EMPLOYMENT INCENTIVES IN THE CZECH REPUBLIC: COMPARING CURRENT AND PROPOSED SOCIAL SUPPORT SYSTEMS

Štěpán JURAJDA, Jozef ZUBRICKÝ

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Comparing Current and Proposed Social Support Systems

Štěpán Jurajda and Jozef Zubrický
CERGE-EI∗

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Abstract

We calculate net replacement rates and marginal effective tax rates that Czech families face when deciding on their labor supply. We extend the existing calculations by (i) covering a wider range of family types and earnings levels, and (ii) comparing the current system of social support and income taxation from 2005 to the system recently proposed by the government.

∗CERGE-EI is a joint workplace of the Center for Economic Research and Graduate Education, Charles University, and the Economics Institute of the Czech Academy of Sciences. E-mail: stepan.jurajda@cerge-ei.cz, jozef.zubricky@cerge-ei.cz.
1. Introduction and Summary

The goal of this paper is to shed light on the nature of the social support system in the Czech Republic—the combination of unemployment and social benefits offered with income taxation, and the incentives to supply labor and participate in the official economy that they jointly generate. To this end, we generate a simple measurement of the monetary incentives built into the set of main government labor-market programs that affect labor supply decisions.

The method of measuring labor-supply incentives we use is one of desk-top analysis based on official benefit rules.\(^1\) We argue that it provides a useful measure for comparing different social support systems and can be used to gauge the effects of new policies, before these are put into effect and tested in the field. The two most commonly used rule-based measures of the incentives to provide labor in presence of social support availability are the Net Replacement Rate (NRR) and the Marginal Effective Tax Rate (METR).\(^2\)

The Net Replacement Rate is the ratio of net income of the household when unemployed to the net income of the same household under the alternative situation when one of its members has a job.\(^3\) The Marginal Effective Tax Rate, on the other hand, asks how much of a given (small) increase of the gross wage is taken from a household by both explicit income taxation and the implicit taxes of the social benefit system.\(^4\)

These incentive measures have been recently evaluated in the Czech context by

\(^1\)The analysis is framed in terms of family-level behavior because that is the perspective that the social support system takes when generating benefit availability and, hence, employment incentives.

\(^2\)For a recent use of these measures by the Organization for Economic Cooperation and Development (OECD), see its Benefits and Wages (2004) at www.oecd.org .

\(^3\)See Salomaki and Munzi (1999) who review various approaches applied in computing net replacement rates for unemployed.

\(^4\)It is often argued, based on economic theory, that METR is a measure ideally suited for studying employment incentives, especially those applying to low income families (see, e.g., Carone and Salomaki, 2001).
OECD (2004) and Jahoda (2004). We extend the existing calculations in two dimensions: We (i) concentrate on family types typical of socially excluded,\textsuperscript{5} and (ii) compare current institutional settings to those recently proposed by the Czech government. The proposed change of the current system consists of two steps: First, there is a proposal to overhaul the social benefit system, which has been recently approved by the government and could be in place as of June 2006. Second, the government also aims to change income taxation, and this reform could be put in effect in January 2006. We therefore provide an \textit{ex ante} comparison of labor-supply incentives under the current and proposed systems.

Perhaps not surprisingly, we find a staggeringly high level of employment disincentives, especially for low-wage and large families. Our comparison of the current and the proposed system of social support then suggests substantial changes of pro-work monetary incentives are in the making in the Czech labor market. The proposed system is likely to increase pro-work incentives for low-wage larger families and effectively “punish” long-term unemployment (inactivity). On the other hand, the new system may discourage increasing wages for those already employed more than the current system.

However, the description and programming of the system of social support that we carry out illustrates in a powerful way that the system is exceedingly complicated and hard to grasp. This is likely to lower pro-work effects of the system as the intention to support employment can be hard to discern, especially for socially excluded families and workers.

The article is organized as follows: First, we provide a detailed description of NRR and METR. Next, we describe the social, unemployment and taxation system in the

\textsuperscript{5}It is important to note, however, that we are not able to fully reflect in our measurements one key dimension of the social support system affecting socially excluded — the complicated nature of the system resulting in uncertainty about benefit level and availability. For the likely effects of this feature of the system on the Roma population, see Hulová and Steiner (2005).
Czech Republic as well as the proposed changes to the system. We provide examples of benefits calculation under the current and the proposed systems for specific family types and calculate NRRs and METRs in order to compare both systems in terms of job-search incentives. We focus on the situation of family types that are typical of socially excluded and evaluate NRRs and METRs for low-income families. Finally, we also briefly discuss the issue of unofficial employment and provide several comparisons of family income with official or illegal earnings.

2. The Methodology

2.1. Net Replacement Rates

The Net replacement Rate (NRR), used by, e.g., the OECD, is defined as the ratio of net income when unemployed to the net income when employed. Formally it can be expressed as:

$$NRR = \frac{Benefit \ when \ unemployed - Tax \ on \ benefit \ income}{Earned \ income + Benefit \ income \ when \ employed - Income \ tax}.$$ 

OECD (2004) calculates two types of NRRs: the so-called short-run NRR, which is the rate applicable in the period when an agent receives unemployment and social benefits, and the so-called long-run NRR, which applies after the expiration of unemployment benefits and therefore reflects social benefits receipt by long-term jobless.

In order to compare social support schemes across its member countries, OECD calculates NRRs at two earnings levels: at the Average Production Wage (APW)\(^6\) and at a wage level corresponding to 67% of the APW. Since a typical wage distribution is skewed to the left, one would expect the median wage to be below the average wage; hence, one can think of the second evaluation (at two thirds of APW) to approximately apply to a typical (median) wage earner. It is important to note that the APW (and

\(^6\)Average income of full-time production workers in the manufacturing sector of the country concerned.
even 67% of APW) may be much above the potential wage levels in low-skill service and laborer jobs available to low-educated socially excluded workers.

Since social benefits depend on family structure, one must calculate the NRRs for specific family types.\(^7\) In its calculation of NRRs, OECD considers the following four family types: a single adult, a couple, a couple with 2 children and a single parent with 2 children. For married couples the potential earned income relates to one spouse only while the other spouse is assumed to be inactive with no earnings. The children are assumed to be aged 4 and 6 and the OECD calculations do not consider child care benefits and costs.

