worse or equal now compared to five years ago, by gender. Per cent



Worse, better or no change?

Most Estonians perceive the last five years as a period of deterioration. We have calculated the proportion reporting that their economic situation is better, worse or equal now, compared to five years ago, and likewise, the proportion who expect their situation to be worse, better or the same in five years' time.

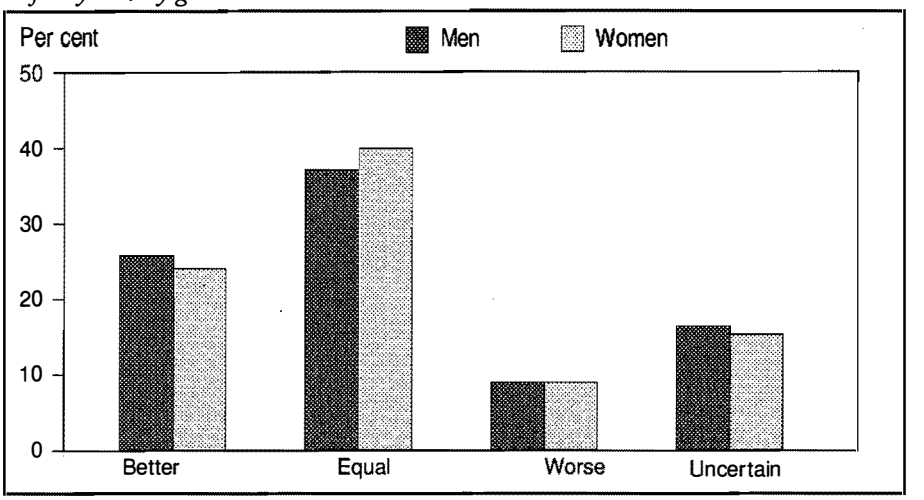
Nearly two thirds of the Estonians evaluate their material situation as worse as of 1994, compared with 1989. Only five per cent report being better off now than five years ago. There are practically no gender-differences on this question.

In Figure 7.10, we have calculated the total share of people who estimate that their own situation will be better, worse, the same or uncertain in five years' time.[17] Most people think their economic situation will be about the same in five years' time. Nearly one in three expects to be better off, while one in ten fears a deteriorating economic situation. Despite the many differences we have found between men and women regarding actual economic situation, there are practically no gender differences when it comes to perceived prospects for the future.

We have also made some further analyses as to who are most positive/negative concerning future prospects (figures not presented here). The general impression is that there are no marked differences when it comes to future expectations. There is a tendency for people with the lowest incomes to be slightly more optimistic than those with higher incomes, and pessimism tends to grow with age. People with low educational level seem somewhat more uncertain about what their future will bring than people with higher levels of education.

[17] To minimise the «uncertain»-category, those who characterise themselves as poor today, but who are uncertain of their position in five years time, are put in the category «better». Since poverty is the bottom option, uncertainty can be seen as a positive answer. And the converse, those who label themselves as materially satified or rich today, but are uncertain about what the future will bring, are put in the category «worse».

Figure 7.10 Proportion expecting their economic situation to be better, worse or equal in five years, by gender. Per cent



The Link between Objective Standards and Perceived Standards

We have already noted that there is a mismatch between the «objectively» measured number of poor and the number of self-reported poor, and have also suggested some explanations for this. Here we look at the linkage between perceived economic situation and objective economic standards. In Table 7.10, we have divided respondents' views of present economic situation into three groups. In the first group we find those who label themselves as poor today. The second group consists of those who report that make ends meet, while the third group consists of those who say they are materially satisfied or rich. In the same way we made a tripartite variable out of objective standards of economic situation. Evaluated as having high economic standards are those with incomes per consumption unit within the two top income deciles. The middle range consists of those with incomes within the second to the seventh income deciles, while those characterised as having low objective economic standards have incomes within the bottom income decile.

Table 7.10 Linkage between perceived economic situation and economic situation as measured by income. Per cent

		Perceptions		
		Poor	Making ends meet	Rich/materially satisfied
Objective material standards	Low income	4	15	1
	Medium income	5	50	13
	High income	1	5	6

Around 60 per cent of the Estonians have an objective economic situation that matches their own description of their well-being. For the remaining 40 per cent, there is a mismatch between the economic well-being they say they feel, and the economic well-being we would expect to find in view of their reported income situation. First of all, we note that 15 per cent have incomes within the lowest income decile – i.e. below the official poverty line – and yet actually feel that they are able to make ends meet. Another one per cent do actually feel rich! According to the classification presented in Chapter 1 (Figure 1) we may say that this group of people *adapts* their preferences or expectations to the new reality facing them during transition.

Second, five per cent of those who report high income levels, do not feel rich – merely able to make ends meet. Another one per cent of those objectively to be measured as rich, actually say they feel poor. This indicates *a dissatisfaction dilemma.* People seem to have the financial resources needed to obtain high economic welfare and still they do not feel rich or even materially satisfied. On the other hand, we must recall that only two per cent belong to those classified as clearly reporting a mismatch between perceptions of well-being and actual financial resources.

The mismatches displayed in Table 7.10 clearly indicate the problems in evaluating peoples financial well-being. People obviously have different expectations, preferences and so on for their lives, and this clearly affects their feeling of content with their present situation (cf. Ringen 1995). This complicates policy-making. Should government policy make allowances for the objective or the subjective measures of economic well-being? Or should it ignore them both, and base itself on some moral standards of what income-level people «ought to» have? Such questions are not meant to be answered here, merely to be asked. They are important to bear in mind when developing a social policy programme.

Concluding Remarks

Estonia has undergone massive economic and structural changes during the past few years. The country has turned from a planned economy to a market economy: simultaneously, new, non-Communist, legislation has been introduced. This process of change has entailed substantial sacrifices from the people. From a society characterised by Communist-produced equality, Estonia has become a society with market-produced inequality. The transition from planned to market economy has led to a drastic social stratification of the population. Even though poverty may be a relatively new phenomenon, it is widespread.

Our analyses have shown how unevenly economic resources are spread in the population. Single-headed households, pensioners and unemployed people are the typical risk groups. Here we find many reporting low income, many reporting possession of few consumer durables, and many reporting economic hardship. However, we find some economically vulnerable individuals in all groups.

The negative aspects of the transition process have been in focus in this chapter, but there is also a brighter side of the picture. First, there are people in Estonia who have gained from the transition and are now relatively well-off. Second, we do not find bottom scores on all economic indicators. For instance, access to the most important consumer durables is not so very different from the picture in the Nordic countries. Third, subsequent developments have shown that the economy is beginning to stabilise, and the decline in production has stopped (Seeman 1995). This may be one reason why so many Estonians after all have relatively positive expectations about the immediate future. Let us hope that these expectations come true, and that the people of Estonia will also be able to fight the process of social stratification and exclusion.

CHAPTER 8

WORKING CONDITIONS AND POSSIBILITIES AT WORK

Mart Einasto

INTRODUCTION

This chapter focuses on the environmental issues of Estonian working life today. First, we look into the distribution of unfavourable working conditions and the daily work-risks, facing the economically active part of the Estonian population. Then we discuss some features of working life which pose strains on certain people, while representing opportunities for others. As of late 1994, close to *60 per cent* of the adult population (18 years of age or older) reported that they had had at least one hour of paid work (in cash or in kind) in the last week of the reference period. Labour-market participation was high among both men and women. This was also the case in most of the age groups of working age[1]. However, there were some exceptions: the participation rate was quite low among teenagers, and here we also observed a high level of unemployment. Employment levels of course dropped after retirement, but during the first four to five years of the retirement period, close to half the pensioners received some monetary returns on labour – probably because of the extremely low pension level in Estonia today. The chapter presents quite different jobs in detail, using categories based on the International Standard Classification of Occupations, *ISCO-88* (see Textbox 8.1). Estonian employees, lower-ranking leaders, managers and self-employed are basically distributed according to profession and sectoral affiliation. We start with a discussion of unfavourable working conditions, exposure to risks of serious injury and the physical and mental strains facing people in their daily work.

ENVIRONMENTAL STRAINS

Unfavourable working environment

Tentatively we may put unfavourable working conditions into two different categories: First, the employed or self-employed may face a variety of *generally unfavourable conditions* at work, not necessarily due to by the technology in use or what the

[1] 16–54 years for women and 16–59 years for men.

worker is supposed to do at work. Such environmental strains may be found in any job. People working in extremely different working-places – ranging from large metallurgic factories to small firms providing 'clean' services to their customers and clients – may face problems related to low quality of buildings, which in practice may mean the both the king and the cat are exposed to poor ventilation, poorly lit working conditions, disturbing noise from outside, chill or damp, etc. If an area suffers from extensive air pollution, nobody can escape from it. Poorly heated buildings are a widespread problem in Estonia at present. Remote heating based on large boilerhouses with pipelines often out of order pose problems to many households and firms throughout the country. In addition firms and households often have big debts to these boilerhouses – a typical feature of most Eastern European countries – which means severe financial difficulties for the providers of energy and heat.

Second, the employed and self-employed may face *specific unfavourable working conditions*, caused by the technology used and the character of the work. In a

Textbox 8.1 Classification of occupational status according to ISCO-88. Definition and distribution (per cent).

	Per cent
* **Top civil servants:** Legislators, top leaders of ministries and offices, department managers	1.5
* **Top managers:** Top managers of large enterprises of companies with many managers	4.4
* **Managers of small enterprises:** Managers of companies with no more than two managers	7.0
* **Top specialists:** Computer specialists, architects, engineers, biologists, geologists, mathematicians etc.	2.1
* **Physicians, teachers, lawyers, businesspeople** including auditors, economists, consultants etc.	6.6
* **Creative intelligentsia:** Philosophers, writers, artists, actors etc.	1.2
* **Technical specialists:** Workers in laboratories, technical draughtsmen, technicians, programmers, pilots, captains etc.	4.0
* **Nurses and social workers, salespeople, clerks** including general secretaries, bookkeepers, administrative workers etc.	9.0
* **Lower civil servants:** Working in customs or border controls	1.9
* **Common clerks:** Secretaries, warehouse managers, ticket sellers, cashiers etc.	4.2
* **Service workers:** Salespeople, hairdressers, cooks, waiters, firemen, police, army	9.4
* **Agricultural skilled workers:** Gardeners, farmers, forest workers, fishermen	3.3
* **Machine users:** Skilled workers using machines such as turners, milling machine workers	14.8
* **Skilled workers and handicraftsmen:** Miners, builders, painters, smiths, printers, cabinetmakers, bakers, clothmakers etc.	20.2
* **Common manual workers:** Street vendors, transport workers, garbagemen, messengers etc.	10.4

Northern country like Estonia, most carpenters and construction workers must work outdoors, facing problems with extreme chill during the winter. Workers entering a huge factory every day may experience environmental strains, ranging from metal dust and welding fumes to strong vibrations and extreme noise.

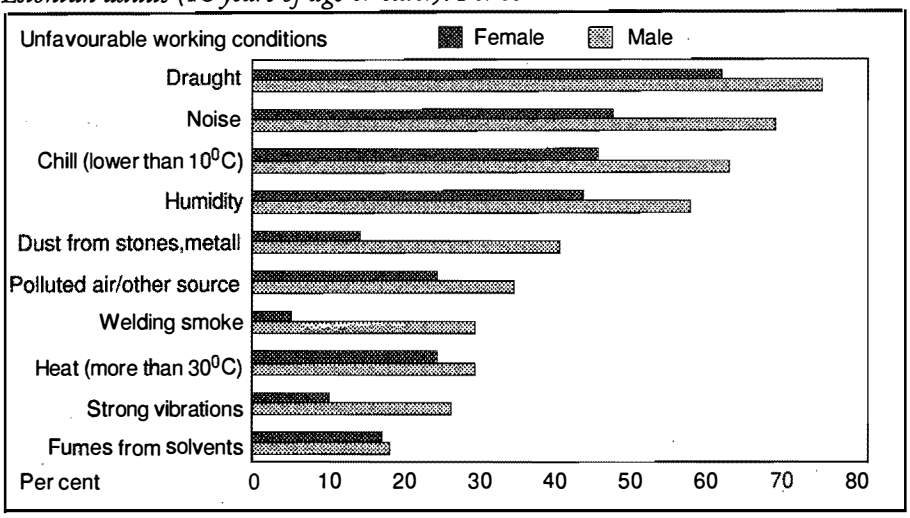
The NORBALT 1994 survey presented a battery of *ten* indicators on such general and specific environmental strains at work. The employed and self-employed were asked if they during their working-hours were exposed to draught, heat (more than 30 degrees Celsius), chill (less than 10 degrees Celsius), damp/humidity, dust from stone or metal etc., welding fumes, fumes from solvents, polluted air from other sources, strong vibrations and noise (yes/no). In practice, it is difficult to separate the general strains from the specific ones, but the example of the poor condition of Estonian boilerhouses at present may shed some light on why so many Estonian workers and self-employed suffer from unfavourable physical working conditions as of late 1994.

Still, there are important differences, and the lion's share of those differences is related to combinations of occupational position and the character of the work being done, indicated by our measure of occupational statuses and the sectoral distribution of the ordinary employees. An ordinary employee has a subordinate position at work (Table 8.1, 1st column). Employees performing so-called material production, which covers the primary sector, energetics, building industries, heavy industries, mining etc., report on average *4–5 strains* of ten possible, whereas employees in banking, insurance, education, health, social care, culture and art report close to (only) *one* unpleasant condition. Comparing people with different occupational statuses – the king and the cat – reveals even larger differences. Best off are lawyers and businessmen of higher rank, suffering from 0.5 strain only. Worst off are the machine users and the craftsmen and artisans of Estonian working life (skilled and semi-skilled manual labourers), who face at least on average four strains of a possible ten every day at work.

Figure 8.1 shows the distribution of the unfavourable working conditions reported, and documents differences between the genders as well. Men suffer from more environmental strains than do women. Six women in ten and more than seven men in ten complain about draught, and close to half the women and 70 per cent of the men report that they are usually exposed to noise at work. Then the above-mentioned problems about regular delivery of energy and heat manifest themselves. More than six men in ten and somewhat less than half the women complain about chill during the working day. Exposure to fumes from solvents, strong vibrations, heat and welding fumes are reported by 10–20 per cent of the women and 20–35 per cent of the men.

Most Estonian labourers and businesspeople face at least one unfavourable working condition every day. However, we must conclude that the vast majority of physical strains are found among those doing manual labour, and most of these manual labourers happen to be men.

Figure 8.1 Reported unfavourable working conditions by employed and self-employed Estonian adults (18 years of age or older). Per cent



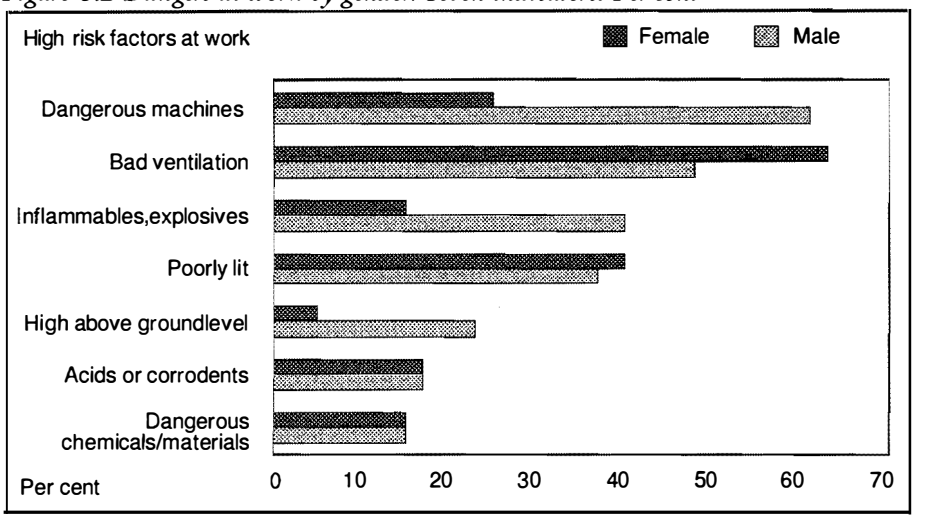
Finally, education does pay off – but the differences between people with basic education or less, secondary common, or secondary special education are quite small. It is when we come to people with higher education that working conditions are considerably less inconvenient than for all the others. Age plays a role too. The young people 'grumble' a little less than the old ones, though the data do not allow us to state that the younger ones have simply chosen more comfortable professions. It is somewhat surprising to note that unfavourable conditions have little effect on wages: people with high incomes complained somewhat more than others about exposure from heat, dust, welding fume, fumes from solvents and strong vibrations (read: specific or technology-related problems). The explanation could be that there are more skilled workers among the highly paid people. Still, those with higher education receive on the average the highest monetary returns on labour, and these people do not report high exposure to environmental strains at work. So, Estonian working life does not compensate for differences in inconvenient working conditions at present.

Dangers at work

The questionnaire presented *seven* indicators on risks at work: poorly lit working conditions, bad ventilation, extreme heights, dangerous machines, acids or corrosives, inflammables or explosives, and finally other dangerous chemicals or materials. The employed and self-employed were asked if they normally were exposed to such dangers (yes/no). These strains may of course seriously influence the health condition of the worker and/ or expose him (her) to possibilities of serious injury.

Risks at work are also closely related to combinations of the occupational position of the worker and his (her) sectoral affiliation. First, the cumulative features of risks at work are not as revealing as was the case with unfavourable working conditions – fortunately, we may add. Still, we find some important differences due to

Figure 8.2 Dangers at work by gender. Seven indicators. Per cent



occupational status, and – especially within the group of ordinary employees – due to sectoral affiliation too. Material producers at the factory-floor level – machine operators, ordinary manual labourers as well as agricultural workers – face between one and two risks of possible seven every day at work. By contrast, lawyers, businesspeople usually of higher rank, together with clerks often of lower rank, are exposed to less than 0.5 risks daily – close to nothing. This difference also manifests itself among the ordinary employees themselves. While workers in the primary and secondary sectors experience 1–1.5 risks, most ordinary tertiary-sector employees usually suffer from 0.3–0.4 risks (Table 8.1, 2nd column).

Figure 8.2 shows the distribution of risks by gender. While close to 60 per cent of the men claim that they are faced with dangerous machinery every day, as compared to only one quarter of the women, more than six women in ten suffer from bad ventilation, as compared to less than half the men. More men than women complain about the dangers of inflammables, explosives and heights, but gender does not influence the propensity to report being exposed to poorly lit working conditions, dangers from acids and corrosives or from other chemicals.

Physically exhausting work

Respondents were also asked about physical exhaustion at work. One general question measures the perception of being exhausted at the end of the working day, and four more specific questions relate the 'wear and tear' of people due to heavy lifting, uncomfortable working positions, repetitive and exhausting movements and exposure to dirt during work. Respondents made their judgement on a three-point scale ranging from 'no' (=0) through 'yes, sometimes'(=1), to 'yes, often'(=2). Here the observed differences due to occupational status and sectoral affiliation among lower-ranking employees are very strong indeed, and of course the old story repeats itself: indications of physical exhaustion are clearly accumulated on the hands of

Table 8.1 Average number of environmental strains and risks at work. Aspects of physical work environment
(A) By occupational position (all employed and self-employed)

	Aspects of physical work environment		
scale:	Strains index 0–10	Risks index 0–7	Wear/tear index 0–10
* Top civil servants	0.7	0.3	2.2
* Top managers	1.7	0.5	1.7
* Managers of small enterprises	2.4	0.6	4.1
* Top specialists	1.0	0.4	2.0
* Physicians,	1.7	0.7	3.1
teachers,	1.0	0.4	1.7
lawyers and businesspeople	**0.5**	**0.2**	**1.4**
* Creative intelligentsia	0.8	0.3	1.3
* Technical specialists	2.6	0.9	2.8
* Nurses and social workers,	0.9	0.5	2.4
salespeople,	**1.2**	**0.3**	**2.0**
clerks	0.4	0.2	1.2
* Lower civil servants	1.3	0.4	1.8
* Common clerks	1.5	0.5	2.4
* Service workers	1.9	0.7	4.0
* Agricultural skilled workers	**3.3**	**0.9**	**7.0**
* Machine users	**4.4**	**1.6**	**0.4**
* Skilled workers and handicraftsmen	**4.3**	**1.2**	**6.3**
* Common manual workers	2.6	0.7	4.8
Non-linear correlation (eta=)	0.53	0.37	0.60
Explained variance (per cent=)	29	14	36

manual labour in the primary and secondary sectors of Estonian economy. Skilled agricultural workers, including fishermen and those working with forestry, receive an average score of *seven points of ten possible* on our exhaustion or 'wear and tear'-index (Table 8.1, 3rd column).

Actually most economically active Estonians receive some points on the physical exhaustion index – indicating that they work hard. Many top specialists perform repetitive movements (typing, PC-work?), common civil servants report being physically exhausted, top managers actually receive a quite high score on dirt (hands and clothes) during work. Nurses and social workers lift heavy things and

(B) By sector (ordinary employees only)

	Aspects of physical work environment		
	Strains	Risks	Wear/tear
* Agriculture, forestry	**3.8**	**1.0**	**6.3**
* Heavy industry and mining	**5.2**	**1.5**	**6.5**
* Light industry, food processing	3.3	0.9	5.5
* Energetics	4.0	1.5	0.5
* Building	4.5	1.6	0.8
* Trades and services	2.0	0.7	4.0
* Transportation, communication	3.5	1.2	5.1
* Banking, insurance	**0.6**	**0.3**	**2.3**
* Public administration	1.5	0.3	2.5
* Education, science, health etc.	1.1	0.4	2.7
* Culture and art	1.4	0.8	2.8
* Police and army	2.3	0.7	2.3
* Other	3.4	1.3	4.8
Non-linear correlation (eta=)	0.48	0.30	0.46
Explained variance (per cent=)	23	9	21

perform hard physical work, physicians do repetitive movements and work in uncomfortable positions and the salespeople lift heavy things. The difference, however, is that the machine users, the artisans, the miners, the factory workers and the farmers *must do all this* throughout their working day. Thus our measure on physical strains is the most powerful means to distinguish the king from the cat in Estonian working life today!

Men have more jobs where their hands or clothes get dirty than do women. They are also overrepresented among workers lifting heavy things. Women have more jobs where they have to perform repetitive movements. A factor not necessarily related to work is that women complain somewhat more than men about being physically exhausted (the unspecified or 'pure' subjective measure).

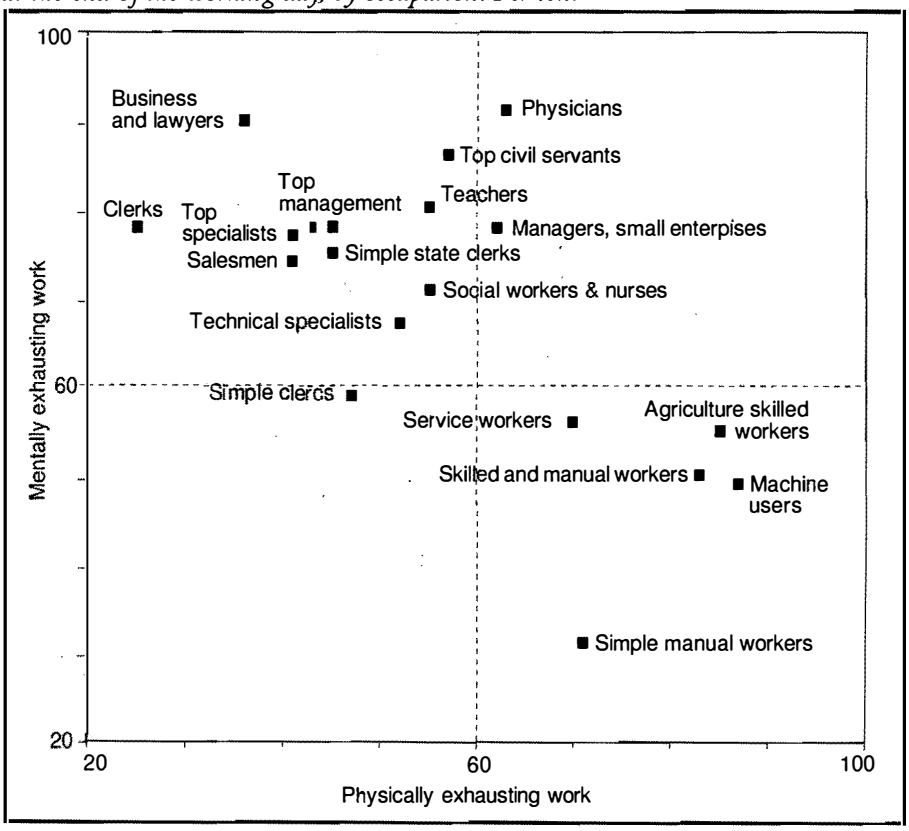
It is also noteworthy that people with higher education have a lower level of 'complaining' about physical strains than those with a lower educational level, but most of these differences are related to the professions involved. On the other hand, it seems to be unrelated to profession that young people find work more routinised than others and that the elderly tend to feel more exhausted at work than others. Finally, it is quite natural that the tendency to mention physical tiredness increases with the length of the working week.

Mentally exhausting work

Assessing the mental strains of daily work reveals one clear tendency – so-called «brainwork» seems to be mentally more tiring than physical work. People struggling with their own responsibilities and thoughts at work, and people facing demanding customers and clients every day, do feel mentally exhausted, while this as a rule does not characterise the ordinary workers in blue-collar jobs. This can be seen in the distribution of professions – mental exhaustion is more complained about by managers, specialists, clerks, nurses and service workers than by manual labourers. Likewise with education: The well-educated complain more about mental exhaustion than the less educated. With an increase in the length of the working-week and income level of the respondent, a higher proportion of the employed and self-employed mention that they feel mentally exhausted. Finally, women have a higher propensity to feel mentally tired than men. With the exception of gender, there is a tendency for society to compensate economically for mental 'wear and tear' at work.

How are physical and mental exhaustion connected? The chart (Figure 8.3) shows the proportion of those who sometimes or often felt mentally or physically

Figure 8.3 The proportions of Estonians who are physically and/or mentally exhausted at the end of the working day, by occupation. Per cent



exhausted, or both at the end of the working day. Even though there is a tendency for mental and physical strains to function as opposites – jobs taking a physical toll do not seem to be mentally tiring and vice versa – some work is both mentally and physically challenging, while other jobs are seemingly rather untiring – measured relative to all the other professions in Estonia (mean scores). Physicians and managers of small enterprises have an above-average score on both mental and physical strain at the end of the working day, while simple clerks receive an average score on mental 'wear and tear' and clearly score below average on physical 'wear and tear'. However, the observed differences in reported mental exhaustion which statistically could be linked to profession, represent only one third to one fourth of the observed differences in physical exhaustion due to differences in profession. On the other hand, there is a built-in compensation at work challenging both the white-collar and blue-collar workers.

Other Possibilities and Strains at Work

Employment poses strains, but it poses opportunities as well – e.g the opportunity to compensate for a low wage level by extending the working-week, to combine several jobs, to enjoy the prestige, the freedom and the challenges of work, etc. We take a brief look at the differences in working-week and the readiness to work more, the possibilities to choose work-tasks, and people's perceptions of the risk of being excluded from labour-force at present. To some people this clearly represents an extension of the list of strains presented so far; to others it represents opportunities to earn money, to develop as a person, to receive the recognition of others – i.e. to enrich life itself.

Duration of working week

The maximum length of the working-week is specified by law in Estonia – 40 hours per week. Life of course is more complicated than foreseen by the law. Many people work much longer weeks than the prescribed 40 hours, of their own free will, in order to uphold what they see as a decent material standard of living, or to satisfy their employer. On basis of our questionnaire we cannot state that there is a massive amount of law-breaking in Estonia on this point – i.e. that employers are forcing their staff to work more than permitted by the law – but it seems evident that not all 'over-time' is rewarded with the compensations which the law prescribes.

Figure 8.4 puts the dominant professions in Estonia into four categories according to their average working week. The majority of Estonian employees, managers and self-employed have a working week of close to normal length (on average 42 hours paid employment per week as of late 1994). And in all professions we observe people working less and people working far more than the hours prescribed by law – indicating that some people are objectively and subjectively underemployed, and that some people literally speaking are 'over-worked' at present. We may note some interesting patterns, as broadly presented by Figure 8.4.

Figure 8.4 Professions classified by length of working week

Mainly the prescribed prescribed working week	Workers with less than 40 hours	Workers with fairly long working weeks	Polarised groups of workers – both fairly long and fairly short weeks
Top specialists, lawyers, technical specialists, salespeople, clerks, skilled workers, artisans, machine users	Physicians, teachers (35 hours by law), nurses social workers, some manual workers	Top civil servants, top managers (62% work more than normal), service workers agricultural skilled workers	Creative intelligencia, common civil servants

In all the «productive» fields of work – industry, transport, communication etc. – normal working time is quite common: after all technology requires a precise organisation of work. Thus, it is quite understandable that the work is organised along the lines stipulated by the law in these sectors. 'Over-work' is more common in agriculture and in trade and services, while shorter working weeks are primarily observed in education and science.

There is also a gender difference: the average working-week of men is longer than that of women. People with higher education tend to work more than the less educated. Working more means more money from work – the higher the income, the longer the working week. Age does not influence the length of the working week, with one exception only: The economically active among the retired people usually report a shorter working week than the economically active of working age. Finally, normal working time is a more typical feature of the labour market in small settlements and towns than in cities and in the countryside – in clearly rural and clearly urban areas, people tend to work more hours than prescribed by law.

Readiness to work more

To what extent are people ready to work more, and to what extent are they ready to work less, *if their salaries were higher*? This question may indicate the level of *underemployment* in Estonia at present. An underemployed worker, according to the ILO definition, expresses the wish for more paid employment (normally not related to the requirement of higher wages). We observe that 18 per cent say they would prefer to work more – i.e. underemployment at present is 15–20 per cent – 65 per cent are satisfied with their working week, while 14 per cent wish that they could work less (if wages were increased). The rest (four per cent) are uncertain. The possibly 'underemployed' and 'over-worked' –who are they?

As was the case with labour environment, we may distinguish between blue-collar workers and white-collar workers in today's Estonia. The former say they would prefer to work more if they earned more money, while white-collar workers say they would prefer to reduce their working-week if their salaries were increased. The reasons for this difference are probably quite complicated. First, white-collar workers on average receive a higher wage than blue-collar workers, partly due to their higher level of education and the higher proportion of professionals and leaders. This gives manual labourers an impetus to work more as a means to increase

their income, and thereby their level of consumption. White-collar workers already work for long hours, they have a higher proportion of people who are materially satisfied, and an increase in their wage level would probably give them an impetus to increase their spare time – especially since this will not reduce their material standards of living (in the hypothetical case presented to them by the questionnaire). There is of course also a possibility that the 'over-worked' part of the Estonian population would prefer a shorter working week even if they had to reduce their disposable income somewhat, but we did not ask about this.

Agricultural workers would clearly prefer to work less than they do today, while those in the industrial sector would prefer to work more. Employees, managers and self-employed of the 'money-sphere' seem to be more satisfied with their present working week than other employed and self-employed. The young ones (below 25) would prefer to work more, while those 25–34 years of age say they are quite satisfied. Workers with a low income level are willing to work more if wages are improved, while those with higher incomes take the opposite stand. People in cities are willing to work more, those in the countryside, less. Men prefer a longer working-week, while women – who often perform 'double-work' in Estonia, as elsewhere – prefer a shorter one.

Possibilities to choose tasks and the pace of work

In many industrialised countries nowadays, working life offers greater opportunities to decide one's tasks than during the era of 'Taylorism' and the assembly line. This enhances the flexibility of an enterprise and teaches people to organise their own work, which also develops their power of judgement and enables them to enjoy personal growth. Increased freedom combined with increased responsibilities for oneself and other colleagues at work, probably stimulates motivation and increases productivity at work.

In Estonia, employees have only modest opportunities to choose their tasks at work. A clear distinction can be drawn: Such opportunities are quite large among managers and creative professions (top managers, managers of small enterprises, top specialists, creative intelligentsia, physicians), whereas common manual workers and machine users report much less freedom of choice. These employees are either directed by local supervisors, or by the pace of the machines which they operate. Likewise with education: People with higher education report more freedom to choose their tasks than the less educated. Men have somewhat greater freedom at work than women. Moreover, it is probably quite natural that people with a longer working week can decide more by themselves than others following the norm. There is also a link between income and choices – those who are free to earn a lot of money are also free to decide what to do at work. Finally, people in Tallinn report more freedom to decide what to do at work, than do the economically active from other areas of Estonia. This is basically due to differences in the structure of the labour market – different proportion of so-called free occupations.

Job regime

Work of a certain length can be organised in very different ways. Here we only compare the 'normal' daily work-time with all other possibilities of organising the working day (and nights). *Regimes* different from the norm – eight hours a day during daytime – appear more frequent among managers of small enterprises, physicians, the creative intelligentsia, service workers, agriculture workers, machine users and common manual workers. Extensive shift-systems have always dominated the traditional industries, health care and various personal services, whereas leaders of small enterprises probably have to work very hard to survive in the market, possibly working several shifts per week. Machines are expensive, their capacity has to be put to the best use, and this means that operators must be present at all times. People suffering from serious illness or injury must have access to both nurses and doctors during the day, but also at night. Restaurants serve people basically in the evenings and at night, so do the theatres and the cinemas.

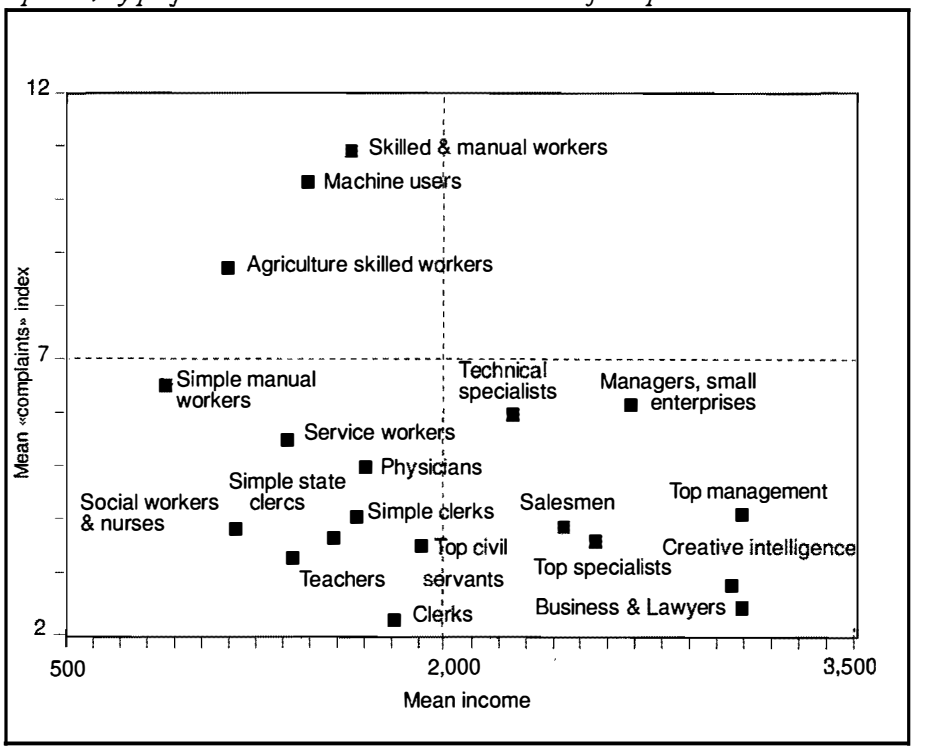
Seven in ten economically active Estonians work during daytime, though clearly working some extended hours too (on average). 19 per cent work either night shifts or both day and night shifts. The remaining 12 per cent work one day followed by one day off, or two days followed by two days off, or with some other 'rhythm' or pace. There are no large differences observed between various occupational positions or between the sectors of the economy at present, but combined day and night shift systems are clearly overrepresented in heavy industries and in mining, energetics, health care and in the police and army. In banking and insurance and in trade and everyday services, the on-and-off regime (one day on, one day off etc.) is somewhat overrepresented. These differences are statistically significant, but in fact quite modest. Women work during the daytime more than men, as do the well educated.

Fear of losing one's job

The Estonian labour-force has for several years now been experiencing a period of economic restructuring. In this process of transition from the old command economy to a market economy, many Estonian young people and adults lost their jobs and were faced with the need to create new jobs in other fields of work. Only a few years earlier, people never had to fear losing their job. In the Soviet Union the concept of bankruptcy was unknown and everyone was guaranteed new work, if the previous job was lost. Now this situation is changed considerably. The NORBALT 1994 survey documents that the fear of losing one's job is widespread (cf. Chapter 5 and 6). People of lower status (such as blue-collar workers and common clerks) are more worried about losing their jobs than people in managerial positions or with their own working-place (the self-employed). We also observe that more people express the fear of being dismissed than the fear the enterprise will be shut down. To be fired is less feared by people with higher education and workers of high occupational status (managers and top managers). Chapter 5 showed that a major factor here was the perceived general health condition of the employee.

Loss of jobs is feared somewhat more by women and the elderly. As Estonia's industry relied greatly upon the Russian market and the latter has proven insolvent, the loss of jobs is felt most heavily in industry. Fear of dismissal is less common in education, civil offices and trades. Shut-down is more feared among employees in smaller enterprises. Even though there has been great turbulence in the agricultural sector too, city-dwellers fear losing their jobs somewhat more than do those in rural areas.

Figure 8.5 Wage level per month and number of dangers and environmental strains reported, by profession. Income in EEK. The number of complaints.



Conclusion

Our brief overview of problems and challenges facing Estonia's working population, allows us to draw some conclusions. Let us start with the following question: To what extent are dangers and inconveniences at work compensated in purely monetary terms? We compare scores on a *complaints index* with reported *personal income* per month (EEK). The average combined score of the dominant professions are placed in a diagram showing the complaints score on the vertical axis and the income on the horizontal axis (Figure 8.5). The dotted lines represent the mean score on the two measures covering all economically active Estonian residents as of late 1994.

We see an interesting picture of the broad relation between the average salary level and the average exposure to dangers and environmental strains in Estonian working life. First, the most highly paid professions are also those facing the fewest dangers at work (businessmen and lawyers, the creative intelligencia). These professions are highly compensated for mental 'wear and tear' during work, but no professions are compensated for dangers of being seriously ill or injured at work. The quadrant representing both an above-average level of income and an above-average risk at work *is empty*! We also note that no professions in the public sector receive an above average salary.

To this we can add that the people in dangerous working environments are often willing to work even more to increase their income. On the other hand, they do not seem afraid of losing their jobs. In other words, they may be satisfied with their position, but not with their wages. Another dissatisfied group is the physicians and teachers, who complain about both physical and mental exhaustion at the end of the working day. At the same time they clearly appear to be low paid. Estonia has become internationally known for its recent liberal economic policy, and work protection and working conditions have not been given priority. We can predict that these issues will become increasingly important in the coming years. Carrying out a strictly liberal economy policy can prove to be complicated when such issues arise.

Another important feature is the position of women. Women are overrepresented among those willing to work less if their salary increases. At present their wage level is much lower than that of men. Women work in professions demanding hard physical and mental efforts – such as physicians and teachers. Women have also a greater fear of being dismissed than men. All this indicates that Estonia is a society of *paternalistic* structure – men are the basic providers of the family, they do the dangerous jobs (often literally) and if their pay increases, they express willingness to expose themselves to even more dangers and strains. The role of woman is to bring up children. If outside work is exhausting or begins to impede family life, there is a possibility that women may prefer to work less or even to stay at home. As such Estonia is far from the modern vision of gender equality and work relations that, at least as seen from Estonia, characterises the Scandinavian countries. Of course, there are important gender differences in wage levels in Finland, Sweden, Norway and Denmark too – but these are differences operating at a significantly 'higher' stage of consumption and satisfaction, than the case in present day Estonia.

CHAPTER 9

HOUSING CONDITIONS

Birgit Jacobsen

INTRODUCTION

Housing standards are an important determinant of social welfare. The housing sector is governed by a mix of political priorities, social culture and architectural tradition. Most people spend a great deal of time in their own homes, which may give space to social activity and joy. Inadequate housing, however, may also be a source of distress, which aggravates the hardships facing a people in the midst of a radical economic transition. High population density, noise, dust and insufficient heating are all factors that may diminish social well-being. This chapter focuses on housing conditions as they appear in Estonia today, in terms of ownership, access to amenities and comfort or nuisances. It also discusses the reported content or discontent among the resident population, controlled for differences in age, region and ownership.

