



Analysis of the effects of family benefits and financing of early childhood education and care on poverty and work incentives

A summary of the study's results

Full version (in Estonian) accessible at: <https://riigikantselei.ee/et/uuringud>

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Abstract

The purpose of the study was to conduct a comparative quantitative analysis of family policy instruments in order to find policy measures that most effectively reduce poverty among children and at the same time do not discourage the labour supply of parents. The study focused on cash benefits and subsidized child care services. The microsimulation model EUROMOD with data from the Estonian Social Survey 2011 was used to simulate the impact of various policy changes on the absolute and relative poverty measures, budgetary expenditures and marginal effective tax rates for the year 2015. The study ranks policy changes regarding their cost-effectiveness in poverty reduction and impact on work incentives. The results of the study were used as an input for the government's green paper on family benefits and services.

Full reference: Andres Võrk, Alari Paulus, Cenely Leppik. 2014. Peredele mõeldud toetuste ning alushariduse ja lapsehoiu rahastamise mõju analüüs vaesusele ja töötamise stiimulitele (*Analysis of the effects of family benefits and financing of early childhood education and care on poverty and work incentives*). Tallinn: Praxis Center of Policy Studies.

Introduction

The purpose of the study was to find out how to reduce poverty among Estonian families with children without discouraging labour supply. The study focused on cash benefits and subsidized child care services. Results of the study were used as an input for the government's green paper on family benefits and services.

There are various types of benefits and services for families with children in Estonia:

- State family benefits that mainly depend on the age and number of children, such as child allowance, childcare allowance, childbirth allowance, allowance for one parent of a family with 7 and more children, single parent child allowance.
- State means-tested family benefits that depend both on the household income and on the number of children.
- Benefits that compensate periods while parent is out of the labour market and which depend on the parent's previous earnings – maternity benefit, parental benefit, care benefit for nursing younger than 12 years old child who is ill, etc.
- Tax allowances and deductions depending on the number of children or on the expenditures on children.
- Free or subsidised services for children (e.g. subsidised school meals; free health care, including dental care; subsidised childcare in kindergarten, etc.).
- Benefits and services provided by local municipalities – additional birth allowances, additional social assistance benefits, child's school allowance (at the beginning of the school year), etc.
- Special benefits for disabled children.
- Subsistence benefit, which is a means-tested social assistance benefit, guarantees a minimum income to all residents after paying for minimum housing costs. Subsistence benefit includes additional top-up for single parent households.

The current study analysed changes in the following family benefits:

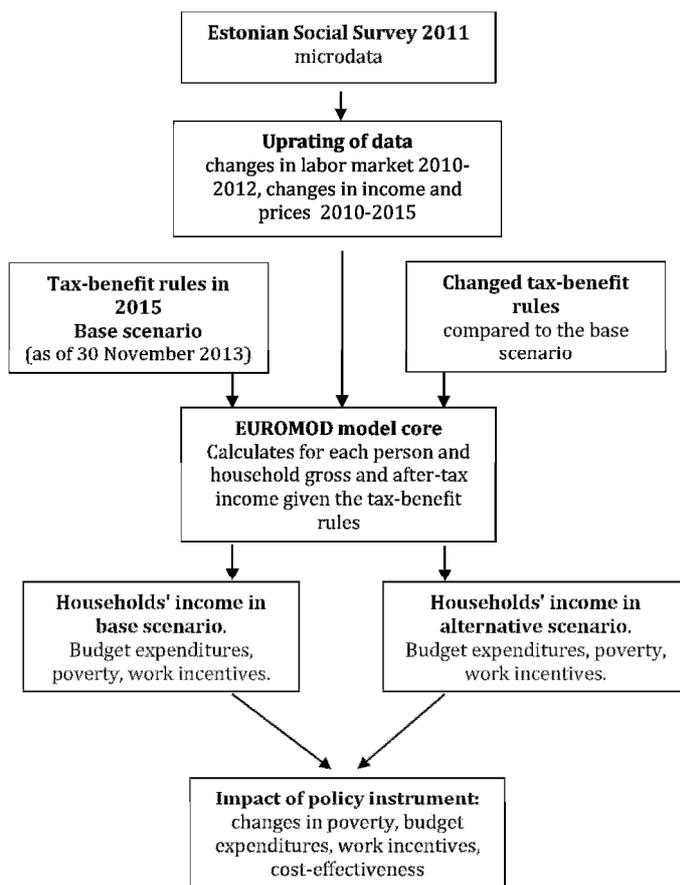
- Increase in subsistence benefits, including extra benefits for families with children
- Increase in universal child allowance
- Changes in the means-tested family benefits, both in the size of the benefits and in the income thresholds
- Replacement of the current universal child allowances scheme with the means-tested family benefits scheme
- Abolishment of additional income tax allowances for families with two or more children and simultaneous increase in child care allowances
- Replacement of the current single parent child allowances scheme with means-tested benefits and redefining the recipients of single parent child benefits
- Applying lower ceiling for parental benefits and simultaneous increase in childcare allowances
- Changes in the price of publicly provided childcare and hypothetical increase in the utilisation of child care.