The NRR can be thought of as representing the incentives of people who receive unemployment or social benefits to search for a job. The ratio takes values from 0 to 100. The higher the number, the lower the incentives to look for an employment opportunity. For example, if the system generates Net Replacement Rate as large as 100, there are no monetary incentives to look for a job, since a given household receives the same level of income no matter the employment status. Since households enjoy not only consumption but also leisure and also face search costs and fixed costs of participating in the labor market (transportation to work, higher cost of food outside of the household, etc.), it is reasonable to expect that even net replacement rates significantly below 100 may not provide sufficient incentives for job search.\(^8\) Furthermore, the actual level of NRR that can be expected to effectively generate labor-supply incentive depends not only on valuation of leisure and transaction costs, but also on outside options such as shadow-economy employment opportunities, etc. We will therefore not attempt to argue whether a specific value of NRR is sufficiently high or low; instead, we will show how

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\(^7\) Because social insurance is structured as a family-level program, the NRR measure captures family-level labor-supply incentives. Of course, the bottom line is individual behavior.

\(^8\) Jackson and Brown (2003) discuss the level of NRR and METR that is likely sufficient to provide effective incentives.
the level of NRR changed over time and what is the likely effect on NRR of the newly proposed social support system. In our analysis offered below, we adjust the OECD methodology by concentrating on socially excluded family types and we also augment the NRR calculation in order to reflect certain important social benefits not covered by OECD (2004). These include benefits to cover increased costs of housing.

2.2. Marginal Effective Tax Rates

The Marginal Effective Tax Rate captures the combined effects of income taxation and social benefits taken from a household that increases its gross earned income. Because the maximum level of benefits is often received by families with no income and because benefits are sometimes reduced almost crown for crown with additional earnings, static labor-supply theory predicts the welfare system to discourage labor force participation and hours of work. It is therefore important to measure the strength of such disincentives, i.e. the slope of the implicit tax schedule. Haveman (1996) suggests that to effectively support labor supply, METR levels should be between 30% and 50%. He also argues that the problem of high METR in most countries is the result of a of the weak link among a set of several types of social benefits.

The OECD calculates METRs for gross-income increases of 1%, 2% and 5%. Let $NI_0$ and $NI_1$ denote Net Income before and after a gross-income increase, respectively, and let $GI_0$ and $GI_0$ denote the relevant gross incomes. METR is then calculated as

$$METR = 1 - \frac{NI_0 - NI_1}{GI_0 - GI_1}.$$ 

Jahoda (2004) calculates METRs for the Czech Republic. He finds that for specific low levels of initial gross income and small potential changes of gross income, the Czech METR is sometimes higher than 100. Such situation is often referred to as an inactivity trap because increasing gross income makes households worse off. We extend his analysis
in time and adjust his methodology by including new types of benefits (those intended to cover increased cost of housing, see the details provided below).

3. Overview of the Social Support System

The social security system as well as the system of unemployment benefits in the Czech Republic is organized on public insurance basis.9 Workers, employers and entrepreneurs pay given fractions of their gross income to state-run funds (see Section 3.6). There are two basic types of benefits to low income families or agents. These are Unemployment Benefits and Social Benefits. Social Benefits include State Social Support and Social Assistance.

The agencies responsible for providing State Social Support and Unemployment Benefits are District Offices – Okresní úřady (OÚ) and District Labor Offices – Úřady práce (ÚP), respectively. ÚP also provide assistance to unemployed with job search and offer retraining courses as well as other forms of active labor market programs. Finally, there is another form of social benefits, called Social Assistance, provided by municipalities. These various forms of support are described in some detail in this section.

The system is organized around one key parameter – the so-called Minimum Living Standard (MLS). This amount is calculated at the personal and family level and is meant to reflect the cost of living. Most types of benefits are then defined as given fractions of the family-level MLS.

The sequence of receiving benefits is as follows. First, agents receive net wage for their labor. If they become unemployed, they can receive Unemployment Benefits for at least 6 months. If the net wage or Unemployment Benefits drop below a certain fraction

9 The current system of social support is largely the result of reforms conducted in 1995 and has undergone only minor changes since then.
of the MLS, they are eligible for State Social Support. Net Income for the purpose of calculation of State Social Support is the sum of net wages and Unemployment Benefits. Next, households whose income after including Social Support benefits drops below the MLS level ought to receive additional Social Assistance benefits bringing them at least to the MLS level of income. However, additional Social Assistance may be provided beyond that required to bring a given household to the MLS level of income because Social Assistance in principle also takes into account factors such as actual cost of housing, disability of family members, etc.

3.1. Unemployment Benefits

Unemployment Benefits are available to those individuals actively searching for a job (men aged up to 60-63 years, women aged 57-63),\(^\text{10}\) who were employed for at least 12 months in the last 3 years, except those who quit their jobs or were fired because of disciplinary reasons at least twice during previous 6 months.

The base for the calculation of the unemployment benefit is the average net monthly wage in the last quarter preceding the spell of unemployment. The amount of benefit is currently determined as 50% of this base period wage in the first 3 months and 45% in the following 3 months of unemployment,\(^\text{11}\) but not more than \(2.5 \times \text{MLS}\) of a single person. When unemployed participate in retraining sponsored by the district labor offices, their Unemployment Benefits equal 60% of the average net wage in the last quarter; the maximum benefit amount is then \(2.8 \times \text{MLS}\) of a single person. Unemployment benefits are not taxable.

Example: The average net wage of a worker in the last 3 months was 15 000 CZK. The worker is 30 years old and does not attend retraining courses. His unemployment benefits are not taxable.

\(^{10}\)The person-specific age eligibility limit depends on the number of children and other factors and is affected by recent changes in the pension system.

\(^{11}\)The benefit entitlement is 3+6 months for those aged between 50 and 55 and 3+22 months for unemployed above 55.
benefit in the first three months after he becomes unemployed is $0.5 \times 15\,000 = 7500$ CZK. During the following three months he receives $0.45 \times 15\,000 = 6750$ CZK.

### 3.2. Minimum Living Standard

State Social Support and Social Assistance are formulaically linked to the family-level Minimum Living Standard, defined by law\(^\text{(12)}\) as the sum of two elements. The first element is the MLS of a *single person*, which is defined depending on an individual’s age as follows: the monthly sum for each child less than 6 years old is 1 720 CZK, for each child between 6 and 10 it is 1 920 CZK, for a child between 10 and 15 the amount is 2 270 CZK, for each dependent child between 15 and 26 years of age it is 2 490 CZK, and for all others (adults) it equals 2 360 CZK. The second element is the *household* MLS: a single-person-household’s monthly amount is 1 940 CZK, the amount for a family with 2 (3-4) members is 2 530 CZK (3 140 CZK), and for households with 5 or more members it is 3 520 CZK. These amounts are adjusted to inflation when the price-level change since the last adjustment exceeds 5%, but the actual extent of the adjustment is up to the decision of the government.

