

Analysis of Long-Term Economic Impact of Child Welfare Reform in Tomsk Oblast



Center for Fiscal Policy
2007



Summary

This paper is an attempt of practical application of performance-based budgeting to the process of choosing between two child welfare strategies using Tomsk Oblast as an example.

In the first – baseline scenario – the current child welfare system will be left intact. The second – reform scenario – involves measures of early identification of at-risk children and of abandonment prevention that are expected to substantially reduce the risk for underage children in Tomsk Oblast of being deprived of parental care. For those children who, despite preventive actions, are left without parental care the reform scenario provides for ever increasing placement into family-based care instead of institutionalization opportunities. To improve their chances in adult life and better social and labor adaptation, foster and guardianship families will receive patronage services.

For comparing long-term impacts of the two strategies the authors have built a demographic projection, a child population forecast and a macroeconomic (gross regional product) forecast for Tomsk Oblast. The year 2050 was determined as the planning horizon. The main difference between the two strategies lies in the probability for children to be deprived of parental care. In Tomsk Oblast, six children out of 1000 were abandoned in 2005, which is higher than the national average (four per 1000 children). It is assumed that in the baseline scenario the probability indicator will decline owing to general improvement of the economy to reach 0.005 in 2050. Under the reform scenario, the indicator is going to reach 0.004 by 2017 (i.e. after 10 years of the reform) and remain at the same level until 2050.

The comparison of estimations for the baseline and reform scenarios demonstrates that under the taken assumptions the reform strategy is going to be more effective in all respects: not only the number of abandoned children will go down but public costs saving will take place as well. Even if considerable starting outlays (50 mln. Rbl. during the first four years of the reform) are taken into account and if a new administrative authority is established together with new staff positions that have not been retrieved from similar authorities, the reform expenses will pay off by 2015 or 2016. Subsequently, the costs of child welfare will be 25-30% lower than in the baseline scenario. The budgetary effect from the reform will be 0.1% of GRP.

Acknowledgements

The Center for Fiscal Policy wishes to thank the National Foundation for Prevention of Cruelty to Children, the Administration of Tomsk Oblast, the Department for Social Protection of Tomsk Oblast, the heads of administrations and specialists of social protection and education departments of Kargasok, Shegarsky and Kozhevnikovo raions of Tomsk Oblast, managers and specialists of institutions for abandoned children in Kargasok, Shegarsky and Kozhevnikovo raions for their assistance to the CFP in collecting information and conducting the research.

We are also grateful to A.R. Markov (World Bank) for general methodological guidance and to our colleagues for their valuable comments and insightful recommendations.

Elena I. Andreeva, Project Co-director
A.A. Ovcharov, Project Co-director

General Information

The Center for Fiscal Policy presents its assessments of social and economic impact of the Orphan and Abandoned Child Welfare Reform in Tomsk Oblast and estimates of public expenses associated with the Reform's implementation.

Tomsk Oblast is among those Russian pilot regions that, together with the National Foundation for Prevention of Cruelty to Children, participates in the project that aims to replace the current system of child institutional care with a system of child abandonment prevention.

In this connection, the CFP was to fulfill two tasks:

1. assess long-term economic impact and potential cost savings for Tomsk Oblast due to transit to the system of child abandonment prevention;
2. measure economic costs of selected innovative child welfare services developed by the National Foundation for Prevention of Cruelty to Children under the ARO program.

The approved list of 11 services can be distributed among the following four areas:

1. Services for children and families at risk of child abandonment:
 - medical, psycho-social and pedagogical support to abandoned children and children from at-risk families on the basis of health centers;
 - volunteer telephone hotlines in rural areas;
 - support to families in crisis situations;
 - patronage of biological families at risk of child abandonment;
 - educational support to at-risk children.
2. Rehabilitation services to families with children with heavy disabilities:
 - rehabilitation services for families with children with disabilities in rural areas;
 - community integration of children with disabilities in rural areas.
3. Patronage of foster care and guardianship families:
 - patronage of guardianship families;
 - patronage of foster care families.
4. Social and labor adaptation of orphans in vocational schools.

The estimations were made for two scenarios: (1) "baseline scenario" with no innovative services, and (2) "alternative scenario" with innovative services incorporated into the child welfare system everywhere in Tomsk Oblast.

Methodology and Structure

The methodology for assessing fiscal, economic and social losses from the preservation of the current child welfare system and for estimating potential cost savings due to transit to the system of child abandonment prevention is based on the demographic projection covering changes in the

population number and age-sex distribution of population in Tomsk Oblast between 2007 and 2050. It is assumed that the number of abandoned children depends on general population, share of children from troubled families and probability of abandonment for children from troubled families.

It is expected that already at the early stage of the reforms in the social sector and abandonment prevention measures the inflow of abandoned children into the child welfare system will decline to be followed by greater share of family placements as compared with institutional care. Patronage of foster and guardianship families will help children from these families to better adapt to adult life – to continue education, find jobs and conduct normal lives. Social and labor adaptation of orphanage alumni through vocational training will also improve their future lives.

The assessment of long-term socio-economic and fiscal impacts of the reform and the estimation of potential losses from the preservation of the current child welfare system are based on: (1) real data on institutionalized orphans (abandoned children) in Tomsk Oblast in the reference year (2005), (2) estimated orphan care costs in various types of care arrangements, (3) costs of innovative child abandonment prevention services and patronage of foster and guardianship families estimated in the course of this research, and (4) expert opinions on innovative service performance.¹

Among the services under the assessment there are two that concern patronage of families with children with heavy disabilities. These services were included into a separate group owing to the specifics of their recipients and socio-economic and fiscal impacts. A separate forecast of the number of their recipients and separate assessments of their socio-economic and fiscal performance were made.

Thus, in terms of methodology the research was subdivided into two parts:

1. Assessment of socio-economic losses from the preservation of the current child welfare system and estimation of cost savings due to child abandonment prevention. In this part of the research children with disabilities are not separated as a group and are taken into account within the total number of institutionalized children.
2. Assessment of socio-economic losses and savings in the baseline and alternative scenarios of patronage support to families with children with heavy disabilities.

The target population growth forecast in the baseline and alternative scenarios is based on the demographic projection, economic forecast and assumptions about risk of being included into the target group (being abandoned or becoming a heavily disabled child). Then estimated target population data in the baseline and alternative scenarios are used to calculate care costs (burden for the budget) and to assess social and economic impact for both scenarios.

The third part of the paper provides assessments of socio-economic and fiscal impacts resulting from child abandonment preventive measures.