In Estonia the nationalisation process, with subsequent state control over real estate, started in August 1940. Real estate was classified as business; in Soviet terminology, this legitimated state expropriation. A dwelling-space norm of nine square meters per capita was declared, and implemented in 1955. Later on, all buildings exceeding a certain size were nationalised; this applied to all buildings with 220 square meters of «useful floor space» in the cities and those with more than 170 square meters elsewhere. Here we must note that the Soviet state *expropriated* private property *without compensation*! Only individuals who could somehow obtain building materials were permitted to erect their own dwellings. Public housing was of poor quality and often lacked basic facilities. For example, sewerage connections could be «forgotten» in the construction plans. Rents were fixed regardless of location and amenities. As housing standards were similar all over the Soviet Union this offered scant impetus for household mobility. Low rents contributed to poor maintenance of rental housing and an overloaded public housing sector.

In Estonia, 16 per cent of all dwellings were constructed before 1945. One third of the present housing stock was built in the period from 1945 to 1970, with the remaining half constructed during the past 24 years (Statistical Yearbook 1994: 202). When we look at the particular years that various respondents in our survey moved into their flats/housing, it is striking how ownership reflects the construction history of Estonia. Our data suggest that from the turn of this century until

World War II almost all housing was privately owned. From 1946 to 1955, after the Soviet take-over, private ownership was reduced considerably due to the strict nationalisation process. Among those who moved into their current dwelling berween 1902 to 1945, 85 per cent report that they occupy a private flat/house. Two-thirds of the flats moved into during the decade proceeding the World War II appear to be privately owned. More than half of the adult population who moved into their present housing from 1956 to 1965, got a dwelling which was owned by the state. Private ownership apparently peaked in the eighties. In our survey 74 per cent of the households say that future privatisation may be possible, and eight per cent maintain that this process is already underway.

The inflow of Soviet cadres in the 1940s created an immediate housing shortage in Estonia. Property left by Estonian emigrants was confiscated by Soviet authorities, and Estonians who returned after a shorter period abroad had to leave their homes and move into outlying areas (Misiunas and Taagepera 1993: 33–4). Estonia became an attractive destination to hard-working Russians who wanted to improve their living conditions. Migrants came not mainly to find a job, but in hope of getting a flat. From World War II to 1989 about one quarter of the flats were allotted to people who had lived in Tallinn less than five years. However, as immigration was considerable, many newcomers had to stay with relatives or friends (Lugus and Vartia (eds.) 1993: 49). Estonia and Latvia continued to maintain the highest standards of living in the Soviet Union in the post-Stalin era. Indeed, Estonia was the only Baltic country to regain its pre-Soviet level of urban living space per capita – this happened in 1978.

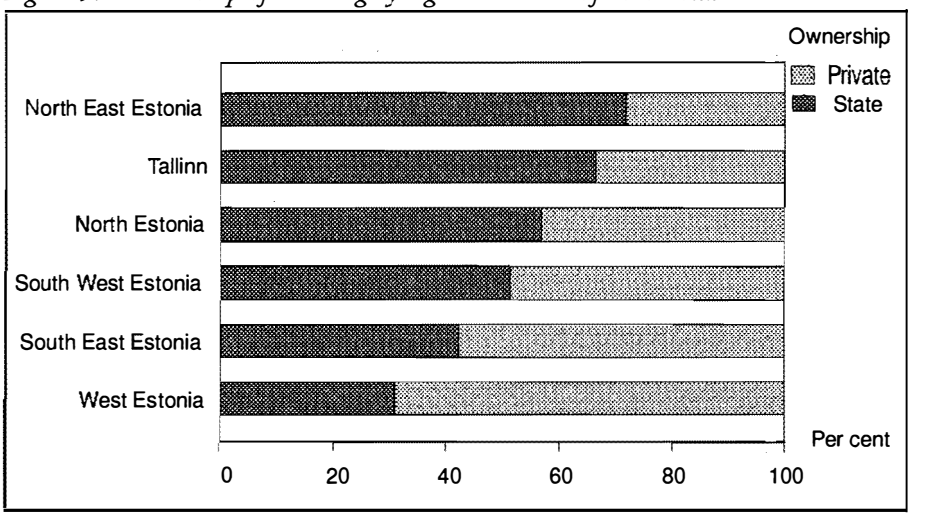
Dwelling Type

Our survey data show that well over half – 59 per cent – of Estonian households live in state or municipal housing[1]. 65 per cent of the rural population live in private dwellings, more than half of these owned by a member of the household. By contrast, barely 17 per cent of the urban population live in private dwellings. A more detailed illustration of the distribution of ownership in different regions is presented in Figure 9.1.

In the urban areas, the state rental sector holds the lion's share of housing. In cities with a population size from 50,000 to 150,000 inhabitants, state-owned property covers 75 per cent of the housing sector. Many housing co-operatives are located in Tallinn. Private ownership is most common in the western and southern part of Estonia, while state property dominates in the northern areas.

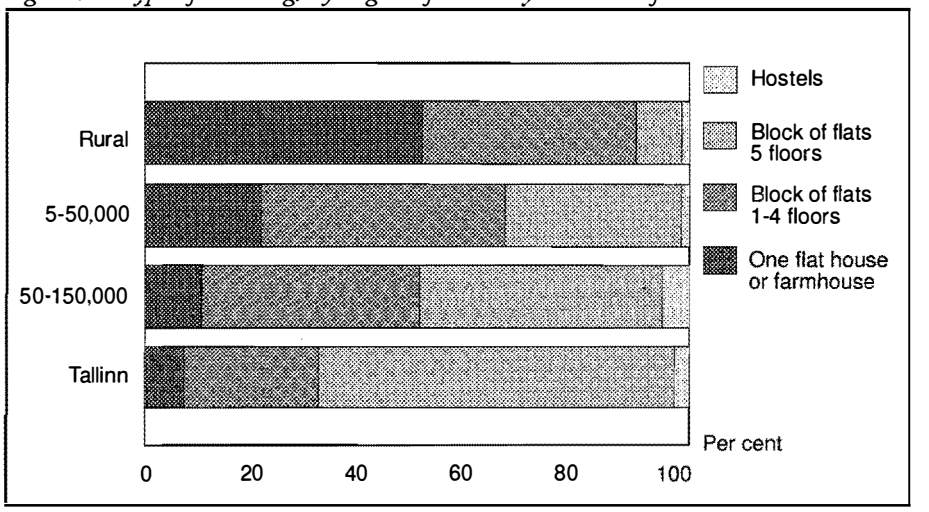
[1] This is two per cent less than the official estimate as of January 1994 (Source: *Statistical Yearbook* 1994).

Figure 9.1 Ownership of dwelling by region. Per cent of households



Three-quarters of the dwellings are located in blocks of flats, most of which are state-owned, and 38 per cent are blocks of over five storeys. The rest of the housing stock are detached houses, farmhouses or semidetached houses, which are most common in rural areas (Figure 9.2).

Figure 9.2 Type of dwelling, by degree of urbanity. Per cent of households



Respondents were asked: «How did the members of your household get this dwelling?» (Table 9.1). Slightly over half the households report that the dwelling was obtained through their employer. This practice was established during the Soviet regime, when large state enterprises exercised a decisive influence on worker access to housing. Many people in our survey, however, expect privatisation to come soon. Three-quarters of those who live in state-owned dwellings expect their units to be privatised, and two-thirds intend to take over their flats in the near future. Some

Table 9.1 'How did you get this dwelling?'. Individuals 18 years of age or older, per cent

Through place of work	51
Swapped with somebody else	15
Bought the flat	12
Built flat myself	8
Through inheritance	8
Rented from owner	3
Other	4

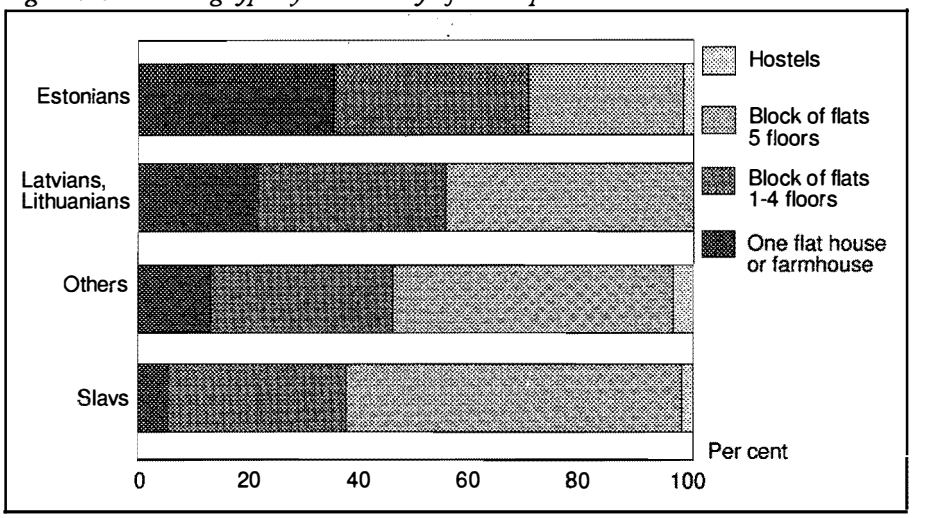
eight per cent would like to privatise, but do not satisfy the established requirements. Purchase of vacant housing requires five years of residence in Estonia. Former owners are now regaining access through the Property Reform Law, approved on 13 June 1991. This law has provokes some anxiety among tenants today (World Bank 1993:219–220). Occupational status seems to have little impact on how respondents perceive their possibilities of owning their dwellings. Ordinary employees, leaders of lower or middle rank, high ranking managers, and individual workers are all found among the average of 75 per cent answering «yes» to this question.

When we control for nationality, a very clear pattern emerges. An overwhelming majority of the adult Russian population (92 per cent) live in blocks of flats – as against 63 per cent for ethnic Estonians. This difference is particularly striking with respect to large blocks of five storeys or more. Of the respondents above 18 years of age, 60 per cent of the Slavs[2] (most of them Russians) and 28 per cent of the Estonians report living in large blocks of flats. Furthermore, 35 per cent of the adult Estonian population live in detached houses, farms or semi-detached houses. This is scarcely surprising. Smaller dwelling units belonged to the pre-war period and were eclipsed from the agenda during the Sovietisation process. Russians and other Slavs migrated to Estonia to work in large production units, and were crammed into prefabricated housing designed to absorb these working masses. Figure 9.3 shows the distribution of dwelling type by nationality.

The highest population densities are to be found in Tallinn and the north-eastern part of Estonia, where around half the population is Russian. While 40 per cent of ethnic Estonians live in rural areas, only seven per cent of the Russians do so. Russians make up a significant part of the population in towns of 50,000-150,000 inhabitants – that is the cities of Tartu, Narva, Kohtla-Järve and Pärnu.

[2] Slavs include Estonian residents with Russian, Ukranian and Belarussian ethnic affiliation (nationality).

Figure 9.3 Dwelling type by nationality of the respondent



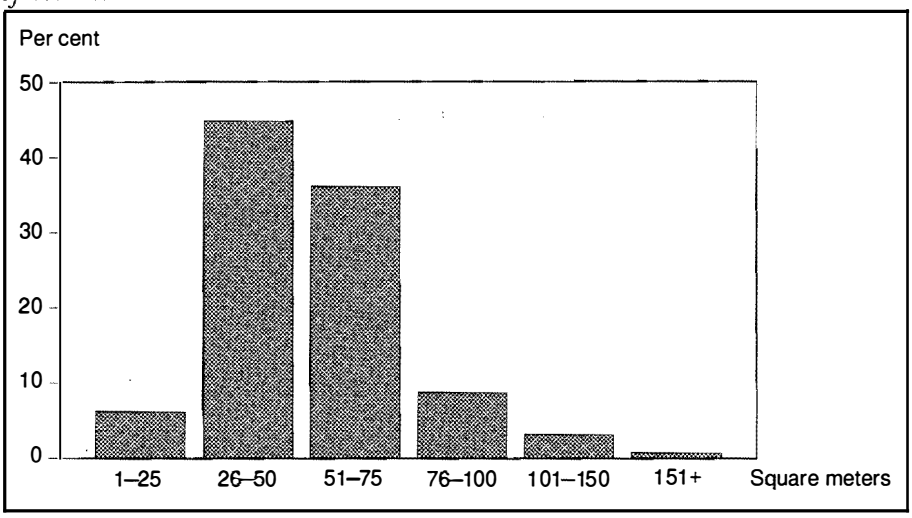
Available Space

According to our survey data from autumn 1994, the average space per household, including areas for common use – kitchen, hall and bathroom – is *55 square meters.* The official average as of January 1994 was 52.8 square metres of useful floor space per dwelling. Our survey may catch some changes in the dwelling stock which have emerged during transition, ensuing the privatisation process. Newly built dwellings have a somewhat larger size than previous standards.

Due partly to the limited availability of construction funding and building materials, housing production has fallen off sharply during the past five years. Inflated construction costs have, among other things, contributed to a serious drop in construction of dwellings owned by enterprises and local authorities. However, the average floor space per completed dwelling has increased steadily since 1991.

Urban living space grew most rapidly in the 1980s, when it was increased to 17 square meters per person. In 1990 average floor area per person reached 21.6 square meters: in urban areas 19.8 square meters, as compared to 26.1 square meters in rural areas (World Bank 1993). According to our survey, average space per person is 21.8 square meters – urban areas 21.1, as compared to 23.7 square meters for rural areas. Housing space seems to be levelling off, perhaps for various reasons. This abrupt decrease in construction of new dwellings presumably forces young people to stay with their parents, postponing a natural migration to the larger towns. The smallest dwelling units are found in Tallinn and the northern part of Estonia. Middle-sized apartments are rather equally distributed around the country. Most households occupy dwellings of two or three rooms, not including kitchen, hall and bathroom (Figure 9.4).

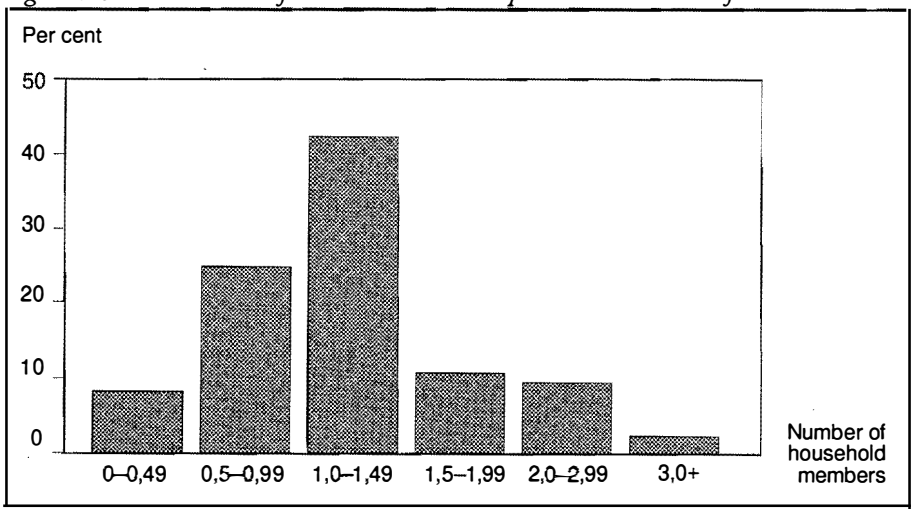
Figure 9.4 Distribution of total dwelling space in households. Square metres. Per cent of households



Only one fifth of the households surveyed have three or more persons per inhabitable room. Half of the households consist of one or two persons, and another 40 per cent are households with three or four persons. As a result, more than 20 per cent of the dwelling units have less than one person per inhabitable room, and around 85 per cent have between one and two persons per room. These figures suggest that Estonian households are not particularly over-crowded (Figure 9.5). Estonian houses and flats may be small by Western European standards, but households themselves are quite small as well.

Five per cent of the dwelling units offer two rooms or more per household member. These are mostly flats inhabited by single persons. The rest are occupied by two-person households, particularly those in the age group from fifty to seventy

Fig re 9.5 Distribution of household members per room. Per cent of households



years. Households with small children and school-aged children are most affected by overcrowding problems. More than half of these two household types live on less than 20 square meters. In households with dependent children seven years of age or more 23 per cent have less than ten square meters and 28 per cent have from ten to 20 square meters of available space. In households with children up to six years of age, 31 per cent have less than ten square meters, and 23 per cent have from ten to 20 square meters available.

Household Amenities

Private versus state or municipal ownership appears to be an important determinant of the quality of housing units (Figure 9.6). State-owned flats offer almost all of their inhabitants a toilet and a bathroom. Most of these dwelling units are connected to public sewage, a water supply system, and a central heating system. In contrast, less than 60 per cent of private apartments have a toilet and a bathroom. Two-thirds of the dwelling units are connected to the public sewerage and water supply system, while only 45 per cent are centrally heated. Separate systems for sewerage and drainage have been introduced since the 1960s, but the older parts of many towns still lack these services. Though facilities are still adequate, their poor quality worsens living conditions on the whole.

Municipal authorities have since 1992 been given extended rights and duties to implement economic reforms on the local level. Services like sewerage and water, previously provided for by state enterprises, are now being transferred to the municipalities. Local budgets, to some degree, cover the difference between taxpayer rates and real costs with regard to residential energy consumption.

Figure 9.6 Household conveniences by form of ownership. Per cent of households

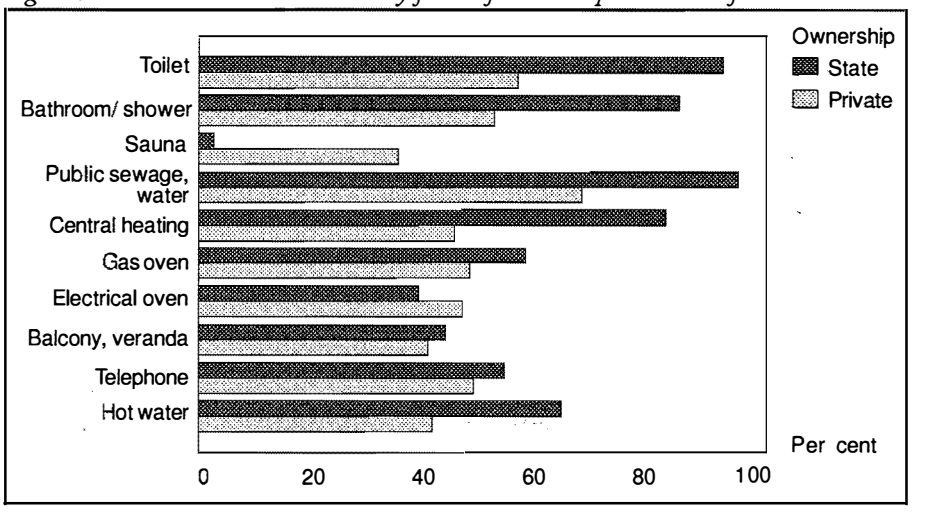
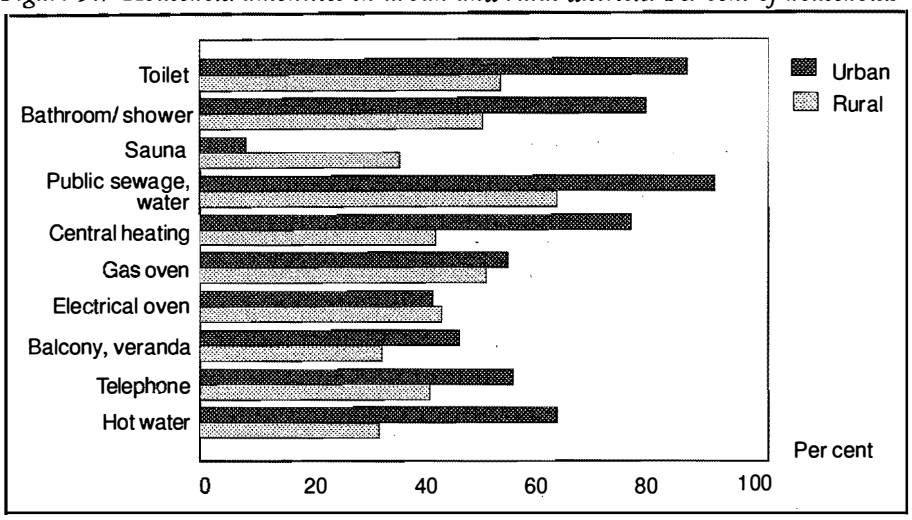


Figure 9.7 Household amenities in urban and rural districts. Per cent of households

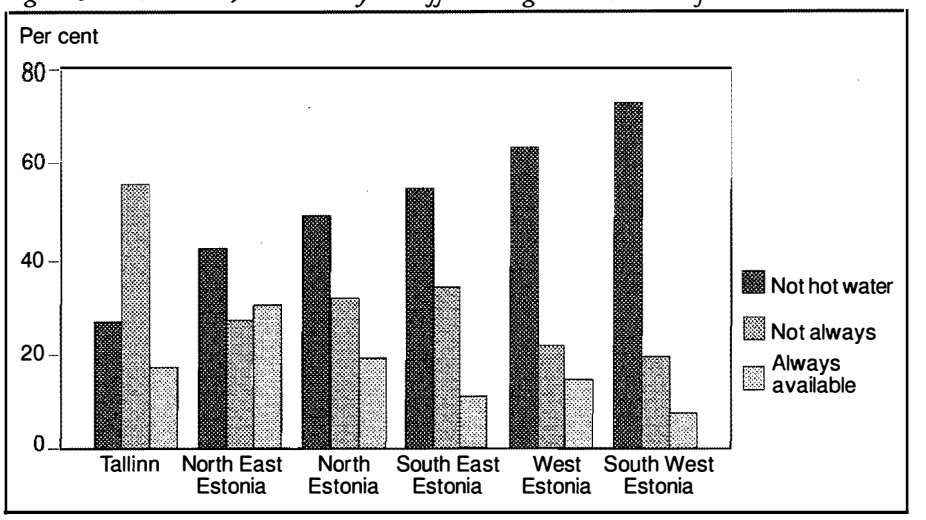


Between urban and rural districts there is a marked difference with regard to particular amenities (Figure 9.7). Urban housing is almost synonymous with having a toilet, a shower or bathroom, central heating, and being connected to a public sewage and water supply system. Life in the country, however, entails a more simple lifestyle. Forty per cent are connected to a central heating system. About half the rural households do not have an indoor toilet. Rural housing to some degree compensates for lack of access to a bathroom by having a traditional sauna, or steam-bath. About 35 per cent of rural dwellings have a sauna, compared to less than five per cent in urban areas.

We have constructed an additive index by counting the frequencies of various amenities in households: water closet, bathroom/shower, public sewage system and water supply, central heating, balcony, telephone and hot water. Half of all households have from four to six amenities. Households with dependent children score slightly higher than the others, but tendencies are fairly similar for all household types. However, single-person households are somewhat overrepresented in the group having no amenities at all. Thirty per cent of the households with dependent children above seven years of age and three-generation households have access to all amenities covered in the survey, outdoing the others in this respect. On the other hand, one third of the respondents say that rooms are damp and almost half the respondents report that rooms are cold or badly heated. The situation in the west is somewhat better. Furthermore, it is a common problem that people not belonging to the household walk through, using the rooms as a passage.

Provision of hot-water supply and central heating would seem a matter of serious concern. Only 20 per cent have a reliable hot water supply! A full forty-four per cent of the population actually have no access to hot water in their homes. Respondents are unevenly affected across the country: the situation is particularly

Figure 9.8 Hot water, availability in different regions. Per cent of households



difficult in the southern and western part of Estonia, while of less concern in the north. This distribution can be observed in Figure 9.8.

A well-known problem in the former Soviet republics today is that regular availability of hot water decreases for ascending floors. Living in the upper storeys of a block of flats may mean no chance of having a warm bath or shower in the morning. Rural areas lack access to hot-water facilities because of undeveloped infrastructure or private accommodation equipment, whereas urban areas are affected by fundamental defects and poor maintenance of the heating system and pipes. Warming up water before bathing or washing clothes must be an expensive, time-consuming activity. Furthermore, bad heating must be considered to impair the quality of housing conditions in Estonia.

Contrary to other Eastern European countries, Estonia can produce heating without the use of coal, which somewhat reduces the heavy water and air pollution. The majority of Estonian dwelling units are connected to central heating systems. However, heating in post-Soviet states requires high consumption of energy. Estonian energy supplies represented an integral part of the Soviet energy trading system. While electricity was delivered by Estonia to Latvia and the St. Petersburg and Pskov regions, oil products and natural gas were delivered to Estonia (World Bank 1993: 120). Supplies are now cut off for long periods every year, partly because of increased fuel costs, resulting in extensive energy-supply shortages.

Outdoor Surroundings

Outdoor surroundings are contributing factors to people's general feeling of well-being. These factors may attach health problems as well. In order to measure the quality of outdoor surroundings we constructed an additive index ranging from no problems to seven problems. A high score means exposure to many problems in connection with one's outdoor surroundings, indicating a low standard. Factors concerning noise included the following sources: (1) stairs, neighbouring flats, sewage or water supply system, (2) streets or roads, (3) trains, (4) planes, and (5) industry. Other factors were (6) dust from streets or roads or exhaust from cars, and (7) smoke, dust or unpleasant smell from industrial enterprises or other sources. About 45 per cent of the households interviewed said they were bothered by two or three nuisances, 15 per cent report four of them, while ten per cent mentioned five to seven nuisances. We can note striking differences between regions in the group with at least four problems. Estonia seems divided into two halves – the northern and the southern part (Figure 9.9). This is related to the level of urbanisation.

Almost half of the households reporting no exposure to any kind of nuisance are situated in rural areas. Of the households exposed to one nuisance 30 per cent are rural. Not quite unexpectedly, residents of Tallinn are, on the average, affected by twice as many disturbances as people in other areas. The capital outscores all other regions when it comes to five or more nuisances mentioned by respondents.

The most prevalent problem is noise from streets and stairs, neighbouring flats, and even from sewerage and water supply systems. Fifty-eight per cent of the adult population say they are bothered by such noise. The high score on noise from adjacent flats is explained by the poor standards of insulation in building codes. Over half of the population encounters problems with street dust and car exhaust in their

Figure 9.9 Households reporting at least four nuisances. Per cent

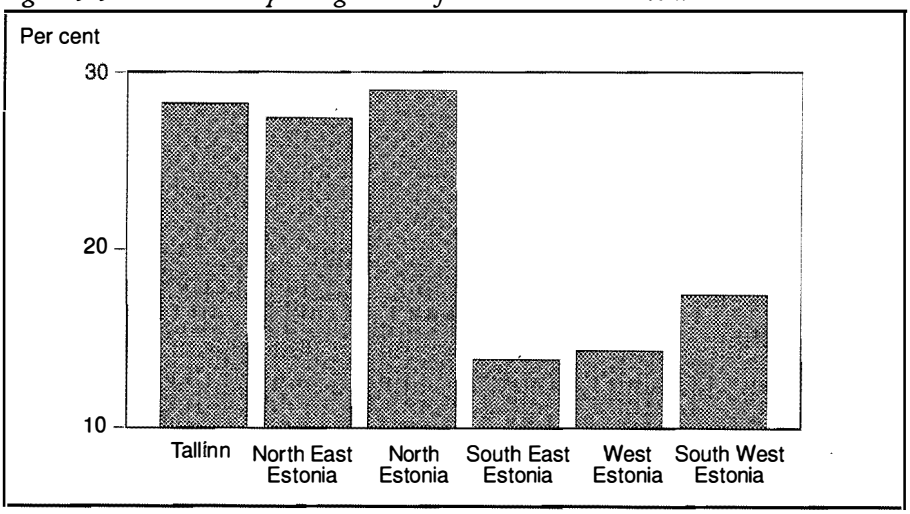
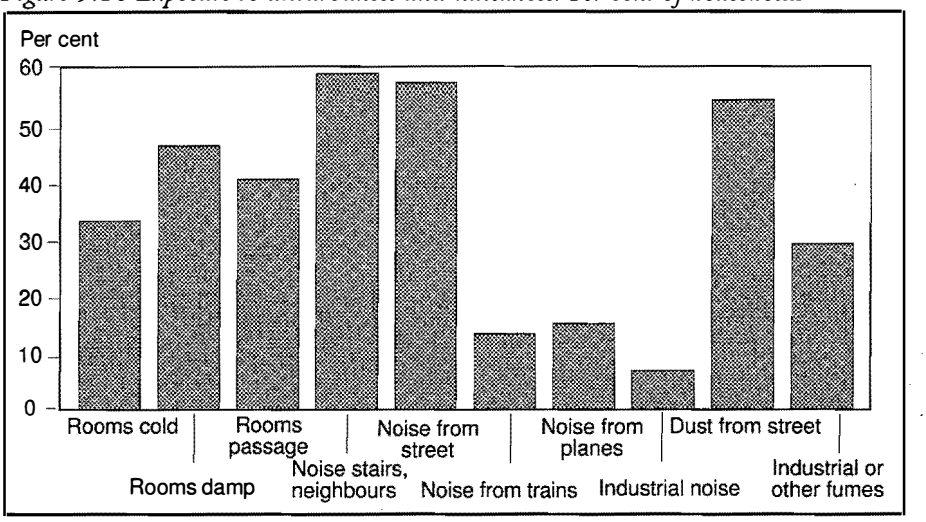


Figure 9.10 Exposure to disturbances and nuisances. Per cent of households



home surroundings. Thirty per cent of the respondents in the capital report that they are especially exposed to noise from planes. Though noise from trains and planes can hardly be characterised as a widespread nuisance, it severely affects the population in North Estonia, where people are confronted by heavily polluted air, water and soil as well. Poor insulation caused by low-quality building materials in combination with many sources of disturbances aggravates the low quality of life in these regions. One quarter of all those surveyed say they experience industrial smoke, dust and smell in their daily lives (Figure 9.10).

Satisfaction with Housing Conditions

The randomly selected individuals in our survey were asked the following question: «Are you in general satisfied with your dwelling conditions?». Five alternatives were presented in a subjective scale, ranging from «totally satisfied», through «basically satisfied» and «yes and no» to «basically unsatisfied» and «totally dissatisfied». A general impression is that people show a surprisingly high degree of satisfaction with regard to their housing conditions. More than half the population say they are «totally» or «basically» satisfied, while only 20 per cent declare displeasure («totally» or «basically unsatisfied») as regards their housing conditions. Although there are no big differences between the generations, ageing to a certain degree increases the propensity to report satisfaction. In total, one third of the respondents say they need a new place to live, and most concern is devoted to the size of the dwelling. Seventy per cent report that they would like either a larger or a smaller dwelling. Dwelling amenities are mentioned as a reason for the wish to move by 57 per cent of the respondents, while 41 per cent would like either to separate from others or live jointly with others.

Strong dissatisfaction («totally» or «basically unsatisfied») is more common among respondents aged 30 to 39 (23 per cent) and 50 to 59 years (25 per cent). On the other hand, insufficient space is regarded as a significant problem by people of all ages, though severely affecting the young generation, 20-29 years of age. Half of these young respondents present their need for separate dwelling as the reason for their wish to move from where they are now living. Dwelling size is clearly a problem for families with children living at home. Three-quarters of households with dependent children below seven years of age, and two-thirds of the households with dependent children above six years of age say that they need more room. Respondents living in two-generation households without dependent children are the most satisfied, while respondents living in single-person households are generally least satisfied with their housing conditions.

However, a notable share of people over 50 years of age wish to change their living arrangements. One hypothesis is that many elderly people would like to allow their children and grandchildren to acquire separate accommodation of their own. The former Soviet legacy permitted families to exchange one large flat for two smaller ones. Changes in household composition could in this way be adjusted for by the exchange of flats among family members. When we control for household types, we find that, among two- and three-generation households of grown-ups, 65 and 56 per cent of the randomly selected individuals respectively, prefer to have separate dwellings. This is a considerably higher proportion than in other household types. Only 27 per cent of households with dependent children 0-15 years of age report that they would like a separate dwelling.

Overall, the survey found no significant differences in the satisfaction level of people living in state as opposed to private accommodation. However, a higher share of households in private apartments and housing co-operatives report themselves basically satisfied as compared to other groups. Housing co-operatives seem to be particularly highly valued, especially among the middle-aged and the elderly. Contentment with state-owned flats also increases with age, probably because elderly people feel more confident when they are «under the wing» of the public authorities.

Crowded housing conditions contribute to family discord and are obviously a source of many social problems – such as conflicts between married couples and between parents and children. Density may even be regarded as a salient factor shedding light on the high divorce rate in present Estonia. At the same time, density also explained the early marriages among young Soviet couples. Getting married improved one's chances of being accepted on the waiting list for housing, though this was no guarantee of actually getting separate accommodation.

Independent of region, size of dwelling is the most frequently cited reason for wanting to change dwellings. Fifty-five per cent of the respondents would like to have a larger dwelling and 15 per cent a smaller dwelling. Thirty per cent can adjust to the same size. Fifty-four per cent say they could do with more amenities, 43 per cent are satisfied. Forty per cent would like to have a separate dwelling, 59 per cent

are satisfied, while the remaining one-two per cent want to join a dwelling unit with somebody else.

Kutsar (1995) states that in Estonia a flat is not regarded as a home, but more as a place to live in. This most probably comes of the limited space allocation in dwellings and the comprehensive lack of maintenance. The huge nationalisation process in the former Soviet Union and the dwelling standards fixed by Soviet authorities stifled local and private initiative. In the Soviet epoch, housing units were meant to cover the most precious needs of the population with regard to particular amenities, but the state planning policy failed. Today the consequences are making themselves felt. Indeed, when people feel seriously uncomfortable in their own homes, a general feeling of insecurity may well arise.

CHAPTER 10

FEELING OF SECURITY AND SOCIAL NETWORKS

Dagmar Kutsar

SECURITY AND FEAR OF VICTIMISATION

In 1993 the number of registered offenses in Estonia was lower than in 1992 (37,163 and 41,254, respectively). Still, this was remarkably high for a population of only 1.5 million (*Statistical Yearbook* 1994: 123). Our survey inquired into two points about victimisation and security: How many people today are concerned about their security both in public places and at home? Second, how many have actually been victimised during the past 12 months?

Episodes and offenses

More than 80 per cent of the respondents state that they have not experienced any incidents during the past 12 months, while 15 per cent report being exposed to one act of violence, three per cent mentioned two acts, and two per cent report at least three acts. Most frequently mentioned were thefts perpetrated surreptitiously (burglary and theft from a car), serious threats, and combinations of several types of violence (Table 10.1). Unfortunately, there were no questions on theft of motorcars in the survey. According to official statistics, such thefts represented three per cent of all offenses registered by the police in 1993 (loc. cit). With burglary and thefts from cars we find the highest propensity to report the offence to the police (reported in more than half the cases). Of the other types of violence, between only one fourth and one third were reported. In some cases the victim feels guilty him(her)self (e.g. street fight). In other cases threats may be put forward by the offender (e.g. street violence to women), or the incident itself may not be considered worth reporting. Finally, the respondent him(her)self might be the actual offender. Victims 30 years of age or older and women have the highest propensity to bring in the police.

We also note some differences in terms of genders and urban versus rural background. Almost one fourth of the young people have met violence – this is reported twice as by elderly respondents. Respondents below the age of 30 experienced violence which resulted in visible bruises or injuries twice as often as persons from other age groups. These young ones have encountered serious threats and combination of violence more often as well.

Table 10.1 Types of victimisation during last twelve month. Per cent of respondents reporting at least one incident

Type of violence	Per cent
* Violence, resulting in visible bruises or injuries	5
* Violence, no serious bruises or injuries	5
* Threats which the respondent took seriously	15
* Theft in respondent's home or car	48
* Street robbery	6
* Combination of incidents	21
Sum	100
(N)	(834)

Delinquencies in rural areas is lower than in the urban areas in Estonia. This is also the case with violent acts: 12 per cent of the respondents with a rural background survived violent/criminal acts, whereas twice as of Tallinn did so. Men are exposed to violence with visible injuries more often than women. Women in turn experience street robberies more often than men. Surprisingly, perhaps, we find no significant differences among victims by household type or ethnicity. To conclude, it is most dangerous to live in an urban setting, to walk around in the streets and to be a young male.

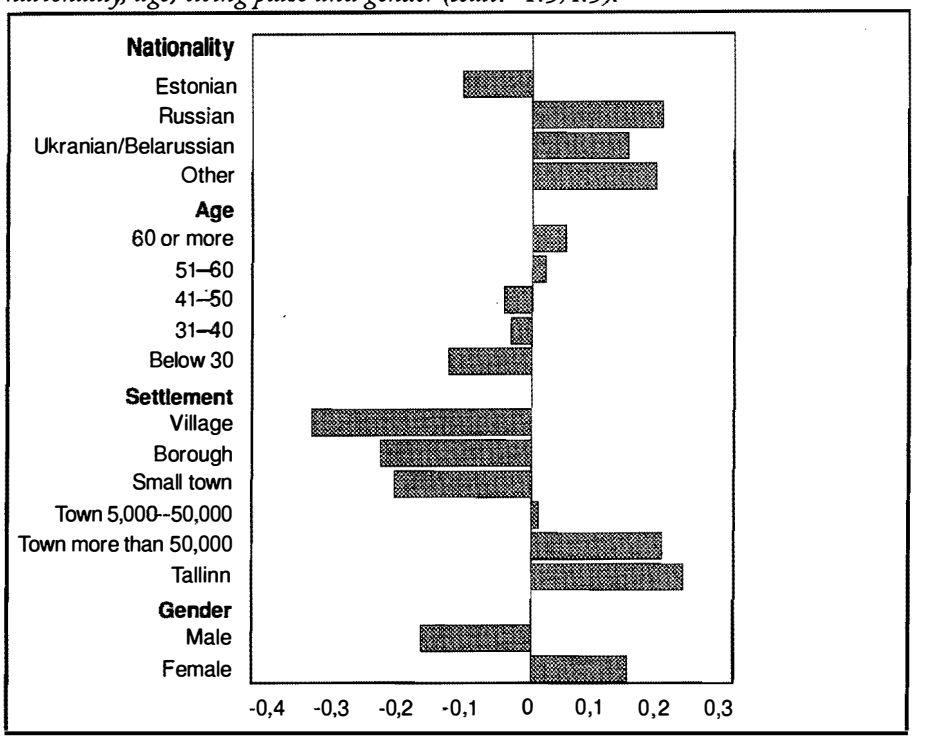
Fear of being victimised

In a country where the mass media often focus on the high criminality, and almost one fifth of the respondents have experienced one or several violent/criminal acts during the past twelve months – how isall this reflected in people's psychological state? We constructed an index of fear of violence, summing up reported fear in the streets, in public places and at home. The value "0" on one of the three dimensions in the index meant no fear, the value "1" slight fear, and "2" was applied to those with serious fear of possible victimisation. In sum, we had a measure of fear ranging from '0'(no fear) to '6' (serious fear in all three fields).

As a whole, more than one third of the respondents say they have not been afraid of the possibility of violence, 17 per cent state some fear, and almost half the respondents say that they have serious fear of becoming a victim. Above-average feelings of insecurity are reported by non-Estonian respondents, older people, by women, and by those living in towns of medium size, cities and in the capital (Figure 10.1).

Although only one fifth of the respondents had actually experienced victimisation, close to half the young people and adults (46 per cent) say that they felt seriously insecure in at least one field, or quite insecure in at least two of the three fields reported. Here the pains of transforming society are reflected in the scores of the index.

Figure 10.1 Index of fear of violence. Deviations from grand mean by respondent's nationality, age, living place and gender (scale: -1.5,4.5).