Example: A family consists of 2 adults and 3 children aged 4, 8, and 13. The MLS of this family equals 2 360 CZK (husband) + 2 360 CZK (wife) + 1 720 CZK (4 year old) + 1 920 (8 year old) + 2 270 CZK (13 year old) + 3 520 CZK (family with 5 members housing MLS) = 14 150 CZK.

### 3.3. State Social Support

The following subsections summarize the most common types of State Social Support in the Czech Republic\(^\text{(13)}\). State Social Support depends on net income of the household and the MLS of the household.

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\(^{(12)}\)“Zákon č. 463/1991 o životním minimu.”

\(^{(13)}\)State Social Support is paid according to the law “Zákon č. 117/1995 Sb., o státní sociální pomoci.”
3.3.1. Child Allowance

Child Allowance is for families with children, whose Net Income ($NI$) was below $3 \times MLS$ in the previous year.

The allowance is calculated as follows:

$$ChildAllowance = A \times \sum children'sMLS,$$

where

$$A = \begin{cases} 
0.32 & : NI \in (0, 1.1MLS), \\
0.28 & : NI \in (1.1MLS, 1.8MLS), \\
0.14 & : NI \in (1.8MLS, 3MLS).
\end{cases}$$

Example: Consider again our family of 2 adults and 3 children. Their MLS is 14 150 CZK and their joint net income is 15 800, which is more than $1.1 \times MLS$ but less than $1.8 \times MLS$. Child Allowance is $0.28 \times (1720 + 1920 + 2270) = 1655$ CZK.

3.3.2. Social Allowance

Social Allowance ($SA$) is available to families with at least 1 depended child, whose net income was below $1.6 \times MLS$ in the last quarter. Net Income for the purpose of calculating Social Allowance includes Child Allowance. $SA$ is determined as

$$SA = \sum children'sMLS - \frac{\sum children'sMLS \times \max\{NI, totalMLS\}}{totalMLS \times 1.6}.$$ 

Example: Consider a family of 2 adults and 3 children with MLS of 14 150 CZK and joint net income of 15 800. The household also receives Child Allowance (1 655 CZK). Therefore, their NI for the purpose of calculating the SA benefit is $15 800 + 1 655 = 17455$ CZK. Social Allowance is then $(1720 + 1920 + 2270) - [(1720 + 1920 + 2270) \times 17 455]/(14 150 \times 1.6) = 1353$ CZK.

\[14\] This is the sum of the MLS of children.
3.3.3. Housing Benefit

Housing Benefit (HB) is available to families who own or rent a flat and whose net income for the last quarter was below $1.6 \times MLS$. Again, income for purposes of calculation of this benefit includes Child Allowance. HB is calculated as:

$$HB = \text{household's MLS} - \frac{\text{household's MLS} \times \max\{NI, \text{total MLS}\}}{\text{total MLS} \times 1.6}$$

Example: A family of 2 adults and 3 children with MLS of 14 150 CZK and joint net income including Child Allowance of 17 455 receives a housing benefit of $3 520^{15} - (3 520 \times 17 455)/(14 150 \times 1.6) = 806$ CZK.

3.3.4. Other Benefits

Other benefits include Parental Allowance, Foster Care Benefits, Funeral Grant and Birth Grant. We abstract from these types of benefits in our analysis since they depend on specific conditions such as disability of a child etc.

3.4. Social Assistance

Social Assistance serves as a source of last-resort support.\footnote{The law that defines this support in “Zákon č. 482/1991 Sb., o sociální potřebnosti.”} When a household’s net income is less than the MLS level even after receiving State Social Support, the household receives Social Assistance calculated as

$$\text{Social Assistance} = \text{MLS} - \text{Net Income} - \text{State Social Support}.$$  

Net Income is defined as average monthly net wage income or net profit of entrepreneurs plus Unemployment Benefits plus the sum of Health Insurance Benefits, Pensions, Parental Allowances, Social Allowances, Child Allowances and Housing Benefits. Before

\footnote{This is the household’s part of MLS.}
we describe these specific benefits in the next sub-section, we should point out another less-well-known feature of Social Assistance.

Social Assistance may be higher than specified above if the household in question has a higher-than-usual cost of living (typically this would apply to households with high cost of housing). This additional level of social assistance above the MLS level can be significant, but is not guided by explicit formulas and depends on many factors including the discretion of the social officer. Given that this additional benefit is hard to capture, it is not surprising that the OECD’s NRR/METR calculations do not take this additional source of income into account.

This issue is significant for the purpose of comparing the employment incentives of the current and new proposed system of social benefits, which we describe in Section 4. The new proposed system specifies the amount of Social Assistance explicitly. To be able to compare the two systems, we therefore simulate the practice of this additional benefit also under the current system. The new system proposes benefit formulas based on the so-called Normal and Actual Costs of Living (see Section 4.2.1). We try to estimate this additional benefit, which is dependent on the decision of social officer in the current system, in a way that is consistent with the explicit formulation Social Assistance of the new system.

The Ministry of Labor and Social Affairs provides several examples of this additional level of Social Assistance on its web pages.\(^\text{17}\). They, however, do not specify the details of their calculations. We tried several ways of estimation and we ended up using the one that most closely corresponds to the examples given by the Ministry of Labor and Social Affairs.

We estimated the additional social assistance in the following way. For households with income below the MLS level, the additional Social Assistance equals the difference

\(^{17}\text{http://www.psp.cz/sqw/text/tiskt.sqw?O=4&CT=1063&CT1=0}\)
between the actual cost of housing and Normal Cost of housing. For households with income between MLS and $1.6 \times MLS$, the additional Social Assistance shall pay a $\frac{\text{Income}}{\text{MLS}}$ fraction of the difference between the actual cost of housing and Normal Cost of housing. Households with income above $1.6 \times MLS$ shall not be eligible for this additional Social Assistance.

Example: Consider a family with income level 500 CZK below MLS, and an actual cost of housing 1000 CZK higher than the Normal (normative) Cost of housing. Their Social Assistance is $500$ CZK (to reach the MLS) + $1000$ CZK (to reflect increased cost of housing) = $1500$ CZK.