¹ All innovative services involved in the assessment of the child welfare system's performance have been tested in Tomsk Oblast and have turned out to be quite effective. However, due to the short testing period and the limited number of participants the service performance could not be measured in terms of statistics. Instead, expert opinions or specific information on institutions participating in the experiment were used for the purpose.

Child Abandonment

1. Baseline and Reform Scenarios

Both in the baseline and reform scenarios the forecast of the number of abandoned children in Tomsk Oblast is based on the demographic projection and forecast of children at risk of abandonment.

The probability of abandonment is rather high for at-risk children and depends on many factors, such as provision of preventive support to at-risk families, general situation in the Oblast economy, public morality. With time, the probability of being left without parental care goes down owing to general improvement of the economic situation in Oblast, i.e. irrespective of any changes in the child welfare policy. By expert evaluation, such probability will decline from 0.006 in 2007 (according to 2003 – 2005 data, the annual abandonment rate is 6 per 1000 children) to 0.005 in 2050.

The model takes into account public spending associated with any form of institutional care provided to abandoned children as well as expenses in connection with changing the form of care (e.g., the size of allowance provided to orphanage alumni).

Upon reaching the adult age or leaving school, orphanage alumni enter adult life. Some of them (0.4) have jobs and participate in gross regional product production. Others (0.3) find only odd jobs. Still others (0.3), within one year of leaving the orphanage, get into prison. There are two sources of economic losses: (1) lower labor productivity demonstrated by formerly abandoned children as compared with the average labor productivity, and (2) lesser share of employed among formerly abandoned children as compared with average employment within the same age group. It was impossible to take into account damages to property and lives of Oblast residents resulting from unlawful activities of former orphans.

The above shares do not rely on official statistics as no record of after-orphanage careers is kept. Still, many state agencies and NGOs compile their own data.² We used them to calculate the shares while realizing that the number of former orphans with permanent jobs is somewhat exaggerated.

Innovative services introduced into the child welfare system under the reform scenario will reduce the inflow of abandoned children, family-based care will eventually substitute institutional care and the number of employed orphans will increase owing to patronage and community integration of children from foster and guardianship families or undergoing vocational training. Both scenarios have the same number of children at risk of abandonment but the inflow of abandoned children into the child welfare system in the reform scenario is lower than in the baseline scenario: it goes down from 0.006 to 0.004 by 2017 (10 years after the reform commencement); subsequently, the probability remains the same up to 2050.

This is the key assumption for the assessment of fiscal and economic impacts of the reform that needs to be considered in greater detail.

The Reform Concept adopted in Tomsk Oblast (Governor's Decree #693-r of November 25, 2005, On Setting Up a System of Child Abandonment Prevention in Tomsk Oblast) includes

² The National Foundation for Prevention of Cruelty to Children is one of them. See E.V. Selenina and E.V. Gurova, "Socialization of at-risk youths through vocational training" (Vladimir, Tomsk and Magadan Oblast case studies). For the full text see: <http://www.council.gov.ru/files/journalist/item/20060919120748.pdf>.

only a qualitative goal – creation of a highly effective system of child abandonment prevention without any mentioning of performance criteria, quantitative targets or dates. It provides a schedule for the administrative reform that involves setting up new administrative bodies and development of a legislative framework. At the very beginning it was assumed that performance evaluation could be made on the basis of achievements of experimental projects where innovative services were to be tested in pilot raions of Tomsk Oblast.

All the experimental projects have demonstrated an extremely high performance of innovative services. In Shegarsky raion, for example, patronage of 15 crisis families (30 children) was 100% effective: no one dropped school or was left to repeat the same program or was abandoned; five parents found jobs. In Kargasok raion, 8 out of 14 abandoned children returned to biological families in 2005 as a result of psycho-pedagogical and medical assistance to their mothers in pediatric unit of the raion hospital (over 50% effect). Without such assistance families never take back abandoned children. Thirty children from troubled families accepted into a sports school (Kozhevnikovo raion) have been successfully socialized, attend school and remain in their families (100% effectiveness). However, the experimental projects were too short and local in nature for their results to be extrapolated on Oblast as a whole. Besides, the projects enjoyed special conditions, such as extra-budgetary funding and competitive procurement that became available to the most energetic and prepared participants. Therefore, to extend the projects' results on Oblast would mean to overestimate the reform's achievements. Also, as far as a long-term forecast is concerned, one would have to rely on expert evaluation even if a lot of statistical data are available. – Decline in child abandonment in the long run depends not only on preventive measures but also on an improved economic situation in the region, strengthened family values, decrease in addiction to alcoholism etc. One always has to rely on expert evaluations and reasonable assumptions when long-term benefits are to be assessed.

The assumption that between 2007 and 2017 the probability of child abandonment in Tomsk Oblast will be reduced from 0.006 to 0.004 due to abandonment preventive measures is based on the following arguments:

1. The above mentioned experimental projects have demonstrated an exceptional effectiveness of innovative services (50 – 100% of cases) though they were rendered to families in chronic crisis where otherwise one could expect 100% abandonment. Accordingly, the assumption that abandonment practices will decline by about one third in case of region-wide preventive measures is quite conservative. It is assumed that proactive efforts will be applied to all at-risk children and that individual approach to each case will take place.
2. The 0.004 abandonment probability was the national average in 2005. Today, nowhere in Russia abandonment prevention campaign takes place. Therefore, if we assume that preventive measures are more effective than the current policy when social and guardianship agencies involve at the stage of crisis then one may expect that in 10 years Tomsk Oblast will at least reach the national level that is typical of the regions pursuing no preventive policies. In terms of 2005, this would raise Oblast to the 45th position from its present 61st in the list of regions arranged according to this indicator.
3. During the 10 years the abandonment probability will be reduced to 0.004 in the reform scenario but only to 0.005 in the baseline scenario owing to a better economic situation. The assumed decline of the abandonment probability by one third also takes into account the effect of economic growth.

So, owing to preventive measures the inflow of abandoned children in the reform scenario will go down. Those children who, despite proactive efforts, will nevertheless be abandoned the reform scenario is going to place into family-based care - guardianship, foster and patronage

families. As a result of patronage services rendered to such families the adult life of their children is more successful: most of them find a job or continue education (60% as compared with 40% in the baseline scenario).

Services of social and labor adaptation rendered to institutionalized orphans also increase the number of those who lead normal lives and find jobs (60% in the reform scenario against 40% in the baseline scenario).