The report also analysed the monetary value of subsidized child care and its distribution among income groups.

Methods and data

The report applied the microsimulation model EUROMOD as a main tool for the study.¹ The model uses updated data from the Estonian Social Survey 2011 (the national version of the EU-SILC) as an input for the simulations of households' incomes and expenditures for the year 2015. In the model the policy rules valid on 30 November 2013 were used as a baseline. The model allows modifying parameters and eligibility rules for monetary benefits to analyse their immediate effect on government expenditures, households' income and work incentives. Income distribution together with forecasts on price developments allows calculating various poverty measures and policy instruments' cost-effectiveness in reducing poverty. The main report of the study includes large number of simulation results with illustrative graphs and summarizing tables. Overall, about a hundred different policy scenarios were estimated during the project, of which approximately 40 were presented in the final report.

Figure 1. Overview of the methodology



The monetary value of childcare subsidies is based on another study² that collected information on actual expenditure on childcare by local municipalities. Merging this information with EUROMOD microdata on child care utilisation and income distribution allows estimating the distribution of monetary value of subsidized child care among income groups and comparing these monetary values to households' total income and monetary family benefits.

¹ See Võrk, Andres; Paulus, Alari (2014) EUROMOD Country Report – Estonia.

https://www.iser.essex.ac.uk/files/euromod/country-reports/Year5/CR_EE_Y5_final_12032014.pdf

² Ainsaar, M.; Soo, K. (2012). Kohalikud omavalitsused ja lastega pered 2011. Tartu: Tartu Ülikool.

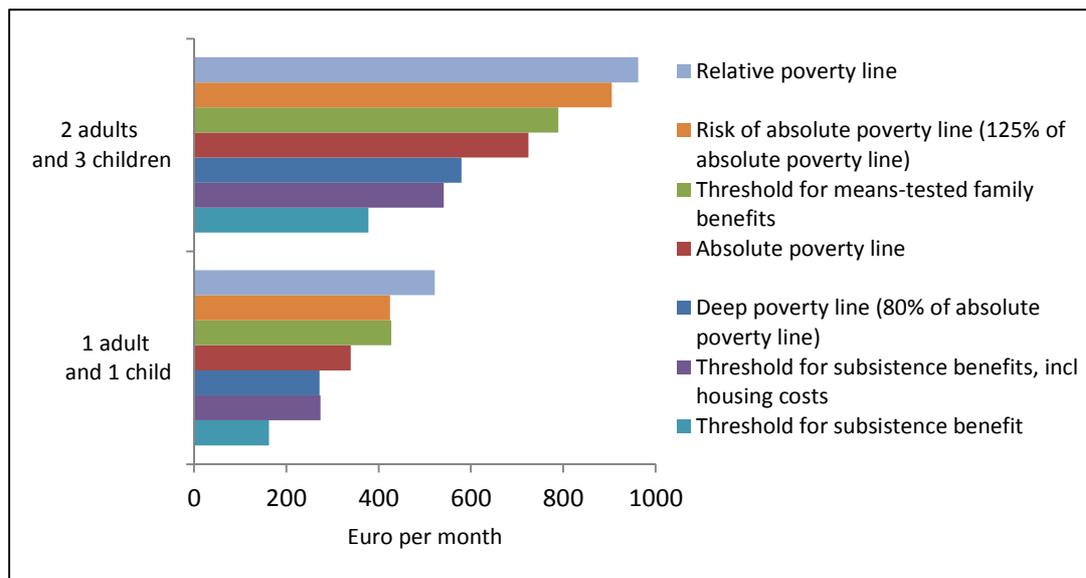
Main findings

Poverty lines and means-tested benefits

Estonian social policy targets various poverty rates and applies different income thresholds for means-tested benefits. The poverty lines and the income thresholds are not always in accordance with each other. Ministry of Social Affairs targets simultaneously both absolute and relative poverty rate of children. There is the subsistence level, lower than the absolute poverty line, which is used as a basis for subsistence benefits. There are also means-tested family benefits, which use three years earlier relative poverty line. Different income thresholds apply slightly different methods to find households' equivalised incomes. Hence there is no direct match between the targets of the social policy and instruments.