### 3.5. Income Taxation

There is a progressive taxation system in place in the Czech Republic. Income tax is calculated as a fraction of gross wage after paying health, social and unemployment insurance and after deducting tax allowances according to the following scheme.

<table>
<thead>
<tr>
<th>Taxable income</th>
<th>Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over But not over</td>
<td>Tax</td>
</tr>
<tr>
<td>0 CZK</td>
<td>109 200 CZK</td>
</tr>
<tr>
<td>109 200 CZK</td>
<td>218 400 CZK</td>
</tr>
<tr>
<td>218 400 CZK</td>
<td>331 200 CZK</td>
</tr>
<tr>
<td>331 200 CZK</td>
<td>... CZK</td>
</tr>
</tbody>
</table>

#### 3.5.1. Tax Base Deduction and Tax Bonus

The annual tax-base deduction is 38 040 CZK per taxpayer plus 21 720 CZK for a spouse if s/he does not have income over 38 040 per year and the family decided to fill the tax return together. Then after paying payroll taxes and deducting the tax-base deductions the actual tax is computed according to the progressive taxation scheme.

18 The Normal Cost of housing will be defined by law in the proposed system.
19 See “Zákon č. 586/1992 Sb., o daních z příjmů.”
20 There are also deductions for disabled or partially disabled individuals, which we omit in our calculations.
The income tax system has recently been updated to serve as an additional tool of transferring income to needy families with children. It has long been recognized that the fact that the amount of available social support is an increasing function of the number of children results in total welfare benefits that exceed even average wage levels (OECD, 2004). To counter this labor supply disincentive effect, an earned income *tax bonus* has been introduced in 2005. Specifically, taxpayers who are sufficiently active on the labor market,\(^{21}\) may use a tax bonus as high as 6000 CZK per child, but not for more than 4 children. The tax bonus for children does not depend on the actual tax, and if the actual tax is lower than the child tax bonus, the household receives the negative tax (refund).

Example: Suppose the actual tax that household has to pay is 5000 CZK and the family has one child. If the household is eligible for tax bonus of 6000 CZK, the household pays no taxes and receives 1000 CZK.\(^{22}\)

### 3.6. Payroll Taxes

Payroll taxes (health and sickness, employment and pension fund contributions) are paid from gross wage of households or from gross profit of entrepreneurs. The contributions are divided between employees and employers. The rates are summarized in the following table.

<table>
<thead>
<tr>
<th></th>
<th>Employee</th>
<th>Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Insurance</td>
<td>4.5%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Social insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pension Fund</td>
<td>6.5%</td>
<td>21.5%</td>
</tr>
<tr>
<td>- Employment Fund</td>
<td>0.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>- Health Fund</td>
<td>1.1%</td>
<td>3.3%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>12.5%</strong></td>
<td><strong>34.0%</strong></td>
</tr>
</tbody>
</table>

\(^{21}\) Those with an annual earned income of at least 6 times the minimum wage.

\(^{22}\) Under the previous regime, taxpayers could only decrease their tax base so as to lower taxable income.
It is important to study payroll taxes because of two reasons. First, payroll taxes paid by employee decrease the net wage of the agent. Second, high payroll taxes paid by employer increase cost of labor. The higher the cost of legal labor, the higher the incentives to demand illegal labor may be. We study this phenomenon in Section 8.1.

4. Overview of the Proposed Changes

The government recently proposed (approved) an overhaul of the social support system that could become effective as of June 2006, if approved in the legislative process\textsuperscript{23} and there are also significant income taxation changes in the making.

The first part of the proposed reform intends to adjust the system of social benefits (both State Social Support and Social Assistance) and leave the Unemployment Benefit system unchanged. There are several clear goals. The changes are supposed to more clearly reflect the fact that families with a higher number of members gain advantage by sharing their cost of living. On the other hand, it is recognized that the current level social benefits available for a single-member household may not be sufficient to cover actual costs of living (especially housing). Thus, the new system intends to provide more support to smaller families and to cut benefits for families with more members. Another aim is to provide less support through State Social Support and to increase the Social Allowance paid by municipalities; more of the social support responsibility is therefore shifted from the central government to municipalities. The idea is that local distribution of benefits under more binding budget constraints (of municipalities) is more likely to result in effective pressure on the non-employed to search for and take up job opportunities. To this end, the local municipality will be empowered to assign the needy families an “activity” grading that will determine the level of benefits. Finally, the new law will also provide more specific guidelines on the amount of Social Assistance.

\textsuperscript{23}See www.psp.cz/sqw/historie.sqw?O=4&T=1063
available (including region-specific housing costs) and thus it may be less depended on the subjective decision of social officers.

4.1. Minimum Living Standard and Existential Minimum

The reform proposal cancels the *household part* of the Minimum Living Standard. Therefore, the total MLS level of families would decrease in most cases. It also introduces the so-called Existential Minimum (EM). The level of the Existential Minimum is 2010 CZK. EM is important for the calculation of Social Allowance. MLS still remains the base for the calculation of State Social Support.

The differentiated amount of MLS and EM should reflect the activity/effort of the agent to improve his situation. If the agent is “active” (for example he decreases his cost of housing, actively searches on the job market, etc.), the Social Allowance would be calculated based on the MLS level. If s/he is inactive, the base for the calculation of Social Assistance would be the EM. The law also specifies the so-called Livelihood Base – an amount between EM and MLS depending on how “active” the agent is.

The new proposed level of the Minimum Living Standard of a *single person* is summarized in the following table.

<table>
<thead>
<tr>
<th></th>
<th>1. Person</th>
<th>2. Person</th>
<th>3.- Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>2870 CZK</td>
<td>2580 CZK</td>
<td>2580 CZK</td>
</tr>
<tr>
<td>Child 0-6 years</td>
<td>-</td>
<td>1870 CZK</td>
<td>1310 CZK</td>
</tr>
<tr>
<td>Child 6-15 years</td>
<td>-</td>
<td>2300 CZK</td>
<td>1610 CZK</td>
</tr>
<tr>
<td>Child 15-26 years</td>
<td>-</td>
<td>2630 CZK</td>
<td>1850 CZK</td>
</tr>
</tbody>
</table>

The Minimum Living Standard of the family is the sum of the MLS’s of family members, where the adult members of the family are considered first. Children are considered as the second or third person if there is more than one adult in the household.

Example: A family of 2 adults and 3 children aged 4, 8 and 13. Their MLS is 2 870 (first person, adult) + 2 580 (second person, adult) + 1 610 (third person, child, 6-15
years) + 1 610 (fourth person, child, 6-15 years) + 1 310 (fifth person, child, 0-6 years) = 9 980 CZK.