Social Contacts and informal Support Networks

Social relationships express on-going life-span developmental processes, from the early relationship between mother and baby to family relationships and friendship relations among the elderly. The various developmental stages influence the nature of these social relations; in turn, social relationships affect well-being across many domains – including the ability to cope with stressful events and to maintain physical and mental health (Antonucci 1990, Blieszner 1989, Sarason et.al. 1989). In this section, we discuss data on four related questions: Social contacts with family members, friends, neighbours and colleagues as forming *social networks, social relationships, support* and *informal care-giving.*

That three generations live together is a characteristic feature of Estonia. This is caused by the general housing problem and the lack of private houses. Our survey shows that 14 per cent of the respondents 18 years of age or older have always lived with their parents. This is quite equally distributed between rural and urban areas (ranging from 12 to 20 per cent), with the highest figures for the villages of Estonia (20 per cent). Generally speaking, 15 per cent of all Estonians 18 years of age or older at present live with parents in two- (or more) generation households – regardless of urbanity (ranging from 14–17 per cent). It

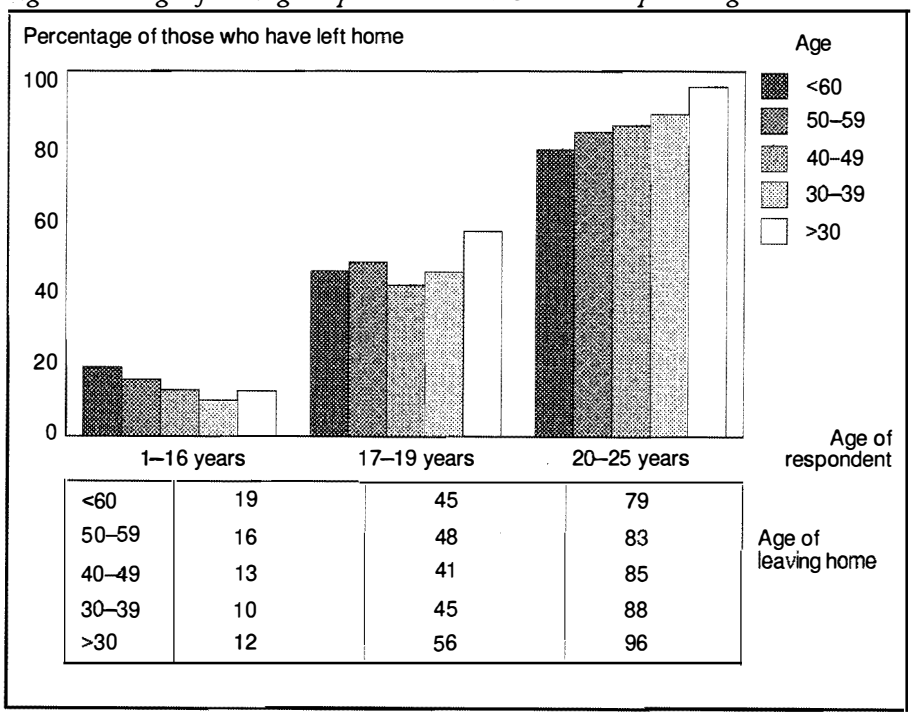
applies to close to one third of the overall Estonian population at present (children 0–17 years of age included).

In villages the traditional practice of living together in homesteads with three or more generations has survived. By contrast, in the cities, living in an extended family is forced, a necessity, not the outcome of free choice. The role of parental support relationships appears to be different in different life stages. Young people strive to become independent from their parents; they put considerable emphasis on friendship relations and on the starting a life of their own. On the other hand, Biegel (1985) notes that the family, friends, and neighbours are important contributors in the care of elderly. In Estonia some elderly people re-join their children's families when they become frail and ill. The tradition of taking care of elderly parents by grown-up children has been a prescribed ethical kinship norm, which views leaving one's parent without care as a highly shameful circumstance. On the other hand, there is no viable alternative for care of the aged, because the houses in which elderly people live are still in bad condition.

Leaving home

Leaving the parental home is determined mainly by education and/or getting a job elsewhere, or getting married and starting a new family. On average, the young Estonians leave their parents at the age of 21, which is earlier than some 30--40 years ago (Figure 10.2). The most intensive period of leaving the parental home is between the age of 20 and 25 (39 per cent) whereas 32 per cent leave home when they

Figure 10.2 Age of leaving the parental home. Cumulative percentage



	1–16 years	17–19 years	20–25 years
<60	19	45	79
50–59	16	48	83
40–49	13	41	85
30–39	10	45	88
>30	12	56	96

are 17–19 years old. The age-bracket 20–25 coincides with the most intensive period of getting married, acquiring a profession, and reaching social maturity. Persons with higher education leave home later than do the other groups. Moreover, living separately from one's parents is more common among the well educated than among those with little formal education: 90 per cent of the respondents with higher education leave the parental home at some point.

Family bonds

Family relationships are sustained by formal kinship norms and prescribed roles, which in turn positively influence well-being. Women tend to have more people in their networks, to have more family and friends, to have a greater variety of relationships with different types of people, to have more frequent contact with their network members, and to receive support from multiple sources, than do the men (Antonucci 1990). Antonucci and Akiyama (1988) found that, although women have larger intimate networks, this is negatively related to happiness. Women often take on the responsibility of unwell or disabled parents, as well as other members of their social network who face stressful life events.

In our survey, the question about intensity of contacts was addressed to those with parents, step-parents, siblings or/and children who live separately. When there are two or more close relatives of the same kinship group (e.g. two sisters) living separately, the question applies to those with whom the respondent has closer contact. Of all the respondents, 53 per cent have one or both parents not living with them (if one parent, then due to the difference in life expectancy in about ten years between men and women, this is most likely the mother). Seventy-six per cent have siblings and 38 per cent have children not living with them. This is the potential of intimate social network from which any informal and some kinds of formally regulated support could be passed on.

The most frequent contacts between intimate relatives are maintained between children and their parents (Table 10.2). The intensity of parent/children contacts decreases as the children get older and acquire social and economic independence from the parental home. Most frequent contacts with parents are reported among respondents below 30 (61 per cent of them see their parents every week). Parents tend to estimate their contacts with grown-up children as being even more dense.

Table 10.2 Social network resources and frequency of contacts of respondents. Per cent

Network resource	Frequent contact	Medium contact	Seldom contact
Parent/parents	49	21	30
Child/children	55	24	21
Siblings	33	23	44
Neighbours	67	11	21
Colleagues	40	23	37

Contacts with sisters and brothers seem to be less frequent than contacts with parents or children. Contact with siblings lessens with increasing age. Whereas 82 per cent of the respondents below the age of 30 see their siblings every week, 61 per cent of the respondents above 60 say they meet their siblings a few times a year only, or even less often.

Contacts with intimate relatives are more dense in rural areas, and the most loose in the cities and the capital. The same can be said about the non-Estonian respondents: Their ties with the closer relatives are looser than what is the case among respondents with Estonian ethnic affiliation. One reason for this, of course, is the spread of families in the course of migration over all the former Soviet Union. Keeping contact requires more time and money, and after the breakdown of the Soviet Union, the constraints of the state borders represent a decisive obstacle for maintaining family ties.

Friendship relationships

Family is good for some thing, whereas friends, neighbours and colleagues are good for others. Socialising with friends, neighbours or colleagues at work exhibits a certain optional character. Friendships appear to affect well-being directly. Friendship relationships are defined by the mutual gratification that comes from the interaction. Given other role losses that accompany age, the role of friends can be crucial (Larson, Mannell and Zuxanek 1986, Rook 1989). On the other hand, today's individualisation processes that weaken kinship ties, especially in towns and cities, might be compensated for by friendship relationships.

Our survey included a question about socialising with non-relatives, i.e. neighbours and colleagues. Unfortunately, we did not ask about frequency of contacts with friends (excluding colleagues or neighbours as such). Such contacts clearly represent an enormous resource of social support network; their importance will become apparent when we analyse various types of help and support. Socialising with neighbours and colleagues in this context means jointly spent time, intentionally shared company.

Only one per cent of our sample state that they have no neighbours, and four per cent report that they are without present or former colleagues. This indicates a much higher potential of receiving social support from non-relatives, especially since they are not so rigidly dependent on one's life cycle.

As seen from Table 10.2, the socialising density with neighbours and colleagues is surprisingly high in Estonia today. Only about one fifth of the respondents say they do not relate to their neighbours. Mostly they live in an urban background and have a higher level of education. Generally speaking, Estonians cannot choose their neighbours. Friendship relations develop on the basis of common interests, and educational level is among the determinants of whether there are similar interests between two persons. An urban background which is characterised by individualisation processes acts to suppress the development of neighbourhood friendships.

Indeed, about one third of the respondents who live in the capital say they have no wish to develop friendship with their neighbours.

At least one fourth of the respondents do not socialise with their colleagues. These people mainly have a lower educational level and live in urban areas. As a rule, men spend their spare time together with colleagues more often than do women.

Support networks in action

People in crisis are better able to cope with and recover from these events when they have good supportive relationships (Atkins, Kaplan and Toshima 1989). Receiving help also in everyday matters, from somebody within the support network can be of enormous importance for one's well-being and health. Simply knowing that there is someone ready to lend you some money if you really are in need, can give you the courage to face challenging or difficult situations. Here it is important that there is a match between the resources of the provider (time, energy, money, motivation etc.), and the needs of the receiver.

The survey verified that 15–30 per cent of the respondents at some point needed help in the listed everyday matters. Most often mentioned is help connected with transport services, work in the garden or field, and housework (Table 10.3). Respondents gave help most frequently in connection with work in the garden or field, and in carrying out some housework. The level of received help is high, between 68–86 per cent. Here however, we cannot ascertain in whether the help was requested or only subjectively acknowledged (e.g. need in receiving help in shopping

Table 10.3 Help received and given in everyday affairs, by type. Per cent

Type of help	Respondent did not need help	Respondent in need received help	Respondent gave help to somebody in need	Respondents reporting that they helped somebody
Carrying out housework	73	71	87	34
Looking after children	85	76	81	22
Providing minor services	82	75	81	22
Shopping	86	68	78	21
Help with transport	70	85	69	18
Help in building or repairs	81	71	72	18
Work in the garden, field	72	86	88	38
Help when respondent was ill	84	71	..	..

matters was met only in 68 per cent of the cases; the question stays, whether the help was asked at all).

A general pattern in Estonia emerges: the level of giving and receiving informal help in large towns and cities is lower than in the countryside, boroughs and small towns. This result was expected because all kinds of services are more easily available in towns and cities than in the rural areas. On the other hand, networks offering social services that are not so easily available for those in rural places, are particularly meaningful there because such services are so important for survival. This observation is supported by more dense neighbourhood relationships in the countryside.

As a rule, younger people are the most frequent providers of help, while the older generations are the most frequent receivers. The frequency of received help increases in pre-retirement and retirement age. Women who have received help in carrying out traditional women's roles (housework, looking after children) receive help more often than men. Help in smaller services like watering flowers, borrowing different items, etc. is more widespread in towns, while help with the garden and transport is more prevalent in rural areas.

Help in money matters could be a good indicator, but this is not very common in Estonia. Traditionally, an Estonian works hard to avoid a life in debt; if a person receives a loan, it will be paid back at the first opportunity. Thirty-one per cent of the respondents note that they have somebody who could lend them some money if needed. This seems to be somewhat easier in towns (35 per cent) than in the countryside (26 per cent). Not only lack of money or people who could lend money, but pure traditionalism in money matters govern this phenomenon.

The subjects of the support network

The role of family and friendship support networks is different and at times overlapping. Young people who have just left the parental home, prolong their particular dependence on the parents while at the same time emphasising relationships with friends. Litwak (1985) notes that the aged generally resist receiving formal support, preferring instead immediate kin. But on the other hand, old people feel uncomfortable asking for help from their families, and they seek to avoid becoming a burden to their grown-up children by concealing their real needs.

The most common exchange of informal services is found among friends (Table 10.4). This is more widespread among men and in younger age groups. Neighbours are considerable agents of informal exchange of services, but not so much in money matters. The role of neighbours is more important in the village, less so in the cities and in the capital: on average, 45 per cent of the respondents in the villages have given or received help from their neighbours, in the cities only slightly more than one fourth. Colleagues do not play any significant role, and even less so when a person reaches retirement age. Respondents above 60 have lost almost all supportive relationships with former colleagues.

Table 10.4 Frequency of giving and receiving help from the support network. Per cent

Network subjects	Given help to...	Received help from...	...help in money matters
Parents/grandparents	37	27	24
Parents-inlaw/grandparents-in-law	20	16	9
Son, daughter	27	31	10
Son-in-law/daughter-in-law	9	14	4
Grandchildren	9	6	1
Siblings	27	25	21
Other relatives	22	19	21
Neighbours	35	30	6
Colleagues	18	15	19
Friends	51	53	60

Parents living in rural areas more often receive help from their children, while adult children living in towns and cities more often receive help from their parents than do others. The inner migration waves have taken young people away from the villages and into towns and cities. Their parents have stayed behind in the countryside, the boroughs and smaller towns. Traditionally, Estonians help their parents with their allotment garden and receive help in the form of produce – vegetables, potatoes and fruits. In summer holidays grandchildren like to stay with their grandparents in order to escape the stress of city life. As parents get older, they need more and more help in their everyday chores, but our survey verified yet another fact: young people keep better contact with parents not living with them, and there is a higher exchange of informal services among them than among others. The children of aged parents have succeeded in becoming independent of their parents, and aged parents escape from becoming a burden for the child.

Our survey shows that informal help among close relatives is more common than among in-laws (Table 10.4). This indicates the primacy of kin over non-kin supportive relations. To some extent, this result is expected. In-laws give help together with blood relations, not so often individually (a daughter-in-law will be accompanied by one's son); after separation or the death of a blood relative, contacts with the in-laws may break off or get weaker.

The help given to and received from one's siblings is considerable, but weakens with increasing age. Then people increase their orientation towards their own family.

Frequency of conflicts in a social network

The survey included a question about the development of conflicts between respondents and the members of their social network. The answers are highly subjective. People have different definitions of what should be regarded as a conflict, and above all various perceptions about how often is *often*.

The occurrence of conflicts appears to depend on the dimensions of one's social network. The age group 31–40 has the greatest potential of social network – the parents may still be alive, there are friendship relations, the spouse and the children are present, as are colleagues and neighbours as well. When we look at unpleasant interactions, this age group comes to the fore – conflicts are reported as occurring often or sometimes by 15 per cent of the respondents. In the closest relationships, there are conflicts with one's spouse (48 per cent), children (36 per cent) and parents (30 per cent). The level of conflicts is lowest with relatives (eight per cent), neighbours (nine per cent) and friends (ten per cent). Conflicts with parents are more frequent if the respondent is below 30 or above 50. In the first case, conflicts presumably concern of getting independent from one's parents and parental home, whereas the second case refers to the stresses and strains of providing care. Recent evidence indicates that care provided by daughters to elderly parents can be the source of negative emotional and mental strain (Brody et al. 1987). In the present survey, women report higher levels of unpleasant incidents in their social network than men do.

Estimation of social informal network

In order to estimate the social network of the respondents, an index was constructed which reflected the quantity and to some extent the quality of the network. Proceeding from the cumulative frequencies of the density of contacts, the network is labelled *'loose'*, *'medium'* and *'dense'*. Every group constitutes roughly one third of the sample.

On the basis of the three groups of social network, we can conclude that there is high dependence between the 'size' of the social network and the age of the respondents. Of the respondents below 30 years of age, 61 per cent have a dense social network; of those between 30 and 49, around 40 per cent have dense relations; for respondents aged 50–59 the figure is 31 per cent, while only eleven per cent among the respondents of retirement age (60 and over) have retained a dense social network. The density of social network drops sharply at retirement: break with colleagues, parents die, children are now socially mature and are probably living on their own. As a result, aged people become increasingly introspective and alone.

On average, the social network is more dense among men. This is mainly connected with the lack of time due to women's double burden of work and family responsibilities, and their longer life expectancy that accompanies the loss of social contacts.

The social network is more dense in rural areas. Neighbourhood relationships, and traditionally closer contacts with relatives and friends can function as a substitute for the lack of formal services in the countryside.

Unexpectedly, we found no significant difference in the density of social networks of Estonian as against non-Estonian respondents. At the same time, helping relations are more commonly reported among the respondents of Estonian nationality, indicating that non-Estonians give and receive less support than do Estonians.

This difference is connected with the fact that non-Estonians are overrepresented in towns and especially in cities, where formal services are more easily obtainable.

An interesting regularity emerges: the effectiveness of social supporting network grows with its increasing dimensions, to some extent. Respondents with loose social networks give and receive less help than do respondents with a medium-sized social network. Acquiring a medium-sized social network can guarantee that one's needs for help will be met in 75–88 per cent of the cases. After that point, however, network will not become increasingly efficient if the contacts grow more dense.

Informal Caretaking

Taking care of dependent and disabled family members has been traditionally accepted as one of the roles of women in Estonia. Changing patterns of family life, the participation of women in paid work on one hand, economic recession on the other, along with other factors, has posed key question: who will care for dependent members of a family? (See Clulow 1994) By a "carer" we here mean a person who is not employed to provide care, and who looks after another family member in the home who is frail ill and/or mentally or physically disabled, and where the dependency relationship exceeds that implicit in a normal dependent relationship among family members. A carer who takes total responsibility for an ill-healthed or disabled family member must do without a salary, vacation or spare time. To increase carers' awareness and offer emotional support to each other, parents of disabled children and parents of children with cancer diagnosis have formed their own 'societies'. This might represent the first step for an association of carers in the future.

Little is known about the families and persons who provide home care for the disabled or unwell family members in Estonia. Our survey was the first time when various questions about informal caretaking were addressed to the unpaid carers.

Physical and mental difficulties in everyday activities are directly related to personal care, e.g. walking, eating, washing, using the toilet, etc. These are the activities necessary for survival; only informal caretaking by one's own family members can delay or reduce the need for institutionalisation. In our survey, 246 respondents (six per cent) said they took care of somebody. In most cases children took care of their parents (38 per cent, cf. Table 10.5). The most common reason for this need is the reduction in the capability to cope with everyday life connected with old age (42 per cent). Serious illness (36 per cent) comes second in the list of reported reasons for caregiving (Table 10.6) – after complications due to old age.

Who are the carers? In most cases (65 per cent) they are women. The probability of becoming a carer rises with increasing age, sharply growing from the forties when the older generation (parents, grandparents) get weaker, and when sudden illness or injury may involve a pressing need for help in the instrumental activities of daily life. Men and women are both confident to each other during their marital career until the other part is no longer available. Elderly people merely move

Table 10.5 Care-receiver by sex and age. Per cent

Care receiver	Sex		Age		
	Male	Female	<18	18–59	60<
Spouse	6	11	-	19	81
Son/daughter	12	12	41	59	-
Parent	38	39	-	6	94
Parent-in-law	16	9	-	7	93
Other relative	15	19	9	14	77
Friend	1	1	-	-	..
Neighbour	4	2	-	-	..
Somebody else	3	5	40	5	5

to live closer to some of the children and save more *intimate* independence. Grown children rank second to the spouse in frequency as caregivers to the elderly (Table 10.5).

The most frequent length of caregiving is reported as from two to five years (45 per cent of the cases). Caregiving as a voluntary process appears most frequent in the villages (79 per cent as to compared by 63 per cent on average). Caregiving is highly voluntary if the person cared for is one's parent (72 per cent do it voluntarily). In the less frequent cases when the one being cared for is a friend or neighbour, the decision seems always to have been voluntary.

Few carers have received financial support for their everyday helping activities. Of all those who take care of somebody, only nine per cent state they have received regular financial support from the state or the local municipality; four per cent of the caregives note that this has happened some times. Such regular support has been given more often to those caring for their children (38 per cent). To conclude, informal caregiving tends to be purely voluntary work without financial compensation or particular social recognition.

As a rule, need for care appears suddenly and the would-be carer has to weigh the new role against labour-force participation. Of all the respondents who stated that they were carers, ten per cent had to quit their main job, and five per cent had to reduce their working hours. In any case, a carer is forced to cope, by maintaining rigid schedules, negotiating caregiving tasks around work schedules, and relinquishing free time. Women more often than men, and young people under 30 years old more often than older respondents state that they had to change their work schedules when they took on caretaking responsibilities – they more often quit or reduce work hours so as to acquire more time for caring activities.

Social recognition of informal and voluntary carers in Estonia has not progressed further in recent years. At a time when the government is discussing the alternatives

Table 10.6 Reason for caregiving, by the receiver's sex and age. Per cent

Reason for caregiving	Sex		Age		
	Male	Female	<18	18–59	60<
Old age	42	42	-	1	99
Somatic illness	41	34	4	17	79
Physical disability	29	71	24	24	53
Mentally retarded	1	3	33	67	-
Psychological problems	2	5	30	60	10
Other	7	9	58	32	11

of informal care to the public care, actual carers have left without services that were directly targeted to support the caregiver or even without special attention and recognition.

Formal Social Assistance

The breakdown of the Soviet economy has caused a decline in welfare resources. Furthermore, the abrupt transition from a totalitarian system, has caused severe psychological troubles of changing life philosophy, in a situation where the paternalistic care of the socialist system has been replaced with the inevitability of self-help mentality. Our survey asked, how many respondents have got economic problems and need help to make ends meet, e.g. with paying rent, heating, children's school meals, purchasing clothes for children, etc. The main problem for retired people is how to survive and how to afford housing when housing costs sometimes exceed the monthly retirement income.

Of our sample, 41 per cent acknowledge the need for financial support: they tend to be single parents (60 per cent), respondents of advanced age (51 per cent) and non-Estonians (45 per cent). Simply being aware of financial problems is, however, not synonymous with applying for financial support from the welfare authorities. According to our survey, only one third of the respondents in need have seen a social worker. More often this is a single parent or a retired person. The help that was received resolved the problem in only 16 per cent of the cases, which indicates that the money problem is lasting and intertwined with other core problems.

Why, then, did some two-thirds of the respondents in need never apply for welfare support? Our survey reveals considerable pessimism concerning such

support: *'it will not help anyway'* (34 per cent), *'they will not give me support'* (45 per cent), *'don't want to trouble other people with my problems'* (45 per cent), *'my problems are too severe'* (54 per cent) – these are the answers. Of all those who are aware that they need help, 55 per cent state that help of *that kind* is not needed. Traditionally, the poor feel ashamed when they apply for financial help from the welfare agency. Often they prefer to hide their real needs and their inability to cope with money matters.

Social Participation

In today's Estonia the old voluntary organisations founded on the basis of the Soviet ideology, are no longer valid. On the other hand, newly formed organisations still carry the image of their successors and have not become fully accepted by their potential members.

The survey sought to evaluate participation in social life by asking about membership in various voluntary organisations. As expected, the social participation of the respondents is shown to be extremely low. Highest is the involvement in trade unions (14 per cent), belonging to the other listed organisations (religious organisations – five per cent, professional organisations – four per cent, sports and cultural organizations – both three per cent, organisations for special age groups – two per cent, organisations for health preservation – one per cent, political parties and women's organisations – both one per cent) – all in the range of one to five per cent. As a whole, 69 per cent of the respondents do not belong to any of these organisations, or are involved in any power group. Thus we may conclude that their social participation is low.

One fourth of the respondents belong to one of the listed organisations, more often to the trade unions. Only six per cent of the respondents are involved in two or more voluntary organisations. Membership in voluntary organisations is significantly higher in towns and cities, and almost absent in the villages and boroughs. Over three quarters of the respondents living in villages and boroughs, are not members of the listed organisations; in the towns and cities 67 per cent and 64 per cent, respectively. And finally: the rural population has lower levels of social participation than the urban population; and that in turn means a greater role for informal support networks in the countryside of Estonia.

CHAPTER 11

SOCIAL STRUCTURE

Jens B. Grøgaard

INTRODUCTION

The aim of this chapter is to present an empirical description of the *social structure* in Estonia today. A sketch of the *positional hierarchy* and some important *mechanisms of economic and social stratification* that 'produce' and 'reproduce' this hierarchy, is likely to improve our knowledge and understanding of present differences in Estonian living conditions. Such an outline may even provide insights into how material conditions are related to perceptions and attitudes that colour and shape the quality of people's lives (cf. Chapter 1). Thus we will be able to identify groups of young people and grown-ups occupying the favourable and unfavourable corners in an imagined comprehensive *'cartesian space'* of individual and group-specific hallmarks and attributes (Boudon 1974a).

We start our discussion by assessing the respondents' quality of life and material conditions, employing a retrospective, attitudinal approach. This means that the respondents' views are not confronted with various 'objective' facts of life; rather, their judgement rests on and reflects highly subjective impressions of past and present experiences. These days most Estonians experience severe difficulties and challenges of a varied nature in their personal lives. The chapter shows that perceptions of various aspects of well-being are closely related – perceptions of one's personal quality of life are clearly and consistently associated with personal judgements of past, present and future material standards of living! Then, we proceed with a discussion of four selected mechanisms of social stratification which is related to the interplay of labour-market integration, health, education, access to alternative sources of food supplies and some indications of social intercourse. These glimpses of operative processes during transition to capitalism, help us to estimate the size of the *barter economy* (subsistence sector), and to present some 'pictures' of the *social structure* in Estonia as of late 1994. Finally, these 'subjectivist' and 'objectivist' approaches to living condition analysis are confronted – empirically: How is resources and positions related to perceptions, and what does the shape (and strength) of such relations tell us about the 'material' and 'ideal' foundation of perceptions of well-being among Estonian residents today?

Mere by-products?

We should not be surprised if we observe quite strong discrepancies between perceptions and the hard facts of life – e.g. between reported material standards of living, the respondents' quality of life assessments, and *our judgement* based on information about people's income, access to alternative food supplies, cognitive and cultural resources, political rights and obligations, health condition, involvement in social activities etc. Some individuals develop a more positive attitude towards their environment than others do, experiences vary, as do demands, expectations, awareness of others, levels of tolerance and feelings of control. At the end of the 1980s many Norwegian 'Yuppies' experienced bankruptcy, and most of the really prominent ones undoubtedly pulled other smaller and more naive investors into their backsweep. Nowadays Norwegian newspapers – especially the boulevard press – entertain their readers with interviews of ex-multi-millionaires recovering from prior defeats. One of them claimed: «I know a lot of multi-millionaires, but I do not know anyone who is happy». Yet another informed us: «I am broke, but satisfied». In his famous play *The Wild Duck (Vildanden)*, Henrik Ibsen lets his spokesman – the openminded but quite cynical – Dr. Relling say: «Take the life-lie away from the average man and straight away you take away his happiness!» («Tar du livsløgnen fra et gjennomsnittsmenneske, tar du livslykken fra ham med det samme!»)

Clear examples of man's disposition to legitimate or rationalise his fate and way of life, the behaviourist claims. «Autonomous man serves to explain only the things we are not yet able to explain in other ways»[1]. Cognitive theory regard such adjustments to reality as examples of *adaptive preferences* (cf. Chapter 1), and we obviously have to admit that strong deviations between subjective and objective measures of living standards, e.g. represented by the two metaphors 'sour grapes' and 'the grass is always greener at the other side of the fence', highlights two important psychological mechanisms as environments strike and turbulence emerges (Freud 1948/1987: 18, 20-26; Elster 1979: 25).

Still, it is probably wise to show some caution: In an article published in *Acta Sociologica* this year, Stein Ringen (1995) argues that researchers in a normative sense *should* place individual preferences at the centre of their approaches to living conditions analysis. The observer has no right whatsoever to pass judgement on people's priorities and goals. In addition, one could claim that researchers in an analytical sense *must* do this, because one always observes deviations from the deduced patterns – most of the time *as clear*, *significant* and *unpredictable* as the strength and

[1] Burrhus Fredric Skinner (1971: 20) - and he continues his argument: «The evidence for a crude environmentalism is clear enough. People are extraordinarily different in different places, and possibly just because of the places. The Nomad on horseback in Outer Mongolia and the astronaut in outer space are different people, but, as far as we know, if they had been exchanged at birth, they would have taken its other place (...) (The role of the environment) has remained obscure. It does not push or pull, it *selects*, and this function is difficult to discover and analyse (...) We do feel certain states of our bodies associated with behaviour, but as Freud pointed out we behave in the same way when we do not feel them, they are by-products and not to be mistaken for causes» (ibid op.cit: 180, 22, 21).

predictability of the results of a specified model (cf. Jencks et.al. 1972). Some people act in stark contrast to those who make the rational and profitable choices as prescribed in an objectively founded world of material standards and occupational positions. And many who actually receive small or even negative returns, still claim that they are materially satisfied and enjoy a good quality of life. Is it not too convenient to postulate that the latter cases should be regarded as mere by-products, or possibly even as demonstrations of 'false consciousness'?

Perhaps we have to accept that the lot of social science in general, and in the analysis of living conditions in particular, is to apply some kind of *perspectivism*[2]. James Coleman (1973) appears to advocate this view when he says: «There are two quite different streams of work in the study of social action, both of which begin at the level of the individual. The two streams of work represent fundamentally different conceptions of man (...) The first conception explains man's behaviour as a response to his environment, the second explains his behaviour as pursuit of a goal (...) In philosophy and religion, these two perspectives sharply divide two sets of beliefs. The first is of man as a creature of his fate (...) the second is of man as the architect of his future» (ibid op.cit: 1-2)[3].

Our approach clearly is empirical and pragmatic (i.e. eclectical). We expect to find that personal perceptions of well-being and standards of living to a certain extent are objectively, or to be more accurate, materially and economically founded. When people lack the resources to obtain necessities of life such as milk, bread, medicines, and meat, we observe that they act according to the principle of *'first things first'*: Estonians do not give priority to meeting cultural and social needs that involve some monetary expenses (cinemas, theatres, travels, etc.), if they lack the means to satisfy their basic needs of life -i.e. some obviously do, but most do not. When the Estonian respondents are classified socially and financially according to a 'factor score' based on primary living condition components like economic resources, occupational status, and educational level (health may well be included), we expect to be able to predict to a significant degree, but probably not to a considerable degree, common perceptions of well-being during the ongoing transition,

[2] Lee Schulman (1986) holds this view - in strongopposition to the belief that the socia sciences will be dominated by *one specific* paradigm at a given time: «Where Kuhn erred, I believe, is in diagnosing the characteristics of the social sciences as a developmental distability, a state of prepa a-digmatic retardation. Indeed, it is far more likely that for the social sciences and education, the coexistence of competing schools of thought is a natural and quite mature state» (Wittroch (ed.) 1986: 5). It follows that the challenge is to confront perspectives, to *discipline* our inclination to eclectisism (Merton 1975), or possibly to create a state of *sound ir ularity* between theory and observations (read: measures), as claimed by some prominent spokesmen of the 'realist' approaches today (Sayer 1984, Pawson 1989). As demonstrated above, even living conditions studies clearly involve 'behaviourist', 'cognitive' and even 'subjectivist' approaches, influencing (albeit not determining) our interpretation and understanding of the relative strength of observed patterns, the discrepancies from these patterns, and some of the more tangible, i.e. material, facts of life.

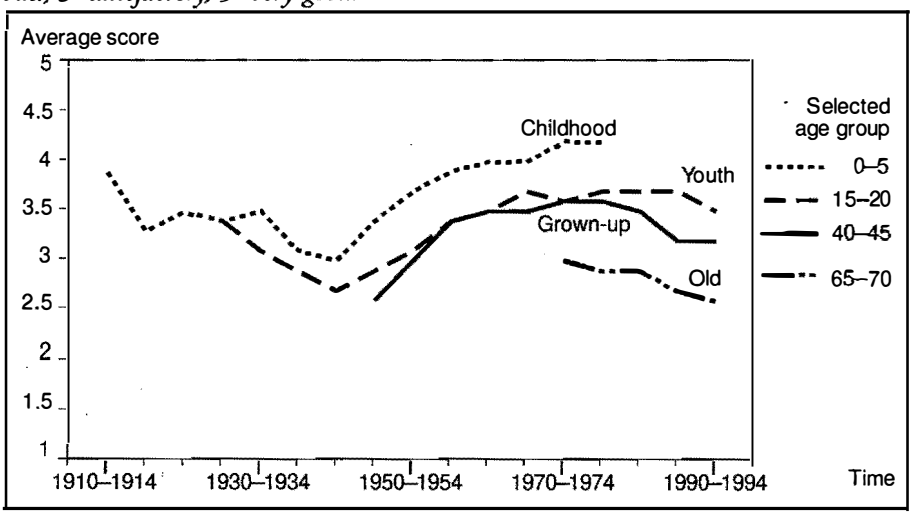
[3] We should add a third position advocated by e.g. Norbert Elias (1978: 78, 177). As a rule, the *relations* between individuals should be used as *the unit* of sociological analysis!

in addition to present material conditions and future material prospects. Subsequently, we will endeavour to identify the most prominent feature in our findings – its predictability or the strength of its deviations from observed patterns?

Life in Retrospect – Perceived Quality of Life

Respondents 18 years of age or older were asked about their *quality of life* from early childhood until their present age. Figure 11.1 presents life as seen in retrospect on a five point scale running from «very bad» (=1), through «satisfactory» (=3), to «very good» (=5). The centre of gravity of these subjective judgements is of course heavily influenced by both *time* and *age*. The average quality of life score drops significantly from one period to the next, i.e. when comparing early childhood (0-5 years of age) with life as a teenager (15-20 years of age), teenagers with middle-aged adults (40-45 years of age), and finally, middle-aged adults with pensioners (65-70 years of age). We observe that average assessments of quality of life respond quite strongly to the changes that accompany the passage of time in each of the age groups. Undoubtedly, there is a tendency to idealise early childhood – especially among the very old. Still, in 'normal times', Estonians give the impression of having had a fairly happy early childhood without too many worries. Average scores centre round the judgement «good» (=4). There are, however, some important exceptions to this rule, covering the period of depression during the 1930s, the Second World War of course, and the early Stalin epoch. Subsequently, the perceived quality of life of early childhood improves step by step during the 1960s and 1970s. Due to the fact that

Figure 11.1 Life in retrospect among Estonians 18 years of age or older. Assessing quality of life as a function of time and age. Average scores of four age groups. Scale 1-5, 1=very bad, 3=satisfactory, 5=very good.



the youngest respondents were 18 years of age in 1994, our presentation of judgements ends at the beginning of the 1980s.

The curves suggesting quality of life among young people and grown-ups follow the same path as the one indicating life quality among the really young, but at a significantly lower level. Estonians perceive the 1940s and early 1950s as a period of hardship, or to be more accurate, memories of life as teenagers and middle-aged cluster somewhere between 'not very good'(=2) and 'satisfactory'(=3). Then quality of life improves rapidly during the 1960s, 1970s and early 1980s, until the curves culminate and even drop at the start of the 1990s. Perceived quality of life falls among young people at the beginning of the 1990s, among middle-aged adults round 1980–84, and among elderly persons starting at the end of the 1970s. Most Estonians, in other words, perceive the present period of transition as challenging and problematic, as measured through their quality of life assessment. We should add that average scores hardly correspond to gender, but that differences in citizenship and national or ethnic affiliation, variations in economic and educational resources and occupational position influence average scores, slightly but significantly.

Looking at the extreme points, one notices, not unsurprisingly, that highly educated young men who have manoeuvered into superior occupational positions take a more positive view than middle-aged, low to middle-income women with subordinate occupational positions.

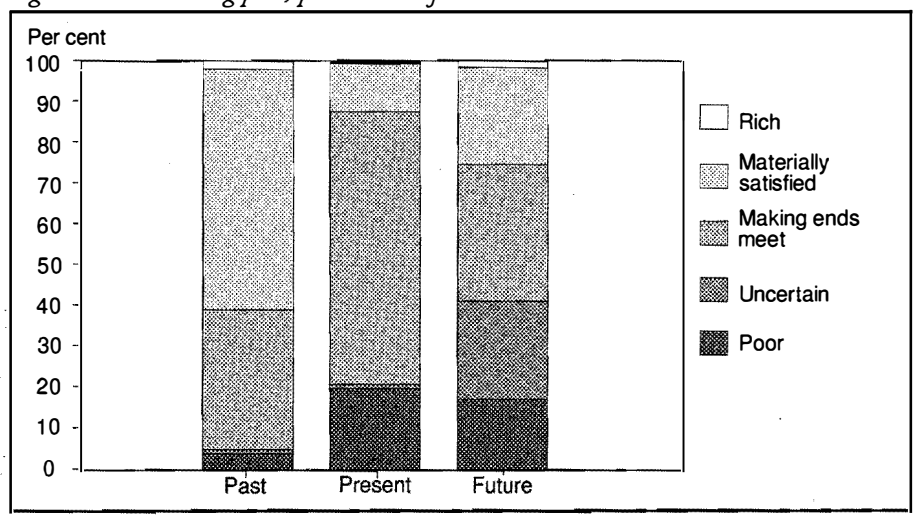
Material Standards and Future Prospects

The impression of present uncertainty and turbulence is confirmed by the responses to the following statement: «Taking your material conditions into account, please try to estimate, are you at the present time rich, materially satisfied, making ends meet or poor?» The respondents were also asked to judge their material conditions on the same scale five years ago and five years into the future (Figure 11.2).

At the end of the 1980s *around 60 per cent* regard their material standards as good. They claim that they were materially satisfied some five years ago. *One in three* answers that they were making ends meet, while *four to five per cent* claim that they actually were poor. Two per cent only, consider themselves to be rich around 1989-90, and one per cent feel uncertain or do not wish to express an opinion. At present (1994) *12 per cent* only (!) reply that their economic and material standards are satisfactory, while *68 per cent* answer that they are making ends meet. One in five (*20 per cent*) regard themselves as poor today.

Still, the present problematic situation does not prevent people from demonstrating a degree of optimism. *One in four* believes that they will be materially satisfied by 2000, but now *one in four feels unsure*, and still close to *20 per cent* believe that they will be poor. In other words, many young people and adults signal

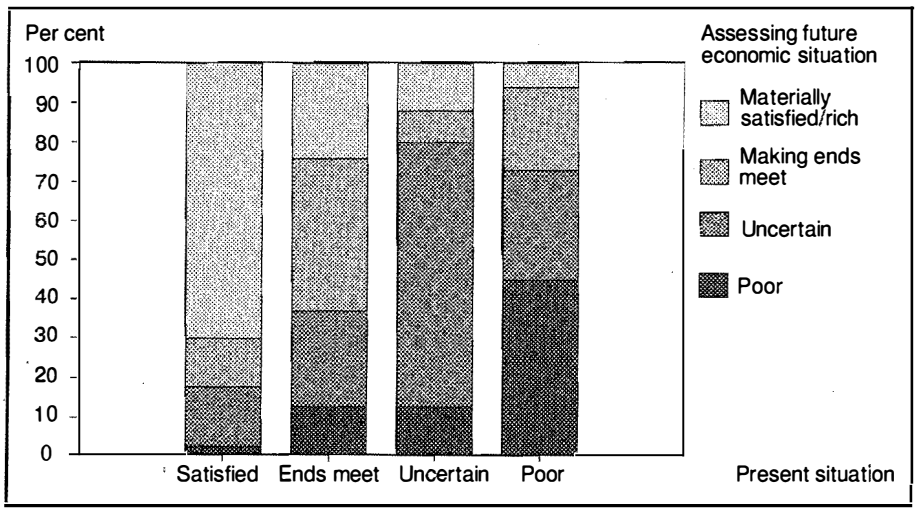
Figure 11.2 Assessing past, present and future economic situation. Per cent



some optimism, but there is a considerable element of uncertainty and pessimism among Estonians too.

Figure 11.3 illustrates the relation between present perceptions of economic and material conditions and expectations for the future. First, there is a significant relation between perceptions of the past and of the present (*Textbox 11.1*). Second, perceived present standards clearly and consistently influence people's expectations. Seven in ten Estonians regard themselves as materially satisfied late 1994 – close to nobody looks upon themselves as rich – or believe that they will be materially content some five years into the future. Very few indeed anticipate poverty, while one in three show some uncertainty or expect straitened circumstances (they answer 'making ends meet').

Figure 11.3 Future economic situation as a function of present economic situation. Per cent



Textbox 11.1 Perceptions are clearly and consistently related

A model specified by linear regression (demonstrated in *Appendix 11.1*), shows that the relation between present self-perceptions of material conditions and expected material conditions round 2000 are much stronger - everything else being equal - than the relation between their (present) perceptions of the past and their perceived standards of liv ng today. This means that many Estonians judge the period of transition - in material terms - as a real backclash. Second, it means that, as a rule, respondents simply project their present preceptions into the near future.

The quality of life of a person can be deduced - significantly but not strongly - from his or her self-perceived material standards. Past, present and expected economic standards of living actually only explain *15 pct* of the variation (variance) in quality of life (!). A model presenting expectations as a function of prior and present material condition and perceived quality of life, explains *22 pct* of the variation (variance) in expected material conditions round 2000 - not an overwhelming outcome, though clearly stronger and more consistent than than results of the first model. St ll, the deviations from the deduced patterns of the models by far overshadow the impression of predictabilty of scores. Quality of life and expected material conditions obviously have a foundation outside the sphere of economics. Our ambition is to detect some aspects of this 'ideal' foundation.