Fewer abandoned children placed into institutional care and better social adaptation to adult life will eventually save public money. The savings effect will occur at a later stage, not at the beginning when innovative services start and thus increase public spending. Economic losses and social impacts are estimated in the same way both in the baseline and the reform scenarios. Table 1 shows social impact indicators that can be traced statistically.

Table1. Child Abandonment Preventive Measures and Social Adaptation of Orphans: Social Impact Indicators

1.	Prevention of child abandonment		
	Medical, psycho-social and pedagogical support to abandoned children and children from at-risk families on the basis of health centers	Children's departments in hospitals (number of cots, amount of hospital accommodation)	Reduced number of abandoned children and of institutionalized children of primary school age, better indicators of psychological health
	Volunteer telephone hotlines in rural areas	One hotline per raion, city, Oblast	Early identification of crisis families, provision of emergency support,
	Rehabilitation services for families with children with disabilities in rural areas	Number of families with children with disabilities in rural areas	Higher employment among parents, decline in lost profits, child's life and future career opportunity optimized
	Community integration of children with disabilities in rural areas	Number of families with children with disabilities in rural areas	Higher employment among parents, decline in lost profits
	Support to families in crisis situations	Number of troubled families	Lower number of institutionalized children, decline in juvenile delinquency
	Patronage of biological families at risk of child abandonment	Number of troubled families in raion	Lower number of institutionalized children, decline in juvenile delinquency
	Recreational community-based leisure-time activities for abandoned children	Number of establishments of additional education, number of attending children, number of socially at-risk children	Lower number of institutionalized children, decline in juvenile delinquency
	Educational support to at-risk children	Number of schools in raion, number of schoolchildren, number of socially at-risk children	Lower number of institutionalized children, decline in juvenile delinquency, better care arrangements for orphans
2.	Foster and guardianship families		
	Patronage of foster families	Number of foster families	Growing number of foster families, employment growth, decline in number of institutionalized children, better care arrangements for children
	Patronage of guardianship families	Number of guardianship families in raion, number of children deprived of parental care	Decline in juvenile delinquency, growing number of foster families, declined number of guardianship refusals, better care arrangements for orphans

3.	Social and labor adaptation of orphans		
	Social and labor adaptation of at-risk children	Number of vocational schools attended by orphans, number of orphan pupils	Decline in juvenile delinquency, increased number of employed graduates, decline in lost profits

2. Estimated Number of At-Risk Children in Tomsk Oblast

The Concept of Abandonment Prevention System in Tomsk Oblast defines the “family at risk of child abandonment” as follows:

“The family at risk of child abandonment is a family where, under certain conditions, parents fail to discharge or discharge in unduly manner their duties regarding their children’s upbringing, education and/or care.”

In this paper the terms “troubled family” and “family at risk of child abandonment” are used as synonyms. For the purpose of the research we assume that low income families with children and unemployed parents belong to the main category of families at risk of child abandonment and include similar categories of families.³ There are 8 600 families with unemployed parents that have under-age children in Tomsk Oblast. This figure will be the top of the interval that includes all troubled families, from those who need only slight support to those in deep crisis whose rehabilitation is difficult.

Families at the late stage of crisis, i.e. those identified by the child welfare authorities and the commission for affairs of under-age children, will be at the bottom of the interval (in 2005, there were 6 300 such families in Oblast).

The estimated number of children from low income families (93 000 in 2005) is also important as it demonstrates the demand for patronage of at-risk children in the educational and recreational environment. Evidently, some of these children, being of pre-school age, were not included into our research as far as recreational environment was concerned. However, the rest of the children need the service in question even if rehabilitation services for their families are not required.

For the sake of the model we assume the number of children at risk of abandonment during a year as 20 000. This is approximately the same as the number of children from low income families with one or both unemployed parents.

3. Care Arrangements for Abandoned Children and Crossflows Between Care Arrangement Forms

To assess the number and dynamics of orphans in each form of care arrangement one needs not only to collect information on their numbers but also to exclude crossflows between forms of care arrangements.

³ Children are at risk of abandonment in the following families:

1. Families with children with disabilities
2. Families with children with chronic diseases
3. Families with handicapped parents
4. Families where one or both parents are unemployed
5. Single parent families
6. Families with under-age parents
7. Large families
8. Troubled families
9. Student families

Each form can be viewed as a “stock” or an area where children are placed. First comers and those who no longer have the “orphan” status can be in any form of care arrangement. Statements reflecting variations of the number of orphans in time and changes of care arrangement ratios were made from which child welfare new comers and leavers were separated.

Table 2. Variations in the Number of Orphans in Care Arrangements in 2003 – 2005

Presence by year-end	2003	2004	2005
Social rehabilitation centers	275	254	278
Orphanages and boarding schools	1595	1509	1505
Baby orphanages	139	136	140
Medical and preventive treatment facility	90	95	101
Patronage families	33	28	70
Guardianship families	3167	3307	3187
Adoptive families	2429	2493	2488
Vocational schools	976	1114	1192
Total number of orphans by year-end	8781	9057	9168
Added during year			
Permanent inmates in social rehabilitation centers	0	0	24
Newly identified orphans forwarded to orphanages and boarding schools (estimation)	331	315	304
Given up children joining medical and preventive treatment facilities	0	5	6
Forwarded from baby orphanages to medical and preventive treatment facilities	133	106	88
Given up children joining baby orphanages	14	14	3
Newly identified orphans placed in adoptive families (estimation)	28	32	66
Newly identified orphans joining vocational schools	29	27	26
Orphans starting retraining	46	58	79
Adopted from the number of given up children from medical and preventive treatment facilities (estimated number of adoptions)	48	37	12
	1249	1258	1209
Left during year			
Among permanent inmates in social rehabilitation centers	0	21	0
Joined the army, found jobs, maternity leave etc.	0	32	19
Returned to biological families form orphanages and boarding schools	14	10	14
Died in baby orphanages	7	1	2
Returned to parents from baby orphanages	4	6	10
Left care arrangement facilities upon reaching adulthood (estimation)	No data	130	114
Total of orphans who left vocational schools before time (balance)	No data	423	511
		982	1098

Crossflows of abandoned children between various forms of care arrangement, on the one hand, and the outside world (natural families, adult lives etc.), on the other, can be shown as a balance model where beginning of year and end of year numbers of children are specified. It also shows numbers of children and flow directions among various forms of care arrangement (“internal flows”) and between the child welfare system and the outside world.