4.2. State Social Support

While the formula for Child Benefits and Social Allowance from State Social Support is to remain unchanged, it is important to note that the total amount of these benefits would decrease under the proposed scheme, since the household part of MLS would be abandoned, which would decrease the total MLS.

4.2.1. Housing Benefit

The proposed change to the housing benefit is that it should explicitly reflect the differing costs of housing across the regions of the Czech Republic. There should be a law defining the so-called Normal (typical) Costs of Housing (NCH) which would depend on the region of residence and the number of people in the household. However, a draft of this norm is not available yet. In our analysis we assume that the actual Cost of Housing is 4500,- CZK and Normal Cost of Housing is 3900,- CZK.

The law also introduces a concept of so called Socially Respectable Cost of Living (SRCL). SRCL is proposed to be

\[
SRCL = 0.3 \times \max\{MLS, NetIncome\},
\]

where Net Income for the purposes of calculation of SRCL is defined as the sum of 70% of net wage, 80% of unemployment benefits and 100% of child allowance. If the level of the SRCL is smaller than the NCH, the housing benefit shall be

\[
HB = \min\{NCL, ACL\} - SRCL,
\]

where \(ACL\) are the actual living costs.
Example: Suppose a family lives in a flat in a region with Normal Cost of Housing 3900 CZK and Actual Cost of Housing 4500 CZK. The net wage of the family is 10 000 CZK. Then SRLC is defined as $0.7 \times 10\,000 \times 0.3 = 2\,100$ CZK. Then household is eligible for $3\,900 - 2\,100 = 1\,800$ CZK housing benefit from State Social Support.

4.3. Social Assistance

The Social Assistance, which is currently providing benefits to level the income to MLS, is proposed to be adjusted. Instead of leveling income to MLS, it should consist of two new types of Social Allowance benefits paid by municipalities. These new benefits are the Livelihood Benefit and the Housing Supplement. For the purpose of calculation of both of these benefits, the tax bonus of a children is not considered as income.

4.3.1. Livelihood Benefit

The Livelihood Benefit (LB) is a new type of benefit that should reflect not only the situation of the household, but also the effort exerted in attempting to lift the household off welfare rolls. For the purpose of determining the Livelihood Benefit, net income is defined as the sum of 70% of net wage (or net profit of an entrepreneur), 80% of health care benefits or Unemployment Benefits and 100% of other income including benefits from State Social Support, but not the Housing Benefit minus SRLC.

The base for the calculation of the livelihood benefit is so called the Livelihood Base calculated at the household level. The Livelihood Base equals the sum of MLS of children plus an additional amount between EM and MLS of the adults depending on their activity directed at improve their situation. Thus Livelihood Base can be increased towards the MLS level if there is sufficient effort exerted by the person in question to get out of welfare dependency, as defined specifically by a new law. Livelihood Base is $EM + A \times (MLS - EM)$ where $A \in [0, 1]$. For example, if the person in question
does not have unpaid debts, uses his/her assets to improve the household situation, proves that s/he actively seeks a job, etc., the coefficient $A$ may take a value of 0.8. If the person is less active $A$ can be 0.5 or even 0. The decision about $A$ is up to the municipality. In our analysis we assume $A = 1$ for short-term unemployed and $A = 0.5$ for long-run unemployed.

Example: A Family of 2 adults and 3 children, where neither of the adults shows “activity” aimed at improving the household situation has the following Livelihood Base: 2010 (EM of husband) + 2010 (EM of wife) + 1 610 (third person, child, 6-15 years) + 1 610 (fourth person, child, 6-15 years) + 1 310 (fifth person, child, 0-6 years) = 8 550 CZK.

The Livelihood Benefit (LB) is paid when income of the household (as defined for the purposes of the calculation of the LB) is smaller than the Livelihood base. The amount of the benefit is then calculated as the simple difference of the two amounts:

$$LB = \text{Livelihood Base} - \text{Income}.$$  

4.3.2. Housing supplement

For the purpose of determining the level of the Housing Supplement (HS), income is defined as the sum of 70% of net wage or net profit of an entrepreneur, 80% of health care benefits or unemployment benefits and 100% of other income including State Social Support benefits and Livelihood Benefit.

Housing Supplement is paid if household’s income, after paying the cost of living, is smaller than the Livelihood Base. The calculation of the benefit is as follows:

$$HS = ALC + \text{Livelihood Base} - \text{Income}.$$  

19
4.4. Income Taxation

The proposed income taxation reform aims at reducing the taxation of low-wage earners. This shall be achieved by reducing the tax rates for the two lowest taxation brackets from 15% to 12% and from 20% to 19%, respectively. The government also proposed to increase the lowest taxation bracket from 109 200 CZK to 121 200 CZK.

However, it is important to note that the government’s inaction in the remaining part of the tax schedule also amounts to factual changes in income taxation because nominal wage levels are increasing over time. This increase in nominal wages means that over time the number of people whose taxable income falls into the first two tax brackets decreases and that the effective steepness of the progressive taxation system goes up.

The following table depicts the proposal for the new tax rates, which are to become valid in January 2006.

<table>
<thead>
<tr>
<th>Taxable income</th>
<th>Tax</th>
<th>+%</th>
<th>On amount over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over</td>
<td>But not over</td>
<td>Tax</td>
<td>12</td>
</tr>
<tr>
<td>0 CZK</td>
<td>121 200 CZK</td>
<td>0 CZK</td>
<td>12</td>
</tr>
<tr>
<td>121 200 CZK</td>
<td>218 400 CZK</td>
<td>14 544 CZK</td>
<td>19</td>
</tr>
<tr>
<td>218 400 CZK</td>
<td>331 200 CZK</td>
<td>33 012 CZK</td>
<td>25</td>
</tr>
<tr>
<td>331 200 CZK</td>
<td>... CZK</td>
<td>61 212 CZK</td>
<td>32</td>
</tr>
</tbody>
</table>

4.5. Tax Allowance

The government also proposed changes in the system of tax-base deductions and tax allowances in the following way. The tax base deductions would be abolished and replaced by tax allowances to be deducted from the actual tax amount, not the tax base. The annual tax allowances shall be 7000 CZK per taxpayer, 4200 CZK for a spouse (8400 CZK if she (he) is disabled). There should also be tax bonus for a child and should remain at the level of 6000 per child (for a maximum of 4 children). The difference between tax allowance and tax bonus is that the maximum allowance is the
actual tax duty, while tax bonus may take the form of negative tax if the tax bonus exceeds tax duty.