Among people judging their present material conditions as strained, and this view covering close to 70 per cent of our respondents, one in four believe in improved standards. Four in ten expect a continuation of the present situation, and one in four is either uncertain or expect future poverty. In this dominant group of Estonians, the optimists and pessimists actually outnumber each other. Among the present 'poor' one in four believe in slightly improved economic and material circumstances for themselves, close to nobody actually believes that they will by materially satisfied around 2000, and half of them expect future uncertainty or poverty. Among the 24 respondents expressing uncertainty today, seven in ten expect future uncertainty too!

The present dominant category of 'making ends meet' is diminished and the optimists enter the arena (one in four). At the same time we observe an increase in the proportion of people believing the future is risk-ridden and that conditions will deteriorate, in sum 40 per cent of the respondents 18 years of age or older, so viewed in this way the pessimists outnumbered the optimists one year ago. Actually, the assessment of optimism versus pessimism rests on our treatment of the group of people feeling insecure about their past, or present, or future material standing. Chapter 7 demonstrated that a procedure minimizing the uncertainty category[4], revealed an impression of optimism among Estonian residents today. One in three believes that it will be better, one in ten believes that it will be worse. If the perceptions are ranked according to average income[5], the pessimists and optimists outnumber each other: 28 per cent believe in improved conditions for themselves, 44 per

[4] People characterising themselves as poor today, but uncertain of their position in five years time, are put in the category 'optimists'(=better). People characterising themselves as materially satisfied or rich at present, but who feel uncertain about the future, are put in the category 'pessimists'(=worse). The rest of the uncertainty group are treated separately as 'uncertain'.

cent believe in status quo, and 28 per cent believe that they will be worse off in five years time. It seems reasonable to conclude that Estonians take an *ambivalent view* of what the future might bring.

Four Mechanisms of Stratification

Now, we will employ an 'objectivist' view on transition to capitalism in Estonia. We start with a discussion of four mechanism of socio-economic stratification. The first mechanism focuses on the connection between general health conditions, the level of integration in the labour market, and the purchasing power of people who suffer from failing health, compared to those who do not (cf. Chapter 4). The second mechanism refers to aspects of social reproduction mediated through educational achievement (cf. Chapter 5). The third and fourth mechanisms highlight the importance of civic compensations in times of transition: First, people's access to alternative food sources clearly reduces their experience of hardship and poverty (vulnerability). Second, we try to demonstrate the significance of 'social exchanges' (cf. Chapter 10). It is essential to stress that these glimpses of social stratification first and foremost illustrate *how* things work rather than *why*. A detailed explanation of emerging social and economic phenomena unfortunately falls outside the scope of this report.

Ill-health, labour market participation and monetary compensations

Overall health, access to doctors, hospitals and other health institutions constitute a primary component of any individual's living conditions. Access to health care could of course be reduced to a question of physical distance. A person living far away from the relevant institutions often experiences difficulties in getting there in time, as opposed to someone living next door to the doctor's, the dentist's or the hospital. At the same time, financial barriers may exclude *all* individuals – without regard to distance. People simultaneously experiencing failing health and dire economic straits constitute an extremely vulnerable group. Their exposure to deteriorating living conditions and hardship is heavily influenced by the level of public financial support for health-care institutions. Even marginal fees *may* limit or possibly exclude, poor people from satisfying their demand for health care.

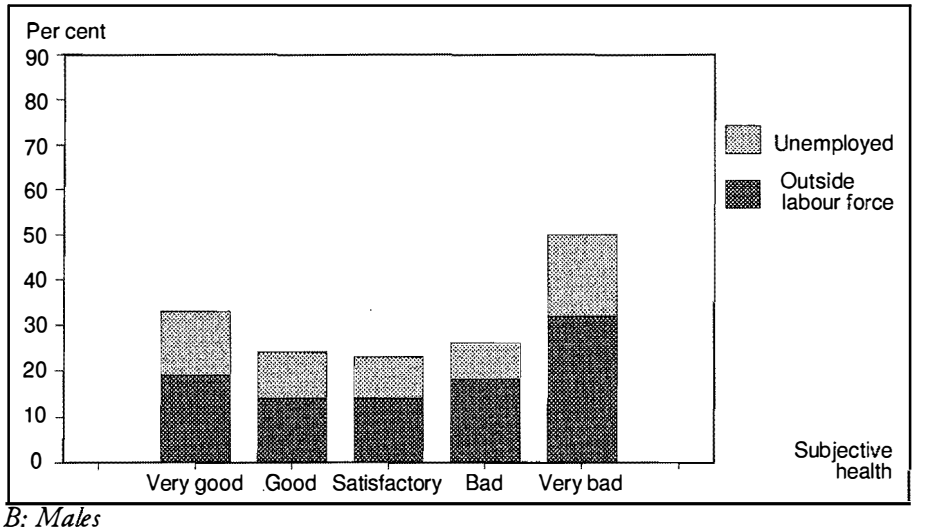
Ill-health is indicated by the respondents' perception of their own general health condition. This subjective measure was selected due to the fact that a model that incorporates several concrete measures of physical and psychological illness will explain close to 45 per cent of the variation (variance) on perceived general health condition (demonstrated in *Appendix 4.1*). Even though people have different limits of tolerance and awareness, this measure, in our opinion, functions quite well as an

[5] Top rank: 'rich' or 'satisfied', then 'making ends meet', then 'feeling uncertain' and finally, 'poor' as the bottom option.

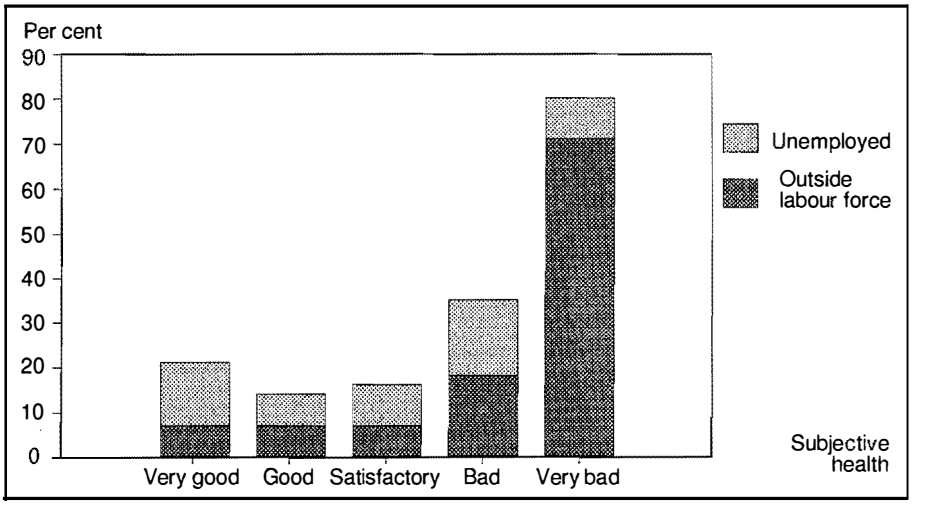
indicator of severe health problems. Still, we must admit that self-perceived general health is influenced by both the age and the educational level of the respondent – *ceteris paribus* – i.e. even when we control perceived health condition against a battery of concrete health indicators, working ability, access to medicines (lack of money), number of hospitalizations last year, disability, chronic diseases, etc. Old people are more likely to report ill-health than the middle-aged, and the highly educated are more likely to report a better general health condition than the less educated – everything else being equal. As a yardstick of objective health this measure is, admittedly, *not without blemishes*, but still it has got considerable *sting*!

It gives pleasure to present a chart demonstrating that women are better off than men. Figure 11.4 shows that both men and women *25-54 years of age* reporting a

Figure 11.4 Proportion of 'outsiders' and unemployed Estonians 25-54 years of age as a function of subjective health condition and gender. Per cent
A: Females



B: Males

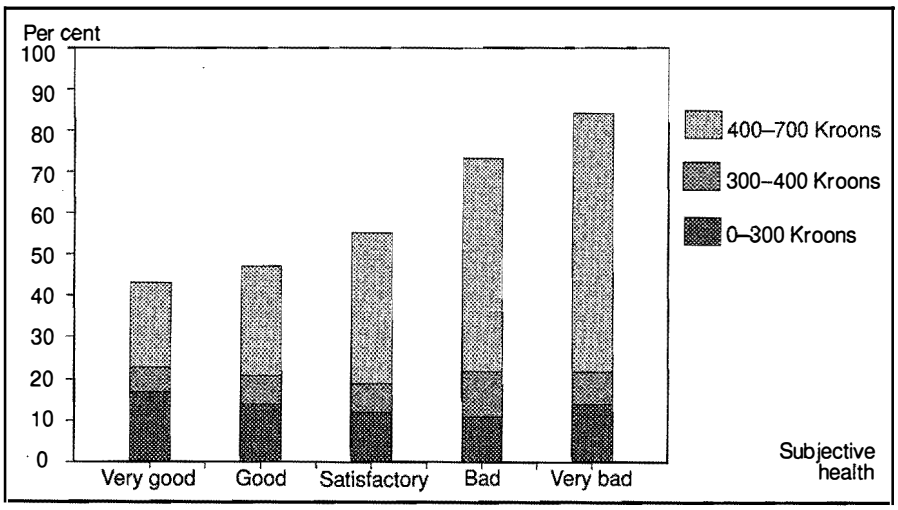


'very bad' health condition, are poorly integrated into the economic life of Estonia at present. Close to *80 per cent* of the men and *half* the women suffering from severe health problems, are either unemployed according to the ILO definition, or have been prevented from earning wages, i.e. they seem unable to enter the labour market.

Among respondents reporting a 'bad' health condition, 35 per cent of the men and 26 per cent of the women rank as either unemployed or as 'outsiders'. The unemployment rate (per se) does not respond consistently to variations in health condition for at least two reasons: First, the young people having the highest unemployment rate, are clearly underrepresented among people reporting ill-health. Unemployment is, first and foremost, a dominant feature at the entrance of 'the labour market tunnel' – to use a metaphor (cf. Chapter 6). Second, some of the young women reporting a good or very good health condition are on maternity leave or are simply staying at home taking care of their children.

One intriguing question presents itself: What impact does this integration device have on the differentiation of incomes between various groups of people classified according to their general health condition? The chart (Figure 11.5) shows that health is irrelevant to understanding the selection processes that lead some individuals to very low levels of consumption and material satisfaction. Late 1994 one expects to find roughly *one in five Estonians* at the minimum level of subsistence or below, *seen in purely monetary terms* (300-400 kroons per household member per month or less), no matter what their health condition turns out to be. Some of them, at least two in five, possibly one half, live and function quite well by Estonian standards. They live partly outside the sphere of money, relying on direct exchanges of services and on production of some basic goods (necessities). Even

Figure 11.5 Estonians with monthly per capita household income less than average by subjective health. Three selected income levels. Estimated subsistence level 300-400 kroons. Per cent



though these people lack money, they are not necessarily poor. We will return to them later. Among Estonians 18-50 years of age (i.e. all retirement pensioners excluded), we actually observe that failing health *increases* the likelihood of having a per capita income at subsistence level or below, slightly but significantly. Then an interesting feature comes to light. While some *20-25 per cent* of Estonians in good shape, so to say, report a per capita income above the minimum level (400-700 kroons per person per month), this income bracket covers *between 50 and 60 per cent* of the persons reporting severe health problems late 1994. This probably mean two things:

First, public compensations for lack of personal income opportunities are generally unable to prevent 15-20 per cent of the population 18-99 years of age from ending up at the subsistence level or below, as measured by the prices of a basic food basket in late 1993. Retirement pensions and other public and private compensations like social benefits, alimony, support from other family members and friends, and publically funded rent support, raise the level of income in the majority of households above subsistence level, but do not seem to cover all. Obviously, some households and individuals fall outside the social security net – as we will see, potentially one in ten, and definitively three to five per cent of the young people and adults late 1994. To survive, these households and persons must rely on alternative sources of food supplies related to direct exchange of goods and services, sale of personal belongings, home production of necessities, begging and possibly even crime.

Second, compensations for ill-health (included retirement pensions) smoothly lift a majority of Estonians with severe health problems above the subsistence level, *but not far above!* If your health is failing in today's Estonia, the likelihood of obtaining a level of consumption around medium or above average, seems to be minute. The amount of compensation available by no means enables most of them to join the medium bracket of consumption. There is, in other words, a quite strong relation between people's health condition and their level of consumption, operating slightly but significantly above the pschycological (and possibly physical) minimum!

Education and social stratification

The chapter on education (Chapter 5) demonstrated that failing health among Estonians 16-29 years of age hardly influences the educational achievement (as a function of age) controlled against the educational level and occupational position (read: social background) of their parents. We also noted that ethnic background and formal integration through Estonian citizenship had but little impact on the educational achievement among young Estonians at present. Having made the additional observation that performance and endurance at school are rather similar among men and women, we may safely conclude that Estonia has already covered quite a distance on the road leading towards equality of educational opportunity!

Social differences in the recruitment to theoretical specialisation at the upper secondary level (grammar schools, high schools), and further recruitment to institutions of higher education, are certainly not blotted out over night. In practice, the educational system functions – for several reasons – as an important instrument of social reproduction. So is the case in Estonia too. This form of reproduction, though imperfect in nature, is influenced by processes of stratification elsewhere in society, especially in the labour market[6].

The chapter on education documented that educational achievement and endurance at school improve the likelihood of occupational mobility as measured in level of earnings or as individual scores on a leadership index. Gender heavily influences these prospects. Women receive far smaller returns on educational performance than men do, but when comparing Estonians leaving school at the compulsory level and the upper secondary level respectively, we observe small differences in monetary and social yields, even among men. If a man completes a higher education, we can assume a monetary return per month close to 3,000 kroons (1994-prizes), or *six to eight times* the estimated costs of the minimum food basket. The ticket to this reward is an occupational position corresponding to 'self-employed' or middle rank manager. If a woman completes higher education, the expected revenues are half the income level of men (1,500 kroons per month). We consider this to be a small return on higher education. One reason for the slightly but significantly higher educational performance at present of young Estonian females compared to males, is probably that women have the highest unemployment rate in the labour market for teenagers and young people. It will be quite interesting to see if there are differences between men and women in their responses to the proposition in the questionnaire that there could be discrimination of women in the Estonian labour market as of late 1994! (see Chapter 12)

The importance of alternative food supplies

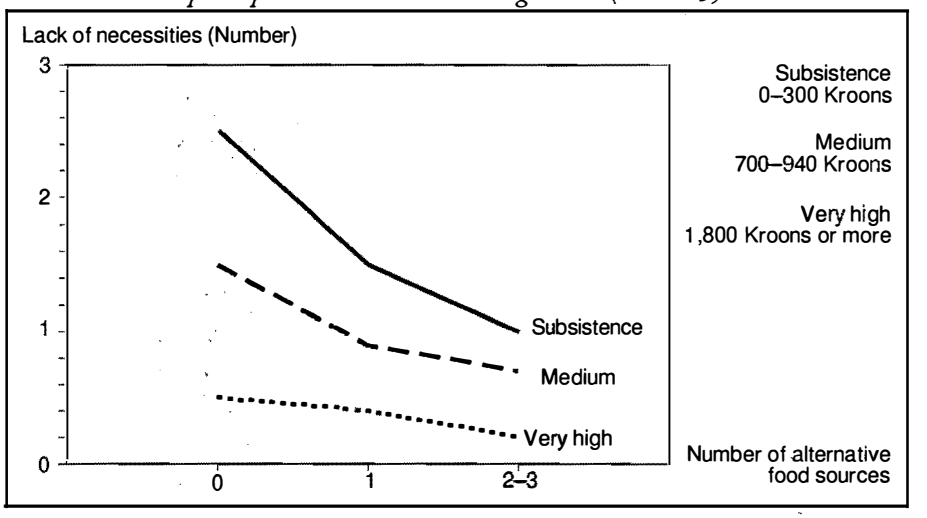
Most people in Estonia spend a major part of their income on food and housing. Chapter 1 showed that on average close to 50 per cent of total income were spent

[6] Western European and American economists and social scientists have conducted a lot of research since the early 1950s on the relation between the shape of the educational system and social stratification in the labour market (read: the positional hierarchy). According to one of the major traditions of research (*the positional view*), there is *no symmetrical relation* between stratification of occupational positions and differentiation through educational achievement and endurance at school. While there may be quite strong evidence supporting the view that moderate, possibly even marginal, changes in the relative strength, status and monetary returns on various occupational positions have a strong impact on social differences in recruitment to institutions of higher education (e.g. developments increasing/decreasing inequality of wages, limitating/extending labour force participation among women, etc.), it is probably more difficult to document the similar strenght of an 'arrow' (influence) leading from changes in the educational system (extensions of meritocracy, reductions in 'dominance' of particular strata, extensions in educational capacity, etc.) to changes in the hierarchy of occupational positions. This view is clearly controversial, and it goes beyond the ambitions of this study to take a stand on such complicated issues. Still, we have to admit that the choice of perspective influences our understanding of prominent mechanisms of social selection at work in society - and of course our views on the means that would be best suited to change or modify such processes, i.e. if one wishes to do so!

on food and close to 15 per cent on housing. In such an economy, one expects to find that a majority of people compensate by private means, producing part of their food supplies though their own devices, or by engaging in direct exchanges of services that ease their access to basic goods like milk, milk products, fish, meat, vegetables and even medicines. It may be interesting to note that one need not go far back in time to find a similar situation in Norway, in which it was common for households to be quite self-reliant. The trick and the challenge was to exploit small plots of land to the full, e.g. by growing vegetables, and to engage in useful direct exchanges of services, involving oddjobs, etc. – all for the purpose of maintaining or raising the household's housing conditions and material standard of living.

75 per cent of our respondents report that they have access to *at least one alternative* source of food, i.e. they may exploit their own backyard plot intensively, or a plot owned by other members of the family, community or village, or they receive some food supplies from generous persons outside the household. If selected respondents are separated in three quite different income brackets, their propensity to answer that they often or from time to time lack the means to satisfy their basic

Figure 11.6 The likelihood of lacking necessities as a function of per capita household income and access to alternative food sources. Number of necessities. Number of sources. Three selected per capita income levels. Average scores (scale 0-5)



needs, is strongly influenced by specific combinations of per capita household income per month and the number of alternative sources available. In technical terms, we detect a strong and consistent *interaction* of compensatory means of existence and income level influencing the likelihood of lacking necessities![7]

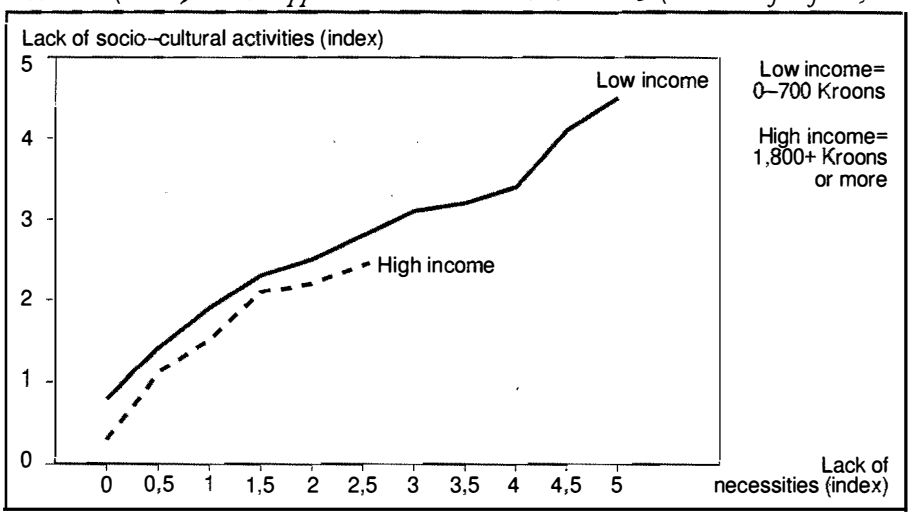
[7] A model 'explaining' expressed vulnerability among Estonian residents is presented in *Appendix 11.2.*

Low income earners (300 kroons per capita per month or less) report that they are often short of three of the five necessities mentioned in the questionnaire (milk or milk-products, meat, food for children at school, vegetables, medicines), if they do not have compensatory means (Figure 11.6). If they have access to at least two alternative sources of food supply, they often lack one necessity (only), or possibly two from time to time. The compensation, in other words, is very strong in this bracket of vulnerable people, in purely monetary terms. If incomes are very high (1,800 kroons or more per person per month), the access to alternative sources of food supplies *does not* influence their propensity to report unsatisfied basic needs. Of course, it is likely that these high income earners can afford to buy the goods they need in the nearest shop.

We may ask if social activity in general influences the reported vulnerability of Estonians. Actually, it does, but only to a certain extent. The ability and willingness first of all to enter into relations of social exchange (barter of services), with family members, neighbours, friends, etc., and secondly to help other people when they need assistance, irrespective of one's own possible difficulties, access to alternative food sources, degree of urbanity and ethnic affiliation, are by no means dominant qualities. But one could still argue that generosity and altruism have some significance. Receiving as well as providing help increases a person's feeling of well-being, in particular the propensity to give! And, both the act of receiving and the act of providing assistance reduce the sense of vulnerability created by the lack of necessities, the former somewhat more than the latter. We will discuss this mechanism further below (the 4th mechanism).

Figure 11.7 shows the propensity to report a dearth of opportunity to participate in social and cultural activities requiring some money (receiving visitors, visiting

Figure 11.7 Cannot afford socio-cultural activities (index) as a function of lack of necessities (index) in two opposite income brackets. Scale 0-5 (number of deficits).



others, travels, cinema, theatre, buying sweets, etc.), as a function of reported lack of necessities and of income level. If a person is in want of necessities, he or she plainly cannot afford to participate in such activities. The principle of 'first things first' is observed among high income earners too, clearly indicating that most Estonians at present are making ends meet, i.e. the majority is experiencing tough economic conditions. The main effect of being on an income level above average, seems to be a general and basic sense of security: Virtually no-one reports frequently lacking more than one basic good, or possibly two, from time to time!

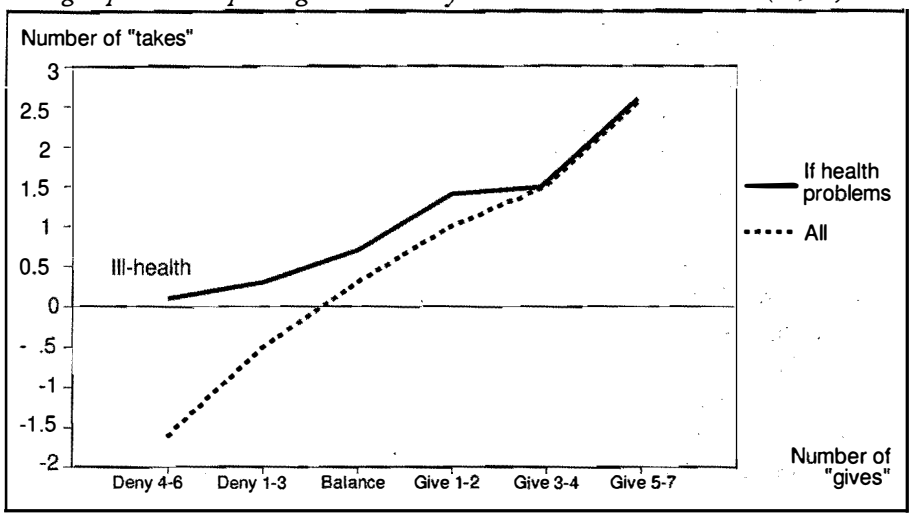
The logic of give and take

We have constructed an additive index which measures the extent of help that our respondents 18 years of age or older have received over the last 12 months, covering eight different fields: homework, work in the garden, small and large services, assistance during illness, transportation, help in building, repairs and errands, etc. Respondents claiming that they requested help without receiving it, are ascribed the negative score *'-1'*. Respondents claiming no need for assistance, are ascribed the neutral score *'0'*. Respondents who get help when needed, obtain the positive score *'1'*. Summing up, this measure potentially varies between the scores *-8* and *+8*. In practice, however, the range of variation is somewhat narrower, especially for the negative scores. Zero scores include persons reporting no need for help and persons operating with some kind of 'balance in the account of needs satisfaction'. Let us label this measure *the number of 'takes'* last year.

Then we calculate *the number of 'gives'* last year in seven different areas, using the same principles of calculation as we did when counting the number of 'takes'. We should add that there are important differences between what men and women actually do for others – e.g. men build and repair, while women do the housework. Let us now transcend what is actually being done, and ask whether there is an abstract *logic* at work, governing the relation between giving help to others when they need assistance, and receiving help from others when their assistance is needed.

The chart (Figure 11.8) actually demonstrates that social relations in Estonia currently are characterised by a rather powerful *give-and-take mentality* (exchange logic). Since the interviewees themselves simultaneously informed us about their own generosity and that of others, we should not be surprised to observe that the average account (balance sheet) ends in the negative. The majority of people report that they support others (slightly but significantly) more than others support them! Despite this, we observe a powerful exchange of personal services among family members, neighbours and friends in Estonia today (Pearsons r=.4). Estonians stating that they have refused to help others in *4-6 areas* when their assistance was needed (give indicator), report that they on average receive a net refusal of help from others in close to *two different fields* of social exchange. People claiming that others do not need their help, or who operate with a balance of approvals and refusals, in general report an approximate balance in their account of help received from others too. People reporting a generous outlook, also experience generosity from others.

Figure 11.8 Received help (number of areas) as a function of help given to others the last 12 months (number of areas). Average scores among Estonians 18 years or older and among respondents reporting a bad or very bad health condition. Scale (-8, +8).



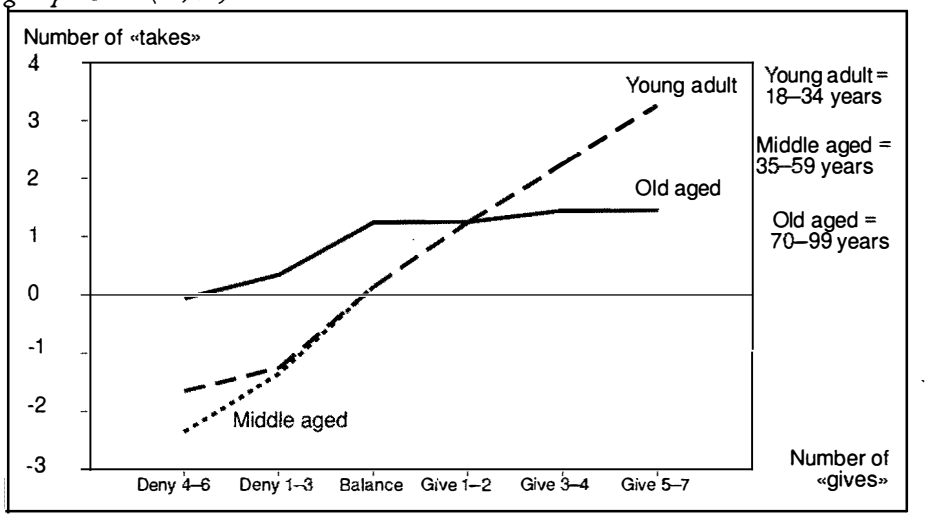
Actually *15 per cent* of the total likelihood (variance) of receiving help when needed, can be explained statistically by this logic of social exchange and intercourse among Estonians late 1994.

The chart, also, points to an important *modification* in the give-and-take mentality found in Estonian society. People reporting bad or very bad general health, receive a lot if they behave generously, but now even persons denying assistance to others in 4–6 areas operate with a positive balance in their account of help received from others. Estonians obviously demonstrate more tolerance and understanding if the request for help is put forward by a person with a low score on the number of 'gives' and with poor health, than if the entreaty is made by a 'stingy' healthy person – as good luck would have it!

Are particular groups especially inclined to follow a logic of exchange? Figure 11.9 shows 'the needs satisfaction account' among very old retirement pensioners (70–99 years of age), among teenagers and among young adults (18–34 years of age). In addition, we have included that part of the relation between 'give' and 'take' which can be observed among middle-aged Estonians covering the negative quadrant of exchange.

The objectors or nay-sayers among the old face, on average, the same generosity from others as persons suffering from failing health – and age and health are surely tightly related. Still, we observe one exception from the logic governing relations between healthy and ailing: The old who demonstrate a very generous approach to children, grandchildren, neighbours and friends are clearly net 'givers' of personal services. The group of old ones, anyhow, is a net receiver of help and assistance from others. These Estonians are probably receiving some returns on prior efforts.

Figure 11.9 Received help as a function of help given last 12 months in selected age groups. Scale (-8, +8)



Who represents instrumentality? *Young adults* have a lot to gain if they behave generously. At the same time, the potential height of fall is uncommonly great if they refuse to help others when this is needed and/or requested. Then the demonstrated lack of assistance strikes back with the force of a boomerang (Pearsons r=.5)! The variation in the account of gives now explains *25 per cent* of the variation (variance) in the account of takes – alone! With the exception of the enfeebled, the really old people, and some confused and probably unthoughtful teenagers, there is an intense exchange of personal help and favours in today's Estonia! Once more, we should stress that the net account of 'gives' and 'takes' influences the propensity to report lack of necessities, slightly but significantly – everything else being equal – i.e. even when we control for income differences, differences in the access to other food sources, ethnic affiliation and degree of urbanity (*Appendix 11.2*).

We should add that an extensive empirical model which confronts this exchange logic with several other individual hallmarks and his (her) environment, would probably yield several explanations. Only three factors, though, seem worthy of comment. First, persons suffering from ill-health clearly emerge as net receivers – *ceteris paribus*. Secondly, people living in rural areas show more generosity towards each other than do city-dwellers. Third, there is a tendency that respondents without Estonian citizenship (read: most Russians, Ukrainians and Belarussians) get less in return for showing generosity towards others, than do Estonian citizens – slightly but significantly. Income, vulnerability (read: lack of necessities), frequency of social contacts in general, and reported size of household, have but small effects, controlling for the generosity of the respondent herself. So is true for gender too! Even people living together with several others in large households, must as a rule give in order to get!

Estimating the Size of the Barter Economy

Now, we may ask, does a considerable portion of Estonian young people and grown-ups actually survive on barter or direct exchange of goods and services, basically outside the sphere of money? One way to identify such groups is to count the respondents (and households) simultaneously reporting a monetary return on labour below estimated subsistence level in purely monetary terms, having at least access to their own household plot or farm, and claiming a lack of necessities substantially below the average Estonian level. Doing this, we can immediately identify *nine per cent* of the respondents and at least *ten per cent* of the households, i.e. one in ten of the total population 18 years of age or older. They share the following characteristics:

* Average reported household income per capita per month is close to half the level of subsistence in monetary terms (253 kroons as compared to around 400 kroons).
* 65 per cent have access to their own household plots or farms, while the remaining 35 per cent have additional access to plots or farms owned by other family members or communities.
* On average they lack one basic good (out of five possible) from time to time, and are therefore clearly better off than most other respondents, who on average lack at least two goods from time to time, or one good most of the time.
* More than nine in ten have Estonian citizenship as compared to 76 per cent of the total population.
* 68 per cent live in the countryside (villages, small towns, towns with less than 5,000 inhabitants). Their expected proportion is 28 per cent.
* They are overrepresented among persons employed in agriculture and forestry, among persons working on former collective farms (cooperatives) and among the self-employed or family-workers working without payment on their farm (plot).

Of course, we expect monetary fees to be underreported among our respondents in general, but the evidence cited above indicates that ten per cent can be regarded as a safe estimate. Moving on, we are able to identify a group of *two–three per cent* which simultaneously lacks money (on average 214 kroons per month per capita), and has no access to alternative sources of food supplies, but which nonetheless enjoys rather good access to necessities, and even to socio-cultural activities implying some monetary expenses! Are these people 'story-tellers' operating in the local market place or perhaps dreamers? Or could they be 'life-style idealists', or people who perform services and other work only to the extent that they need money for food and entertainment? Nor can we rule out that they are beggars or simply persons surviving on thefts and other criminal activities. Of course, we do not know. This group of people is anyhow overrepresented in large cities and among persons without Estonian citizenship, they are rather well educated, and many of

them are quite young (i.e. 30–40 years old). This group can also be classified as surviving primarily on barter.

To conclude: Our best guess is that *9–11 per cent of Estonians 18 years of age or older* belong to the informal sector governed by direct exchanges of goods and services, and which possibly includes some 'shady' activities – identified as *the barter economy or subsistence sector* in Estonia late 1994. Having said this, we must add that at least *one third* of the young people and grown-ups (and households) are heavily reliant on home production of necessities, operating with one foot inside the sphere of money and one foot outside, trying the best they can to make ends meet. Part-time withdrawal to basics, of course, is one well-known reaction to new challenges and pressures. 'The behaviourist' probably views this as an example of seeking protection by *escaping* troubles (withdrawal), while the cognitive oriented observer (read: the structural functionalist) is likely to regard this economic behaviour as a sign of the capability (resources) *to create environments supporting one's way of life* (instead of opposing or limiting them). Despite this possible controversy of interpretation, we observe examples of people *adapting* to environmental strains and changes, partly occurring outside the control of the individual, coping as well as they can.

The Hierarchy of Social Positions

Our next task is to place randomly selected Estonian young people and adults 18 years of age or older into specific *socio-economic positions* ranked according to 'objective' individual characteristics. Now, we obviously must allow ourselves some *provisos*: First, this procedure should not be seen as an attempt to define social classes, using the concept 'class' in the strict sense. Our approach clearly belongs to the sociological tradition of empirically based stratification analyses[8]. Second, the classification indicates *relative positions,* and measures aspects of relative deprivation. But we do have indicators of absolute standards too! We will confront the average reported income and access to necessities enjoyed by the various strata with estimated prices of a minimum food basket (late 1993) and the access to alternative sources of food supplies.

Defining the first tool of classification

To develop a comprehensive (synthesising) measure of societal positions, we need indicators of basic living condition components such as *income*, *occupational position* at present, *educational level* and, if money is lacking, the access to *compensatory means of food*. In addition, we have chosen to include *general health* (Textbox 11.2).

The extreme importance of ill-health as a criterion of selection has been demonstrated already. Occupational position has several meanings: First, it measures elements of power and freedom of choice, or as Weber puts it, the likelihood of making

decisions that affect or are binding on others, and the freedom to make one's own decisions (at work). Further, occupational position clearly indicates the recognition of others and the size of the monthly fee. What about education? Education is not only a source of personal fulfillment, it also yields highly tangible results. Education pays too: It functions as a gate-keeper to occupational mobility, and it is positively related to the size of the monthly fee, especially among men – but most importantly, education strongly reduces the likelihood of being excluded from the labour force before retirement age – which holds true without regard to gender. This simply means that there is a strong and consistent relation between the educational level of a person and his (her) expected income in life! Our classificatory device anticipates these future opportunities and rewards.

Integrating general health condition, per capita household income per month, educational level, the number of alternative food sources and occupational position, into an additive index (which is standardised and classified/grouped), we are able to rank *nine* different socio-economic strata in present day Estonia. However, we should note the existence of *one group of people*, possibly *two*, primarily living and functioning outside the reported realm of pecuniary rewards of labour (Figure 11.10).

Having proceeded in this direction, we immediately come up against serious objections. Positions may be *shared* and even *borrowed*, they are not distributed and accepted *autonomously* per se (Davis and Robertson 1988). To put the same point differently, we must demonstrate that our classificatory tool also captures prominent features of the social and economical *relations* between Estonian residents as of late 1994. One could argue that our approach is somehow saved by the bell. We have already observed strong tendencies towards 'assortative mating' among Estonian adults. The current correlation between the educational level of cohabitors and spouses 18 years of age or older is quite strong (Pearsons r=.6) – so birds of a feather obviously flock together. If we, by accident, were to classify Mr. x and Mrs. y according to the educational level of Mr. x, the result of the classification would not be

[8] Pierre Bourdieu (1985) claims that if one has adequate information about four to five individual attributes, one is able, as a rule, to specify *concrete* groups of people. By this he means that the observer can identify *a set* of loyalities and possibly even a set of 'life situations'. Once this is accepted, one has at the same time established the principle that one-dimensional and purely theoretically founded classificatory devices will be insufficient if the aim is to identify concrete groups of people - e.g. to put people into various 'classes' based on information about their relations to the means of production. This could actually be regarded as one of the strengths of empirically based procedures, though stated somewhat loosely. Our procedure helps us to cover quite a distance on the road leading towards identification of specific material conditions and situations of life at present, something made possible by *the inductive character* of the approach. In modern societies, characterised by an extensive public sector - which in the Nordic countries also may function as an 'employment generator' - where few people are self-employed (read: owners of the means of production), and where the elite living on dividends is small and sometimes virtually non-existent, the relevant stratification of people occurs *within* the group of employees. One could argue that there is a need to proceed empirically in order to uncover the societal differentiation of positions in the labour market and in related arenas. And, most importantly, earning wages is, in spite of everything, the primary source of income for the vast majority of Estonians - 'old' Marx, please excuse!

Textbox 11.2 Classification of socio-economic positions based on individual hallmarks. First definition (Figure 11.10 and Table 11.1)

1: Monetary income controlled for family responsibilities. Indicator: classified household income per month per household member (scale 0-5=highest)

2: The respondents' access to alternative food sources/possibilities of economic compensation. Indicator: the number of alternative food sources (scale 0-3=highest)

3: Educational level of the respondent (scale 0-5=higher education).

4: Occupational position, including «outsiders» and unemployed (scale 0-4=leader, top rank)

5: Health condition: subjective health (scale 1-5=very bad)

* These five characteristics are worked into an additive index, which is standarized (mean score=0, standard deviation=unit=1) and grouped in *nine-ten categories*. These categories are labelled objective social positions of the randomly sampled individual.

* The *two groups involved in the barter economy* of Estonia are dentified as a *residual group*.

* The measure runs along a *continuum*, being *relative*, not absolute: First, this implies that the categorization is somewhat arbitrary. We have used the standard deviation. Second, the distribution will be close to «normal», or at least formed as an A (A-shaped distribution with the lion's share of people entering the medium bracket of the distribution of positions). Third, the measure is *relational*, i.a. we are measuring relative deprivation, not poverty, vulnerability, wealth, etc., as such. Comparing average reported incomes with the price of a basic foodbasket, controlling against alternative means of food supply, we may argue that an absolute standard has been introduced. Doing this we are able to identify groups of people primarily surviving on barter, and people probably lacking basic goods, at least every now and then, some most of the time.

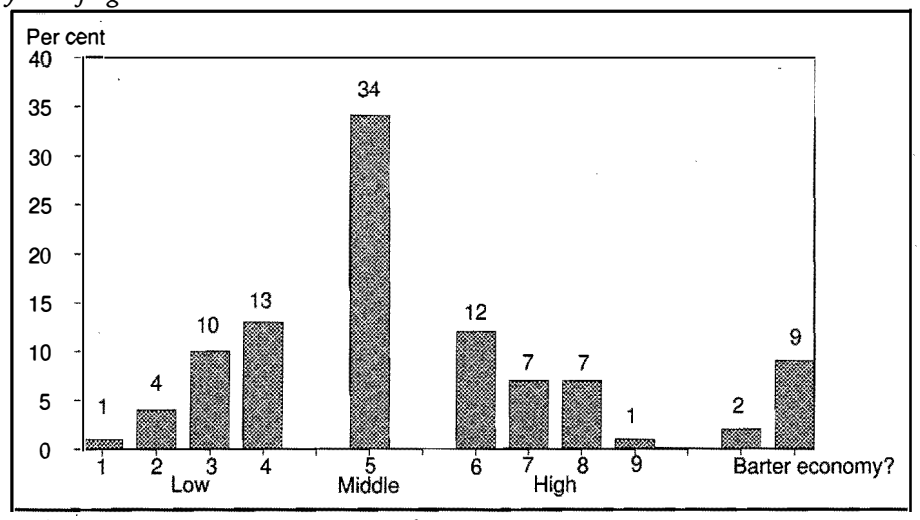
much different to what it would be if Mrs. y were included in our stratificatory device. The same would definitively not be the case with occupational positions and monthly monetary returns on labour. Here we witness large differences between men and women. Summing up, our individually based stratification proposal must demonstrate some robustness when faced with economic and educational attributes of the other members of the household.