Table 3. Flows of Abandoned Children Among Main Forms of Care Arrangement in Tomsk Oblast and Between the Child Welfare System and the Outside World in 2005

Facility type	Beginning of year	arrivals	exits	of which:										End of year	
				Baby orphanages	Orphanages & boarding schools	Foster families	Patronage families	Guardianship families	Adoptive families	Social rehabilitation	Medical and preventive treatment	Vocational schools	Outside world		
Baby orphanages	136	91	87		14					61				12	140
Orphanages & boarding schools	1509	318	322			16	42	27	36				168	33	1505
Foster families	125	82	0												207
Patronage families	28	42	0		0										70
Guardianship families	3303	628	744										316	428	3187
Adoptive families	2493	109	114											114	2488
Social rehabilitation centers	509	2038	1991		287			95					26	1583	556
Medical and preventive treatment facilities	195	375	370	88	17									253	200
Vocational schools	1114	589	511											511	1192
Outside world		0	3067	3		66		506		2038	375	79			
Total: 9412 + 3067+ 2934 = 9545	9412	4272	7206	91	318	82	42	628	109	2038	376	509	2934	9545	

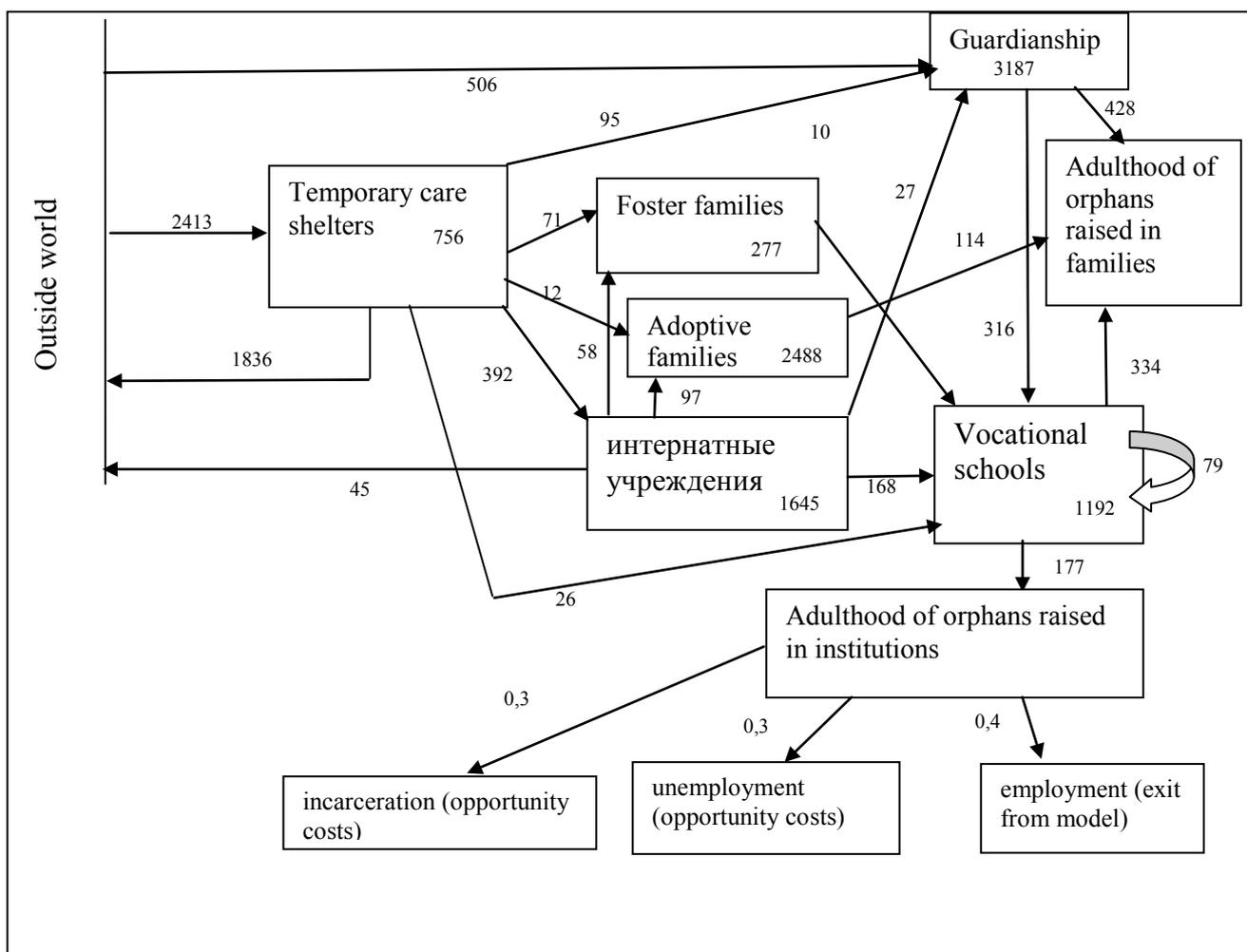
Note: The difference between the total number of abandoned children in the balance model by the end of 2005 (9545) and the number of abandoned children in Table 3, Variations in the Number of Orphans in Care Arrangements in 2003 – 2005 (9168), is explained by the fact that they demonstrate different things: the balance table shows all flows of children going through the child welfare system including temporary care centers (social rehabilitation centers and medical and preventive treatment facilities) after which children often return to natural families, while Table 2 shows the number of children officially left without parental care.

To simplify the model, the number of internal flows was reduced by integrating the areas. Thus, baby orphanages, orphanages and boarding schools for orphans are included into the “boarding schools” area, patronage families are united with foster families, social rehabilitation centers and medical and preventive treatment facilities are shown as “temporary care centers”. The chart of flows after integration is shown in Figure 1.

Arrows indicate flows, rectangles – forms of care arrangement. The intensity of flows corresponds to the figures in the balance table. Figures inside the rectangles indicate numbers of children by year-end.

The assumptions on adult behavior of vocational school alumni (employment - 40%, unemployment and suicides – 30% and imprisonment in early age – 30%) are based on the work by E.V. Selenina and E.V. Gurova, “Socialization of at-risk youths through vocational training”.

Figure 1. Integrated Balance Model Demonstrating Orphan Flows and Care Arrangement Areas: number of children in different stocks, fws opf children between stocks, 2005



4. Parameters of Baseline and Reform Scenarios in the Model

Both the baseline and reform scenarios start with the same conditions whose parameters correspond to the actual 2005 indicators. The scenarios differ in the probability of changing care arrangements and statuses by children. Thus, in the baseline scenario the abandonment probability at the beginning amounts to 0.006 and by the end of the forecast period declines to 0.005 owing to the improved economic situation in the region. In the reform scenario, the probability is reduced to 0.004 by 2020 and remains stable afterwards. This is explained by the fact that at-risk children and their families will be rendered patronage rehabilitation services in the reform scenario. Table 5 shows all probable changes in statuses and care arrangements.