The study suggests that means-tested family benefits, which were introduced in 2013, could use 125% of absolute poverty line (i.e. risk of absolute poverty line) as an income threshold line instead of using the past relative poverty line in determining eligibility for the benefits. The absolute poverty line depends on the development of actual prices and therefore would be better reflection of changes in the cost-of-living, whereas the relative poverty line depends on past income distribution.

Figure 2. Different poverty lines and income thresholds of policy instruments by household type, 2015 forecast



Source: own forecasts

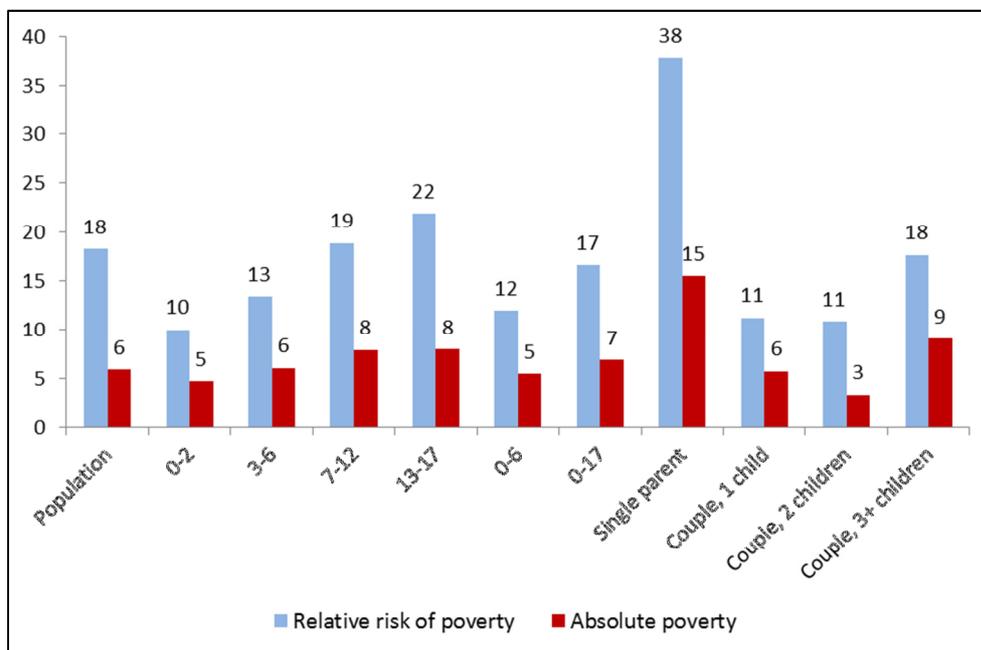
Higher poverty among single parent households and school-aged children

Both the actual 2011 data and simulation results for 2015 suggest that the risk of poverty is highest among single parent households (see Figure 3). The absolute poverty rate of a single parent household is more than two times higher compared with a couple with 1 child (15% vs 6%) and the difference in relative poverty rate is even higher (38% vs 11%).

Regarding age, the poverty rate is highest among children aged 7-17 and smallest for children aged 0-2. The main reasons of low poverty rate among the youngest age group are high family benefits that are targeted to the first years of birth (maternity benefits, birth allowance, and parental benefits). In addition, the share of single parent households is smallest in this age group.

The results suggest that additional measures targeted to single parents and households with school-aged children could be more cost-effective in reducing overall poverty among children.

Figure 3. Relative and absolute poverty rates among total population, children in various age groups and household types in 2015