The positional hierarchy of Estonia at present

The chart (Figure 11.10) distinguishes between four comprehensive groups of people. First, there is a low scoring group, labeled *the low position*, consisting of four specific ranked strata (numbers 1–4), including the vulnerable people of Estonia at present. The size of the group of poor people which not only stands without any real prospects of future improvement (mobility), but which actually lacks basic means of subsistence too, is estimated to cover at least *five per cent* of the population 18 years of age or older, and close to *six per cent* of the Estonian households (numbers 1–2). The total estimate of the lowest position (1–4) is more than one fourth of the population of young people and adults, and close to one third of Estonian households.

The medium stratum (34 per cent), labeled *the middle position*, lives and functions slightly but significantly above the level of subsistence, even in monetary terms.

Figure 11.10 Social positions/social strata in Estonia 1994. Per cent of respondents 18 years of age or older.



Explanation: Standardised additive index of five individual attributes (i.e. average score=0, standard deviation= 1); per capita household income, access to alternative food sources, educational level, health condition and occupational position (leadership index). Standard deviations from mean value in parentheses: LOW=socio-economic positions 1--4; 1= extremely low (-2.5 or more), 2=very low (-2.5,-2), 3=low (-2,-1), 4=quite low (-1,-.5). MEDIUM (=5): Persons scoring within the interval of -.5–.5 standardised units round average score (=0). HIGH=socio-economic positions 6–9; 6=quite high (.5–1 standardised unit above average), 7=high (1–2 standard deviations above average), 7=very high (2–2.5 standard deviations above average), 8=extremely high (2.5 standard deviations above average or higher). BARTER ECONOMY=randomly sampled individuals probably existing on production of their own means of living, basically outside the reported sphere of money (two per cent round large cities, nine per cent in rural areas).

This group of people should neither be regarded as vulnerable nor as 'struggling and poor'. The bulk of them report that they often lack one, or from time to time two, out of five possible basic goods (Table 11.1). Their per capita income level per month is on average twice the level of estimated subsistence (measured by the price of a basic food basket). At the same time, these persons (and households) obviously experience quite rigorous economic conditions –basically seeing themselves in the role of trying to make ends meet.

The upper strata (numbers 6–9), labeled *the high position*, cover close to *28 per cent* of the population and round *26 per cent* of Estonian households. Even among these people, many claim that they face rather tough constraints, primarily making ends meet, and that they by no means perceive themselves as being materially satisfied.

Finally, we can identify a group of people basically living and functioning outside *the reported* sphere of money. We estimate that the present *barter economy* (subsistence sector) comprises close to *11 per cent* of the population 18 years of age or older, and round *13 per cent* of Estonian households. We should add that most Estonians at present clearly operate with one foot outside the sphere of money,

producing parts of their means of subsistence on their own, entering relations of 'give-and-take', and supporting each other to the best of their ability.

Table 11.1 Social positions/social strata in Estonia 1994. Per cent

Strata	Rank	Grown-ups 18–99year	Per capita income kroons	Numb of other food sources	Lack of necessi-ties (number)	Lack of socio-culture (number)	Health bad=4,5 good=1,2	Reduced ability to work per cent	Education level	Age	Cumulative 9 attributes: Advant-ages number	Dis-advantages number	Net advantage
	1	1	400	none	3.1	2.7	4.9	92	1.6	63	1.4	5.8	-4.4
The low position Vulnerable?	2	4	466	0.2	2.4	2.4	4.1	64	1.7	62	1.5	4.9	-3.4
	3	10	490	0.6	1.9	2.3	3.6	50	2.0	59	2.0	3.9	-1.9
	4	13	572	0.7	1.6	2.2	3.2	33	2.7	51	2.2	2.8	-0.6
Middle	5	32	800	0.9	1.2	1.8	2.8	21	3,4	42	2.7	1.9	**0.8**
The high position – Elite?	6	12	1200	1.2	0.7	1.3	2.4	14	3.8	38	3.4	1.3	2.1
	7	7	1626	1.2	0.6	1.2	2.3	13	4.5	39	4.0	1.2	2.8
	8	7	1694	1.4	0.4	0.8	2.2	11	5,0	39	4.7	1.1	3.6
	9	1	3111	1.8	0.1	0.4	1.9	8	5.7	35	5.8	1.0	4.8
	10	2	214	none	0,.	1.3	2.7	16	3.9	41	2.7	2.7	0
Barter?	11	9	253	1.4	0.5	1.3	2,.	19	3.2	39	4.2	1.5	**2.7**
100%=		4455	4455	4433	4433	4433	4431	4455	4455	445	4431	4431	4455
Average, all			857	1,0	1,1	1.7	2.8	25	3.3	45	3.0	2.1	0.9
Eta=			.40	.51	.53	.33	**.60**	.43	**.61**	.46	**.62**	**.68**	
Explained variance(%)=			16	26	8	11	**37**	19	**37**	23	**38**	**46**	

Clearly begging the question – the cumulative aspects of stratification

Studying the cumulative aspects of the dimensions included in our classificatory tool, we are obviously employing a technique of analysis which *should* be labeled *begging the question.* Still, it is of great interest to assess how the classification works in practice. In order to reduce the tautological character of our effort to identify winners and losers during the transition, the list of possible cumulative aspects of life are first extended from *five* to *nine* characteristics. This means that our basic instrument of socio-economic stratification, which encompasses health, income, education, occupational status and other food supplies, also cover factors like housing conditions, formal political rights (read: citizenship), social contact and statements indicating personal control over environments or personal efficacy[9]. Yet, another device reduce the inputs to basic needs only, defining a measure made up of combinations of per capita income, alternative food supplies and reported lack of basic goods (definitions in *Textbox 11.3*).

The *cumulative aspects* of the stratification measure can be studied simply by counting the average number of *advantages* and *disadvantages* associated with these nine aspects of life. Table 11.1 shows that there are strong cumulative aspects to the socio-economic position variable in nine material and personal arenas. The two extremely low scoring strata (groups number 1 and 2), covering five per cent of the population of young people and adults, have on average 5–6 disadvantages, and round 1.5 advantages only. In comparison, the two extremely high scoring strata (groups 8 and 9) covering eight per cent of the same population, experience 5–6 advantages and one disadvantage only (average score). The socio-economic classification 'explains' more than *35 per cent* of the total variation (variance) in the number of advantages and *close to 50 per cent (!)* of the total variation (variance) in disadvantages late 1994 (Table 11.1).

To what extent does the indivdiual represent the household?

How robust is our proposed basic classification proposal (Table 11.1) when confronted with monetary rewards from the labour of other members of the household, and their cognitive and cultural resources (read: educational level)? Let us start with income. Variations in the reported *maximum personal income* of the household

[9] This way of proceeding reduces the tautological character of the classification. In addition we may use another idea put forward by Pierre Bourdieu: Identifying primary aspects of social phenomenona, we will always observe a 'subterranean web' of statistical associations pointing at secondary aspects of the phenomenona. When an observer detects these by-products, his (her) interpretation and understanding of what is actually going on, may change - including his (her) perception of what the primary feature of the phenomenona is (Broady and Palme (eds.) 1986: 245-247). Suppose that a school system exclusively selects pupils according to marks or credentials. Then the observers detects that virtually none of these pupils are women, are recruited from groups with low social status, come from rural areas, etc. Urbanity, gender and social background obviously are mere by-products of this formal (and meritocratic) procedure of selection. Obtaining knowledge about how it actually works in practice, however, would probably influence our perception of what the primary and secondary aspects are - indeed, this new knowledge may even alter the definition of the primary hallmarks - sometimes so radically that the reflection (appearance) of selection becomes its essence, and its prior essence becomes it reflection.

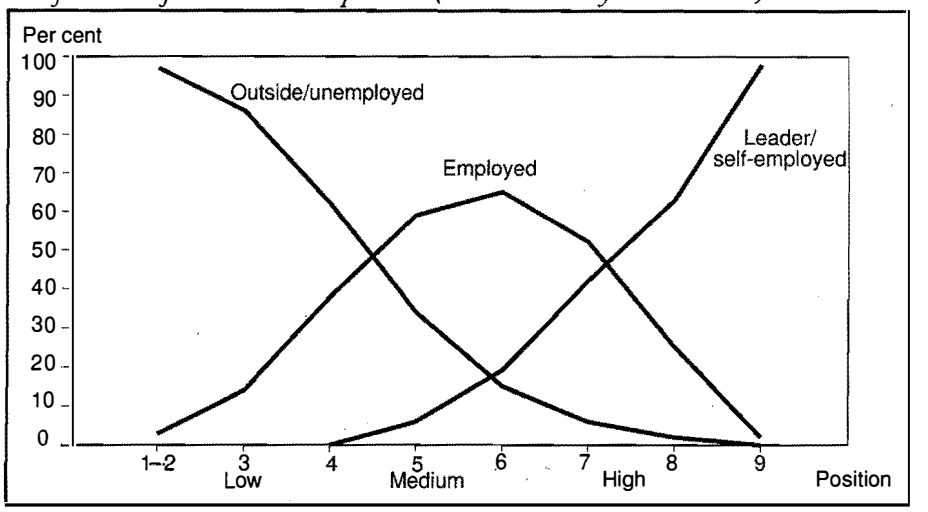
members actually explain the distribution of individuals along the positional hierarchy quite well – slightly but significantly better than reported household income per capita does (18 per cent and 16 per cent explained variance respectively). Introducing the educational resources of the other members of the household, by measuring the highest reported level and the average reported level in the household, we observe a reduction in the power of the educational component of our primary classificatory device (from 37 per cent to 29 per cent and 32 per cent, respectively). Still, we are reasonably satisfied, believing that the first proposed stratification tool does capture some relevant hard facts about Estonian life today.

Some aspects of vulnerability – who are the exposed?

Now, we may ask, are these ranked positions sensitive to measures of *integration in the labour market*, such as gender, ethnic/national divisions (i.e. according to Estonian citizenship), degree of urbanity, or composition of households or types of families? The answer to these questions is an unequivocal yes!

Figure 11.11 illustrates the enormous importance of parttaking in the sphere of money. There is a tremendous and consistent relation between the level of integration in the labour market (read: the possibility of earning wages and to receive returns on business) and the proportion of people entering the different socio-economic positions in Estonia at present: The three lowest scoring groups are almost exclusively populated by people without ordinary work: the disabled, retirement pensioners, others of working age surviving on unemployment benefits, social care, alimony, etc. Persons who have manoeuvered into prominent positions as businessmen or leaders at medium to top ranks, populate the three upper brackets of the positional hierarchy at present (groups number 7, 8 and 9). Ordinary employees actually populate all socio-economic strata, but are clearly overrepresented

Figure 11.11 Distribution of 'outsiders', ordinary employees and managers/self-employed as a function of socio-economic position ('barter economy' not included). Per cent

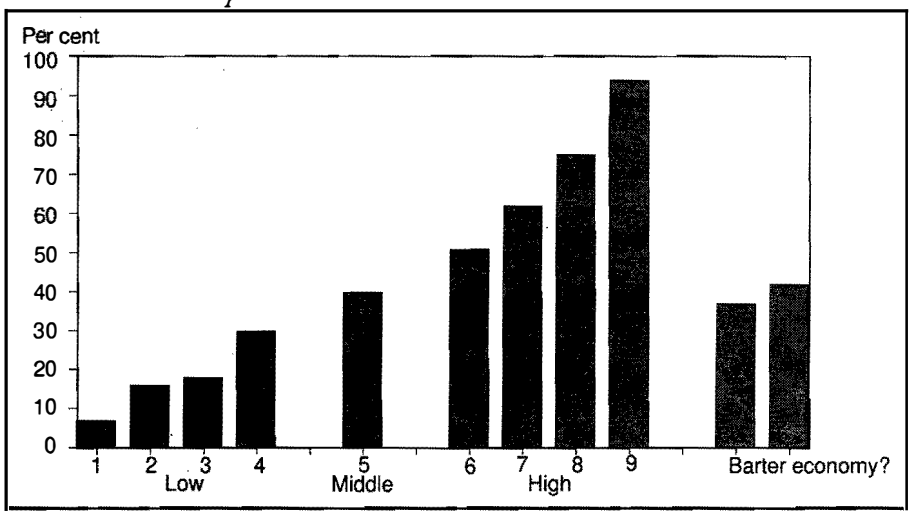


among members of the 'lower middle group' (number 4), the 'middle class' (number 5) and the 'upper middle group' (number 6). One reason is obviously that employees (and their family members) may compensate for low wages by extending their working day, by holding several jobs, and generally by increasing their number of income sources. Actually, most Estonians report rather long working days in late 1994.

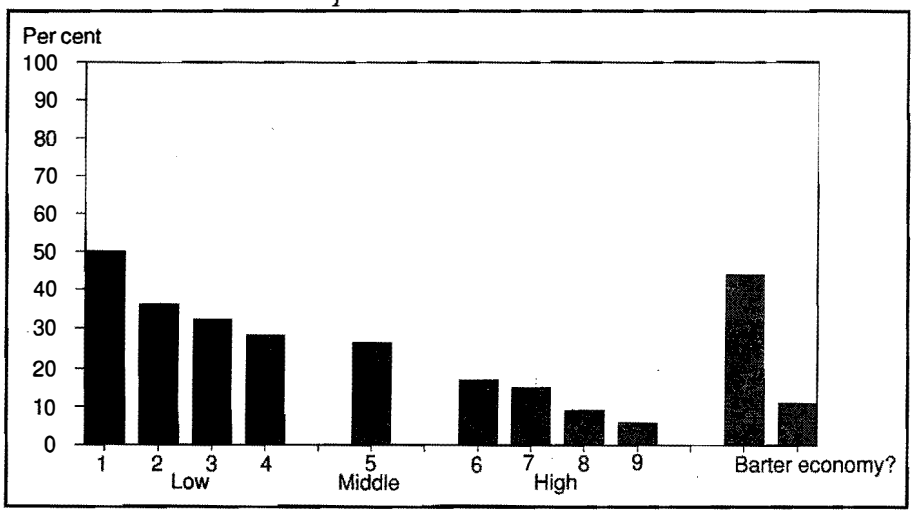
Figure 11.12 shows that social stratification – as defined in Table 11.1 (first device) – is extremely sensitive to personal efficacy, and quite sensitive to political

Figure 11.12 Proportion of Estonians (18+ years of age) expressing disagreement with the statement that politics is a too complicated issue for a person like me (a) as a function of social position (b) and the proportion of residents without Estonian citizenship (defined as first measure in Textbox 11.2). Per cent

A: Politics is too complicated



B: Without Estonian citizenship

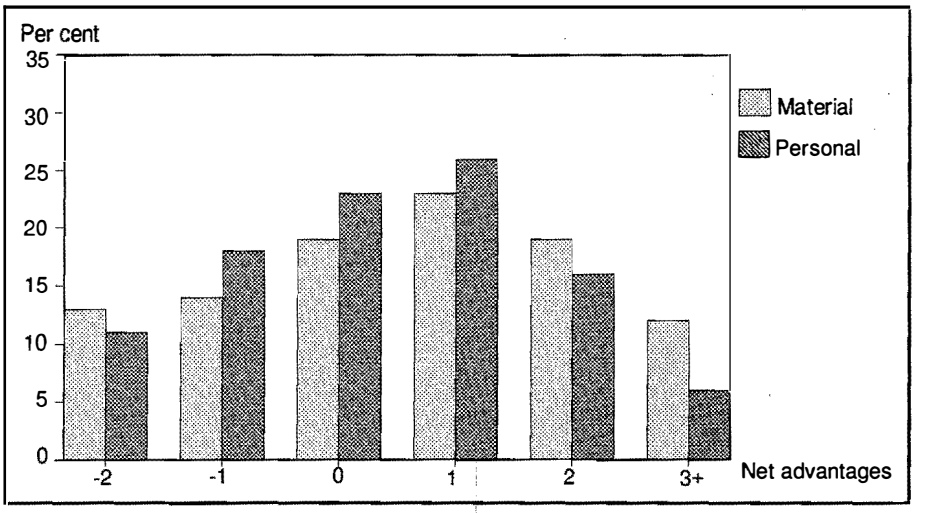


resources (i.e. the right to participate in national elections). We should remind the reader that these individual hallmarks are not included in this classificatory device! If a person 18 years of age or older enters the lowest social position (the lowest one per cent) *seven per cent only* (!) disagree with the assertion that politics is too complicated for someone like themselves. At the same time, *half* the persons populating this social stratum do not have Estonian citizenship. Their expected proportion is *one in four*. Among the respondents who populate the highest ranked upper stratum (the highest one per cent), *94 per cent* disagree with the proposition that politics is too complicated, and now *six per cent only* happen to be non-Estonian citizens.

Defining the second tool of classification

Figure 11.13 shows an alternative classification of social strata (*Textbox 11.3, definition number 2*). Here the number of material and personal advantages and disadvantages are counted and subtracted, measuring the number of *net advantages* at present. *Material resources* include income, alternative food sources, housing conditions, occupational position (including retirement pensioners and others of working age expelled from the labour force) and health condition. *Personal resources* include education, personal efficacy (self-efficacy), political rights (read: citizenship) and the score on the social intercourse index.

Figure 11.13 Social positions/social strata based on the number of net advantages (scale running from -5 to 5) on material and personal resources.



Explanation: The chart distributes Estonians 18-99 years of age by their score on two additive measures. Material=health, household income per capita, occupational position, access to alternative sources of food, housing condition index (scale -5,5). Personal=citizenship,education,control index,social intercourse index (scale -4,4). Scores on the two measures are closely related, Pearsons r=.4.

The two measures of material resources and personal resources are closely related (r=.4), but still some people obtain high scores on one measure and low scores on the other: Some retirement pensioners have quite pleasant scores on material conditions, but rather low scores on personal resources. Many young people with prospects of future upward mobility, have negative scores on material standards of living at present, but rather positive ones on personal resources. This, of course, should not be regarded as an empirical finding, it only demonstrates that our classificatory devices work properly!

A majority of respondents enjoy at least one net material or personal advantage. 25–30 per cent of the young people and adults interviewed seem to be quite well off. They have a net advantage in at least two (of possibly 4–5) arenas. Close to half the population either obtain some kind of resource balance(=0) or document one net advantage. The remaining respondents obtain negative scores – either materially or personally, or both. Table 11.1 shows that these alternative classificatory proposals, though not identical, are closely and consistently related (correlated). This means that as Estonia faces economic recovery, the lion's share of the population of young people and grown-ups have the resources both to contribute to it, and to gain from it. Still, we must admit that a significant minority of people may lack the material and personal resources necessary to take part in the expected boom. Empowering these persons and households is probably one of the major challenges of Estonian society for the near future!

The third device – pure economic conditions

Introducing yet another narrow measure of living conditions illustrates the point vividly (*Textbox 11.3, third definition*). If the Estonian residents 18 years of age or older are classified according to combinations of monetary incomes, alternative accesses and reported lack of necessities, we find that the vulnerable groups of Estonia today basically consist of *retirement pensioners* and *disabled people*, suffering from ill-health, with non-Estonian ethnic affiliation, and without Estonian citizenship.

There is an overrepresentation among people living alone and among women – the latter result being due to the differences between men and women in prior rewards on labour, and most significantly, we suspect, the fact that women outlive men by several years[10]. Here lack of Estonian citizenship is an important indicator. Many old non-citizens clearly are in urgent need of generous support from civil society and public authorities.

[10] Do some of the old residents without Estonian citizenship receive their pensions in roubles, thus experiencing the marked deterioriation in the purchasing power of this currency that has occurred during the transitional period? If so, one may guess that they are widows of Soviet officers and soldiers. Of course, we can not document this. A closer look at the questionnaire actually strenghtens the impression that many of the old non-citizens not only tend to lack most of life's necessities, but that their reply are consistent: Their monthly income is extremely low.

Textbox 11.3 Classification of social positions:
Second definition (Figure 11.13, Table 11.1): Advantages and disadvantages

*Health	Advantage: reporting good/very good general health condition	34 per cent
	Disadvantage: reporting bad/very bad general health condition	19 per cent
*Education	Advantage: completed «unfinished higher» education or more	15 per cent
	Disadvantage: basic education or less	30 per cent
*Occupational position	Advantage: leading position or self-employed	15 per cent
	Disadvantage: Unemployed or outside labour force	41 per cent
*Houshold income per capita per month	Advantage: 1,100 kroons or more	35 per cent
	Disadvantage: 500 kroons or less	21 per cent
*Access to alternative food sources	Advantage: at least one	75 per cent
	Disadvantage: none	25 per cent
*Quality of housing	Advantage: at least one stand dev above mean on housing index	23 per cent
	Disadvantage: at least one stand dev below on housing index	25 per cent
*Political rights	Advantage: Estonian citizenship	72 per cent
	Disadvantage: Not appplying for Estonian citizenship	19 per cent
*Personal control	Advantage: Not too interested in politics, politics is not complicated	16 per cent
	Disadvantage: Quite interested, but politics is complicated	16 per cent
*Social contact	Advantage: Social index (at least one stand dev above mean)	13 per cent
	Disadvantage: Social index (at least one stand dev below mean)	19 per cent

Compare:
a) net advantages on nine fields (scale -9,+9)(Table 11.1)
b) net advantages on five fields labeled *net material advantages* (health, income, alternative sources, housing and occupational position) (scale -5,+5)(Figure 11.13)
c) net advantages on the remaining four fields labled *net personal advantages* (education, Estonian citizenship, personal control, social intercourse)(scale -4,+4)(Figure 11.13)
These measures, too, should be regarded as relational, i.e. they classify people according to observed distribution of scores on different fields, but now the calculation does not relate individual scores to an average standard or balance (=0). We observe that most Estonians have at least one net advantage, either materially or personally.

Third definition (Table 11.2): «Pure» material standards of living
Let X=household income per capita per month (scale 0-5=high), Y=number of alternative food sources (scale 0-3) and Z=reported lack of basic goods (scale 0-5). Let R=X+Y-Z. R indicates material resources proper, and vary between -5 and +8. People obtaining the score -5 (virtually none) report an income per month per household member of less than 30 kroons, no access to alternative sources of food supplies as privately or commonly owned household plots, etc., and that they often lack milk, milk products, meat, money to buy food for their children at school, etc. The score +8 indicates that the respondent (and his household) has access to three alternative food sources, that the household income per capita per month is at least 1,800 kroons, and that he (she) never lacks the five basic goods mentioned in the questionnaire. The non-linear correlation between this measure and the standarized measure based on income, alternative food sources, education, health and occupational position, is (eta=.74, explained variance close to 55 per cent).

Table 11.2 Identifying vulnerable groups of people according to purely material measures of standards of living. Per cent

	Score on function R=X+Y–Z (defined as third measure in Textbox 11.3)				
	(-5,-2)	(negative)	(positive)	(4,8)	(5.5,8)
	Lowest 7%	Lowest 18%	Highest 82%	Highest 20%	Highest 7%
*Basic education or less	73	66	35	15	11
*Non-Estonian citizen	60	49	23	17	11
*Pensioner/ disabled	54	51	27	11	7
*Bad/very bad general health condition	45	40	15	8	7
*Unemployed/ social care	14	12	5	2	1
*Single parent children 0-6 years of age	3	3	2	1	1
*Woman	58	60	51	42	41
*Live alone	28	22	14	15	16

Explanation: X=monthly household income per capita (scale 0-5), Y=number of alternative food sources (scale 0-3), Z=reported lack of necessities. 1=often, .5=from time to time, 0=never (scale 0-5), R=basic good indicator (scale -5-+8).

Still, it needs to be underlined that many retirement pensioners who are formally integrated through citizenship, and who are able to draw on the support of others, may face extremely harsh economic conditions as of late 1994. If we employ the classificatory device which was based on education, occupational position and health condition in addition to monetary returns and alternative food supplies (Textbox 11.2, first definition), we actually observe that the two lowest ranked groups of people (numbers 1 and 2) consist of 97 per cent and 86 per cent pensioners and disabled people respectively. These groups of people report an average monthly household income slightly above the estimated price of the basic food basket (400 kroons per month per capita). The Estonian 'Lumpenproletariat', allowing ourself to say so, is clearly dominated by retirement pensioners and disabled persons, mostly women, but many old males too!

Here, two additional vulnerable groups can be identified – the *unemployed*, as determined according to the ILO definition, and single parents supporting children 0–6 years of age – basically *young single mothers* (cf. Chapter 7). With the exception of the non-Estonian pensioners, it is difficult to find groups of people, even among pensioners and disabled, who report a lower per capita monthly household income

than do the unemployed and single parents struggling to provide for their small children. The single parents entering the lowest one per cent of social positions (group number 1, Table 11.1), actually report a monthly per capita income close to 140 kroons, well below subsistence level. In addition, they report having limited access to household plots owned by other family members, villages or communities. Single parents populating the next two low scoring strata in the positional hierarchy of Estonia (groups number 2 and 3), i.e. persons who belong to the lowest scoring 15 per cent of the respondents, report an income of 310 kroons and 320 kroons per capita per month respectively. Their situation seems to be aggravated by the meagre possibilities of obtaining alternative food supplies. They end up clearly and consistently below subsistence, and even below the income level of most retirement pensioners. Children 0–6 years of age of the highest social position (reflecting that of their parents), i.e. the highest one per cent, belong, without exception, to classic nuclear families. Looking at the upper eight per cent, we only observe a few individual exceptions to this rule.

Actually, we have identified two distinct groups, which probably are heavily involved in the barter economy (9–11 per cent of Estonian respondents), meaning people who report an average per capita level manifestly below subsistence in purely pecuniary terms but who, nevertheless, do not necessarily belong to the group of vulnerable. Their access to privately owned household plots and farms, and other sources of barter and social exchange, enable them to live and function above the level of subsistence. In several aspects they even compare favourably with representatives of the 'middle' and 'upper middle class' of Estonian residents (groups number 5 and 6, Figure 11.10). This can also be seen when one compares reported lack of basic goods, reported lack of access to social and cultural activities requiring some monetary expenses, and the average score of gross and net advantages of nine different, but related, aspects of life.

To conclude our identification effort: City-dwellers are somewhat overrepresented at both extremes, i.e. among the vulnerable groups of people as well as among the winners in the transition to market economy. This tells us that a considerable share of the population standing in the greatest danger of joining the vulnerable groups of Estonians, is constituted by old people (mostly women) without Estonian citizenship, i.e. persons without the right to participate in national elections. Furthermore, we find that the strata with extremely low scores are populated by young single mothers taking care of their small children. Actually no specific groups report a lower household income per capita per month than do the young unmarried mothers and the tiny group of people (1.5 per cent of the labour force) surviving on unemployment benefit.

Factors influencing perceived Quality of Life

In order to explain the variation in perceived quality of life during transition, nine baskets (dimensions) of variables are introduced:

* The *first* dimension maps a series of *health problems* including age. A high score along this dimension indicates relatively young age, that one does not have physical or mental problems but generally enjoys good health, i.e. the health condition does not limit on one's capacity for work or one's ability to make use of public transport, etc.
* The *second* dimension records *objective economic resources*. A high score connotes high income, access to alternative food supplies, few difficulties in obtaining basic goods, and freedom to participate in social and cultural activities, even if they involve some outlays.
* The *third* dimension captures *self-perceptions of material standards of living* in 1994 as well as the expected standard five years hence. Anyone who reports being materially satisfied today and who also expects to be so in five years time, will have a high score on the economic measure of well-being.
* The *fourth* dimension covers *integration in working life*. A high score means that one has a leading position or is self-employed, having worked more than a normal working week the preceding week.
* The *fifth* dimension chronicles cognitive, cultural, and *educational resources*. A high score signifies high education and formal membership of some organisations.
* The *sixth* dimension describes the degree of *social integration*. Persons who are ready to help (thus getting at least something in return), who have a large circle of acquaintances (thus being exposed to conflict from time to time), and who live with others in big households – all have a high score on this measure.
* The *seventh* dimension assesses the person's *mentality* or political outlook in broad strokes. A high score implies a tendency to favour privatisation, a comparatively low score on distrust of authorities, an inclination to disagree with the assertion that politics is too complicated a business while at the same time expressing only a modest general interest in politics, and a slightly greater willingness to accept inequality than the average Estonian.
* The *eighth* dimension is concerned with *formal integration* in Estonian society. It addresses two groups – Estonian citizens and respondents without Estonian citizenship (the latter categorisation may or may not mean that the respondents holds another citizenship). Citizenship carries with it a series of rights and obligations; for instance, the right to vote in national elections is the reserve of resident citizens, as it is in most democratic countries. Non-citizens can participate in municipal elections after three years' residence in the country. These rules are identical to the Norwegian ones. We will investigate the possible effects of citizenship on a person's perceptions of his (her) quality of life when controlled against other resources or living conditions components.
* The *ninth* and last dimension measures the quality of *housing conditions*. A high score suggests that the household faces but few problems paying the rent, or that it receives sufficient (public) support towards that end. It may also denote that

the respondent is quite satisfied with his (her) housing conditions, that his (her) home is not exposed to damp, is cold or badly heated, or lacks privacy (i.e. that there are rooms through which people not belonging to the household have to pass), that the home is exposed neither to noise from neighbours, trains, aeroplanes, and cars, nor to dust, smoke and unpleasant smells from industrial enterprises. And of course, a high score reflects s number of rooms and square metres per household member above average.

From what has been discussed so far, is is already possible to infer that the dimensions are strongly interlinked and correlated. All nine dimensions are also correlated with the perceived quality of life during the transition (1990–94), albeit to a varying extent. Gross and net influences of the above battery of resources on the perceived quality of life can be estimated by use of linear regression (*Appendix 11.4*). A simple additive model explains *25 per cent* of the variation (variance) in quality of life assessments among respondents 18 years of age or older. In other words, two thirds of the individual differences cannot be explained by the model, and must be interpreted as deriving either from adaptive/dissatisfied preferences or from subjective/purely individual evaluations[11]. Anyhow, these two thirds have been stripped of aspects of health, objective economic resources and some consequences related to the lack of basic goods, housing conditions, perceived and expected standards of living, educational resources and organisational activity (affiliations), the right to vote, political attitudes, distrust in authorities (skepticism) and even fatalism, and different measures of social integration (relationships). Nevertheless, the model documents that perceptions of quality of life are objectively and materially founded. Health is very important, and so is income and access to alternative food sources. Education and perceptions of one's ability to control one's own life (mentality, political attitudes) play a role too. Social integration and integration in the labour market have indirect effects only, no net (controlled) effects – and critically important, the effect of Estonian citizenship, which is our measure of formal integration in society, has no effect whatsoever, controlled against other aspects of life. As the economy recovers, and standards improve for most people, we may predict that the significance of the objective foundations for quality of life judgements will be reduced.

Conditions that shed light on Differences in Expectations

A comprehensive model shedding light on the statistical relation between expected material standards of living some five years into the future and aspects of social background and prior experiences – estimating the strength of the relations by linear

[11] Interaction effects are actually quite modest, expanding the potential explanatory power of the battery with two to three points of percentages only. Design effects are close to zero (cf. Appendix 0.3, Appendix 11.4).

regression – quite easily captures close to 35 per cent of the variation (variance) in expectations among Estonians 18 years of age or older (*Appendix 11.5*). The first step of the model introduces a range of diverse indicators on economic resources running from reported gross monthly income (personal income and per capita household income) through a battery of questions concerning access to necessities like milk, meat, vegetables, medicines and paying for paid food for school children, to socio-cultural activities necessitating some monetary expenses on travel, receiving visitors, visiting the cinema, the theatre, etc. – and finally on to access to alternative food sources from privately owned household plots and farms and food contributions from family members, friends and local communities. There are interesting parallels to be found in Scandinavian social history; in Norway, the latter phenomenon is known by the traditional term 'matauke'. Alternative sources of material welfare, including those originating in informal systems of barter and social exchange, were indeed important for the material standard of many Norwegian families in the 1950s and 1960s – especially among members of the working class. Socio-economic resources explain close to 14 per cent of the variance in expectations – i.e. future expectations are clearly and consistently influenced by socio-economic resources!

Ill-health shapes expectations too. Health indicators ranging from quite concrete measures of ill-health (impaired faculties of hearing, sight and movement, etc.), through judgements of stress and mental problems, to a subjective measure of the general health condition of the respondent, raises the explanatory power of the model to 21 per cent. Poor health – both subjectively and objectively perceived – reduces future expectations significantly, everything else being equal, i.e. even when we control health effects against a string of different (objective) economic resources at the peak of 1994.

Introducing educational level and profile, the age of the respondent and his (her) occupational position – also counting respondents who for some reason are not in the labour market (unemployed, 'outsiders', disabled and pensioners) – the power of the model increases to some 25 per cent (explained variance). This means that in a group of Estonian respondents with equal socio-economic and health status, who belong to the same age group, and who furthermore have reached the same educational level and occupational position, there is 25 per cent less variation (variance) in expectations than in a group of randomly selected Estonians. Perceived future material prospects are raised with increasing education and social status, and are weakened with increasing age, even taking into account differences in objective economic standards and various socio-medical attributes of the respondent.

The fourth step brings the respondents' assessment of their past and present economic situation into the picture. Now, the explanatory power of the model passes the threshold of 31 per cent (explained variance). Subjective measures, in other words, contribute significantly, despite present variations in objective economic situation, health, age, education and social position. Some individuals evidently have a more pessimistic outlook on the world, the degree of despondence not necessar-

ily being a simple reflection of combinations of income, health, education or age. We also observe a small effect of perceptions of earlier material standards of living. Looking at the expectations of people who were 'well off' some five years ago – *ceteris paribus* – we find that the level of expectations for the future is also reduced, slightly but significantly. Times of turbulence and change intensify processes of social and economic mobility. This means that in contemporary Estonia we can witness both relative deprivation (for the bulk of the population), upwards mobility for the newly emerging elite, and possibly even bankruptcy for many of the people who used to be privileged. Clearly, there are quite a few Estonians who have experienced setbacks since 1989–90 and who are now giving vent to their frustration!

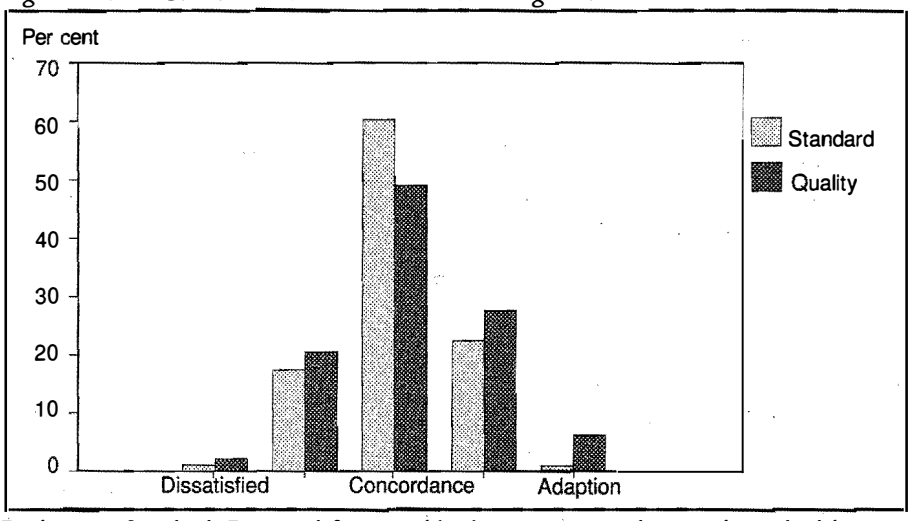
Finally, it may be just as suggestive to study what does *not* have a net effect on future expectations. Being a man or a woman, being a citizen or a non-citizen, being a Finn, a Ukrainian, a Jew, a Russian, a Latvian, a Lithuanian or an Estonian actually means very little. We should stress that this does not imply that women have the same expectations as men (on average), or that ethnic Russians have the same expectations as ethnic Estonians. It simply means that differences in expectations according to gender, citizenship, ethnicity, etc., are attributable to differences in economic resources, general health condition, age, educational level and profile, and the respondents' perceptions of his (her) past and present material condition. Comparing ethnic Estonians and ethnic Belarussians or Russians of the same age who report similar health conditions, and who have the same educational level and similar perceptions of past and present economic situations, we observe the same average expectations for the future. The same holds true for males and females.

Conclusion

The aim of the analysis has been to uncover aspects of both 'the real' and 'the ideal' foundations of perceived well-being and future prospects and expectations. One of subjectivism's principal advocates – the phenomenologist – claims that 'in the last resort', observers must prepare themselves to explain and interpret individual differences *individually* – in particular expressions of attitudes, perceptions and expectations! Faced with an unpredictability of 75 per cent (on quality of life) and 66 per cent (on perceived prospects), we probably have to give some concessions to this point of view.

At the same time, a thorough comparison of people's perceptions based on models predicting somewhere between 25 per cent and 34 per cent of all individual differences, will have considerable explanatory power. The two models clearly point to the significance of concrete economic, political and cultural (read: educational) conditions in creating and sustaining differences in individual expressions of quality of life during the transition so far, as well as in material prospects for the near future. Further, we have documented that these perceptions correspond, significantly and consistently, to differences in mentality *proper* – as expressions of 'self-

Figure 11.14 Concordance and dissonance among Estonian residents. Per cent



Explanation:Standard: Extracted from a table showing perceived material standard by pure economic condition as defined in Table 11.2 (cf. Appendix 11.6, Table 1) Quality: Extracted from a table showing perceived quality of life by economic condition controlled for subjective health condition (Appendix 11.6, Table 2)

efficacy' or feelings of control, and ideas of past, present and future material standards of living. Mentality proper refers to individually based 'ideal' differences stripped of variations in visible resources such as income, ownership of (or better, access to) land, quality of housing, educational level, general health and occupational position. Not surprisingly, the models demonstrate that perceptions in Estonia today reflect the hard facts of life – so, 'in the first instance', we have to concede the relevance and truthfulness of the respondents' claim that at the moment they are primarily trying to make ends meet! Still, many Estonian residents reporting quite narrow economic conditions claim that they have a good quality of life – possibly adjusting their preferences and expectations to the new economic and material reality emerging the last four to five years of transition to capitalism (cf. theory and classification presented and discussed in Chapter 1).

Figure 11.14 shows the observed discrepancies between perceptions and economic conditions among Estonians 18 years of age or older as of late 1994[12]. First, we observe that perceived material standards of living is quite closely related to 'pure material conditions'[13]. The impression of *'concordance'* between perceptions and the hard facts of life revealed in Chapter 7, is confirmed. Radical deviations hardly occur (one to two per cent only!), while close to four in ten demonstrate some *'dissonance'* – either as a tendency to report dissatisfaction despite quite pleasant scores on eco-

[12] Figures and definitions are presented in *Appendix 11.6*.

[13] Textbox 11.3, third definition.

nomic standing (18 per cent), or as a tendency to report satisfaction despite a somewhat unpleasant score, economically (22 per cent). Confronting material conditions (now, subjective health is included) and perceived well-being, increase the proportion of Estonians possibly practicing an *adaptive strategy* (from 23 per cent to 33 per cent). Some of these young people and grown-ups obviously fit their feelings of happiness to the new reality emerging during transition to capitalism.

CHAPTER 12

POLITICAL ATTITUDES

Jan Dietz and Jens B. Grøgaard

People, your government has returned to you![1]
(Vaclav Havel)

INTRODUCTION

Estonian independence was an extraordinary event, not least because it was achieved so peacefully. Even though Europe has experienced some bloodless separations in this century – Norway from Sweden in 1905, Iceland from Denmark in 1944, and Malta from England in 1964 – the norm when empires or multiethnic states fall apart is war and confusion. Many dissolutions of former European empires have resulted from what political scientists and authorities in the field of 'imperialism and dominance' would label *'Kampf der Giganten'*[2].