Table 4. Starting Conditions in Baseline and Reform Scenarios

Number of children in Tomsk Oblast	200
At-risk children per 1000 children	100
Abandoned children (less vocational schools)	7608
Adopted children	2500
Children in foster families	270
Children in guardianship families	3200
Children in all kinds of boarding schools	1638

Year of reform commencement	2007
Care costs per at-risk child in the reform scenario (thou. Rbl. per year)	7
Last year of the forecast	2050

Another difference is that the reform scenario registers new expenses as compared with the baseline scenario: lump sum expenses (during 4 – 5 years) on the reform and costs of innovative services regarding abandonment prevention (7000 Rbl. per at-risk child a year).

Flows in the simulation model (Figure 2) are essentially the same as in the balance model but the former is more simple. Thus, temporary care centers are not shown as “stock” (area) since they accommodate children for a very short period (children’s age does not change). The reverse flow to vocational schools for repeated training is eliminated because it is superfluous.

Care costs in each form of care arrangement during a year can be determined on the basis of budget statistics and average annual number of children in each form. To learn the time spent by children in care arrangement forms it is necessary to know the initial age-sex distribution of children there and the probability of care arrangement or status changes depending on the age of children.

Table 5. Probability of Care Arrangement and Status Changes in Baseline and Reform Scenarios

	Baseline scenario	Reform scenario
Probability of abandonment for a child from a troubled family	Smooth decline from 0.006 to 0.005 during 50 years	Decline from 0.006 to 0.004 by 2020
Average probability to be placed under guardianship for newly identified orphans	Increases with child becoming older, amounts to 0.006 after the age of 9	Practically all children who were institutionalized in the baseline scenario are placed in foster and guardianship families
Probability to be placed into foster family for newly identified orphans	Increases with child becoming older, amounts to 0.006 after the age of 9	Practically all children who were institutionalized in the baseline scenario are placed in foster and guardianship families
Probability of adoption for newly identified orphans	Declines with child becoming older, amounts to 0 after the age of 9	The same as in the baseline scenario
Probability to be placed into family-based care for institutionalized children	Remains the same for children of various ages and corresponds to the situation in 2005	Higher than in the baseline scenario; the main outcome of the reform – in redistribution of flows of newly identified orphans rather than in stock “dissolution”

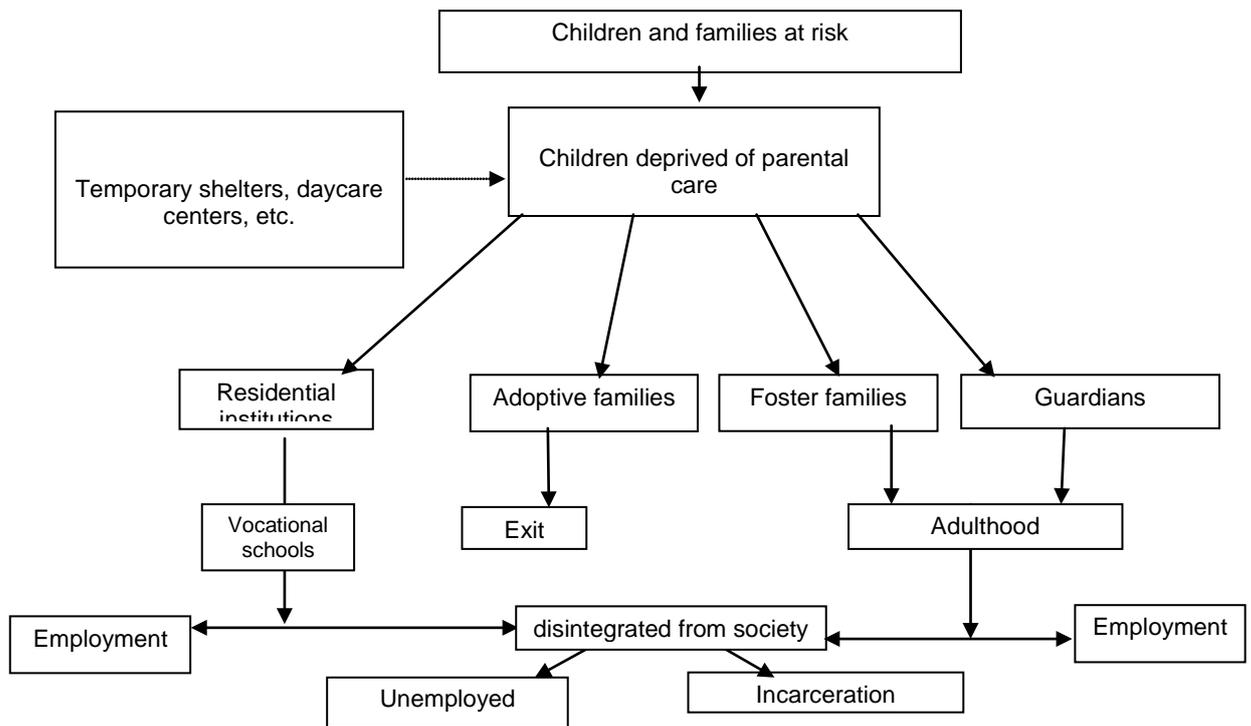
To estimate budget costs in the model one should assess the probability of status changes as children become older. If they are institutionalized in the young age the state will bear care expenses during 18 years but if they are deprived of parental care as teenagers the care term is reduced to 4 or 5 years. Usually, people adopt given up babies. What are the chances of placement into family-based care for older institutionalized children? – The estimation of public costs of institutionalized care will depend on the answer to such questions.

To determine age-related abandonment, probability changes in the age-sex composition of abandoned children in Tomsk Oblast were observed (federal orphan database at the RF Ministry of Education, usynovite.ru).

The probability of abandonment for children of various ages estimated on the basis of these observations demonstrate a clear age-related connection: the probability is very high for first-

year babies, low for children of 1 to 2 years old and increases linearly till the age of 15 after which it declines.

Figure 2. Simulation Model Demonstrating Orphan Flows and Care Arrangement Options



The analysis of the number of case file retired from the federal orphan database makes it possible to assess the age-related probability for children to be placed in families after they have been deprived of paternal care. Practically no age dependent probability can be traced,⁴ the figure being 0.006 for all ages.

