

The Relationship between Alternative Unemployment Indicators and Agriculture in the Northern Great Plain

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Summary

By adapting the alternative unemployment indicators series (U1-U6), which has long been in use in the United States and in many European countries, the authors endeavour to create their own indicators series using the Hungarian national statistical database as a basis to evaluate the results. This is performed both on the national and regional levels, meaning the socially and economically disadvantaged Northern Great Plain Region which is compared with the developed Western Transdanubian Region. The authors also attempt to establish a relationship between problems caused by unemployment in the Eastern part of the country and agriculture.

Keywords

measurement of unemployment, alternative unemployment indicators, Hungary, Northern Great Plain, Western Transdanubia, agriculture.

Introduction

When it comes to those effects linked to the economic transition and the present day global financial crisis, clearly no area has been more vulnerable than labour. Privatization and the subsequent radical change in ownership patterns entailed profound restructuring in the economic structure and the liquidation of unprofitable companies using outdated technologies (Berde, 2003). Under such conditions – mainly in the early 90s – large numbers of workers lost their jobs. Of the three domestic economy sectors (agriculture, industry, services), the primary sector was hit hardest both in social and economic terms. In agriculture, the end of the state imposed full employment policy of the cooperatives uncovered hidden past unemployment (Szabó, 2001; Hamza et al., 2001). In 2007 among the EU-27, an average of 5.8% of the employees were employed in agriculture. On this list Hungary was ranked 14th (with Belgium the lowest at 1.9%, and Bulgaria the highest at 19.4%, which means that 4.7% of the 15-74 age range population (183 thousand persons) were employed in agriculture, whereas in 1992 the average was 11.4% (460 thousand persons) (EUROSTAT, 2008). These statistical data show that in Hungary over the past 15 years the number of people *employed full-time* by agricultural companies or cooperatives and individual farmers dropped by 277 thousand (KSH, 2008b). The labour market was only able to absorb part of these jobless persons, and this only gradually and within a narrow framework. A large proportion of the dislocated people became unemployed, or opted for early retirement. Due to a lack of alternative qualifications, and hampered by their age and health, these citizens often were reluctant to retrain and fell into pessimism and despair. Processes linked to the economic transformation had a different impact in different parts of the country, and ultimately reinforced the ever existing differences in social and economic development between the country's regions. In many respects one of the most disadvantaged regions of the country is the Northern Great Plain Region, where in 1992 16.0% (85.0 thousand persons) in the 15-74 active age bracket were employed in agriculture, but by 2007 this plummeted to 7.4% (38.8 thousand persons) (KSH, 2008b). Despite the decrease over the past 15 years, this region produced the lowest decline in terms of average agricultural employment over the four years before and

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after Accession. At the same time, the standard unemployment rate in the Eastern part of the country in 2007 reached 11.4%, which was 4% higher than the domestic average of 7.4% (KSH, 2008b). In the EU, these unemployment rates mean Hungary ranks 20th among the EU-27 countries (Holland having the lowest rate of 3.2% and Slovakia having the highest of 11.1%) (EUROSTAT, 2008). As an indirect consequence of the current financial crisis, unemployment is expected to continue to grow. In his study Gábor indicated that fluctuations in economic trends (the current recession) are strongly tied to the labour market. More specifically, they have a negative effect on the ratio between the number of employed and unemployed (especially discouraged) people (Gábor, 1998). This is the aspect that links our research to employment policy and other policies associated with it (e.g. social, economic, financial, education etc. policies). In our paper we hypothesize that besides the standard unemployment indicators used over the past years some other alternative indicators describing the Northern Great Plain Region also revealed a more negative trend than those characterizing the more developed Western Transdanubia. Regarding some alternative unemployment indicators, if possible, we will extend our research to agriculture.

Database and methods

In 1992 the Hungarian Central Statistical Office (KSH) launched the Labour Force Survey (LFS). This survey followed recommendations by the International Labour Office (ILO) and was designed to take measurements and make comparisons regarding employment and unemployment data consistent with international standards. This survey has become the principal source of information on employment and economic activity (KSH, 2006). While the *KSH uses a single indicator to describe the range of unemployment*, countries in Western Europe tend to follow the US example and apply several well-defined indicators. In 1972 the US Bureau of Labour Statistics (BLS) developed the U1-U7 series of indicators to measure alternative unemployment. In 1994 this was modified to reduce the original number of indicators to six and to assign new content to some of them (Bregger et al., 1995). These alternative indicators supplied additional information on unemployed persons likely to obtain short-term employment, and also defined the range of discouraged workers.