The road to self-determination was long and painful; no attempt will be made here to map this process from start to finish. The final stages may well have begun when Mikhail S. Gorbachev decided not to interfere in the political affairs of the Warsaw Pact countries, ruling out the ultimate option of military intervention. Thus, he also made it difficult to resist Baltic calls for freedom. However unforeseen, the forces released by the first breaths of liberty proved extremely powerful. There had already been an erosion of legitimacy – not only had Communist ideology long since lost most of its political or emotional appeal – but the rulers themselves had seemingly lost faith in their right to rule, or at least in their right to use the customary instruments of power and coercion. The Soviet elite was unwilling to put up a real fight when the old system began to unravel. Two major events provide the external framework for the events leading up to Estonian independence: The collapse of the *Imperium Sovieticum*, the outer empire, and the demise of the Soviet Union itself. It is worth noticing that the Baltic countries were in the vanguard of developments, a reflection, perhaps, of their Central European character. Memories of earlier independence were not too distant. The deadening hand of

[1] In his New Year's Address in 1990, Vaclav Havel used these words, consciously echoing his predecessor as president of Czechoslovakia, Tomas Garrigue Masaryk, who in his inaugural speech in 1918 cited the Czech 17th century scholar Comenius. Quoted from Timothy Garton Ash (1990).

[2] Rudolf Hilferding (1910/1968). See also Taagepera's (1993: xiii, 1–2) introduction to the separation process.

ideology, of «newspeak», was always resisted by the Balts, probably more so than by the majority of other groups in the Soviet Union.

Several internal as well as external incidents and developments contributed to the dissolution of the Soviet Union and the achievement of Baltic and Estonian independence. A few should be mentioned: After World War II, the international community was divided into two opposing camps, East and West. This division, of course, was most acute in Europe. The Cold War that ensued was characterised by comprehensive rivalry, a perilous balancing act over the nuclear precipice. In addition to being dangerous, the arms race tied up an enormous amount of economic and human resources on both sides. The space race added to the costs. The Soviet Union also exhausted its resources by supporting Communist regimes in Asia, Africa and Latin America. A stark contrast developed between outward appearances and the true state of affairs[3].

In the West, the dynamism of the capitalist machinery somehow managed to deliver the goods – i.e. both security and extended opportunities for private consumption[4]. Seen in retrospect, the crucial weakness of the command economy was that it seemed unable to provide security as well as prosperity. In the long run, it could hardly keep up with the Western market economy[5]. The opening up for economic and political reforms under the leadership of Gorbachev, indicated that the destructive internal effects of this intense rivalry had also been recognised at the very heart of Communist power. Concepts of *perestroika* and *glasnost* were introduced, representing intentions of reforming the planning system and reducing the paralysing impact of subservience to the state and the obligatory professions of ideological faith, allowing cultural diversity, open practice of religious beliefs, and even manifest political opposition[6]. Eventually, some forces within the system tried

[3] See Geir Lundestad (ed.)(1994). This anthology provides a richly detailed analysis of the break-up of the Soviet Union as well as other empires.

[4] «Damn it, what we want is the goods» (Joan Robinson 1974 op.cit).

[5] Alec Nove (1977) struggled to be fair in his judgement of the two systems and claimed that both were based on a tendency to *waste resources*. While market systems of production and consumption face *macro-irrationalities*, the planning apparatus of a command economy fac s *micro-irrationalities*. By this he meant that while the producers in the market system clearly delivered goods in response to concrete demands in the market place, their dynamic power, the crude competition, and even their economic vitality forced them to produce goods with built-in 'wear and tear', in order to prepare the market for ever more goods. Actually, this is an hypothesis of overproduction, claiming that capitalism primarily faces problems getting rid of its production potential. He used shoes, clothes and most durable goods like refrigerators, and cars as examples of this macro-irrationality of modern capitalism. In an economic regime based on centralised decision-making, the macro figures fit perfectly into the input-process-output-scheme, while the economy as such faces severe problems of mismatches between what is actually delivered (supply) and the demand for goods at the micro-level. Without price signals allowing adjustments in the market place (at micro-level), it is impossible to clear a market for goods. The result of course, is a tremendous waste of resources (Examples: screws weighing a ton, heaps of shoes that nobody asks for, a tendency to hoard frantically; not to mention the ploughmen at the enormous kolkhoz shouting «sink the plow, boys, the Commisar is coming!»).

to turn back the clock, but failed to do so, and the last external event which contributed to Baltic independence and freedom was the aborted August 1991 coup in Moscow. As will be recalled, the Estonians followed up by declaring immediate independence on August 20th.

What is remarkable, is the swiftness and self-assurance with which Baltic NGOs and personalities defied Soviet rule once they saw an opportunity to do so. Public demonstrations were staged not long after Gorbachev became Secretary General of the Communist Party. As early as September 1988, a major rally in Tallinn with approximately 300,000 participants demanded Estonian independence. Soon, the local authorities acted to obtain greater economic latitude. This was done in recognition of the fact that economic reforms introducing market mechanisms require decentralised decision-making, especially regarding investments. The Estonians challenged Moscow at an early stage, e.g. by establishing laws permitting private enterprises.

However, the cultural and political renaissance in Estonia in the last years of the Soviet Union may be just as important as the opposition to economic orders from Moscow. We will list some of the elements of this renaissance because they provide a backdrop to the development of a modern Estonian civil society and, hence, to any discussion of current political attitudes. First, one should call to mind *'the singing revolution'*, which i.a. manifested itself at the Baltica folk festival in Riga 1988. That event expressed the revival of national self-confidence through art and folklore, using traditional songs, dances, etc. Second, and *in opposition* to the revitalised traditional form of cultural expression, the youth of the large cities developed, or to be more accurate, imported from the West, 'modern' tastes in popular music and fashion, and even extreme expressions of youth behaviour. Third, we observe a pronounced opposition against dominant Communist paradigms of 'social realism' and 'naturalism' in painting and sculptures – i.e. another example of the modernisation of artistic expressions. Fourth, and this was probably a decisive event, the *Helsinki 86 human rights group* was established.[7] The group demanded basic individual freedoms such as the right to organise, to express opinions publicly, and to participate in the activities of NGOs. It reminded the Estonians of their political past and focused on the human losses and suffering during the first phases of the Soviet occupation.

[6] According to traditional liberalist doctrines in political science, important aspects of the space race and the cultural competition between the well-trained representatives of the two sides of the 'iron curtain', should be regarded as devices to channel latent aggression in a peaceful ('symbolic') direction. John A. Hobson (1902/1938) furthermore held the view that extended economic rivalry in an unregulated international market would serve the same purpose (the doctrine of free trade), while Karl Polanyi (1944/1957) disagreed with this particular generalisation of classic liberalist doctrine.

[7] The CSCE (now OSCE), of course, played a vital role in mitigating the effects of the Cold War, and eventually in ending it. The Helsinki commitments could be used by both internal groups and by the West to hold governments in the Eastern Bloc responsible in matters of human rights. When Hungarian authorities on September 10, 1989, chose to let East German refugees pass through to Austria, rather than return them to the DDR, they invoked CSCE (and UN) commitments. Some would say that the iron curtain in effect came down on that day in September. See Vojtech Mastny (1992).

Fifth, new groups put a spotlight on environmental issues, providing a unifying political theme in Estonia. Sixth, there were astonishing expressions of solidarity, above all the 50th commemoration of the Ribbentrop-Molotov Pact in August 1989, when two million Balts joined hands in a human chain stretching from Tallinn via Riga to Vilnius.

In this chapter, we will probe current political attitudes. Obviously, the NORBALT survey lays hold of a fluctuating social reality, and political attitudes will by necessity be under the influence of changeable and changing living conditions. It is important to note that the transition has thrown up new political issues: The introduction of market economy has been, and still is, a complicated and thorny issue in all the former Communist countries. Today, the Baltic countries are exposed to capitalism in some of its rougher forms; the contrast between the strict regulations of yesterday and the immense freedom of today is indeed immense. Privatisation is probably the lynchpin of reform, both economically and politically. As we have seen in the previous analysis, greater economic inequalities are developing in the trail of growth. How do Estonians respond to this new reality?

The political upheaval has meant a fundamental reordering of the relationship between the governing and the governed. The establishment of full-grown democracy alters the way citizens think about their state, their government, and their own ability to participate in politics. But do Estonians in fact, to quote Vaclav Havel, feel that the government has returned to them? And do the various ethnic groups see eye to eye on the challenges facing Estonia?

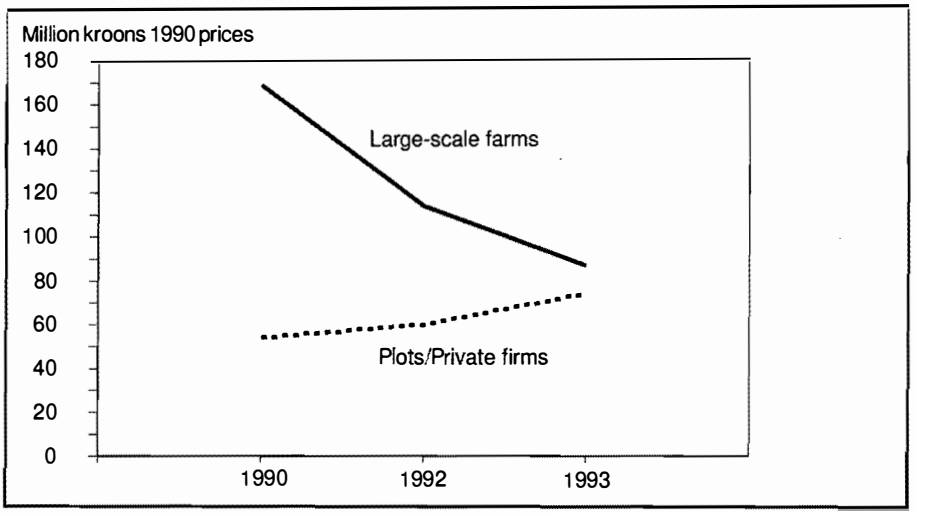
This chapter, then, provides a tentative analysis of the impact of the transition thus far, based on data from the NORBALT 1994 survey. The Estonian survey includes four sets of indicators on political attitudes. First, there are questions regarding privatisation of the means of production and views on private versus collective ownership. Second, the respondents are queried about their attitudes on wage differentiation or income inequalities. Third, the survey asks about the competence, loyality and integrity of authorities and public officials. And fourth, it addresses discrimination of women. By way of conclusion, some policy implications are indicated. We will start by discussing the respondents' views on the problems of privatisation.

Views on Privatisation

One important aspect of the Soviet occupation of Estonia was the radical transformation of property relations. Agriculture was brutally collectivised, private ownership of farms was minimised, and the state actually controlled close to 90 per cent of all industrial activity after the integration of Estonian economy into the centralised planning system of the USSR (cf. Chapter 1). Today, the overriding political goal, which is shared by all important parties, is to restore a well-functioning market economy based on private ownership of the means of production. It should be kept

in mind that in Estonia privatisation has followed a path that diverges somewhat from the one pursued by Latvia and Lithuania. Assisted by the German institution Treuhandanstalt, the Estonian Privatisation Agency has adopted a centralising policy, i.a. emphasising bids by tender as opposed to investment vouchers.[8] Priority has been given to institutional investors. The implication is that the Estonian public probably has been less engaged in and personally exposed to the privatisation process than other Balts have. Further, it may be noted that privatisation in Estonia also involves turning property over to *groups*; e.g. cooperatives of farmers.

Figure 12.1 Gross agricultural output from crop production and animal products by large-scale farms and household plots/private farms in Estonia 1990–1993. Prices in 1990. Million kroons.



Source: *Statistical Yearbook* (1994: 160)

Ups and downs in the agricultural sector

Times of transition are also times of economic turbulence. The chart (Figure 12.1) illustrates one dimension of the rapid economic change that has taken place: the development of gross output of crops and animal products from collective, state-owned farms (large-scale units), private farms (small and large) and household plots from 1990 to 1993. First, one observes that there has been a considerable decline in the value of gross agricultural output in Estonia since 1990 (*28 per cent*). Second, while the value of production of state-owned large-scale farms has been reduced *to half* of the former level, the productive capacity of private farms (small and large) and household plots has increased with *37 per cent* in the same period! If we add that the large-scale farms had access to more than 85 per cent of the agricultural area

[8] See, for instance, Riho Rasmann (1995).

in 1993, it seems safe to conclude that the recent political and economic changes have widened the productivity gap between state-owned and privately owned production in Estonia.

Of course, it is tempting to use examples like the above to illustrate the potential (and actual) gains of privatisation. At the same time, one should be wary of simplistic interpretations. The chart obviously presents the outcome of several parallel processes: First, in times of transition and rapid systemic change, the dignitaries of the old world will be the first to taste the bitter pill of economic change. Production systems adapted to the logic of the old command economy, necessarily face difficulties when operating in an emerging competitive market, as do entrenched elites. Such shifts tend to *provide room* for various newcomers, enabling them to make major but historically unique (one-off) economic advances. Second, the expansion of the private sector – including the intensified use of small household plots – points to an element of situational coercion during the transition to capitalism. We have already seen that many households are forced to *compensate* for straitened economic circumstances through intensive exploitation of private plots. If they fail to do so, it will be difficult for them to sustain a level of consumption above subsistence (cf. Chapter 11). Having taken such issues into account, one can of course proceed to discuss how the introduction of private property influences and, in most cases, stimulates personal incentives to take economic action!

We wish to stress the ambiguous nature of this development. The documented expansion and growth in productive capacity of private plots are influenced by combinations of new possibilities as well as external limitations – *opportunity knocks when pressure sets in.* It seems safe to assume, though, that most Estonian residents are generally supportive of the government's efforts to privatise agricultural land.

Textbox 12.1 Questions on problems of privatisation and ownership

In asking the following question, we would like to know your views on the problems of privatisation. Who in your opinion should be the owner of ...
1: A smaller industrial plant with less than one hundred employees?
2: A big company, where more than one hundred people work?
3: Shops?
4: Agricultural land?

Options:
* The state
* A workers collective
* Private persons/shareholders
* Depends on what kind of company it is
* Do not know/refuse to answer

Four indicators and some premises of interpretation

The questionnaire presents four indicators on attitudes to problems of privatisation. The respondents were queried about who they think should own agricultural land, shops, small firms and large firms. They were allowed to choose between private ownership, a mixed or conditional preference ('it depends on the company'), ownership by a collective (cooperative) of workers, and state ownership. Some seven to thirteen per cent did not have an opinion or refused to answer the questions, i.e the great majority of the interviewed actually held an opinion on the ownership aspects of privatisation.

First, some premises for the present interpretation: If a respondent answers that all kinds of property, i.e. agricultural land, shops, small firms and large firms, should be owned privately, it is assumed that the person takes a *liberalist stand* on these issues – a preference in total opposition to the experiences of the past. By analogy, if a respondent answers that the state should have complete ownership, he (she) clearly expresses a *Communist preference* with regard to property relations. The view that land, shops and firms – regardless of shape and size – should be owned by a cooperative society or independent collective of workers can be defined as an expression of *syndicalist values*. The proponents of this attitude share the socialist vision of common ownership in so far as they prefer group possession to individual custody, but look towards civil society (e.g. represented by a trade union) rather than towards the state. The conditional or *mixed preference* can be difficult to interpret. It may be wrong to regard it as a straightforward expression of «moderate liberal» or «social democratic» views on privatisation, but it does hint at a kind of compromise between clear-cut capitalist and socialist views on property relations and ownership of the means of production.

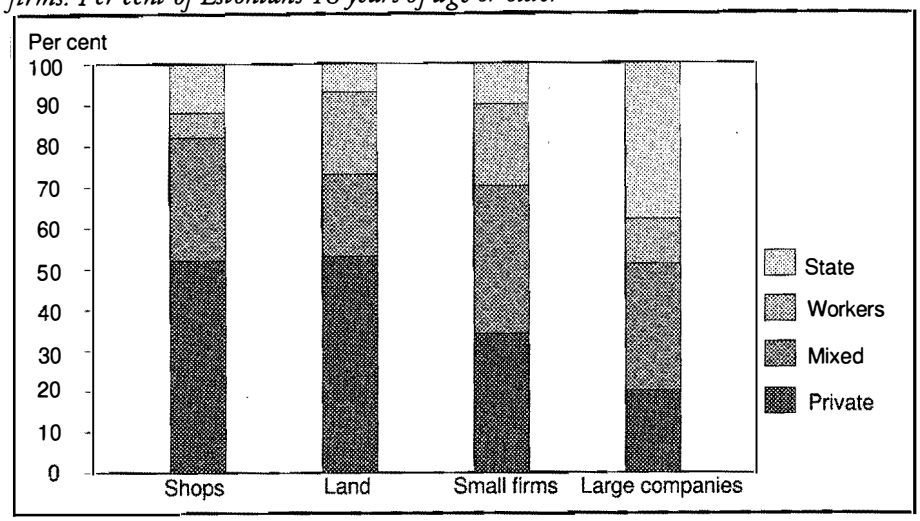
Most Estonians support privatisation – but not without reservations

Figure 12.2 presents the views on ownership in Estonia as of late 1994. More than half the respondents 18 years of age or older prefer private ownership of agricultural land (53 per cent) and shops (52 per cent). Turning to the issue of private ownership of firms and industries, this proportion drops significantly. One in three prefer private ownership of small firms, while 20 per cent only favour privatisation of large companies.

If the mixed or conditional preferences are included in the measure of 'liberalist stand', we may conclude that a *vast majority* of Estonian residents 18 years of age or older, prefers private (individual) ownership of land, shops and small firms – though with some reservations – and that close to *half* the population (43 per cent) prefers collective ownership of large companies and firms – either controlled by a collective (cooperative) of workers or by the state.

The central fact seems to be that the population is *polarised* on issues of property relations. A closer look at the relation between the four aspects of this view, strengthens the impression of mixed or conditional preferences. Would it be true to say that those who wish to privatise the large companies represent a 'hard core'

Figure 12.2 Views on privatisation of agricultural land, shops, small firms and large firms. Per cent of Estonians 18 years of age or older



of liberalists? In one sense, it would not: Of the 20 per cent who express that view, 60 per cent favour private ownership of small firms (meaning that a substantial group nevertheless prefers collective ownership), 70 per cent opt for private ownership of shops (meaning that some actually choose state ownership), while 66 per cent support private ownership of agricultural land. Conversely, some 'hard core' collectivists – defined by their wish to collectivise ownership of land and shops – actually hold the view that firms, both small and large, should be privatised. Of course, these attitudes are correlated, but the relations between them do not show considerable strength (Pearson's r ranges from .2–.4 only!).

Expected effects of social and economic position

In order to analyse the statistical relations between various individual attributes and the wish to privatise the means of production and consumption, we have constructed an additive index. Respondents preferring state ownership in all four areas, are ascribed the (negative) score *'-8'* in our additive measure. These persons strongly oppose the present drive towards capitalism. Respondents who think that private persons or shareholders should own farms, shops and enterprises, irrespective of shape and size, obtain the (positive) score *'+8'*. A consistent mixed or conditional preference is ascribed the score *'+4'*, while a consistent syndicalist attitude towards ownership and control, gives the score *'-4'*. The value *'0'* indicates an indifferent position on issues of privatisation. In practice, however, the score implies a preference for collective ownership of some enterprises (economic activities) and private ownership of others, with or without provisos. An extensive linear regression model explains close to 20 per cent of the differences (variance) in individual attitudes to privatisation (*Appendix 12.1*). One may argue that the predictive power of the model is rather limited, 80 per cent remaining unexplained. Yet, in democratic politics,

even marginal changes in opinion may turn a government out of office, and the model clearly identifies some of the individual resources and hallmarks which are related to differences in political orientation towards problems of privatisation:

* Young men, especially in the age group 25–34, are definitely the most favourably disposed towards private ownership. Older women express the greatest skepticism. The younger men, above all if they also have higher education, must be regarded as the winners of the transition so far. The older women come out as clear losers, a result that conforms to what one might expect.

* Further, there is a consistent relation between attitudes to privatisation, social position and education. Well-educated leaders in the cultural sphere, the police and the defence establishment have a more marked preference for private ownership than other occupational groups. Artists and intellectuals no doubt had direct, personal experience with censorship; to them, the lack of a private sector and a vital civil society may have been felt as particularly restrictive. Ordinary employees in heavy industry present a contrast, but they, too, have a positive score on the privatisation index. Persons dependent on various forms of support (social care, rent subsidies, unemployment benefit, etc.) lean toward an *indifferent* stand on the ownership index. Generally, it is difficult to identify groups of people reporting a negative score on this index.

* Other attitudes also play a role. People who feel that they are overwhelmed by changes in society, who e.g. respond that it is difficult to follow politics, and who express a pessimistic view of the future, are inclined to long for the old system of state ownership of the means of production. Still, few groups score below zero.

* There is also a consistent and resilient relation between ethnic affiliation and attitudes towards privatisation. While residents who originally come from Finland, Russia and the Ukraine are heavily polarised on these issues, residents with an Estonian, Latvian and Jewish ethnic background are generally well disposed towards privatisation. This difference according to ethnicity, which it is reasonable to call cultural-historical, survives control against a range of other individual characteristics. In other words, also among, e.g., Finns and Russians, attitudes on privatisation tend to grow progressively positive with increasing social status, feeling of personal efficacy, income, etc., albeit at a somewhat lower level than for Latvians, Jews and Estonians with similar characteristics.

Differentiation of Incomes

Let us conclude that a majority of the Estonian population supports the government's push to privatise property and the control of the means of production – but within certain limits: The opposition to privatisation increases with increasing size of the enterprise (read: employment and unemployment potential), and the population of young people and grown-ups takes a far more critical attitude towards privatisation of large-scale industrial undertakings than they do towards privatisation of shops and land. It is logical to follow up by asking if Estonians are willing to accept other expected consequences of systemic change – e.g. an increase in economic inequality.

Classic economic theory of change from *autarchy* (read: self-reliance) to *free trade*, compares the mutual gains of two established systems, and concludes that even the less productive participant will receive a net return on specialisation in a free trade regime due to the principles of comparative economic advantages, and – here the famous carrot comes in – if the more advanced trading partner behaves generously, this gain may be considerable. The comparative (static) approach, however, says very little about the costs of transition[9]. Instead, one must look to theories of modernisation. Rostow (1960) claims that an industrial 'take off' requires that some groups (read: social classes), possibly even whole generations of people, must shoulder the burdens of transition costs on behalf of their children and grandchildren, who will subsequently be able to enjoy much greater opportunities. At the same time, historical development has demonstrated – especially in the USA, Japan, Western Europe and even in many NICs[10] – that the yields of transition to modern capitalism as measured in consumption and welfare are enormous!

One conspicuous feature of the planned (command) economy, as seen from the West, is abundance of money hand in hand with a dearth of goods and services. The highly centralised and tight regulations mean that prices of important goods are not affected by the imbalance between supply and demand. The crucial variable in coping with the problems created by this incongruity is probably time, possibly also social status. Basically, access to benefits is mediated through «waiting lists», arrangements organised according to time, position and prestige, friendship and acquaintance – or queues, plain and simple. In the latter case, one needs time, often buckets of time, to get hold of what one needs. Again, viewed through Western lenses, a system is created in which everyone is impelled to hoard, not only necessities, but most available goods. In a market economy, all wares will be on display in shop windows, but now the problem may be a lack of money (most people experience economic constraints from time to time), and some may even be short of money to buy basic goods. The establishment of what in economists' terminology is called a well-functioning market, with real prices on goods and services, entails, in the transition to a market economy, sharp reductions in purchasing power for some. The problems may be felt as particularly acute if one forgets how much time one used to spend on getting hold of goods!

[9] See e.g. Ian Steedman (ed.)(1979). The neo-Ricardian critique of this claim of marginalist or neoclassic theory of specialisation and trade is of course controversial, but in our view it adds some 'realism' to the computation of immediate gains from transition. Steedman says: «When discussing transitions, it is most important not to take it for granted that the 'old', physically specified capital stock can be costlessly transformed (through production or exchange) into 'new', physically specified capital stock or that, if the total v lue of the new stock should be smaller than that of the old stock, then that difference in value can be transformed (through exchange) into consumption goods of equivalent value. Tr nsitions will often (ough not always) involve the scr pping or 'junking' of old equipment, whose value cannot be realised on any market» (ibid op.cit: 9).

[10] Read: Newly industrialised countries of the Far East like Taiwan, Thailand, Malaysia, Singapore, Hong Kong, South-Korea, and possibly even the Philliphines, Indonesia and Vietnam.

In the introductory chapter (Chapter 1), we observed that the Estonian government reduced inflation by introducing a new national currency (kroons). Today, the monthly inflation rate has fallen to 3–5 per cent. It may also be recalled that the chapters discussing economic resources and social structure (Chapters 7 and 11) showed us that the four years of transition have reduced Estonians' feeling of satisfaction significantly; we observe a far stronger deterioration in perceived material satisfaction than in quality of life assessments. Some have obviously adjusted their expectations to the new economic reality of the transition. While six in ten claim today that they were materially satisfied around 1989, 12 per cent only say that they are content as of late 1994, 68 per cent are 'making ends meet'. Thus, there is no question that the transition period is being felt as a rather drastic remedy by a score of Estonians.

The respondents were asked about differentiation of wages (*Textbox 12.2*). 93 per cent expressed an opinion. Of these *an overwhelming majority (82 per cent)* replied that the wage differentiation should halted. Ten per cent only preferred greater wage differences, while eight per cent of the respondents favoured the status quo. Of course, responses which are so unevenly distributed may be difficult to explain statistically.

If we perform a radical comparison between groups of individuals, we find that among men 25–34 years of age who live in Tallinn and report a personal income per month of more than 2,000 kroons, *four in ten* («only») believe that income differences should be a lot smaller than today. If personal incomes per month rise to 4,000 kroons or more, the number of respondents drops to 37, three in ten («only») reply that income differences should be reduced. An 'impressive bulk' of 20 per cent think that income differences may be widened. Among women 60 years of age or older living in rural areas and reporting a personal income around subsistence level or less (less than 500 kroons per month), *90 per cent* prefer a reduction in

Textbox 12.2

There is a lot of talk about wages in Estonia differing wery much from person to person. What do you think about this? Should wage differences be ...

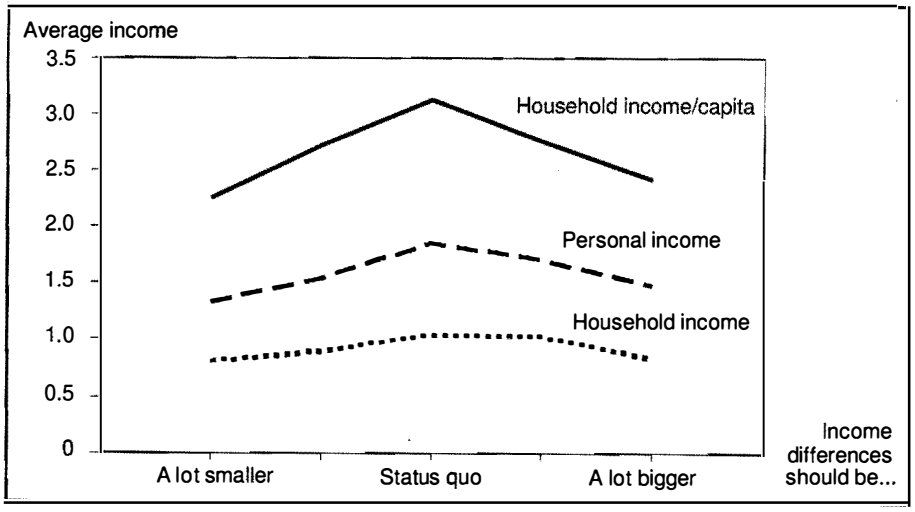
		Cumulative
A lot smaller	53 per cent	
Somewhat smaller	22 «	75 per cent
Such as today	7 «	82 «
Somewhat bigger	4 «	86 «
A lot bigger	5 «	93 «
No answer	7 «	
Sum (N)	100 per cent	(4456)

income differences in Estonia today. Even among the self-employed and top-ranking leaders in production and administration, an overwhelming majority (75 per cent) replies that income differences should be reduced.

To the extent that there is a link between income level and response, the connection is probably non-linear, i.e. persons who prefer the status quo have the highest average income, a bit higher than those who favour greater inequality and somewhat higher than those who favour less inequality. Such curve linear relations between our indicator of egalitarian values and other individual characteristics predominate whether one looks at the distribution for age, sex or status, the distribution among various groups of employees and businessmen, the spread of incomes, or the results from many other attitudinal variables in the NORBALT 1994 survey.

Egalitarian attitudes are widespread among Estonians, and it does not matter much what nationality one has, and whether or not one holds a citizenship. Similarly, it means little whether one lives in the city or in the countryside, whether one has a consumption level close to subsistence or somewhat above (few are rich), whether one has high or low status, high or low education, etc. To find differences in views of any consequence, one has to compare very specific and highly dissimilar social positions and situations in life. In the younger age group the response is generally that income differentials on average should be a bit smaller, whereas the older typically think that they should be much smaller.

Figure 12.3 Average income in different categories of responses to the question about income differences. Monthly gross household income, monthly gross personal income and monthly gross per capita household income. 1,000 Kroons.



Trust in Authorities

The survey presents three indicators on trust and distrust in public authorities, formulated in the following statements:

* «Public authorities hide important information that the public should have known»
* «Public authorities are not capable of doing their job»
* «Public officials take bribes»

The respondents expressed their opinion on a five-point scale running from «never»(=1), through «sometimes»(=3) to «very often»(=5). The distribution of responses is presented in *Textbox 12.3*. First of all, it should be stressed that the balance of opinion is tilted to the negative side, i.e. there is a tendency towards distrust on all three indicators (the response «sometimes» is used as the analytical point of departure, while respondents who cannot or will not take a stand are ignored in the first two measures). More than half of all Estonians 18 years or older express the opinion that the authorities often or very often conceal essential information, or are often or very often unequal to their job. Confidence in authorities may in fact have been even lower in the Soviet era; in this perspective, the results could reflect a relative improvement. Still, the survey indicates a massive sense of misgiving and suspicion.

Textbox 12.3 Three suggestions on trust in authorities among Estonians 18 years of age or older, 1994. Per cent

Public authorities/officials...	Hide information	Are not capable of doing their job	Take bribes
Never	2	3	3
Very rare	4	5	4
Sometimes	31	35	26
Often	38	34	17
Very often	15	13	7
Sum	90	90	57
Do not know/ refuse to answer	10	10	43

Grand total = 4455 (0.4 per cent missing)

The other astonishing feature in the response distribution is the dramatic increase in the category of interviewed who cannot or will not answer when asked if officials take bribes. How should this be understood? Maybe these respondents are unfamiliar with the phenomenon or do not know anybody who has encountered it, maybe some were too afraid to answer openly, *and maybe some felt embarassed by the question.* The full and exact reasons behind the high score of «don't know/refuse to answer» can only be a subject of speculation. However, it is possible to narrow the field of speculation by combining various individual attributes, resources, indicators of situations in life, in fact, it may even be useful to introduce attitudes to other problems, like who should own what, how great income differences should be allowed to be, are women discriminated against, etc. Doing this, one is somewhat surprised: The prevalent distrust in authorities and persons of authority in 1994 is exceedingly difficult to explain, as various combinations of individual characteristics yield little or no additional insight.

Attitudes which clearly point in a specific direction, such as the view on income inequality (this being our indicator of the existence of egalitarian values in the population) will always be difficult to explain statistically. Irrespective of classification, i.e. how one divides respondents according to mixes of various characteristics, the lion's share within most groups will be likeminded, in the Estonian case tending towards egalitarian values. The differences one could observe between e.g. apparently successful businessmen and people with serious economic, social and health problems, can be viewed as ripples on the surface of a vast lake: The main point is that Estonians think disparities in income have become too glaring! The question of trust in authorities and officials creates a different pattern. Now, attitudes are far more polarised, though with a clear bias on the side of distrust. Even though this should, in technical terms, make for powerful prediction models, identifying features that enable us to understand why some people are trustful and others are not, turns out to be an uphill struggle. Gains and losses through education or in the labour market, loyalties, attitudes, etc., have but little effect. It seems unlikely that the respondents have found the question to be without interest – after all, the answers are evenly distributed, with a possible exception for the issue of whether officials have to be «rewarded». The question has either not managed to mobilise people's energies or it has been felt as being too close for comfort, or even dangerous, to answer. The reader may judge for himself/herself!

The distribution of distrust is practically identical for all, whether we speak of age groups, men or women, employees in agriculture or business, unemployed or employed, those who have children and those who do not. It is immaterial whether one works for a modern joint venture or in a state-owned firm, whether one supports or opposes privatisation of state property, whether one thinks or does not think that women are discriminated against, or whether one expresses a preference for egalitarian values or favours greater differences. Most importantly, trust in authorities does not seem to be sensitive to ethnic affiliation or the attainment of Estonian citizenship. The general level of distrust is quite the same among Estoni-

ans, Russians and Ukrainians; nor can one drive a wedge of any size between citizens, non-citizens and applicants for citizenship.

The single external factor of the greatest moment is expectations as to one's personal material standard of living five years hence. Those who anticipate poverty, or who are unsure about their ability to cope, are more inclined to express distrust in authorities and officials than are respondents who believe they will be materially satisfied five years from now. Differences are in the range of 15–20 per cent when radical comparisons are carried out (rich versus poor). Pierre Bourdieu (1985) holds that one needs four to five variable traits to identify a specific, concrete group of people. By this he means that it is possible to characterise a pattern of life, a set of loyalties, forms of identification, positions in a stratified social system, etc. This also fits in with our general experience when discussing living conditions in Estonia, the question of distrust in authorities presenting a contrasting and rather perplexing case. It seems that the kind of identification and loyalty involved cannot be adequately addressed or elucidated in terms of living conditions. We are left with two basic interpretations: One, we may be registering a general frustration or uncertainty which, in the case of a majority, is directed towards the authorities. Two, we may be observing one central aspect of modernity and postmodernity: people prefer to make up their own minds, and their views cannot be reduced to individual social characteristics. It follows that people may harbour distrust for highly different reasons.

The three indicators are, however, quite strongly mutually correlated. If the respondent expresses distrust on one of them, he or she is likely to do the same on the two others as well. Correlations are in the range (r=).3–4., i.e. there will be differences of 40–50 per cent when radical comparisons based on pairs are performed.

Discrimination of Women

Chapter 5 (on education) and Chapter 7 (on economic resources) documented that the winners of the transition so far have been well-educated males 25–34 years of age with Estonian citizenship and of Estonian ethnic origin. We observed that the difference in average gender-specific monetary and social return on education increased with increasing educational level (a classic interaction between sex and education on social and economic returns on the labour market). We should not be amazed if we observe that men and women differ in their attitudes towards discrimination of women.

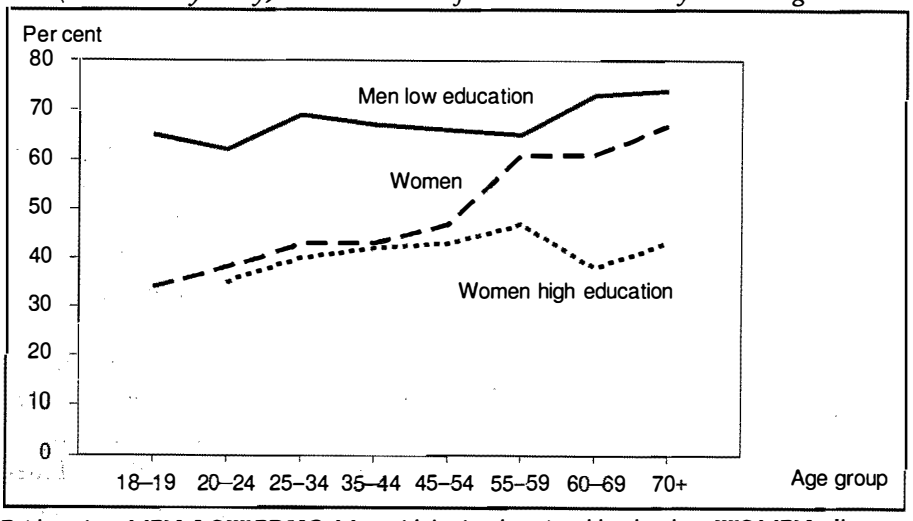
The figure shows that there is a clear statistical interaction between sex, education and age in the respondents' perceptions of the existence of discrimination against women in Estonia. Comparing the sexes, one observes that while older men and women on the whole agree that discrimination at worst occurs very rarely (around seven in ten), there is a clear majority among the youngest women (18–19) claiming that discrimination either happens «sometimes», «often» or «very

often» (65–70 per cent). In this particular group of teenagers, the males believe that women are not discriminated against in today's Estonia. Controlling for the educational level of women, we actually see that even the old well-educated females believe that there is discrimination of women at present. Somewhere between six and seven in ten of females 60 years of age or older, actually express the view that women are discriminated against «sometimes», «often» or «very often». Recalling the major differences in occupational and monetary returns on education between men and women, this difference according to gender should come as no surprise.

When the attitude on discrimination of women is seen as a simple function of educational level (and profile), even the responses of males are influenced, slightly but significantly. While 74 per cent of the males with primary education only (mostly old males) say that women are not discriminated against (never/very rarely), the same holds true for 57 per cent of the males reporting a finished higher education.

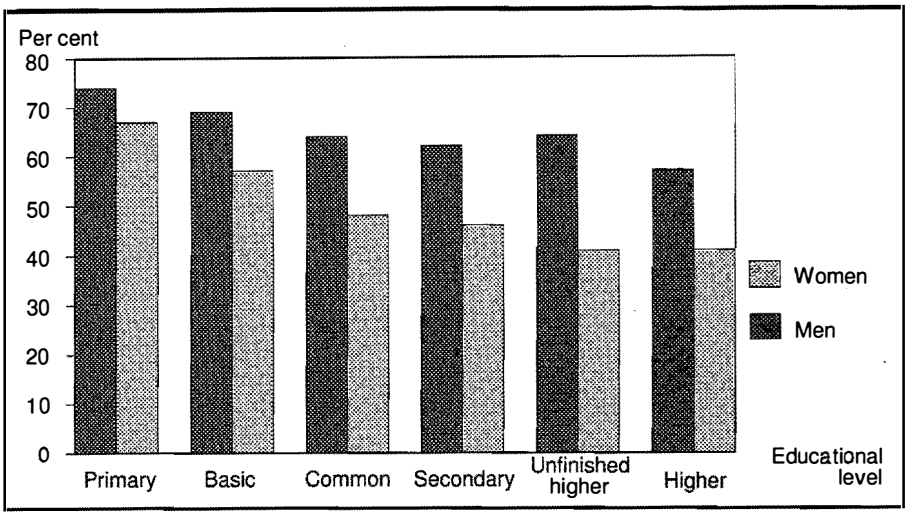
These attitudes are not influenced by place of residence – urban/rural – the occupational position of the respondent, his/her ethnic affiliation or formal integration into society (Estonian citizenship or not). Expressed distrust in authorities, that is to say, the conviction that the authorities wilfully conceal information and that they are professionally inept, increases the propensity to claim that women are discriminated against (sometimes-very often), slightly but significantly. Other attitudes and perceptions, like opinions on privatisation, views on wage differentials, trust in one's own ability to understand the political game, and self-perceived general interest in politics, have no significant effects whatsoever. Rather, attitudes on the discrimination of women appear to be shaped by the composition of age, education and sex.

Figure 12.4 The proportion of respondents 18 years of age or older who express that there is no (never or very rarely) discrimination of women in Estonia by sex and age. Per cent



Explanation: MEN; LOW EDUC=Men with basic educational level or less. WOMEN=all women, WOMEN, HIGH EDUC=Women with at least unfinished higher education.

Figure 12.5 The proportion of respondents 18 years of age or older who express that there is no (never or very rarely) discrimination of women in Estonia by sex and educational level. Per cent.



EXPECTATIONS

We have already presented some indicators on expectations: Comparing perceived material standards of living at present (1994) and perceived standards of living around 2000, one could argue that the optimists actually outnumber the pessimists, while most young people and grown-ups tend to project their present assessment into the near future (cf. Chapter 11). A slight modification in the manipulation of the group of uncertain, however, reveals that the optimists numerically surpass the pessimists, slightly but significantly. To sum up, one can detect a degree of optimism, which is not, it turns out, very sensitive towards the ethnic affiliation of the respondent – as good luck would have it![11]

Discussing personal efficacy, however, this impression is altered significantly – the focus now being on the replies to a question measuring individual self-perceptions of the ability to understand the political game (cf. Chapter 5). We observe that while the proportion of Estonian citizens claiming that they understand the complexities of the political game increases step-by-step with increasing educational level, this is not the case among respondents without Estonian citizenship (and who are not applying for it).