Since our data source, the federal orphan database, provides no information as to the family types where children were placed after they have been removed from the registration database we used the following assumptions concerning age-related placement in families: the adoption probability declines with age, the probability to be placed under guardianship of in foster family increases with age, in sum the three probabilities produce a constant.

⁴ One should remember that many given-up babies are adopted almost immediately after birth and therefore information on them is not included into the federal orphan database.

5. Budget Expenditures on Child Care Arrangements

To estimate budget expenditures on child care arrangements in the baseline and reform scenarios one should cost care expenses in various forms of abandoned child care arrangement. In most cases only budget reports are available together with the numbers of inmates. The following estimations were made on the basis of the analysis of budget reporting data, current legislation and statistics.

Table 6. Expenditures Associated with Child Care Arrangements (Rubles per Child per Year)

Care arrangement form	Thou. Rbl./child per year 2005	Comment
Temporary care arrangements	40	Staying in care arrangement facility during 3.5 months. They accommodate twice as much as the number of abandoned children
Institutions for children under 4 years old	200	Baby orphanages
Institutions for 4 – 18-year-old children	158	Orphanages and boarding schools for orphans
Guardianship families	40	
Adoptive families	0	
Patronage families	Not considered	
Foster families	130	
Vocational school and boarding school inmates	$46 * 2 = 92$	Care provided during 2 years of school
Vocational school inmates, children from guardianship and foster families	$46 * 2 = 92$	Care provided during 2 years of school

In addition to the above expenses the model takes into account lump-sum expenditures from the Oblast budget that occur with form of care arrangement changes.

Table 7. Budget Expenditures Occurring with Abandoned Care Arrangement Changes

Expenditures	Thou.Rbl./child	Comment
Placement in adoptive families	2	Planned payment from Oblast budget in addition to federal lump sum (from January 1, 2007)
Placement in guardianship families	2	The same
Upon leaving orphanage, boarding school allowance	20	
Upon former institutionalized orphans leaving vocational schools	278	28 000 Rbl. (leaving allowance) + 250 000 Rbl. (to purchase housing to every second school leaver)
Upon leaving vocational schools by children placed into guardianship and foster care	78	28 000 Rbl. (leaving allowance) + 50 000 Rbl. (to purchase housing to every tenth school leaver)
Boarding schools, children placed into guardianship and foster care	$46 * 2 = 92$	Care provided during 2 years of school

6. Costing of Innovative Abandonment Prevention Services, Patronage of Foster Families and Social Adaptation of Institution Alumni

To compare expenses of the baseline and reform scenarios one should cost innovative services associated with abandonment prevention measures, patronage of foster families and social adaptation of alumni. In other words, expenses on the services incurred in the course of the reform scenario should be estimated.

In order to be cost, services should be unified and standardized otherwise estimations will be of just local rather than universal importance and it will be difficult to use resulting parameters for budget planning.

At the time of the research, the innovative services implemented in the pilot raions of Tomsk Oblast were undergoing the stage of institutionalization, in other words had not been either unified or standardized. Therefore, some interim documents called “checklists” had to be developed as quickly as possible. The checklist for each service included the following information:

- 1) service description (according to the national standards),
- 2) application field (service type and recipients),
- 3) legal framework (laws and regulations of the Russian Federation, Oblast and relevant institutions); funding sources,
- 4) conformity with international standards and experience,
- 5) conformity with the national social service standards,
- 6) conformity with the Oblast standards and standards of social service agencies,
- 7) procedure and terms of service provision (estimated needs, grounds for service rendering, place of rendering, methodology description),
- 8) logistic support (premises, equipment, transport),
- 9) staff support (necessary staff with appropriate skills, training and retraining, workload etc.),
- 10) informational support (information provided to prospective service recipients, development of a positive attitude in the community),
- 11) necessary minimum of service (per capita, per child, per family) to achieve certain positive result,
- 12) quality performance criteria (expected outcomes),
- 13) management and monitoring.

As a result of joint efforts of the authors of this paper and the National Foundation for Prevention of Cruelty to Children checklists for 10 innovative services had been developed on which their costing was based.

Estimations were made on the basis of a single methodology under which costs per point of expense origin (municipal raion administration, child care facility, health center) or per service recipient (per child or per family) were determined. All costs provided for by the checklist fall into two categories: (1) starting and (2) recurring expenses.

Starting expenses include mostly capital outlays on renovation of premises where the service in question will be rendered, medical, training, playing and sports equipment. They also cover training and retraining costs and, if necessary, PR expenses. For some services (e.g., volunteer telephone hotlines in rural areas) dedicated telephone lines will be necessary.

Recurring expenses are current costs associated with service rendering including the following:

- wages of specialists (including managers),
- payroll taxes,
- payment for intermediate services consumed in the process of title service rendering if provided for in the checklist,
- supplies (stationary, catering for children, supplies for club activities etc. as provided for in the checklist),
- regular retraining for specialists (if necessary),
- depreciation of fixed assets.

Table 8. Costs of Innovative Services Associated with Child Abandonment Prevention in Tomsk Oblast (thou. Rbl.)

#	Service	Starting expenses per 1 raion, facility	Starting expenses per Oblast	Notes	Annual recurring expenses	Notes
1.	<i>Abandonment prevention</i>					
	Medical, psycho-social and pedagogical support to abandoned children and children from at-risk families	21	462	On 22 central raion hospitals & medical and preventive treatment facilities	16 400	On Oblast, 20 children a year, without northern increments
	Volunteer telephone hotlines in rural areas	45	365	On 8 raions where telephone hotlines are absent	2 383	On additional telephone hotlines, day time hotline
	Support to families in crisis situations	111.4	2562	On 23 raions	13 363	On Oblast, 50 children (families) per raion (latest stage of crisis)
	Patronage of biological families at risk of child abandonment	111.4	2340	Starting expenses the same as in "Support to families in crisis situations"	12 950	On Oblast, 50 children (families) per raion
	Rehabilitation leisure of at-risk children	177	7126	On 40 institutions (23 sports schools for children and 16 creative arts clubs)	4399	On main institutions
	Educational support to at-risk children	96	6441	On 70 schools	65 732	On 70 schools
	Total for abandonment prevention services:		19 296		115 227	
2.	<i>Foster and guardianship families</i>					
	Patronage of foster families	500	11 000	On 22 institutions or 22 raions; conversion costs	13 187	On Oblast
	Patronage of guardianship families	30	690	On 23 raions	12	Per family per year; about half of guardianship families need patronage
3.	<i>Social and labor adaptation of orphans</i>					
	Social and labor adaptation of institutionalized alumni in vocational schools	150	4950	On 33 vocational schools	3600	On Oblast
	TOTAL:		35 936		144 014	On 1500 guardians needing patronage

Source for Table 8: The CFP made estimations in accordance with service checklists developed by the National Foundation for Prevention of Cruelty to Children. The estimates were made in terms of FY 2005 prices on goods, services, works and rates of budgetary sector employees.