5. An Illustrative Example: Calculating Benefits, NRR and METR

In this section we provide an example of the calculation of total available benefits, together with a calculation of NRR and METR for a typical Roma family. Col. of Authors (1999) states that a Roma woman has on average 3.6 children; the authors also find that 83.4% of the Roma minority have only elementary education. The Czech Statistical Office then estimates the overall average nominal monthly wage in the second quarter of 2005 at 18763 CZK, while the average wage of a worker with elementary education is 13509 CZK.24

Consider a hypothetical Deleman family with two adults and 3 children. One child is 4, the second one is 8, and the third one is 13 years old. Mr. Deleman works for a monthly gross wage of 13600 CZK while Mrs. Delemanová is unemployed and has been unemployed for more than 6 months. They live in Cheb in a flat with a monthly rent of 4500 CZK. The Normal Cost of Living for this type of family and region is 3800 CZK.

5.1. Current System

The following table presents the composition of income of the Deleman family under the current system. We compare their income when Mr. Deleman is employed to the alternative family income in case Mr. Deleman quits his job. Being employed full time generates a “bonus” income of about three thousand CZK.

---

24 www.czso.cz/csu/ediciplan.nsf/p/3111-05
<table>
<thead>
<tr>
<th></th>
<th>Mr. Deleman emp.</th>
<th>Mr. Deleman unemp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Wage</td>
<td>13600</td>
<td>0</td>
</tr>
<tr>
<td>MLS of Family</td>
<td>14150</td>
<td>14150</td>
</tr>
<tr>
<td>Net Wage</td>
<td>10862</td>
<td>0</td>
</tr>
<tr>
<td>Child Bonus</td>
<td>1500</td>
<td>0</td>
</tr>
<tr>
<td>Child Allowance</td>
<td>1891</td>
<td>1891</td>
</tr>
<tr>
<td>Social Allowance</td>
<td>2189</td>
<td>2216</td>
</tr>
<tr>
<td>Housing Benefit</td>
<td>1304</td>
<td>1320</td>
</tr>
<tr>
<td>Social Assistance</td>
<td>130</td>
<td>9322</td>
</tr>
<tr>
<td>Livelihood Benefit</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Housing Supplement</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17876</td>
<td>14750</td>
</tr>
</tbody>
</table>

5.2. Proposed System

Alternatively, consider the composition of income of the Deleman family under the proposed system taking into account changes in both the social benefit system and income taxation. Again, we compare income of the family when Mr. Deleman is employed to the income that the family would receive if Mr. Deleman quits his job. The additional income generated by being employed almost doubles compared to the current system, providing stronger pro-work incentives.

<table>
<thead>
<tr>
<th></th>
<th>Mr. Deleman emp.</th>
<th>Mr. Deleman unemp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Wage</td>
<td>13600</td>
<td>0</td>
</tr>
<tr>
<td>MLS of Family</td>
<td>9980</td>
<td>9980</td>
</tr>
<tr>
<td>Net Wage</td>
<td>11280</td>
<td>0</td>
</tr>
<tr>
<td>Child Bonus</td>
<td>1500</td>
<td>0</td>
</tr>
<tr>
<td>Child Allowance</td>
<td>1268</td>
<td>1450</td>
</tr>
<tr>
<td>Social Allowance</td>
<td>545</td>
<td>1699</td>
</tr>
<tr>
<td>Housing Benefit</td>
<td>836</td>
<td>906</td>
</tr>
<tr>
<td>Social Assistance</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Livelihood Benefit</td>
<td>3020</td>
<td>6552</td>
</tr>
<tr>
<td>Housing Supplement</td>
<td>915</td>
<td>3159</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19364</td>
<td>13766</td>
</tr>
</tbody>
</table>
5.3. Net Replacement Rates

The net replacement rates for our hypothetical family can be calculated using total income when employed and total income when unemployed. Consider the case that Mr. Deleman is unemployed for more than 6 months and does not receive unemployment benefits (this corresponds to the long-run NRR in terms of the OECD methodology).

Let $NRR^D_c$ denote the long-run net replacement rate of the Deleman family under the current system and let $NRR^D_p$ be corresponding NRR under the new system. Then

$$NRR^D_c = \frac{14750}{17876} = 82\%$$

and

$$NRR^D_p = \frac{13766}{19364} = 71\%$$

Again, it is clear that the new system provides stronger incentives to look for a job / remain employed for our hypothetical family head.

5.4. Marginal Effective Tax Rates

Now assume Mr. Deleman has a job and he thinks about exerting extra effort in order to find (and keep) a better paying job. Let us further assume that he could find a job with gross salary 5% higher than that he receives currently, that is a job paying 14280 CZK. The resulting composition of income under both the current and the proposed system is presented in the following table; we compare the two systems assuming that Mr. Deleman is employed in his new job.
<table>
<thead>
<tr>
<th></th>
<th>Current system</th>
<th>Proposed system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Wage</td>
<td>14280</td>
<td>14280</td>
</tr>
<tr>
<td>MLS of Family</td>
<td>14150</td>
<td>9980</td>
</tr>
<tr>
<td>Net Wage</td>
<td>11368</td>
<td>11762</td>
</tr>
<tr>
<td>Child Bonus</td>
<td>1500</td>
<td>1500</td>
</tr>
<tr>
<td>Child Allowance</td>
<td>1891</td>
<td>1268</td>
</tr>
<tr>
<td>Social Allowance</td>
<td>2057</td>
<td>408</td>
</tr>
<tr>
<td>Housing Benefit</td>
<td>1225</td>
<td>734</td>
</tr>
<tr>
<td>Social Assistance</td>
<td>121</td>
<td>-</td>
</tr>
<tr>
<td>Livelihood Benefit</td>
<td>-</td>
<td>2921</td>
</tr>
<tr>
<td>Housing Supplement</td>
<td>-</td>
<td>915</td>
</tr>
<tr>
<td>TOTAL</td>
<td>18162</td>
<td>19508</td>
</tr>
</tbody>
</table>

If we use $METR^D_c$ to denote the marginal effective tax rate under the current system and $METR^D_p$ for the corresponding measurement under the proposed system, then

$$METR^D_c = 100 - \frac{18162 - 17876}{14280 - 13600} = 58\%$$

and

$$METR^D_p = 100 - \frac{19508 - 19364}{14280 - 13600} = 79\%.$$ 

Thus, if Mr. Deleman contemplates increasing his gross wage by 5% from his current salary of 13600 CZK, his incentives to do so are relatively higher under the current system compared to the proposed one, because his additional income is effectively taxed by 58% now, while under the new proposed system it would be taxed by an effective tax rate of 79%.