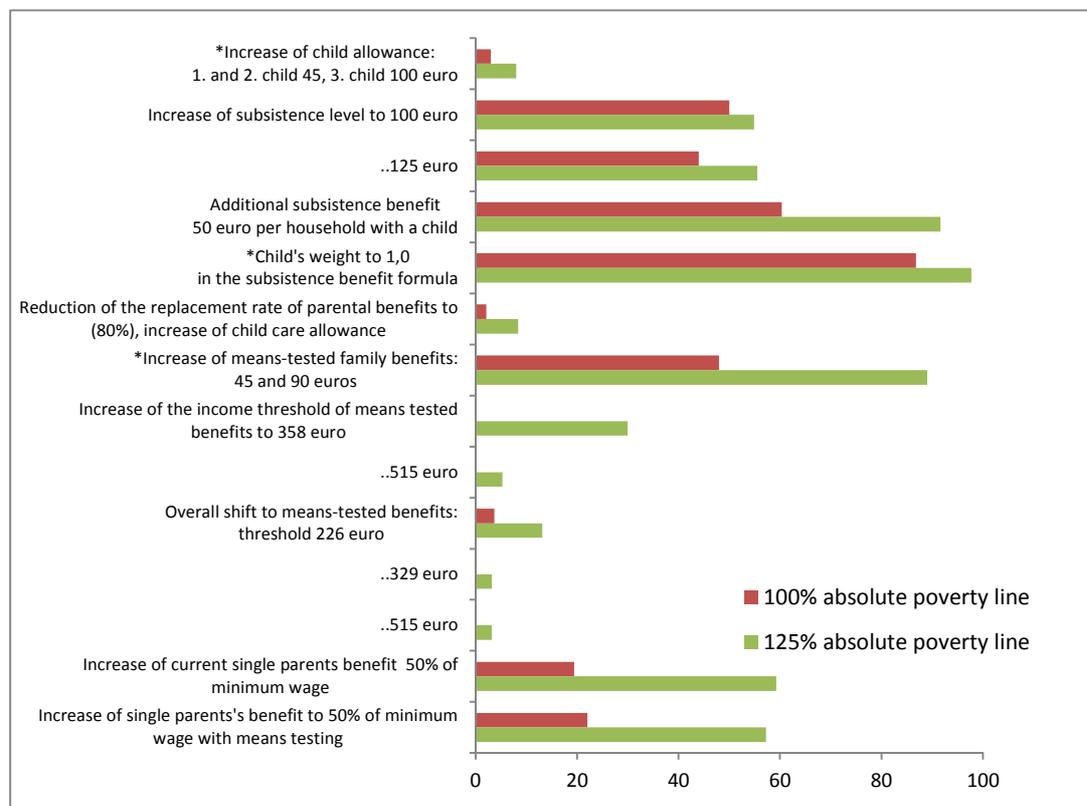


Source: own simulation

Subsistence benefits and means-tested family benefits more cost-effective

The study included about a hundred different hypothetical policy simulations and analysed their effect on government budget and poverty. The most cost-effective policy measures to reduce absolute poverty among children were changes in the subsistence benefits; either additional top-ups for families with children or increasing child's weight in the formula of subsistence benefits (see Figure 4). This is followed by an increase in means-tested family benefits. About 90% of additional expenditures that occur due to these policy measures go to families with children below absolute poverty risk threshold (125% of absolute poverty line). Increase in universal family benefits is, by definition, less cost-effective in reducing the poverty. Less than 10% go to families below absolute poverty line. Increase in benefits for single parent households with means-testing is also cost-effective - about 60% of the benefits goes to households below absolute poverty risk threshold.

Figure 4. Proportion of benefits going to families with children below absolute poverty line



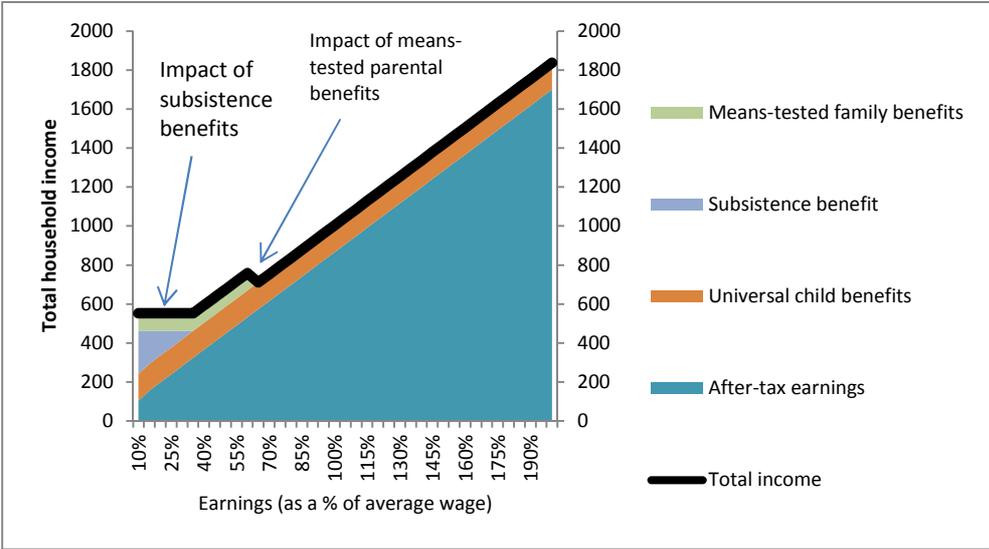
Source: own simulations

Note: policy measures with * denote those that will be implemented in 2015 according to the new government coalition agreement from March 2014.