From the 8 services shown in the table only 6 belong to the abandonment prevention category. These are the services that may be responsible for reducing the inflow of abandoned children into the child welfare system. In terms of the baseline year their total cost is, according to our estimates, 115 mln. Rbl. exclusive of starting expenses.

Assuming that there are about 20 000 children needing patronage in Oblast, the regional government will spend annually 5 220 Rbl. per child.

Provision of all services including patronage of foster and guardianship families and adaptation of vocational school alumni (144 mln. Rbl. per year) will amount annually to some 7000 Rbl. per at-risk child.

7. Costs of Child Welfare Reform in Tomsk Oblast

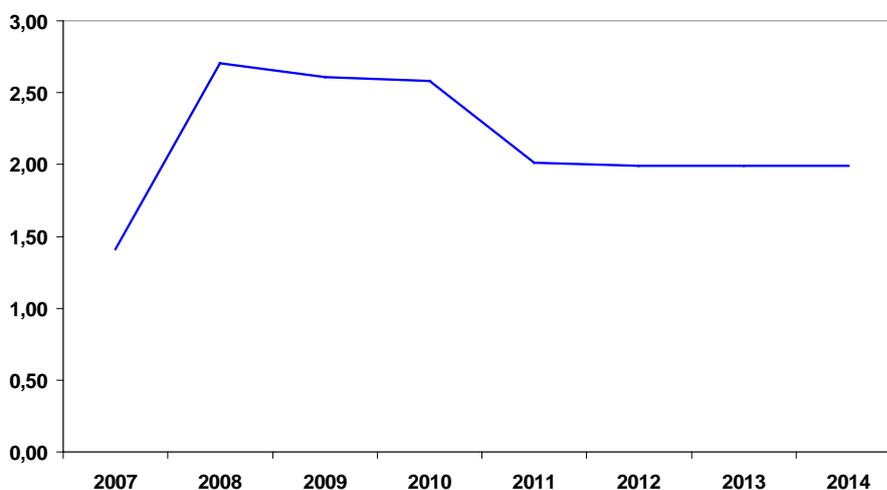
To reform and further develop the child welfare system in Tomsk Oblast under the alternative scenario the Oblast Administration plans to set up a special agency – Children’s Rights and Family Department including its municipal branches. Other reform activities will include convergence of orphanages, PR campaigns and retraining of specialists. As no starting capital outlays on these administrative activities are required, the researchers estimated current expenses on the maintenance of new administrative bodies. Such expenses are not associated with services or the number of recipients. They are fixed costs and expenses of the transitory period that will occur once during the reform.

Table 9. Administrative and Starting Expenses Arising in the Reform Scenario

Expenses (thou. Rbl.)	2007	2008	2009	2010	2011	2012 etc.
Functioning of the Department	10917	16376	16376	16376	16376	16376
Functioning of municipal branches	0	23551	31200	31200	31200	31200
Starting conditions, 36 mln. Rbl during 4 years	6000	10000	10000	10000	0	0
Additional costs of retraining	2500	2500	0	0	0	0
Supervising service	16562	16562	8251	8251	4126	4126
PR campaign	700	1400	2000	1300	600	100
Total:	36679	70329	67827	67127	52302	51802

According to our estimations, starting expenses on all patronage services rendered to troubled families and their children will amount to 36 mln. Rubles. Additional expenses on staff retraining (including the administrative staff) and PR campaigns will increase the sum to 47 mln. Rubles. In the model, these expenses are distributed across 4 years of the reform. Starting from FY 2012, functioning of the new child welfare system’s administration will cost 51 mln. Rubles a year. The amount includes expenses on the Children’s Rights and Family Department (16 mln. Rubles), its municipal branches (31 mln. Rubles) and the supervising service (4 mln. Rubles).

Figure 3. Dynamics of Administrative and Starting Expenses Arising in the Reform Scenario, \$ mln. Rbl. (in FY 2005 prices)



8. Costs of Baseline and Reform Scenarios Including All Expenses Associated with Them

The list of all expenses arising in connection with the baseline and reform scenarios is given in Table 10.

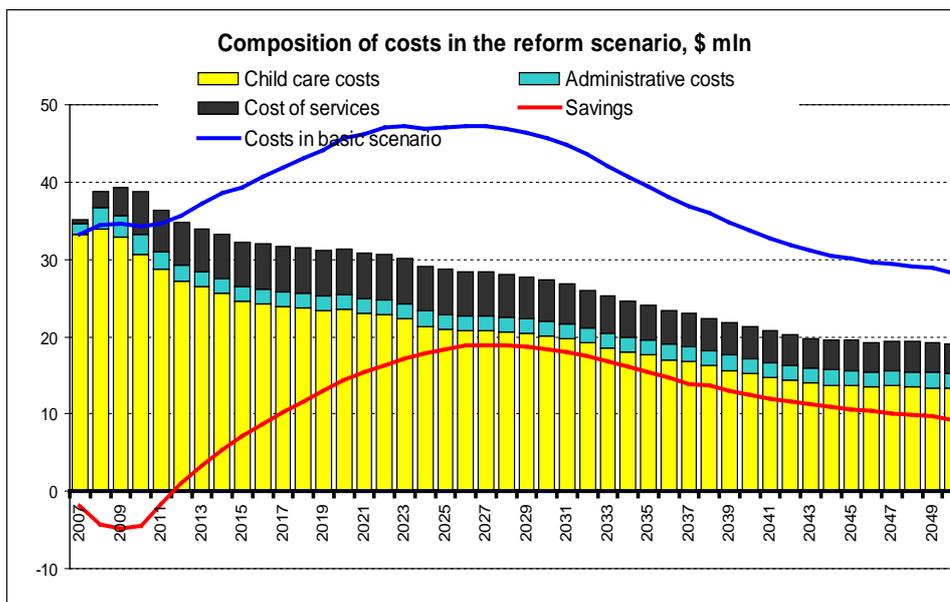
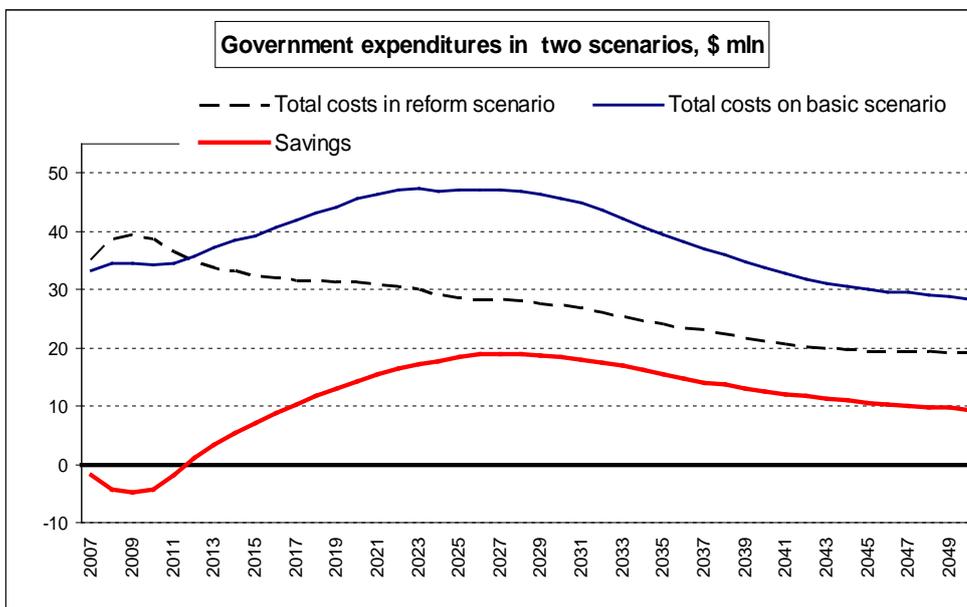
Table 10. Child Welfare Expenses in Baseline and Reform Scenarios in 2005 -2050, mln. Rbl. (in FY 2005 prices)