In sum, our hypothetical example shows that employment incentives (for our specific hypothetical family type) are stronger under the new system, which is, however, less friendly to those employed attempting to increase their wage from low levels.

6. Net Replacement Rates

We start our general analysis by calculating Net Replacement Rates for the Czech Republic for the last 10 years using the benefits scheme described above and the OECD
standards. In order to show the evolution of pro-work incentives built into the Czech social support scheme, we therefore took into account all changes to the system that took place during the last 10 years.

6.1. Evolution of Czech NRRs

Figure 6.1 shows net replacement rates calculated for various family types over the last ten years using OECD methodology. We compare short-term and long-term NRR for a family consisting of a single adult, for a couple and for a couple with 2 children.\textsuperscript{25} For labor-market income, we used the average wage as was reported at the end of the second quarter of each year and we compare NRRs corresponding to the household head

\textsuperscript{25}Assuming one child is younger than 6 and one is between 6 and 10 years of age.
making the average wage or two thirds of this average.

The figure shows a clear trend: Net Replacement Rates according to OECD methodology generally fall over time in the Czech Republic – a positive development from the point of view of employment incentives. A striking result is that net replacement rates are much higher for larger families and for families that have lower chances of getting a better paid job. We can see that during 1995-1997 net replacement rates for some family with 2 and more children and with income 2/3 APW the Net Replacement Rate reached 100. The decreasing trend afterwards is mainly due to the relatively high growth of wages. However, even in 2005 the NRR of larger families with lower earning opportunities in the labor market was still slightly above 80%, suggesting dramatic work disincentives.

6.2. Comparing the Current and Proposed System

Next, we use our methodology to calculate NRRs in 2005 and those resulting from the proposed system that should be valid since June 2006. We calculate these alternative NRRs for several family types: a single adult, a couple, and a couple with 2 children and we also vary the level of wages. Finally, we also compare the NRRs under short-run and long-run unemployment. For 2005, we use the average production wage of 18763 CZK and we estimate the average production wage in 2006 at 20143 CZK. In both years we assume that the households’ actual cost of living is 600 CZK higher than the Normal Cost of Living in their area and for their family type.

The current system, especially for families with higher number of members, results in little difference between short-run and long-run NRRs. This agent is indifferent between receiving Unemployment Benefits and being unemployed for more than 6 months (where she receives only social benefits) because in the end they receive the same total amount of benefits. The new system differentiates the benefits between short-term and long-
term unemployment. This is due to the fact that only 80% of unemployment benefits are considered as income for the purpose of calculation of the most types of social benefits.

<table>
<thead>
<tr>
<th></th>
<th>Average Wage</th>
<th></th>
<th>2/3 Average Wage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>long-run</td>
<td>short-run</td>
<td>long-run</td>
<td>short-run</td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>34</td>
<td>50</td>
<td>51</td>
<td>57</td>
</tr>
<tr>
<td>Couple</td>
<td>54</td>
<td>58</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Couple + 2 children</td>
<td>70</td>
<td>70</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td><strong>Proposed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>43</td>
<td>61</td>
<td>56</td>
<td>66</td>
</tr>
<tr>
<td>Couple</td>
<td>56</td>
<td>69</td>
<td>69</td>
<td>84</td>
</tr>
<tr>
<td>Couple + 2 children</td>
<td>65</td>
<td>78</td>
<td>71</td>
<td>82</td>
</tr>
</tbody>
</table>

The table shows that the new proposed system is more generous (i.e. gives higher benefits) to single-person families but substantially less generous to larger families. Further, the proposed system is more generous to short term unemployed than the current system, but is less generous to long-term unemployed. Overall, the spread of NRRs across family types and income levels decreases with the introduction of the new system and we can also notice a general tendency towards lower NRR levels.

Figure 6.2 presents an extended set of calculations of the NRR. First, we also look at couples with 3 children. Second, we vary the wage level from 40% to 120% of the average wage. Note that 40% of the 2005 average wage is similar to the Minimum Wage level. Dotted lines represent the proposed system while crosses indicate short-run NRRs.

6.3. Caveats: Future Advantages

Let us return to our hypothetical Deleman family which currently faces a NRR as high as 82% and therefore does not have much incentives to provide labor. First, note that if Mr. Deleman’s wage were lower than we assumed, the NRR would be even higher. For example, if Mr. Deleman would consider taking a job paying only the national Minimum Wage (currently 7185 CZK), the NRR of his family would be 100; therefore there would
be no immediate incentives to provide labor. This unfavorable disincentive is diminished under the new system, where Mr. Deleman’s NRR under national minimum wage would be 83%.

We must emphasize, however, that even though there appears to be little advantage for Mr. Deleman to be employed, there are other pro-work incentive factors that are not covered in our computations. These other factors, which we refer to as “future advantages”, are the following:

1. When employed, payroll contributions are higher (and in large part paid by the employer). Total contributions to the system in turn affect future pensions. Therefore, the calculated NRRs are somewhat upward biased in long-run individual
perspective. How large the bias is, however, depends on the discount factor of the agents – the weight that agents put on future consumption as compared to immediate consumption. Hirt and Jakoubek (2004) claim that this discount factor is low for Roma families and therefore the bias of NRR is unlikely to be large, as the distant-future pension advantage does not play a large role in the current employment decision making of Roma families.

2. Another future advantage of being employed today (versus being unemployed) is that working for more than 12 months during a period of three years leads to eligibility for unemployment benefits in the future. Here the discount factor plays less of a role, since potential receipt of unemployment benefits is less distant in time for an average-age worker than the receipt of retirement pension. Still, we expect this effect to result in only small biases of NRRs, especially under the current system. The current system does not effectively differentiate short-run and long-run benefits, even for income higher-than-average wages. The bias of long-run NRRs may be larger under the proposed system, since total benefits of those who receive unemployment benefits are substantially larger than those obtained by long-run unemployed.

Not considering these factors may be seen as a drawback of NRR as methodology. Other drawbacks may include biases in information level of agents about what benefits they are eligible, how to apply for them or our not considering the possibility of illegal work. We try to address some of these issues in the discussion section below.