A third indicator on expectations, of course, is expressed wishes to migrate. Late 1994, this preference is not widespread, especially not among the non-Estonian population (4–5 per cent only). The majority of persons planning to migrate from Estonia, are preparing to leave for a CIS (Commonwealth of Independent States) country. In other words, most people belonging to minority groups plan to stay where they are, and to participate in the future development of Estonia.

Final Observations

Some results merit particular attention. Our observations fall into two rough categories: the encouraging and the disquieting. Let us start with the encouraging findings:

* A majority, counting Estonian residents not yet formally integrated into the political life of the nation, supports privatisation of the means of production (in most aspects, but with some provisos). If privatisation of such universal services as electricity and public transport had been queried, the reservations might have been more pronounced.
* Most people demonstrate a quite impressive ability to adapt. The observed retreat into barter economy is probably tactically rather than strategically motivated. As soon as the economy recovers and incomes rise, the bulk of those involved in bartering, possibly one third of all young people and adults at present, will enter the sphere of money, with both legs, so to say.
* A new, up-and-coming group of young men has benefited substantially from the transition to market economy, undoubtedly having contributed much to it as well. Their good fortune is set to continue. Gradually, the gains from the economic transformation may trickle down the social system. How open and inclusive the process will be, depends on a number of factors: The level of growth, the ability and the will of political authorities to induce redistribution of income, and the relative bargaining strength of the industrial parties (read: Capital and Labour). Among Nordic researchers, the latter factor tends to be seen as critical in determening the degree of redistribution in a modern welfare state.

This leaves us with some disquieting observations:

* Significant minorities are falling behind. Old age pensioners, the unemployed and single breadwinners have the hardest time. The old are especially exposed, as are young mothers and their children (Persons with health problems generally have a strained economic situation, but it would be wrong to conclude that they, as a group, belong to the most vulnerable in present day Estonia).
* The ethnic minorities, particularly people who for different reasons have not passed the threshold of formal integration into Estonian society through citizenship, have a low score on some resources. The poorest groups at the moment are dominated by the ethnic minorities, who are conspicuously absent in the newly emerging elite. Here, the young Estonian nation faces an enormous challenge.
* The greater part of the respondents dislike the, perhaps necessary, consequences of the transition in terms of economic and social disparities. Many Estonians regard inequality as a driving force in the development of a dynamic capitalist economy. The extent to which the state should intervene to reduce the costs of losing in the race – e.g. using mechanisms of redistribution – is a distinctly political issue.

[11] The non-linear correlation between degree of optimism and ethnic affiliation is (eta=) .1 only, statistically significant, but not very strong!

* Distrust in authorities is a striking phenomenon in Estonia as of autumn 1994. It does not, however, easily lend itself to explanation, even if the analysis may have identified some relevant attitudes. It may be noted that ethnic affiliation does not come into play.

* A massive increase has occurred in the number of Estonians who regard the transitional period as a threat to their standard of living. A majority (six in ten) says it was materially satisfied around 1990. Nearly no one (five per cent) claims to have been poor five or six years ago. In the autumn of 1994, only 12 per cent view their personal economic situation as satisfactory, while a substantial 20 per cent think that they have grown poor. Whatever the economic reality may be according to absolute measures – these attitudes do not represent an unambiguous expression of a household's economic income, even if they are influenced by it – these findings indicate that many people feel that the changes have gone too far.

Some of the views voiced here may shed light on the political developments in Estonia in 1995!

APPENDIX 0.1

SAMPLE DESIGN ESTONIA

Steinar Tamsfoss

INTRODUCTION

The design is a two stage stratified sample of individuals and households. The total sample size is 4,883 households, which is allocated on strata proportionate to total population size (individuals). The units of selection at the first sampling stage (Primary Sampling Units - PSUs) are municipalities as defined in a list provided by Estonian authorities. At the second stage households are included through selection of individual household members.

Stratification of PSUs is done according to county and urban/rural status of the municipalities, thus comprising 35 strata. Due to substantial differences in the size of some of the towns within a county, towns are in some cases split into two separate strata - "large towns" and "(other) urban" areas.

The number of sample PSUs in the various strata is generally 1 or 2. Within each stratum the PSUs are selected with a probability proportionate to total population (individuals) size.

SAMPLE ALLOCATION AND IMPLEMENTATION

The major features of the stratification and sample allocation are shown in table 1. The specific PSUs which have been selected for the survey are shown in table 2 along with their sample sizes.

Table 1: Stratification of PSUs and sample allocation on strata

Stratum code	County	Character	Population	Total Number of PSUs	Sample number of PSUs	Stratum sample size
11	Harjumaa	Tallinn	442679	1	1	1349
12		Urban	46527	7	1	146
13		Rural	72585	16	2	232
21	Hiiumaa	Urban	4405	1	1	14
23		Rural	7687	4	1	25
31	Ida-Virumaa	Large towns	151753	2	1	477
32		Urban	50625	5	1	169
33		Rural	22291	15	2	71
41	Järvamaa	Urban	17516	2	1	60
43		Rural	26012	14	2	83
51	Jõgevamaa	Urban	14167	3	1	45
53		Rural	28815	10	2	95
61	Läänemaa	Urban	15920	2	1	51
63		Rural	16772	11	2	53
71	Lääne-Virumaa	Urban	35224	5	1	113
73		Rural	39279	13	2	108
81	Pärnumaa	Pärnu	51963	1	1	163
82		Urban	13206	6	1	39
83		Rural	34991	17	2	114
91	Põlvamaa	Urban	10868	2	1	35
93		Rural	25625	13	2	82
101	Raplamaa	Urban	15556	4	1	51
103		Rural	25469	9	2	84
111	Saaremaa	Urban	16440	1	1	56
113		Rural	24103	16	2	89
121	Tartumaa	Tartu	105844	1	1	384
122		Urban	7672	2	1	25
123		Rural	42044	19	2	128
131	Valgamaa	Urban	22749	3	1	73

Stratum code	County	Character	Population	Total Number of PSUs	Sample number of PSUs	Stratum sample size
133		Rural	17909	11	2	59
141	Viljandimaa	Viljandi	22669	1	1	29
142		Urban	8984	5	1	72
143		Rural	46224	14	2	147
151	Võrumaa	Urban	18964	2	1	71
153		Rural	26418	12	2	91
	ESTONIA	TOTAL	1529910		49	4883

Table 2: Sample PSUs

Stratum code	County	Character	Sample PSU	Sample size
11	Harjumaa	Capital	Tallinn	1349
12		Urban	Kehra	146
13		Rural	Joelahtme	113
			Rae	119
21	Hiiumaa	Urban	Kärdla	14
23		Rural	Emmaste	25
31	Ida-Virumaa	Large towns	Kohta-Järve	477
32		Urban	Sillamäe	169
33		Rural	Kohtla	35
			Vaivara	36
41	Järvamaa	Urban	Paide	60
43		Rural	Albu	40
			Kolgi	43
51	Jõgevamaa	Urban	Jõgeva	45
53		Rural	Jõgeva	48
			Raja	47
61	Läänemaa	Urban	Haapsalu	51
63		Rural	Lihula	26
			Risti	27

Stratum code	County	Character	Sample PSU	Sample size
71	Lääne-Virumaa	Urban	Rakvere	113
73		Rural	Someru	53
			Väike-Maarja	55
81	Pärnumaa	Pärnu	Pärnu	163
82		Urban	Vändra	39
83		Rural	Audru	59
			Sauga	55
91	Põlvamaa	Urban	Räpina	35
93		Rural	Põlva	41
			Värska	41
		Rural	Joelahtme	113
101	Raplamaa	Urban	Rapla	51
103		Rural	Kehtna	43
			Raikküla	41
111	Saaremaa	Urban	Kuressaare	56
113		Rural	Kuressaare	44
			Orissaare	45
121	Tartumaa	Tartu	Tartu	384
122		Urban	Elva	25
123		Rural	Luunja	63
			Tartu	65
131	Valgamaa	Urban	Valga	73
133		Rural	Helme	28
			Podrala	31
141	Viljandimaa	Urban	Karksi-Nuia	29
			Viljandi	72
143		Rural	Kolga-Jaani	72
			Pärsti	75
151	Võrumaa	Urban	Võru	71
153		Rural	Rouge	45
			Võru	46

INCLUSION PROBABILITIES

The probability mathematics on which the above allocations and selection outcomes are based are the following:

Notations:

s = Stratum code
j = PSU code
(s,j) = Indice pair for identifying the j-th PSU in the s-th stratum
$K(s)$ = Total number of PSUs in the s-th stratum
$k(s)$ = Sample number of PSUs in the s-th stratum
$N(s)$ = Total population (individuals) in the s-th stratum
$N(s,j)$ = Total population (individuals) in $PSU(s,j)$
$n(s)$ = Sample size (selected individuals or households) in the s-th stratum
$n(s,j)$ = Sample size in $PSU(s,j)$

At the first sampling stage PSUs are selected with a probability proportionate to population size. The inclusion probability of $PSU(s,j)$ is:

$$P_1(s,j) = \frac{k(s)N(s,j)}{N(s)}$$

At the second stage the households are included through the selection of individual household members (any age). Whenever the individual is the sampling (and analysis) unit, the 2nd stage selection probability is:

$$P_2(s,j) = \frac{n(s,j)}{N(s,j)}$$

which is obtained either by simple random sampling or systematic sampling from population lists. It should be noted that this probability is equal for individuals of the same PSU.

The overall inclusion probability of a population member (individual) in $PSU(s,j)$ is:

$$P(s,j) = \frac{k(s)n(s,j)}{N(s)}$$

By setting all PSU sample sizes within a stratum equal - i.e. $n(s,j) = n(s)/k(s)$ - it is seen that this probability reduces to:

$$P(s,j) = \frac{n(s)}{N(s)}$$

This probability will be a constant whenever the sample is proportionately allocated on strata.

In the case of households being the sampling (and analysis) units, the inclusion probability has to undergo some adjustments. Some additional notations are needed:

h = Household index
(s,j,h) = Indices identifying the h-th household of PSU(s,j) - household (s,j,h)
$H(s,j)$ = Total number of households in PSU(s,j)
$H(s)$ = Total number of households in the s-th stratum
$N(s,j,h)$ = Number of individuals (all ages) in household (s,j,h)

The 2nd stage probability for selecting household (s,j,h) is:

$$P_2(s,j,h) = \frac{n(s,j)N(s,j,h)}{N(s,j)}$$

The overall inclusion probability for household (s,j,h) thus becomes:

$$P(s,j,h) = \frac{k(s)n(s,j)}{N(s)} N(s,j,h)$$

which in the case of equal sample sizes in all PSUs within a straum reduces to:

$$P(s,j,h) = \frac{n(s)}{N(s)} N(s,j,h)$$

It is seen that this probability will vary with household size - N(s,j,h), implying that sample observations at the household level have to be weighted according to this inclusion probability. Household size, therefore, has to be recorded at every interview.

It should be kept in mind that the above probabilities applies only for the two stage design described above. If further selections are to be imputed - say of a single person 18 years or older from each sample household - a 3rd stage of selection is introduced, adding more complexity to the mathematics. Let:

$N_T(s,j,h)$ = Number of individuals in household (s,j,h) who belongs to some subpopulation «T».

When selecting one individual within each sample household, the 3rd stage inclusion probability becomes:

$$P_3(s,j,h) = \frac{1}{N_T(s,j,h)}$$

and the overall inclusion probability:

$$P(s,j,h) = \frac{n(s)N(s,j,h)}{N(s)N_T(s,j,h)}$$

APPENDIX 0.2

DOCUMENTATION – RESPONSE-RATES AND CALCULATION OF WEIGHTS

Jens B. Grøgaard

1 Response-rates in strata and PSUs (over all 91 per cent response!)

Tallinn (11=stratumnumb) Character	PSU numb	Net sample	Per cent	Gross sample	resp-rate (per cent)
Vaike-Oismae	176	145	3.3	150	96.6
Kesklinn	298	139	3.1	157	88.5
Lilleküla	339	101	2.3	111	91.0
Lasnamae	387	327	7.3	364	89.8
Mustamäe	482	181	4.1	206	87.9
Nomme	524	83	1.9	95	87.3
Tallinn596	596	34	.8	40	85.0
Pelgulinn	614	180	4.0	226	79.6
Sum		1190		1349	88.2
(treated as one PSU only)					
(12)					
Kehra linn	290	142	3.2	146	97.3
(13)					
Joelahtme	245	107	2.4	113	94.7
Rae	653	116	2.6	119	97.5
Sum		223		232	96.1
(21)					
Kärdla	371	13	.3	14	92.9
(23)					
Emmaste	175	24	.5	25	96.0
Kothla-Järve (31)					
Kohtla-Järve	120	43	1.0	48	89.6
Kohtla-Järve	322	281	6.3	307	91.5
Kohtla-Järve	338	20	.4	24	83.3
Kohtla-Järve	551	39	.9	39	100.0
Kohtla-Järve	749	37	.8	40	92.5
Kohtla-Järve	894	19	.4	19	100.0
Sum		439		477	92.0
(treated as one PSU only)					

	PSU numb	Net sample	Per cent	Gross sample	resp-rate (per cent)
(32)					
Sillamäe	735	167	3.7	169	98.8
(33)					
Kohtla	320	35	.8	35	100.0
Vaivara	743	34	.8	36	94.4
Sum		69		71	97.2
(41)					
Paide	566	55	1.2	60	91.7
(43)					
Albu	129	38	.9	40	95.0
Koigi	325	41	.9	43	95.3
Sum		79		83	95.2
(51)					
Jôgeva(urban)	249	43	1.0	45	95.6
(53)					
Jôgeva(rural)	248	47	1.1	48	97.9
Raja	657	46	1.0	47	97.9
Sum		93		95	97.9
(61)					
Haapsalu	183	48	1.1	51	94.1
(63)					
Lihula	411	25	.6	26	96.2
Risti	680	27	.6	27	100.0
Sum		52		53	98.1
(71)					
Rakvere	663	109	2.4	113	96.5
(73)					
Someru	770	50	1.1	53	94.3
Väike-Maarja	927	49	1.1	55	89.1
Sum		99		108	91.7
(81)					
Pärnu	625	150	3.4	163	92.0
(82)					
Vandra	931	37	.8	39	94.9
(83)					
Audru	159	55	1.2	59	93.2
Sauga	730	53	1.2	55	96.4
Sum		108		114	94.7

(91)	PSU numb	Net sample	Per cent	Gross sample	resp-rate (per cent)
Räpina	705	33	.7	35	94.3
(93)					
Pôlva(rural)	619	40	.9	41	97.6
Värska	934	41	.9	41	100.0
Sum		81		82	98.8
(101)					
Rapla	670	48	1.1	51	94.1
(103)					
Kehtna	292	39	.9	43	90.7
Raikküla	654	40	.9	41	97.6
Sum		79		84	94.0
(111)					
Kuressaare(urban)	349	45	1.0	56	80.4
(113)					
Kuressaare(rural)	348	36	.8	44	81.8
Orissaare	550	39	.9	45	86.7
Sum		75		89	84.3
Tartu (121)					
Tartu(urban)	795	310	7.0	384	80.7
(122)					
Elva	170	22	.5	25	88.0
(123)					
Luunja	432	58	1.3	63	92.1
Tartu(rural)	794	59	1.3	65	90.8
Sum		117		128	91.4
(131)					
Valga	854	66	1.5	73	90.4
(133)					
Helme	203	28	.6	28	100.0
Podrala	613	30	.7	31	96.8
Sum		58		59	98.3

	PSU numb	Net sample	Per cent	Gross sample	resp-rate (per cent)
(141)					
Viljandi	897	28	.6	29	96.6
(142)					
Karksi-Nuia	287	72	1.6	72	100.0
(143)					
Kolga-Jaani	328	68	1.5	72	94.4
Pärsti	629	68	1.5	75	90.7
Sum		136		147	92.5
(151)					
Vôru(urban)	919	61	1.4	71	85.9
(153)					
Rouge	697	41	.9	45	91.1
Vôru(rural)	918	43	1.0	46	93.5
Sum		84		91	92.3
ESTONIA		4455	100.0	4883	91.2

2 Calculation of weights

Weights are calculated as the inverse of the selection probabilities (cf. appendix 0.1). These weights represent *expansion weights*, because they expand the sample to estimates of the total Estonian population as of late 1994. The analysis uses so-called *relative weights* which estimate the size of the sample. Two different types of relative weights and expansion weights are calculated - weights which estimate the size of the Estonian population and weights which estimate the number of Estonian households (expanded or relatively, accordingly).

2.1 Population 18 years of age or older and the number of households calculated from the sample

Inputs

* Number of selected primary sampling units (PSUs) in stratum s: **k(s)** Variable name: KS
* Number of persons 18+ years of age in each household calculated from the sample (born 1900-1976) : **V(s,k,h)** Variable name: N18H
* Percentage of persons 18+ years of age in each household:
Variable name: N18PST
* Number of persons in each PSU (i.e. primary samling unit as a combination of stratum and PSU according to list) (Census-data): **N(s,k)**
Variable name: NPSU
* Number of persons 18+ years of age in each PSU (calculated from the sample): **V(s,k)** Variable name: N18PST*NPSU
* Number of households in PSU (calculated from the sample): **n(s,k)**
Variable name: NPSUSAMP
* Total population in each stratum (Census-data): **N(s)**
Variable name: NS

Formulas

The individual and the household as unit of analysis (13,247 observations):

$$W_i(s,k,h) = \frac{N(s)\ V(s,k)}{k(s)\ N(s,k)\ n(s,k)\ V(s,k,h)}$$

$$WGHROS = \frac{NS\ N18PST\ NPSU}{KS\ NPSUSAMP\ NPSU\ N18H} = \frac{NS\ N18PST}{KS\ NPSUSAMP\ N18H}$$

wghros adds to an estimate of total population (=1,561,275), which represents the expansion weight. **wghros1** adds to an estimate of sample size (=13,247), which represents the relative weight.

Var name	Mean	Min	Max	N
wghros	117.86	20.36	563.20	13,247
wghros1	1.	.17	4.78	13,247

The randomly sampled individual (RSI) as unit of analysis (4,455 observations):

$$W_i(s,k,h) = W_h(s,k,h)*V(s,k,h)$$

WGHRSI = WGHROS*N18H

This procedure presupposes that one and only one person is intervjued/observed in each household. The expansion weight **wghrsi** adds to an estimate of total population 18 years of age or older(=1,156,747). The relative weight **wghrsi1** adds to an estimate of sample size 18+ years of age (=4,455).

Var name	Mean	Min	Max	N
wghrsi	266.77	81.44	563.20	4,455
wghrsi1	1.	.31	2.17	4,455

2.2 Some examples

Weight by wghros

This weight applyed on the data set consisting of 13,247 cases estimates the total population in Estonia 1994 (1,561,275 persons). wghros applyed on the data set consisting of 4,455 cases (randomly sampled individuals 18+ years of age) estimates the total number of households in Estonia (621,842 households).

Weight by wghrsi
This weight estimates the total number of individuals 18 years of age or older in Estonia late 1994 (1,156,747 persons).

A simple procedure of control

Observed distribution of sex/gender:

	A: Individuals		B: Representatives of households	
	N	Per cent	N	Per cent
Male	6,345	47.9	2,135	47.9
Female	6,902	52.1	2,320	52.1
Sum	13,247	100.0	4,455	100.0

Weighted by estimates of population

	A: wghros (total)		B: wghrsi (18+ years of age)	
	N	Per cent	N	Per cent
Male	724,994	46.4	554,458	47.9
Female	836,281	53.6	602,289	52.1
Sum	1,561,275	100.0	1,156,747	100.0

Observed distribution of size of households:

Numb pers	Obs	Per cent wghros
1	5.1	11.3
2	18.1	22.1
3	23.2	23.4
4	29.3	26.1
5	14.8	11.2
6	5.0	3.2
7	2.7	1.6
8	.8	.5
9	.6	.4
10	.1	.0
11	.1	.0
12	.1	.1
100%=	13,247	1,561,275

The table shows the distribution of individuals according to the reported size of households. We observe that 5.1 per cent of our respondents (interviewed directly or indirectly) live in one-person households, that 18.1 per cent live in households consisting of two persons, that 23.2 per cent live in households containing three persons and so on.

These small households are clearly underrepresented in our sample. If we control for the differences in the probability of being selected according to household size, by activating the proper weights, we estimate that some 11 per cent of the Estonian population actually live alone (one-person households), that close to 22 per cent live together with another person etc. We observe that 23.2 per cent live in housholds containing two persons or less, but we estimate that 33.4 per cent actually live in such households.

		Per cent	
Numb	Obs	wghrsi	wghros
1	15.3	15.3	28.5
2	26.9	27.3	27.7
3	23.0	23.2	19.6
4	21.8	21.6	16.4
5	8.8	8.6	5.6
6	2.5	2.4	1.4
7	1.1	1.1	.6
8	.3	.3	.2
9	.2	.2	.1
10	.0	.0	.0
11	.0	.0	.0
12	.0	.0	.0
100%=	4,456	1,156,747	621,919
		(18+yrs)	(number of households)

Applying the roster-weight (wghros) on the data set consisting of randomly sampled individuals 18 years of age or older, we receive an estimate of the number of households in Estonian society. We find that 28.5 per cent of the households in Estonia consist of one person only, and that 27.7 per cent of the households consist of two persons living together.

APPENDIX 0.3

SAMPLING ERRORS

Jon Pedersen

The sample design for the NORBALT Estonian survey is of the so called 'complex' type. It is not a simple random sample. The sample shares this characteristic with most surveys with national coverage where interviewing is face-to-face. A consequence of such a design is that sampling errors must be calculated differently from what is the case under a simple random sampling scheme. By extension, common statistical tests for significance or confidence intervals which assume simple random sampling are not appropriate. Therefore, as the reader may have noted, tests of significance or confidence intervals have not been presented in the text. It is nevertheless, possible to calculate sampling errors for the present design, albeit more complicated than using the standard procedures supplied by SPSS, the statistical package used to calculate most of the tables and statistics in this report.

In general the stratification in the sampling design will tend to reduce sampling errors, while the clustering will make them increase. To give an impression of what the variances of the estimators are like, two tables have been produced, using the 'linearization' or 'ultimate cluster' method of variance estimation by means of the program CENVAR (US Bureau of the Census 1993). Table 1 provides estimates for selected household variables, while Table 2 provides estimates for variables pertaining to the randomly selected individual.

Despite being generally a two stage sample, the Estonian sample is in some strata in effect a one stage sample in that Randomly Selected Individuals are selected directly without selecting any PSU (cluster). This is especially the case in the large towns, where no information was available that could be used to subdivide the sample. Moreover, in some strata only a single PSU have been selected. Since the variance estimation procedure assumes that a multi-stage sample has at least two PSUs in each stratum, some adaptations had to be made. Single-PSU or no-PSU strata were be collapsed into strata that then effectively had two or more clusters. CENVAR will therefore most likely overestimate the true variance, as the procedure in effect make the variance benefit of stratification partly appear as a cost of clustering. Nevertheless, the results indicate at least how the variance inflation effect differs between the various variables, as well as given a rather conservative, i.e. bias upward estimate of the general level of the variance (see Wolter 1985:47-53). One should note, however, in the case of the household variables with the highest design effects, that the design effects increase if the collapsed strata are removed from the sample, while for those variables with low design effects the removal of those

strata in the variance calculations scarcely matters. Thus, what is probably the case is that for some variables the design is effectively divided into two parts: the one consists of the large towns, with small design effects, the other of the rest of the sample, with fairly high.

In the two set of tables that have been prepared in order to illustrate the effect of the sampling design on the variance, the following terms appear:

Estimate is simply the proportion (i.e. the percentage divided by 100) having the characteristic in question, or sometimes the mean of the variable.

Standard error is the standard deviation of the estimate, corrected for the effects of the sampling design.

C.V. or *coefficient of variation* is the standard error divided by the estimate, and gives an indication of the relative precision of the estimate. It is given as a percentage, so that a C.V. of 100% means that the standard error is the same as the estimate.

95% confidence intervals (upper and lower bound) refer the upper and lower limits within which one may expect with 95% confidence that the actual value within the total population for the characteristic is located.

Design effect is the variance actually obtained with the sample, divided by what it would have been in the case of simple random sampling. A value of 1 indicates that the variance is equal to the variance of a simple random sample, a value below 1 indicates that the sample is more efficient than a simple random sample would have been, and a value of more than 1 that it is less efficient than a simple random sample. A simple way to think about the design effect is to regard it as the factor one would have to divide the number of cases in a sample with in order to obtain the sample size that correspond to a simple random sample for the variable. Note that each characteristic in the sample has different design effects, because then effects depend on how the characteristic is distributed in relation to the sampling plan.

The *observations* are simply the number of cases used to produce the estimates.

Since the variance estimation software requires complete data vectors, i.e. no missing values, missing values have been imputed by a simple hot-deck method before variances were calculated[1]. The estimates may therefore differ from those produced elsewhere in the text. But there are very few cases of missing items in the files, and the differences are therefore very slight.

Table 1 and 2 present a few results of the variance analysis. The variables selected are mainly those were we expected high design effects. In general the design effects are quite small for this type of survey. The exception is some of the variables relating to infrastructure, such as type of house where the variance is much higher. This

[1] The files were sorted by Stratum and PSU, and when a missing value occurred on a variable a substitute value was imputed by using the value of the immediately previous record. This effectively imputes new values with a random value with more of less the expectation of the mean of the values in the PSU to which the record belong.

is because type of house interacts heavily with the sampling plan: in an area selected in the sample, it is likely that the type of housing will be similar. There is also probably an effect from the variability in the weights, but the software does not allow us to decompose the variance into factors stemming from different sources. In most cases the variables pertaining to the randomly selected individual have also low design effects, indicating that these individual characteristics are not clustered geographically. The exception is the citizenship variable. In this case the sample is characterized by having a large number of PSUs with a percentage of citizens near 100% and a few with very low percentages. Such a distribution is a typical one for creating high design effects. Despite these caveats, the sample appears to perform fairly well in terms of sampling errors, except for some variables relating to housing and infrastructure.

We have also calculated some of the regression models used in the text taking into account the sampling design. The software used here was PC-CARP (Fuller et al. 1989) This shows little effect on the standard errors in the model, with rather small increase in variance. To some extent this is as expected, because it appears from table 1 and 2 that the design effects of the univariate distributions are generally quite low and it is common (but not necessarily true in all cases) that the design effect of a function of some variables will be less than the design effects of the variables in isolation (Särndal, Swensson and Wretman. 1992:493). In the example given here, which is quite typical of the regressions carried out in the chapters of this report, the variables in the regression are themselves composites of several variables in the original data and this often also reduces the design effects.

Table 1 Sampling errors and design effects for household variables

Variable	Value	Estimat	Standard error	C.V.	Lower 95%	Upper 95%	Desig effect	Observation
Type of house	One flat house	0.233	0.026	11.33	0.181	0.285	17.38	1,198
	Block	0.741	0.026	3.54	0.690	0.793	15.97	3,172
	Hostel	0.025	0.005	21.39	0.015	0.036	5.33	85
House is owned by	Household	0.261	0.029	11.29	0.203	0.318	20.02	1,306
	Government	0.585	0.033	5.65	0.521	0.650	20.04	2,497
	Other private	0.054	0.008	14.87	0.038	0.070	5.64	228
	Cooperative	0.067	0.015	22.46	0.037	0.096	16.07	279
	Other	0.029	0.005	18.17	0.019	0.039	4.37	127
	Refused/dnn	0.004	0.002	35.77	0.001	0.007	2.50	18
How was the house obtained?	Bought	0.118	0.011	9.00	0.097	0.138	4.81	533
	From work	0.499	0.015	3.01	0.470	0.529	4.02	2,265
	Switched	0.159	0.017	10.68	0.126	0.192	9.60	620
	Built it	0.069	0.010	14.31	0.049	0.088	6.72	367
	Inheritance	0.075	0.009	12.05	0.057	0.093	5.26	361
	Hired	0.078	0.013	16.06	0.053	0.102	9.71	301
	Do not know	0.002	0.001	36.90	0.001	0.004	1.39	8
Area	Space	27.125	0.557	2.05	26.035	28.216	4.48	4455
	Housing index	1.703	0.055	3.24	1.595	1.811	5.52	4455

Table 2 Sampling errors and design effects for RSI variables
(Variables are indices of living conditions)

Variable	Value	Estimate	Standard error	C.V.	Lower 95%	Upper 95%	Desig effect	Observation
Quality	One	0.044	0.004	9.27	0.036	0.052	1.74	189
of life	Two	0.121	0.006	5.01	0.109	0.132	1.53	540
	Three	0.445	0.009	1.91	0.428	0.462	1.31	2,016
	Four	0.338	0.009	2.53	0.321	0.355	1.46	1,482
	Five	0.053	0.005	8.86	0.044	0.062	1.95	228
Health index	One	0.046	0.005	9.56	0.039	0.056	2.04	207
	Two	0.126	0.006	4.70	0.114	0.138	1.42	553
	Three	0.451	0.006	1.30	0.440	0.463	0.62	2,013
	Four	0.326	0.009	2.61	0.309	0.343	1.47	1,460
	Five	0.049	0.004	7.33	0.042	0.056	1.24	222
Objective	One	0.043	0.006	14.40	0.031	0.055	4.17	187
economic	Two	0.129	0.009	7.22	0.111	0.148	3.46	563
index	Three	0.439	0.010	2.37	0.419	0.460	1.97	1,984
	Four	0.332	0.011	3.33	0.311	0.354	2.46	1,482
	Five	0.056	0.004	7.83	0.047	0.064	1.61	239
Working	One	0.399	0.011	2.74	0.377	0.420	2.22	1,772
position	Two	0.031	0.002	8.01	0.026	0.035	0.90	134
index	Three	0.327	0.008	2.58	0.311	0.344	1.44	1,455
	Four	0.193	0.009	4.61	0.176	0.211	2.27	869
	Five	0.051	0.004	8.40	0.042	0.059	1.67	225
Social	One	0.047	0.005	11.46	0.037	0.058	2.89	214
contact index	Two	0.141	0.007	4.89	0.127	0.154	1.74	618
	Three	0.447	0.011	2.45	0.425	0.468	2.17	1,970
	Four	0.313	0.011	3.48	0.292	0.334	2.46	1,408
	Five	0.053	0.005	8.83	0.044	0.062	1.93	245
Efficacy index	One	0.038	0.006	16.60	0.026	0.051	4.87	170
	Two	0.124	0.006	5.16	0.112	0.137	1.69	549
	Three	0.455	0.011	2.39	0.434	0.477	2.13	2,040
	Four	0.324	0.011	3.42	0.303	0.346	2.50	1,439
	Five	0.058	0.005	7.80	0.049	0.067	1.67	257

Housing	One	0.050	0.004	7.92	0.042	0.058	1.47	223
condition	Two	0.124	0.006	5.23	0.111	0.137	1.72	551
index	Three	0.446	0.010	2.21	0.427	0.465	1.75	1,988
	Four	0.328	0.011	3.31	0.307	0.350	2.38	1,466
	Five	0.052	0.003	6.59	0.045	0.058	1.05	227
Cultural	One	0.070	0.005	7.11	0.060	0.079	1.69	319
resources	Two	0.017	0.002	12.14	0.013	0.021	1.14	75
index	Three	0.493	0.011	2.19	0.472	0.514	2.08	2,208
	Four	0.285	0.007	2.51	0.271	0.299	1.12	1,266
	Five	0.135	0.009	6.54	0.118	0.153	2.98	587
CITIZEN	Not citizen	0.187	0.032	16.64	0.125	0.249	29.10	806
	Citizen	0.813	0.032	3.88	0.751	0.875	29.10	3,649

Appendices to Chapter 4

Mart Einasto and Jens B. Grøgaard

Appendix 4.1 Aspects of perceived general health condition. Net loadings estimated by linear regression

List of variables, defined

Physical health (**PHindex**): Additive physical capability index on ability to move, physical strength, sight, hearing. Number of problems. Scale 0-5(=problems):

* Walk up and down stairs (yes=0/no=1)
* Walk fast for five minutes
* Carry a weight of 5 kg no less than 10 min
* Read normal newspaper print, included with the help of glasses
* Hear another person speak with a normal voice, included with the help of a hearing-apparatus

Socio-physical condition (**SPCindex**): Additive index on other aspects of the capability to move around. Number of problems. Scale 0-8(=problems):

* Move around the house/do housework (yes=0/to some extent=.5/very much=1)
* Move outside without helping equipment
* Use public transport
* Participate in public life
* Take part in leisure activities
* Socialize with others
* Study/finish courses
* Find a suitable job

Pschycological condition (**Pschyoindex**): Number of problems. Scale 0-7(=problems):

* Sudden feeling of scare (no=0/seldom=.33/fairly often=.66/very often=1)
* Nervousness/shakiness
* Feeling tense/keyed up
* Headaches
* Depressed
* Too many worries/fear about things
* Feeling of not being needed

Other variables:

* Use of sedatives/prescribed medicaments (**Sedat**)
* Disabled: yes=1 (**Handicap**)
* Number of hospitalizations last year (**Hospital**)
* Number of contacts with medical institutions/professionals last two weeks (**Doctor**)
* Chronic disease: yes=1 (**Chronic**)
* Acute disease last two weeks yes=1 (**Acute**)
* Perceived ability to work (**Ability**)
* Perceived general health condition: ill-health=high (**Health**)
* Regression of Hospital, handicap, sedat, doctor, phindex, spcindex, pschycoindex on health (**Battery**)
* Educational level (**Education**)
* Gender: Female=high (**Sex**)
* Occupational position (**Status**)
* **Age**
* Estonian citizenship: Non-citizen=high (**Citizen**)

Model 1

Factors influencing perceived general health condition, ill-health=high (subjective health). Standardised net effects estimated by linear regression. Explained variance in percent.

	Net: Beta	Gross: Correlation	Explained variance(%)
Battery	.29	.60	17.4
Ability	.20	.61	12.2
Chronic	.14	.52	7.3
Acute	.05	.18	0.9
Age	.23	.47	10.8
Education	-.06	-.23	1.4
Citizen	.06	.07	.4
Status	ns*	-.20	-
Sex	ns	.09	-
Sum			50.4
Multiple corr.	71 (all net effects significant at p<.001)		
N=4431			

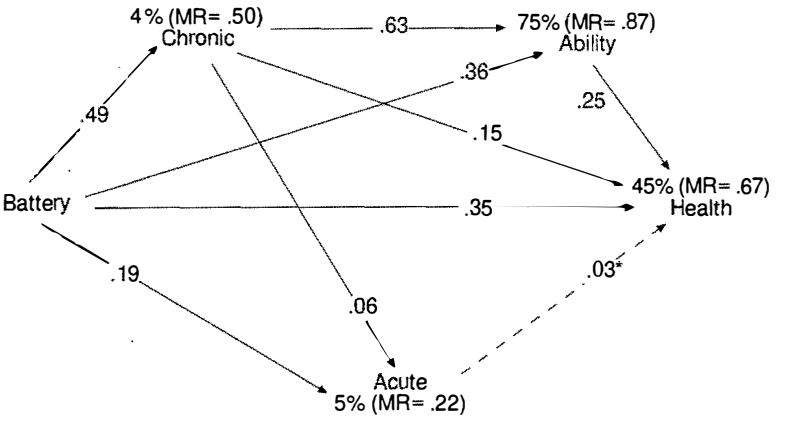
*ns=not significant at p<.05

Comments on model 1

The table shows that age, educational level and citizenship influence subjective health, *ceteris paribus*, i.e. even when we control for capacity for work, acute and chronic diseases and a battery of concrete indications on ill-health. A (standardised) one unit increase in age increases the propensity to report ill-health with .23 (standardised) units - everything else being equal. An increase in educational level, reduces this propensity, while respondents without Estonian citizenship on average report poorer health than Estonian citizens - everything else being equal -slightly but significantly. Occupational position and gender have no significant net influence. Control for design effects hardly influences these coefficients.

Model 2

Stepwise linear regression model on subjective health condition. Net standardised effects (beta), multiple correlation coefficients (MR) and explained variance (%). N=4431:



* all net effects are significant at p<.01, except .03* which is significant at p<.1

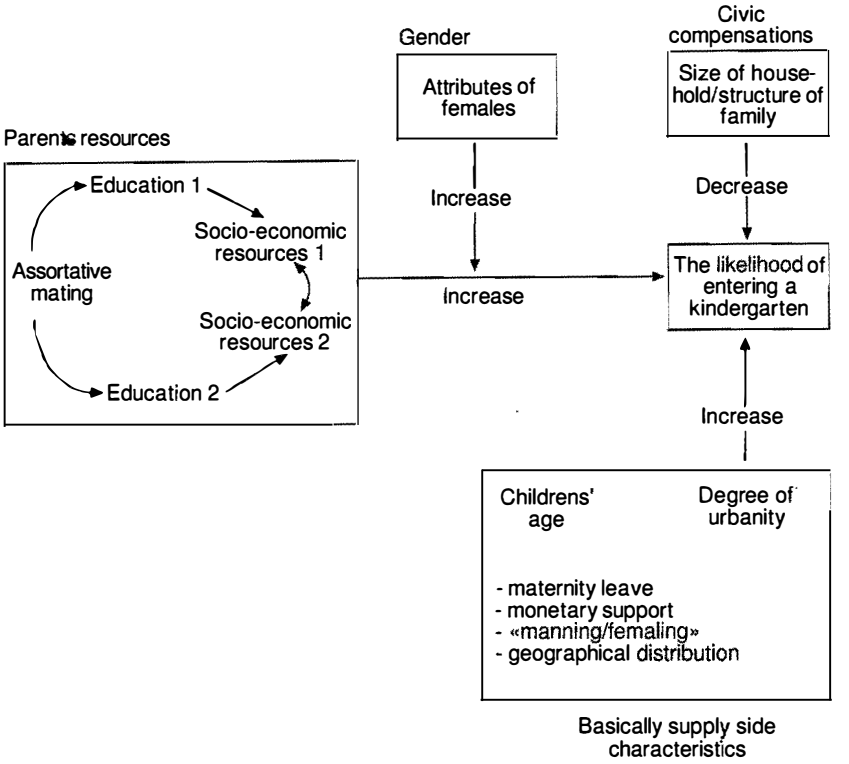
Comments on model 2

While acute illness is reflected to a certain extent in the battery of concrete health indicators of ill-health, chronic diseases strongly reflect the scores on these measures. After that, the whole explanatory power of the model (its net transmissions or influences) follows the axes running through chronic diseases, perceived ability to work and finally, ends at subjective health, i.e. the self-perceived general health condition of the respondent. Control for design effects makes no difference, whatsoever.

APPENDICES TO CHAPTER 5

Jens B. Grøgaard

Appendix 5.1 A model explaining the likelihood of having a child 0-6 years of age in a kindergarten (state or private) or at a nanny's dwelling



The logic of the model

We observe 882 randomly sampled individuals «representing» households with one child 0-6 years of age or more. The model registers the individual characteristics of the mother and/or the father of the child as separate variables «represented» by the respondent. First, there is an element of «birds of a feather flock together» in Estonian society late 1994. The correlation between the educational level of spouses/cohabitors having small children 0-6 years of age is (Pearsons r=) .45. Education influences the distribution of income and occupational positions, among parents of small children significantly, but not strongly. Education has no direct effect on the likelihood of having small children in kindergartens, only indirect effects. The socio-economic resources of both parents increase the likelihood of having children in a kindergarten, the attributes of the father to a lesser degree than the attributes of the mother, ceteris paribus (i.e. all other independent variables kept constant). This obstacle in combination with resources operate side by side with obstacles/freedom of manoeuver and choice represented by three parameters: the age of the child, the degree of urbanization and the composition of the household. The age of the child has the strongest partial or net effect on the likelihood of having small children in kindergartens of all the independent variables in the model (R=.33). Urbanity also has a net controlled or separate effect (R=.12). All other independent variables kept constant, we estimate that the odds of having a child in a kindergarten in Tallinn is eight to nine times higher than in a small village in the countryside. This

measure in our opinion, is a strong indication of geographical variation in the supply of kindergartens at present. A reduction in the size of the household - everything else being equal - e.g. substituting three generation families with nuclear families, or nuclear families with households containing one parent only - increases the likelihood of having small children in a kindergarten, more precisely, the odds of this substitution increases 5.2 times. We remind the reader that an odds measure the proportion of two probabilities, the probability of having a child in a kindergarten in the numerator, the probability of not having a child in a kindergarten in the denominator. The predictive power of the model, is by no means perfect, it classifies 80 per cent of the children staying at home (or at a relatives dwelling) correctly, and close to 70 per cent of the children staying in a kindergarten (state/private) or at a nanny's dwelling, correctly.