Expenses	Baseline scenario						Reform scenario					
	2005 (fact)	2011	2020	2030	2040	2050	2005 (fact)	2011	2020	2030	2040	2050
Social rehabilitation centers for underage, temporary care in medical and preventive treatment facility	98	90	95	82	62	56	98	55	49	44	34	32
Welfare centers (in terms of children, families, estimate)	123	113	119	102	77	70	123	69	61	55	43	40
Institutions	300	306	385	363	258	233	300	215	76	39	29	26
Allowances to institutions alumni	6	5	6	7	5	4	6	4	1	1	1	0
Additional expenses on care and allowances upon leaving vocational schools (without	63	54	70	83	64	49	63	81	81	79	65	52

housing)												
Allowances to guardians	135	153	208	207	146	128	135	139	139	132	96	87
Payments to adoptive parents	50	97	181	180	127	111	50	103	167	160	117	106
New services	0	0	0	0	0	0	0	149	133	128	99	92
Administrative expenses	0	0	0	0	0	0	0	52	52	52	52	52
Total:	775	817	1064	1023	739	651	775	867	759	690	536	487

Note: The absence of administrative expenses on child welfare in the baseline scenario is equal to the assumption that the establishment of a new Children’s Rights and Family Department will not result in less financing provided to related departments of welfare, education and health care. In case some staff positions in the new department are retrieved from the related departments the budgetary savings from the reform will be higher.

Figure 4. Tomsk Oblast Administration’s Expenditures on Child Welfare in Baseline and Reform Scenarios, \$ mln.



9. Economic effects in the baseline and reform scenarios

Two estimates of productivity losses from engagement of orphans in the economy : high and low

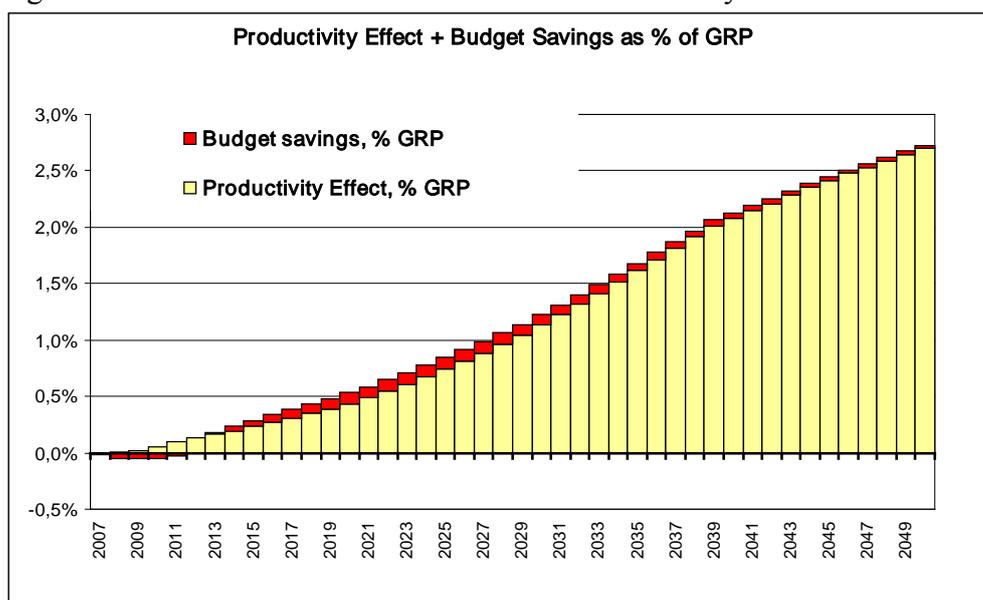
- *High: low productivity losses+lower employment:* employed orphanage alumni have lower productivity vs.. the oblast average; productivity losses= (average productivity-low productivity)* number of alumni + losses from unemployed alumni/ alumni in confinement
- *Low: lower employment losses:* employed graduates do not incur losses to economy; losses result from unemployed graduates and graduates in confinement; per capita loss is equal to productivity in agriculture (or half, in case of orp[hans in detention) * (-1)

The resultig loss estimate fall into the interval:

$$0,7\% < \text{loss} < 2,5\% \text{ GDP}$$

Higher employment level and higher productivity of graduates in the refrortm scenario reduce GRP losses.

Figure 5. Combined Fiancial And Economic Productivity Effect



10. Economic effects in the baseline and reform scenarios

- Reform scenario is better than the basic scenario by all criteria: less orphans, less burden on government finances, reduced GRP losses
- Reform implementation depends on political will:
 - unpopular moves (e.g. layoffs, closure of institutions)
 - high start-up costs
 - costs recovery and social effect will occur around 2016 (i.e. beyond the term of office of regional administration)