Negative impact of means-tested benefits on labour supply incentives

The impact of benefits on labour supply incentives was measured by marginal effective tax rates (METR), which show how much of additionally earned gross wage is taxed away with a combination of increased taxes and reduced social benefits. In Estonia, with very simple income tax rules (basic tax allowance and constant marginal income tax rate), negative labour supply incentives for low-wage earners arise mainly from means-tested subsistence benefits and family benefits (see Figure 5). It means that additional increases of either subsistence benefits or means-tested family benefits would reduce labour supply incentives for certain income range even more. On the other hand increasing universal child benefits would not have such effect on labour supply.

Figure 5. Impact of means-tested benefits on households' net income, 2015



Source: own simulations

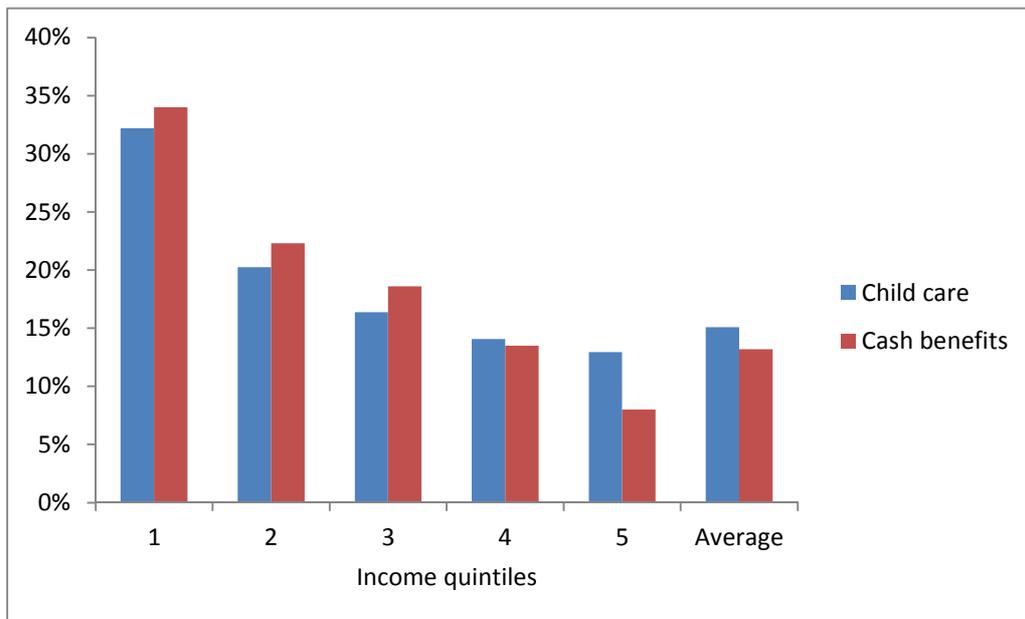
Note: calculations for a family with 2 adults, one being inactive, and 2 children (aged 2 and 6)

Value of subsidized child care as important as cash benefits

The study also analysed the distribution of utilisation of child care among the income groups and compared the monetary value of subsidized child care to households' incomes and cash family benefits. The results showed that the total monetary value of subsidized child care is almost at the same level than total value of cash benefits. The value of child care was about 13% of the extended income, which is household disposable income together with monetary value of child care, while it was 15% in case of cash benefits. The child care services and cash benefits are both more important for lower quintiles, being about one third of the household's extended income in the first quintile.

The study also analysed the impact of increasing child care fees and showed that doubling child care fee, compared to current level, would substantially increase the number of households, especially among single parent households, who face very high marginal effective tax rates when going to work for minimum wage.

Figure 6. Value of cash benefits and subsidizes of child care as a proportion of extended disposable income of households with children, by income quintile, 2011



Source: own calculations based on Estonian Social Survey 2011, and Ainsaar&Soo 2012