Elements of the model

Unit of analysis=Randomly sampled mother or father (RSP) having at least one child 0-6 years of age (N=882)

* Increase = An increase in socio-economic resources, children's age, degree of urbanization etc. increases the probability/likelihood of having a child 0-6 years of age in a kindergarten (public/private, included at a nanny's dwelling) - all other factors specified in the model held constant.
* Decrease = An increase in the size of the household (included substituting e.g. households containing one parent only, with households consisting of both parents or three generation households respectively) reduces the probability/likelihood of having a child 0-6 years of age in a kindergarten - everything else being equal.
* Assortative mating = The correlation between the educational level of cohabitors/spouses having at least one child 0-6 years of age (Pearsons r=.45)
* Education1,2 = The educational level of parent number 1,2 (respectively)
* Socio-econ resources1,2 = Income and occupational position of parent 1,2 (respectively)
* Gender = Indication that both parents count, but that attributes of the mother count more than the socio-economic resources of the father (exemplifies an interaction between gender and resources on the likelihood of having a child in a kindergarten)
* Size of household/structure of the family = A linear regression of the size of the household and the structure of the family (one parent, two parents, three generations) on a ranked dependent variable (0=at home, 1=looked after at the dwelling of a family member, 2=state kindergarten, 3=private kindergarten/nanny).
* Degree of urbanity (1=village, 2=little town, 3=small town less than 5,000 inhabitants, 4=town 5,000 - 50,000 inhabitants, 5=town/city 50,000 inhabitants or more, 6= Tallinn) - indicating geographic variety in capacity of state kindergartens.
* Children's age = If more than one child 0-6 years of age, the average age of the children involved.

Other insignificant variables (insignificant direct effects):

* Number of children 0-6 years of age in the household.
* Number of children 7-15 years of age in the household.
* The educational level of spouses/cohabitors.

Logistic regression employs the maximum likelihood method based on iterative procedures in order to estimate effects and to establish a scale for evaluating levels of statistical significance and explanatory power. R is a measure of partial (net) effects, a correlation deduced from kji-square statistics controlled for reductions in degrees of freedom. Exp(B) means odds ratio. An odds is a relation between to probabilities: The likelihood of success in the numerator, the likelihood of failure in the denominator. The odds ratio is a relation between the odds of two different outcomes (values) of one independent variable - the values (outcomes) on all other independent variables of the model being unchanged.

The model, last step
Model 1: All parents (N=882)

Variables	Partial correlation	Significance	Oddsratio
Ageofchild	.33	.000	12.3
Urbanization	.12	.000	1.2
Occupat pos o f spouse	.11	.000	5.2
Familytype (small=high)	.07	.004	4.9
Income of RSP	.06	.01	1.2
Numb of children/age		ns	(not significant)
Education of spouse		ns	
Income of spouse		ns	
Education of RSP		ns	
Gender of RSP		ns	

-2LLo=1189, reduction/improvement=315 (=27per cent)
Explained variance in linear regression =31per cent
(response 0=at home,1=at another family member, 2=state kindergarten, 3= private kindergarten/ nanny)

Prediction matrix:

		Predicted		
		At home	Kindergarten	Correct
Observed	At home	402	102	80 %
	Kindergarten	123	246	67 %
			Overall	74 %

Model 2: Mothers (N=493)

Variables	Partial correlation	Significance	Oddsratio
Age of child	.29	.000	9.4
Urbanization	.10	.000	1.2
Occupat pos of RSP	.16	.000	9.5
Familytype(small=high)	.04	.07 (ns)	3.6
Income of spouse		ns	
Numb of children/age		ns	
Education of spouse		ns	
Income of spouse		ns	
Education of RSP		ns	

-2LLo=659, reduction/improvement=190 (=29per cent)
Explained variance in linear regression =33per cent
(response 0=at home,1=at another family member, 2=state kindergarten, 3= private kindergarten/ nanny)

Prediction matrix:

		Predicted		
		At home	Kindergarten	Correct
Observed	At home	229	56	80 %
	Kindergarten	62	139	69 %
			Overall	76 %

Conclusion

A similar model containing fathers only, presents four significant effects: The age of the child 0-6, the income of the mother, type of family and degree of urbanization. Since the attributes of the mother matters when fathers are unit of analysis, and the attributes of the father did not matter when including mothers only, we conclude that the attributes (socio-economic) of females seem to be of greater importance than the attributes of males.

One possible interpretation of these models, however, is that the hallmarks of the father does not matter at all, i.e. the basic feature of the model is 'the assortative mating mechanism' (indirect effects of fathers' resources only), not the interaction between gender and resources (e.g. represented by the observed increase in explanatory power). The strongest influences on the type of childcare are connected with the structural features of the model - indicated by children's age (access/need), urbanity (access) and family type (need/compensation) -not with the educational, occupational and economic resources of the children's parents.

Appendix 5.2 Some models suggesting the strength of social reproduction mechanisms mediated through educational performance in Estonia at present

Gross and net associations between economic resources, age, gender, size of household and degree of urbanity on educational level among Estonians 16-29 years of age in four different statusgroups (suggested by parents educational level). Gross effects refer to Pearsons r. Net effects calculated by linear regression (beta).

	(N=168) Group 1	(N=675) Group 2	(N=374) Group 3	(N=131) Group 4
*Age Corr	.38	.51	.56	.67
Beta	.44	.53	.62	.73
Beta:				
*Per capita income	.24	.10	ns	.12
*Size of household	ns	-.05	-.06	-.07
*Degree of urbanity	ns	.08	ns	ns
*Gender (fem=high)	ns	.07	.10	-.07 (ns)
Explained variance (%)	30	32	41	56

Definitions of statusgroup1-4: 1=compulsory education, 2=secondary education, 3=higher education (4=both parents have higher education).

Comments

This model clearly shows that educational differences appear as a sunrise, an increase in age with one unit (one standard deviation) among Estonians 16-29 years of age has far much stronger effects if parents are well educated than if parents are less educated. In the low scoring status group, age still has the strongest net effect on educational performance, but here we observe a quite strong compensatory effect of differences in economic resources (beta=.24). The predictive power of the model is moderate (30 pct). In the high scoring status group it is far more impressive (ranging from 41 to 56 pct of total variance), and now age actually determines the reported educational level of the youngster in isolation, i.e. we observe a slight but significant net difference between sexes, possibly according to economic resources, and possibly according to the size of the household (controlled for age). This reproductive «mechanism» at the peak of 1994, is quite similar - probably somewhat stronger - than observed in Norway at present, especially among young females!

Appendix 5.3 Logistic regression on the propensity to declare that politics is to complicated (dichotomous response, 0=agree, 1=disagree) Model in four steps

	1.step R	1.step expB	2.step R	2.step exp(B)	3.step R	3.step exp(B)	4.step R	4.step exp(B)	Significance p<.01	Independent variable scale
1.step:										
Social status	.06	1.2	.05	1.2	.04	1.2	.04	1.1	yes	0-5
Gender(fem=high)	-.14	0.5	-.14	0.5	-.12	0.5	-.12	0.5	"	1-2
Age(old=high)	-.06	0.9	-.06	0.9	-.08	0.9	-.08	0.9	"	2-7
Personal income	ns		ns		ns		ns		no	0-5
Per cap/income	.03	1.1	.03	1.1	ns		ns		"	0-5
Education	.20	1.5	.19	1.5	.15	1.4	.16	1.4	yes	0-7
2.step										
Numb of membship			.05	1.2	ns		ns		no	0-8
Memb of pol party			.03	1.4	.02	1.2	ns		"	0-1
3.step										
Future plans					.21	3.5	.19	3.2	yes	0-1
Interest in pol					.25	2.8	.25	2.7	"	0-1
Subj health					-.03	.9	ns		no	1-5
4.step										
Ethnisity(Estonian=high)							.03	1.1	yes	1-4
citizenship(=high)							.03	1.2	"	0-1

Prediction matrix

1.step (N=4200)

	Predicted		
Obs	agree	disagree	
agree	2090	444	83%
disagree	912	754	45%
Overall			67%

Reduction in kji-square with constant 11%

2.step (N=4200)

	Predicted		
Obs	agree	disagree	
agree	2094	440	83%
disagree	905	761	46%
Overall			68%

Reduction in kji-square with constant 12%

3.step (N=4067)

	Predicted		
Obs	agree	disagree	
agree	2009	425	83%
disagree	596	1037	64%
Overall			74%

Reduction in kji-square with constant 24%

4.step (N=4067)

	Predicted		
Obs	agree	disagree	
agree	2010	424	83%
disagree	588	1045	65%
Overall			75%

Reduction in kji-square with constant 26%

Linear regression on dichotomous response fourth step:
Explained variance 28 per cent.

Comments

The odds ratio is a relation between the odds of two different outcomes (values) of one independent variable - the values (outcomes) on all other independent variables of the model being unchanged. In other words, exp(B) measures the partial change in odds increasing one independent variable one unit - ceteris paribus (everything else equal). Oddsratios greater than one indicate an increase in the propensity to disagree that politics is too complicated, oddsratios less than one indicate a reduction in the propensity to reply in the same manner. Oddsratios close to one indicate no change in the relation between the two probabilities (agree/disagree) of a substitution of values in one (and one only) independent variable. The prediction matrix suggests the strength of the model. An overall «success rate» of 75% should be seen as acceptable, especially when the predictive power of the category that is the most difficult one to forecast is 65%. Actually, the first step of the model classifies 83% of the respondents which agree with the proposition, correctly. This prediction is related to variables indicating variations in 'classical' human resources as social status, gender, age, income and education. Subsequently, introducing individual hallmarks related to organisational memberships, ethnicity, citizenship and mentality (pessimism/fatalism), the whole improvement of the prediction occurs on the other category, predicting the propensity to disagree with the statement that politics is roo complicated. The correlation coefficient (R) is probably the best effect measure, because it takes into account the scope of variation among the independent variables.

In Norway, there has been a great controversy about the use and the interpretation of standardised measures of statistical effects related to problems of causal modelling. The supporters of the 'manipulative' interpretation of causal relations clearly prefer the oddsratio when assessing the statistical effect of a manipulation or substitution (ceteris paribus) of the values of an independent variable, while the supporters of a clear-cut 'statistical' interpretation of causal relations prefer standardised measures (here: R). Two famous researchers supporting the statistical view, are Karl Pearson and Charles Sanders Peirce. Peirce claimed:»'Chance is First, Law is Second, the tendency to take habits is Third'», and Ian Hacking explains: «Even when a dice are cast in circumstances of eternity, as when we contemplate the constellations of the cosmos, or cast in circumstances of complete and personal particularity, as when we seal our own fate, chance pours in at every avenue of sense (...) 'A throw of the dice never will annul chance'» (Hacking 1990: 215).

APPENDICES TO CHAPTER 7

Tone Fløtten and Jens B. Grøgaard

Appendix 7.1 Factors influencing personal income and household income per capita. Standardised and unstandardised linear regression coefficients (B, beta), multiple correlation coefficient (MR) and explained variance (per cent). Two steps

A: Estonian residents 18 years of age or older receiving income from wage labour and/or business (N=2,562)

Independent variables	Dependent variables 1. step: Personal income B	beta	2. step: Household income per capita B	beta
Sector/type*	95	.08	21	.03****
Income source**	437	.10	ns	ns
Household size	ns***	ns	-141	-.21
Occupational status	389	.24	ns	ns
Gender(fem=high)	-647	-.18	**136**	.07
Age group	-50	-.04****	ns	ns
Working hours	11	.09	ns	ns
Education	178	.13	30	.04****
Number of income sources	279	.10	-134	-.09
Personal income	..	..	0.37	.72
	MR=.42 (R^2=.17) Expl var 17 per cent		MR=.75 (R^2=.56) Expl var 56 per cent	

* Sector/type of ownership: cooperative=low, municipal, state organ, shareholding, joint venture=high, ranked by average income level of employees

** Income source: outside labour force=low, wages, business=high

*** ns: not significant at .01 level.

**** Not significant at .01 level controlled for design effects

B: All Estonian residents 18 years of age or older (N=4,332)

Independent variables	Dependent variables: 1. step: Personal income B	beta	2. step: Household income per capita B	beta
Sector/type*	ns***	ns	ns	ns
Income source**	184	.12	ns	ns
Household size	ns	ns	-85	-.11
Occupational status	449	.27	ns	ns
Gender(fem=high)	-408	-.12	160	.07
Age group	ns	ns	ns	ns
Working hours	ns	ns	ns	ns
Education 124		.11	43	.05
Number of income sources	194	.08	-161	-.09
Personal income	..	..	0.51	.73
	MR=.42 (R^2=.17) Expl. var. 17 per cent		MR=.71 (R^2=.50) Expl. var. 50 per cent	

* Sector/type of ownership: cooperative=low, municipal, state organ, shareholding, joint venture=high, ranked by average income level of employees

** Income source: outside labour force=low, wages, business=high

*** ns: not significant at .01 level.

**** Not significant at .01 level controlled for design effects

Comments

The predictive power on personal income is moderate in both models (17 per cent and 22 per cent respectively). This is a typical finding in straight forward linear regression models like this. It is not easy to explain income differences between individuals (cf. Jencks et. al. 1972). Household income per capita is basically determined by personal income at the level of the individual (beta =.7 in both models). One reason for the strong empirical bond between personal income of a randomly sampled youngster or grown-up within a household and the household income per member of the household, is the quite strong reproductive mechanisms operating in Estonia at present - e.g. the assortative mating mechanism and social and occupational reproduction mediated through education. Several factors influence differences in personal incomes, but occupational status, gender, education, working hours and the number of income sources (number of jobs) seem to be of great importance.

Finally, some independent variables of the model reverse their signs (the direction of their net effects) from first step to second step in the regression function (gender and number of income sources). Let us use the number of income sources as an example: An increase in the number of income sources with one unit (e.g. comparing people with one and two jobs) - everything else, like education, status, age, working hours etc., being equal - «produce» an average 194 kroons increase in personal income per month, and an average 161 kroons decrease in household income per capita per month, now in addition controlled for differences in personal income. Why this reversal of the direction of influence of this factor? We think that the answer to this 'puzzle' simply is that persons with more than one source of income as a rule provide for others with less income or no income

at all. At the same time this additional effort of the breadwinner does not compensate completely - measured in pure money. Large households need more money than do small households, but there is an economy of scale too (cf. the concept of consumption unit). The reversal of sign connected to the independent variable gender, is due to the division of labour between the two genders in most households (included the fact than women receive by far the lowest wages).

APPENDICES TO CHAPTER 11

Jens B. Grøgaard

Appendix 11.1 The relation between perceptions of material standards of living and quality of life

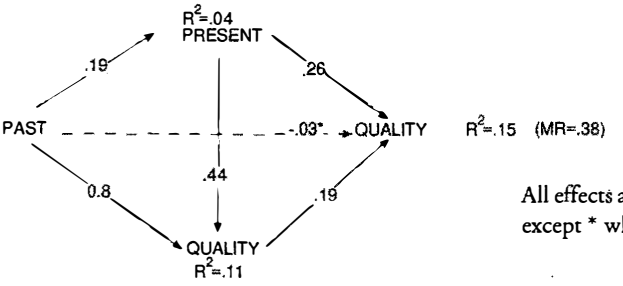
Correlation matrix (N=4,330), Pearsons r

	Perceived material conditions (1) Past	(2) Present	(3) Future	Quality of life
(1)	1.	.19	ns	ns
(2)		1.	.43	.34
(3)			1.	.30

ns= not significant at one pct level (i.e. for p<.01)

Model 1

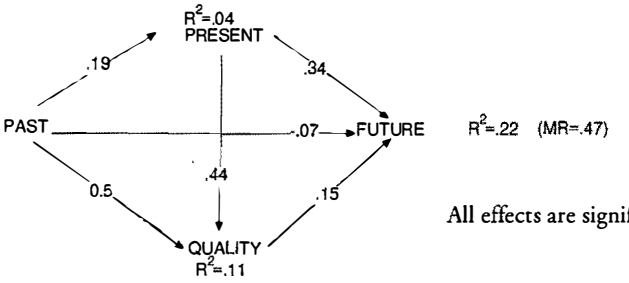
Predicting quality of life judgement during transition (1990-94) as a function of perceived past, present and future material conditions of the respondents (N=4,330). Stepwise linear regression (standardised net effects, beta, and explained variance, R^2)



All effects are significant at p<.01 (level), except * which is significant at p<.05

Model 2

Predicting expected material condition round 2000 as a function of perceived past and present material conditions and quality of life during transition (N=4,330). Stepwise linear regression (standardised net effects, beta, and explained variance, R^2)



All effects are significant at p<.01 (level)

Appendix 11.2 Selected models explaining expressed vulnerability among Estonians. Net standardised effects (beta) and explained variance. Per cent

A: All respondents (N=4,348)

	Reported lack of necessities	Reported lack of socio-cultural goods
* Degree of urbanity	.10	.05
* Citizenship (Non-Estonians=high)	.10	ns
* Number of alternative sources of basic goods	-.22	ns
* Household income per capita per month	-.33	-.11
* Give-and-take	.03	ns
* Lack of necessities		.56
Multiple correlation	.47	.61
Explained variance (%)	22	37

ns=not significant at p<.02 level

Comments

The very number of alternative sources of food supplies - we should stress that the analysis is carried out without regard to the quality or productivity of these sources, which we do not know - will in itself influence the propensity to report any want of basic goods, in fact slightly less than reported household income per capita would (beta=-.22 and -.33, respectively). In addition, we observe significant net effects of social barter (give-and-take), citizenship and place of dwelling (urbanity). People with Estonian citizenship, who live in rural areas and who enter relations of social barter, seem to be better off than people without Estonian citizenship, who live in towns, and who are not so involved in relationships of social barter - *ceteris paribus* - i.e. even when we control against differences in the access to compensatory means of subsistence, and the amount of money per household member per month. Next (second step), the model demonstrates the principle of 'first things first': The lion's share of the reported lack of socio-cultural goods requiring some monetary outlays is due to a reported lack of necessities (beta=.56).

B: Low income earners (per capita income less than 400 kroons per month, N=846)

	Reported lack of necessities	Reported lack of socio-cultural goods
* Degree of urbanity	.08	ns
* Citizenship (Non-Estonians=high)	.13	ns
* Number of alternative sources of basic goods	-.29	ns
* Household income per capita per month	ns (!!)	ns
* Give-and-take	ns	ns
* Lack of necessities		.55
Multiple correlation	.41	.56
Explained variance (%)	17	31

ns=not significant at p<.01 level

Comments

If incomes are low, alternative means of access dominate the propensity to report lack of basic goods.

C: High income earners (per capita income above 1,099 kroons per month, N=979)

	Reported lack of necessities	Reported lack of socio-cultural goods
* Degree of urbanity	ns	ns
* Citizenship (Non-Estonians=high)	.06	ns
* Number of alternative sources of basic goods-	.19	ns
* Household income per capita per month	-.17	-.10
* Give-and-take	ns	ns
* Lack of necessities		.60
Multiple correlation	.29	.64
Explained variance (%)	8	41

ns=not significant at p<.01 level

Comments

We observe an increase in the explanatory power of the model predicting a lack of socio-cultural goods and services (second step). With increasing income level, people can afford to take part in such activities, if their basic needs have been met! The reason is probably that some people who clearly earn a lot of money, have substantial expenses too. They are bound to spend money on maintenance of various kinds, protecting their durables, etc., and after having done so, they often lack the money to visit restaurants, concerts, theatres, cinemas, etc. (beta=.60)

Appendix 11.3 Gross and net loadings on stratification (barter economy excluded), estimated by linear regression

	Pearsons r	Beta	Explained variance (%)
Material conditions	.72	.38	27
Occupational position	.68	.31	21
Educational level	.63	.32	20
Perceived health-.60 condition		-.30	18
Non-Estonian citizenship	-.19	-.04	1
Age	-.42	not signif(=ns)	none
Sum			87

Net loadings on material conditions (R=X+Y-Z), estimated by linear regression

	Beta
Single parent, 1+ child 0-6 years of age	-.09
Urban	-.05
Occupat position	.29
Unemployed, ILO-def	-.11
Ill-health	-.22
Educational level	.10
Age group	-.06
Pensioner/disabled	ns

Explained variance 28 per cent (multiple correlation=.52). All specified net effects are significant at p<.001 level.

Appendix 11.4 Correlation matrix: Factors explaining differences in perception of quality of life 1990-94. Gross loading of factors on dimensions. Pearsons r

	Factors entering dimension						
DIMENSIONS	Age	Additive index physic	Additive index socio-physic	Additive index pschycic	Perceived reduction in work ability	Subjective general health condition	N
Health dimension	-.67	-.53	-.60	-.69	-.62	-.83	4431
	Gross personal income per month	Gross monthly household income	Gross per capita monthly household income	Lack of necessities number	Lack of socio-cultural activities number	Access to alternative food sources number	N
Objective economic situation	.53	.65	.62	-.89	-.67	.38	4348
		At present poor=high	Future expectations poor=high	N			
Subjective economic situation		-.89	-.80	4433			
		Leader-ship index	Workinghours last week	N			
Work position		.97	.83	4455			
		Educational level	Organisational memberships number	N			
Educational resources		.99	.30	4455			
	«Gives» number	«Takes» number	Conflicts number	Contacts number	Size of household	Living alone	N
Social integration	.72	.24	.08	.25	.69	-.40	4455

	Private ownership add index	Distrust in authorities... do their job	hiding information	taking bribes	Politics... general interest	not too complex	too equal	Incomes N
Mentality/ control (missing= average score)	.64	-.41	-.18	-.14	-.23	.52	.50	4455

	Numb rooms	Space	No payment problems	No rent support	Satis-fied	Damp/heat/ privacy index	Noise index	Smoke dust/ index	N
Housing condition	.14	.17	.83	.50	.47	-.39	-.18	-.17	4455

Correlation matrix/net effects estimated by linear regression (beta)

Dimensions	1	2	3	4	5	6	7	8	9	QUALITY OF LIFE Gross	QUALITY OF LIFE Net	Control for design effects Net
1 Health	1.	.45	.44	.30	.28	.24	.31	.33	.11	.43	.26	.25
2 Objecon		1.	.53	.49	.41	.26	.29	.30	.22	.38	.16	.10
3 Subjecon			1.	.40	.30	.25	.20	.27	ns	.38	.17	.22
4 Housing				1.	.16	.21	.17	.14	ns	.29	.09	.12
5 Education					1.	.38	.21	.18	.06	.19	ns	.06
6 Occposit						1.	.15	.19	ns	.18	ns	ns
7 Sociality							1.	.18	.16	.18	ns	.04
8 Mentality								1.	.20	.22	.04	.06
9 Citizenship									1.	.10	.04	.12

Explained variance of the model: 25 per cent. ns=not significant at p<.05. Model included interaction terms, explained variance: 28 per cent. Control for design effects actually increases the net effects of 'education', 'sociality' and 'citizenship'!

Appendix 11.5 A model shedding light on economic and material expectations. Stepwise linear regression (six steps). Multiple correlation and explained variance (per cent). N=4,083

	Future material prospects Explained variance	Multiple correlation
1st step: Six economic indicators	16	.40
2nd step: Five health indicators	21	.46
3rd step: Education, occupational position and age	25	.50
4th step: Perceived past and present material conditions	31	.56
5th step: Two attitudes (future plans and complexity of politics)	34	.58
6th step: Gender, citizenship and degree of urbanity*	34	.58

Urbanity significant at p<.01, gender and citizenship not significant at p<.05. The model is not controlled for design effects.

Appendix 11.6 Extracting concordance and dissonance among Estonians 1994

Table 1 Perceived material conditions and pure economic standing. Per cent of grand total (N=4,307)

		Perceptions		
		Bad	Ends meet	Good
	Low	13	18	(0.5)
Conditions	Medium	6	38	4
	High	1	12	7

Concordance:	(13 + 38 + 7)%	= 58%
Adaption:		= 0.5%
Slightly adapting:	(18 + 4)%	= 22%
Dissatisfaction:		= 1%
Slightly dissatisfied:	(6 + 12)%	= 18%

Table 2 Perceived quality of life and pure economic standing, included health condition. Per cent of grand total (N=4,254)

		Perceptions		
		Bad	Ends meet	Good
	Low	10	17	6
Conditions	Medium	4	17	11
	High	2	13	21

Concordance:	(10 + 17 + 21)%	= 48%
Adaption:		= 6%
Slightly adapting:	(17 + 11)%	= 27%
Dissatisfaction:		= 2%
Slightly dissatisfied:	(4 + 13)%	= 17%

APPENDICES TO CHAPTER 12

Jan Dietz and Jens B. Grøgaard

Appendix 12.1 Explaining attitudes towards privatisation

Increase in multiple correlation and explanatory power of a linear regression model predicting attitudes towards privatisation (ownership index). Explained variance in per cent.

	Dependent variable: Ownership index		
Independent variables	MR	R^2*100	Increase
1.step			
Age and income	.29	8	
2.step			
Life-style and expectations	.33	11	3
3.step			
Health condition	.33	11	0
4.step			
Personal efficacy	.38	15	4
5.step			
Ethnic affiliation and citizenship	.44	19	4
6.step			
Education, occupational status and gender(fem= high)*	.44	19	0

* None of these ceteris paribus effects are significant at $p<.05$, at least taken design effects into consideration.

LITERATURE

Antonucci, T.C. (1990), «Social supports and social relationships». In Binstock, R.H. and L.K. George (eds.), *Handbook of aging and the social sciences.* Third edition. San Diego: Academic Press

Antonucci, T.C. and H. Akiyama (1988), *The negative effects of intimate social networks among older women as compared with men.* Paper presented at the Gerontological Society of America Meetings. San Francisco, November

Atkins, C.J., R.M. Kaplan and M.T. Toshima (1989), «Close relationships in the epidemiology of cardiovascular disease». In: Jones, W.H. and D. Perlman (eds.), *Advances in personal relationships.* Greenwich: JAI Press

Atkinson, Anthony B. and John Micklewright (1992), *Economic transformation in Eastern Europe and the distribution of income.* Cambridge: Cambridge University Press

Bandura, Albert (1977), «Self-efficacy: Towards a Unifying Theory of Behavioral Change.» *Pschycological Review* 84:191–215

Biegel, D.E. (1985), «The application of network theory and research to the field of aging». In Sauer, J. and R.T. Coward (eds.), *Social support networks and the care of elderly: Theory, research, and practice.* New York: Springer

Blieszner, R. (1989) «Developmental processes of friendship». In Adams, R.G. and R. Blieszner (eds.), *Older adult friendship: Structure and process.* Newbury Park: Sage Publications

Boudon, Raymond (1974a), *Education, Opportunity and Social Inequality.* New York/London: John Wiley & Sons

Boudon, Raymond (1974b), *The Logic of Sociological Explanation.* Harmondsworth: Penguin Books

Bourdieu, Pierre (1985), «The Social Space and the Genesis of Groups.» *Theory and Society* 14 (6):723–744.

Broady, Donald and Mikael Palme (eds.) (1986), *Pierre Bourdieu. Kultursociologiska texter* (Texts in the Sociology of Culture). Lindingö: Salamander

Brody, E.M., et.al. (1987), «Social support, life events and depression». In: Sarason, I. and B.R. Sarason (eds.)

Brubaker, Rogers (1985), «Rethinking classical theory. The sociological vision of Pierre Bourdieu.» *Theory and Society* 14 (6):745–775

Clulow, C. (1994), *Who Cares? Implications of Caring Responsibilities for Couples and Families.* A Report to a conference marking the International Year of the Family held by the Commission on Marriage and Interpersonal Relations of the International Union of Family Organisations. Meeting at Tuusula, Finland, May 15–18th 1994

Coleman, James (1973), *The Matemathics of Collective Action.* London: Heinemann

Davis, Nancy J. and Robert V. Robertson (1988), «Class identification of men and women in the 1970s and 1980s.» *American Sociological Review* 53 (1):103–112

Elias, Norbert (1970/1978), *What is Sociology?* London: Hutchinson

Estonia Today 14.2.95

Estonian Encyclopaedia Publishers/Latvian Encyclopaedia Publishers/Lithuanian Encyclopaedia Publishers (1991), *The Baltic States. A Reference Book.* Tallinn/Riga/Vilnius

Estonian Interuniversity Population Research Centre (1994), *Infant Mortality. Counties 1965–1993. Population Statistics of Estonia.* Tallinn

Estonian Interuniversity Population Research Centre (1994), *Population Age Structure 1979–1989. Population Statistics of Estonia.* Institute of Experimental and Clinical Medicine: Tallinn

Finans- og tolldepartementet (1993), *Levekår i Norge. Er graset grønt for alle?* (Living Conditions in Norway: Is the grass green for everybody?). NOU 1993:17. Oslo: Statens forvaltningstjeneste

Freud, Sigmund (1948/1987), *Kulturens byrde* (The Burden of Culture). Copenhagen: Hans Reitzels Forlag

Fuller, Wayne A. et.al. (1989), *PC CARP* Ames: Statistical Laboratory, Iowa State University

Garton, Timothy Ash (1990), *We the People. The Revolution of 89, Witnessed in Warsaw, Budapest, Berlin and Prague.* London: Penguin, Granta Books

Grøgaard, Jens B. (1993), *Skomaker, bli ved din lest?* (Cobbler, stick to your last?) Oslo: Fafo

Hacking, Ian (1990), *Ideas in Context: The Taming of Chance.* Cambridge: Cambridge University Press

Hansson, Ardo H. (1995), *Macroeconomics stabilisation in the Baltic States.* Paper presented at the First Dubrovnik Conference on Transition Economies

Hergenhahn, B.R. (1976/1982), *An Introduction to Theories of Learning.* New York: Prentice-Hall

Hernes, Gudmund and Knud Knudsen (1991), *Lithuania. Living Conditions. A Sociological Study.* Oslo-Moscow: Fafo-SOTECO

Hilferding, Rudolf (1910/1947), *Das Finanzkapital: eine Studie über die jüngste Entwicklung des Kapitalismus* (Finance Capital: A Study of the most Recent Development of Capitalism). First published in Vienna 1910: Verlag der Wiener Volksbuchhandlung. Latest edition, Frankfurt 1968: Europæische Verlagsanstalt

Hobson, John A. (1902/1938), *Imperialism: A Study.* First published in 1902. London 1938: Allen & Unwin

Hvinden, Bjørn (1994), *The sociology of ambiguity: Poverty and integration in a Simmelian perspective.* Paper given on the XIII ISA World Congress of Sociology, 18–23 July, Bielefeld, Germany

Jencks, Christopher et.al. (1972), *Inequality. A Reassessment of the Effect of Family and Schooling in America.* New York/London: Basic Books

Karklins, Rasma (1994), *Ethnopolitics and Transition to Democracy. The Collapse of the USSR and Latvia.* Washington D.C: The Woodrow Wilson Center Press/Baltimore and London: The Johns Hopkins University Press

Knudsen, Knud (1996), *Lithuania in a Period of Transition.* The NORBALT Living Conditions Project. Oslo: Fafo

Kutsar, Dagmar and Avo Trumm (1993), «Poverty of households in Estonia.» *Scandinavian Journal of Social Welfare* 2 (3):128–141

Kutsar, Dagmar (1995), «Social change and stress in Estonia.» *Scandinavian Journal of Social Welfare* 4 (4):94–107

Kutsar, Dagmar and Avo Trumm (1995), «Changed situation, remaining needs: A challenge for welfare policy in Estonia». In: Simpura, Jussi (ed.) pp 44–59

Kutsar, Dagmar and Avo Trumm (1995), «Changed situation, remaining needs». In Simpura, Jussi (ed.)

Kutsar, Dagmar (1995), *Transformation in Estonia as Reflected in Families: Insight into Social Stress and Poverty.* Tartu: Tartu University Press

Larson, R., R. Mannell and J. Zuzanek (1986), «Daily well-being of older adults with friends and family.» *Psychology and Aging* (1):117–126

Litwak, E. (1985), *Helping the elderly: The complementary role of informal networks and formal systems.* New York: Guilford

Lugus, Olev and Pennti Vartia (1993), *Estonia and Finland. A Retrospective Socio-economic comparison.* Sarja B66 Series. Helsinki: The Research Institute of Finnish Economy

Lukàcs, George (1975), *Realisme* (Realism). Gjøvik/Oslo: Gyldendal Norsk Forlag

Lundestad, Geir (ed.) (1994), *The Fall of the Great Powers. Peace, Stability and Legitimacy.* Nobel Symposium 87. Oslo: Scandinavian University Press/ Oxford: Oxford University Press

Markeds- og Mediainstituttet AS (1993), *Norsk Omnibus 1993.* Oslo: MMI

Marx, Karl (1844/1975), *Filosofiske skrifter* (selected parts of Economic-philosophical manuscripts 1844). Oslo: PAX

Mastny, Vojtech (1992), *The Helsinki Process and the Reintegration of Europe 1986–1991. Analysis and Documentation.* New York: Institute for East-West Studies/New York University Press

Merton, Robert (1975), «Structural Analysis in Sociology». In: Blau, Peter (ed.) *Approaches to the Study of Social Structure.* New York: The Free Press

Misiunas, Romuald and Rein Taagepera (1993), *The Baltic States. Years of Dependence 1940–1990.* London: Hurst

Nove, Alec (1977), *The Soviet Economic System.* London: Allen & Unwin

Pape, Tom Christian (1993), *Arbeidsmiljø i Norge. LOs arbeidsmiljø-undersøkelse* (Work environment in Norway). Oslo: Fafo

Pawson, Ray (1989), *A Measure for Measures. A Manifesto for Empirical Sociology.* London/New York: Routledge & Kegan Paul

Polanyi, Karl (1944/1957), *The Great Transformation. The Political and Economic Origins of Our Time.* Boston: Beacon Press

Radio Free Europe/Radio Liberty (RFE/RL) Information Unit, 6.2.1995. No 247:45

Rasmann, Riho (1995), «Privatisation». In: *Estonian Economy 1994–1995.* The Ministry of Economic Affairs of the Republic of Estonia/Vartus Ltd

Raun, Toivo U. (1991), *Estonia and the Estonians.* Stanford University. California: Hoover Institution Press

Ringen Stein (1987), «Poverty in the welfare state?» In: Erikson, R. et al. *The Scandinavian model. Welfare states and welfare research*: pp 122–138. London: M.E. Sharpe

Ringen, Stein (1987), «Direct and Indirect Measures of Poverty.» *Journal of Social Poverty* 17 (3):351–365

Ringen, Stein (1995), «Well-being, Measurement, and Preferences.» *Acta Sociologica* 38 (1):3–15

Robinson, Joan (1974), *Økonomisk filosofi. En oversikt over retninger i den økonomiske tenkningens historie* (Economic Philosophy. An Overview of approaches/schools in the History of Economic Thought). Oslo: Gyldendal Norsk Forlag

Rook, K.S. (1989), «Strains in older adults' friendship». In: Adams, R.G. and R. Blieszner, *Older adult friendship: Structure and process.* Newbury Park: Sage Publications

Rostow, W.W. (1960), *The Stages of Economic Growth.* Cambridge: Cambridge University Press

Russian Public Opinion Foundation. Ogonek no. 19

Sarason, I.G. and B.R. Sarason B.R (eds.) (1989), *Social support:Theory, research, and applications.* The Hague: Nijhoff

Sayer, Andrew (1984), *Method in Social Science. A Realist Approach.* London: Hutchinson

Schonberger, Richard J. (1986) *World Class Manufacturing.* New York/London: The Free Press

Schulman, Lee (1986), «Paradigms and Research Programs in the Study of Teaching: A Contemporary Perspective». In: Wittroch, Merlin C. (ed.) *Handbook of Research on Teaching.* A Project of the American Educational Research Association. New York: MacMillan

Schutz, Alfred (1967), *The Phenomenology of the Social World.* London: Heinemann

Seeman, Ulla (1995), «A view on the economic and social situation in the Baltic States». In: Venesaar, Urve and George A. Hachey Jr. (eds.)

Simpura, Jussi (ed.) (1995), *Social Policy in Transition Societies. Experience from the Baltic countries and Russia.* Helsinki: The Finnish ICSW Committee, The Finnish Federation for Social Welfare

Skinner, Burrhus F. (1971), *Beyond Freedom and Dignity.* London/New York: Penguin Books

Statistics Norway (1993), *Sosialt utsyn 1993* (Social Outlook 1993). Oslo/Kongsvinger: Statistics Norway

Statistical Office of Estonia (1994), *Statistical Yearbook of Estonia 1993.* Tallinn

Statistical Office of Estonia (1994), *Statistical Yearbook of Estonia 1994.* Tallinn

Statistical Office of Estonia (1994), *Population Statistics of Estonia, Population age structure 1970–79.* Tallinn

Statistical Office of Estonia (1994), *Population Statistics of Estonia, Population age structure 1980–89.* Tallinn

Steedman, Ian (1979), «Introductory Essay». In: Steedman, Ian (ed.) *Fundamental Issues in Trade Theory.* New York: St. Martin's Press

Suni, Merle (1995), «Social Welfare and law in Estonia». In: Simpura, Jussi (ed.) pp 44–59

Särndal, Carl-Erik, Bengt Swensson and Jan Wretman (1992), *Model Assisted Survey Sampling.* New York: Springer-Verlag

The Baltic Independent. May 5–11 1995

Tilly, Charles (1984), *Big Structures, Large Processes, Huge Comparisons.* New York: Russel Sage Foundation

U.S Bureau of the Census (1993), *CENVAR variance calculation system.* Washington: Bureau of the Census

Venesaar, Urve and George A. Hachey Jr. (eds.) (1995), *Economic and Social changes in the Baltic States in 1992–1994.* Tallinn: Estonian Academy of Sciences, Institute of Economics

Vogel, Joachim (1991), *Social report for the Nordic countries: living conditions and inequality in the late 1980's.* Statistical Reports of the Nordic Countries, No.55. Copenhagen: Nordisk statistisk sekretariat

Wells, H.G. (1920/1971), *The outline of history: being a plain history of life and mankind.* New York: Doubleday

Wiman, R. (1990), «Towards an integrated theory of help». *The National Boards of Social Welfare in Finland*, Publication 2.

Wolter, Kirk (1985), *Introduction to variance estimation.* New York: Springer-Verlag

World Bank (1993), *Estonia. The Transition to a Market Economy.* A World Bank Country Study. Washington D.C.

Zapf, W. (1984), «Individuelle Wohlfahrt: Lebensbedingungen und wahrgenommene Lebensqualität» (Individual well-being: Living conditions and perceived quality of life). In: Glazer, W. and W. Zapf, *Lebensqualität in der Bundesrepublik* pp 1–26. München: Campus

Aasland, Aadne (ed.) (1996), *Latvia: The Impact of the Transformation.* The NORBALT Living Condition Project. Oslo: Fafo

Estonia in the Grip of Change

Estonia is in the middle of a comprehensive and far-reaching process of change. The country has left Communism and is facing Capitalism, but there probably are no blueprints for reform. Democracy is being built in a tough environment, marked by social and economic uncertainty. «*Estonia in the Grip of Change*» takes stock of the transition so far, and examines the strains and possibilities of life in great detail. In so doing, it also throws light on some of the issues that are bound to determine the future course of political developments. How do Estonian residents view and respond to the changes that have taken place in their living conditions?

A complicated pattern is revealed: Substantial progress has been made since the dissolution of the Soviet Union. On the other hand, the level of material satisfaction of Estonians has dropped dramatically. The report documents major differences in living conditions in Estonian society today, which do not, however, on the whole, run along ethnic lines. But it may be noted that Russian-speaking residents are conspicuously absent from the new upwardly-mobile economic elite of well-educated young Estonian men. Finally, significant parts of the population protect itself, standing aloof of the sphere of money, at least partly surviving on barter.

Edited by Jens B. Grøgaard, «*Estonia in the Grip of Change*» has been written by a team of Estonian and Norwegian scholars. The report forms part of the NORBALT Living Conditions Project, comprising five different surveys along the Eastern Baltic Rim. Parallel reports are published for Latvia, Lithuania, and Russia (St. Petersburg and the Kaliningrad enclave).

Fafo-report 190
ISBN 82-7422-149-4

Fafo