Overall, we conclude that the new system appears to be a step forward in terms of incentives to provide labor faced by unemployed. The new system not only decreases the spread of benefits across family types but also distinguishes between short-run and long-run unemployment, leading to a strong incentive to avoid long-term unemployment.
(This is only partly driven by our assumption that long-term unemployed families will be considered as less “active” by municipalities; see Section 4.3.1.) The pro-work effects of the new system are strongest for low-wage families. While there are likely to be significant labor-demand barriers to employability of socially excluded, the new proposed system does apparently lower the labor-supply incentive barriers.

7. Marginal Effective Tax Rates

Next, we offer a full array of measurements of METRs and ask about the reform’s impact on the Marginal Effective Tax Rate, which represents the fraction of small increase in agents’ gross income that is taken from them by the joint forces of income taxation and (loss of) social benefits. In our introductory Deleman-family example we discussed the METR of increasing Mr. Deleman gross wage by 5% (from 13600 to 14280 CZK).

There are several alternative ways of calculating METRs. One of the key choices is that of the size of the marginal wage increase at which the tax is computed. The OECD uses wage increases of 1%, 2% and 5% of APW. In the Czech context, we chose to use 2% of APW as a relevant margin, which boils down to about around 400 CZK in 2005. Therefore, our METR measure reflects the effective tax rate agents face when increasing their gross income by about 400 CZK.

7.1. Comparing the Current and Proposed System

Again, compare the current and proposed system. As was the case with the NRRs, we start by calculating the METR measure for three basic family types and for two levels of wages. Next, we provide the comparison of both systems using a complete interval of fractions of APW (0.4 to 1.2). We continue to use 18763 CZK for average wage in 2005 and 20143 CZK for average monthly wage in 2006 and we also continue to estimate benefit levels based on the assumption that households’ actual costs of living are 600
CZK higher than the Normal Cost of Living.

<table>
<thead>
<tr>
<th></th>
<th>Average Wage</th>
<th>2/3 of Average Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>30</td>
<td>26</td>
</tr>
<tr>
<td>Couple</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td>Couple + 2 children</td>
<td>57</td>
<td>54</td>
</tr>
<tr>
<td><strong>Proposed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Couple</td>
<td>44</td>
<td>78??</td>
</tr>
<tr>
<td>Couple + 2 children</td>
<td>79</td>
<td>79</td>
</tr>
</tbody>
</table>

The table presenting the calculations implies that for the most part the current system generates lower METR, thus providing stronger incentives to increase gross family income. In other words, the current system provides a standard of benefits, which does not depend on income level as closely as the benefit level under the proposed system — the new system is more income-dependent. While some income-dependence is a good feature of any system that does not intend to cover large parts of the population, too much income dependence may not provide sufficient incentives to look for a better job position such that the resulting amount of funds spent on social support may be even higher than that based on a less income-dependent system.

The new/old system METR comparison depends, of course, on the income level and structure of the households. For example, as illustrated by Figure 7.1, the METR under the current system is close to 100% for low-wage larger families since they receive at least MLS. Although it is difficult to define an optimal level of METR, the proposed new system seems to have an unusually large level of METR for large families.

The fact that current system is less “income dependent” can be also seen from the spikes in the graphed METRs. For instance, the METR sometimes decreases below 40% for low income families with 2 and 3 children; this means that social benefits do not take into account the increase of households’ income and still pay relatively high benefits.
8. Shadow Economy

The presence of unofficial work opportunities is obviously the most significant problem of our analysis. If a worker is employed in the unofficial sector of the economy, collects all benefits, and considers taking up an official job, his/her NRR may be even higher than 100% since entering the official sector results in the loss of not only some of the benefits but also the income from illegal work. The scale of illegal work is difficult to estimate; instead, we provide a hypothetical example that shows that there is lot of space for illegal work in the current system.

Imagine Mr. Deleman has an option to work illegally. Let us further assume that this activity is not discovered, and he still receives social support as if he was unemployed.
Under the old system, he would be better off in an unofficial job paying 2862 CZK a month compared to working in an official employment for his assumed wage of 13 600 CZK (and losing a part of social benefits). On the other side of the labor market, the total labor cost of an employer that would offer Mr. Deleman an official wage of 13 600 CZK is 17600 CZK.\(^{26}\)

Under the proposed system the illegal wage level that would make Mr. Deleman better off working illegally and the corresponding official total labor costs would be 6290 CZK and 18994 CZK, respectively. Although there is a risk for both the worker and the unofficial employer of being discovered, the savings in terms of labor costs and the increase in income of the worker based on not reporting the work are significant.\(^{27}\)

Finally, Figure 8.1 depicts the spread between legal and total cost of labor for several family types and potential wage positions. The lines without crosses present the illegal wage that would make an agent indifferent between working illegally and not working. The lines with crosses represent the cost of the employer of employing the agent legally. The full and dashed lines represent the current and the proposed system, respectively.

The Figure suggests that although the proposed system would generally decrease the spread between illegal wage that would make agent better off and total cost of labor, at least for low-value-added jobs, the spread remains high. For example, that Mr. Deleman agree on a illegal wage in an amount of average between cost of labor (18 994) and the amount that would make Mr. Deleman better off (6 290). This wage would be 12 642 CZK. Both the employer and Mr. Deleman would be better off by 6 332 CZK (18 994 - 12 642 for employer or 12 642 - 6 920).

\(^{26}\)Labor costs are calculated as gross wage × payroll taxes paid by the employer.

\(^{27}\)Note that as with NRR we do not take into account the effect of increase in pensions and unemployment benefit.
9. Glossary of Czech Official Terms

Child Allowance - Prídavek na dítě
Housing Benefit - Příspěvek na bydlení
Maintenance Allowance - Zaopatřovací příplatek
Birth Grant - Porodné
Funeral Grant - Pohřebně
Foster Care Allowance - Dávky pěstounské péče
Livelihood Benefit - Příspěvek na přežití
Housing Supplement - Doplatek na bydlení
Marginal Effective Tax Rate - Mezní efektivní daňová míra
Social Allowance - Příspevěk z důvodu sociální potřebnosti
Ministry od Labor and Social Affairs - Ministerstvo práce a sociálních věcí
OECD - Organizace pro ekonomickou spolupráci a rozvoj
Parental Allowance - Rodičovský příspevěk
State Social Support - Státní Sociální podpora
Minimum Living Standard - Životní minimum
Existential Minimum - Minimum pro přežití
Tax Allowance - Odčitatelné položky
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