Since in Hungary no such measurements are taken, to develop our own domestic U1-U6 indicators we used the questionnaires and the respective annual and quarterly databases produced by KSH between the first quarter of 1994 and the fourth quarter of 2005. When processing the questionnaires, we strived to adapt the American indicators to the Hungarian practice rather than to precisely imitate them. The six indicators developed in this way (Bregger et al., 1995; ILO, 1982; Kerekes, 2007; Kerekes, 2008; KSH, 2006; Nelson, 2007; US BLS, 2008 based on literature data) are as follows:

- Indicator U1: shows the rate of the long duration unemployed population compared to the active mass of (15-74 age range) population.
- Indicator U2: shows the rate of those who lost their jobs but, for example, who wanted to keep their jobs
- Indicator U3: the standard unemployment rate calculated as recommended by the ILO. The ILO recognizes unemployment in terms of three criteria: an individual in the sample is recognized as unemployed if: (1) he/she did not do any work in the week of reference, and was not just temporarily absent from a given job, (2) he/she was actively searching for a job in the four weeks prior to sample taking, (3) he/she could start a job within two weeks should they find a suitable one (i.e. they were available).

- Indicator U4: the standard unemployment rate extended by discouraged (passive) workers. The group of *discouraged workers* is very close to that of the unemployed, meaning they wanted to keep their jobs. They satisfy three criteria: (1) they did not do any work in the week of reference, nor did have a regular job they were temporarily absent from, (2) they would have liked to work, but *were not actively searching for a job*, because they did not believe they would find one partly due to the lack of job availability (i.e. a job they were qualified for) in the job market, or due to their personal inability (they lacked the necessary qualifications, they were too young or too old for the job), (3) they could start a job within two weeks should they find a suitable one.
- Indicator U5: U4 extended to those marginally attached to the job market, and compared to the population of active workers. Marginally attached workers are those who do not have jobs at the present moment and are not looking for one, because certain conditions do not allow them to do so (family, health reasons, young children). At the same time they express their willingness to find a job, as they had done previously.
- Indicator U6: this is an indicator with the widest range, i.e. the range of U5 is expanded by those who, because of certain economic reasons, can do less work than they would like to. This indicator includes adding persons employed part-time.

Supplement 1 shows the survey's relevant questions on the questionnaire referred to when determining the individual indicators and the description of the denominators and numerators of the indicators.

Results

Below we first provide analysis of the indicators at the national level, then compare the unemployment indicators of two regions: the industrialized Western Transdanubia and the Northern Great Plain which has a strong agricultural profile.

The analysis of the indicators at the national level

OECD work science specialists indicate that it is not heresy to postulate that the drastic 1990s slump in Hungarian economic activity can substantially be attributed to feelings of hopelessness among workers. Very few Hungarian scientists have endeavoured to investigate the phenomenon of discouragement. Among those few we cite Gábor with whom we strongly concur: *“The most radical argumentation in this debate states that only the aggregate sum of the unemployed and the discouraged can truly describe the severity of the unemployment problem. Even those who hold less radical opinions agree that as a consequence of the automatic exclusion of the discouraged from the surveys, the unemployment statistics of the market economies supply the political decision makers with biased data. Furthermore, even the most moderate debaters accept the arguments (a practice followed in many developed market economies) that beside the unemployed, the number, the socio-demographic profile and economic status of those who are formally inactive in economic terms, but are “marginally attached to the labour market” (“latent unemployed” or “temporary workers”) needs to be regularly monitored separate from other populations not present in the labour market.”* (Gábor, 1998:370).

These reservations are backed by the fact that the inter-country dispersion of indicator U4 (which includes discouraged workers too) is significantly lower than that of the standard unemployment rate (U3) which does not include them. This suggests that the ongoing and remarkably good unemployment rates of certain countries – see Hungary as an example – is in fact erroneous, due to

a different nature in the structure of their unemployment and the higher frequency of discouragement. In a country like Hungary, where both employment and unemployment rates are low, it is equally important in terms of economic and employment policy to investigate the reliability of these reservations. If the discouragement referred to above is in fact valid, in the future it will clearly not be enough to significantly increase job availability – as follows from recent unemployment data – in order to produce a given target in unemployment rates. Special employment policy programs – urgently needed in the agricultural region of the Northern Great Plain – will need to be activated to reduce the obstacles discouraged workers face in terms of re-employment.

Between 1989-1999, Ireland, then an EU member, had to deal with similar problems. Among the problems were constant and high unemployment (especially among rural dwellers), the low profitability of farm-work, a scarcity of alternative job possibilities, the migration of skilled workers, and poorly qualified people. However, Ireland managed to extricate itself from the economic morass by shrewd allocation of funds in the production sector, economic infrastructure, human resources, and rural development. In the time periods 1989-1993 and 1994-1999 the allocated funds derived from the Community Support Framework, and from investments from international active capital. During the 1994-1999 time period, the production sector and rural development received 58.0% of the funds of which 80% was allocated to agriculture, fishery and tourism. Economic infrastructure received 19.0% and human resources 23.0%. In the period prior to that, 35.7% of the funds had been allocated to human resources development in order to reduce unemployment (Forman, 2005). This indicates that low standards of skilled work were identified as one of the major causes of unemployment, if not the most significant cause. To solve the problems of rural unemployment, one has to develop agriculture. In this regard, with a focus on local potential and constraints, they subsidized enterprise modernization, and the establishment of food processing enterprises, which contributed to higher rural living standards. This was done through raising the added value of produce and creating new jobs, further-training courses for farmers, plus the establishment of silage reservoirs, forestation of disadvantaged areas, rural tourism, etc. This was the beginning of the “Celtic Tiger”.

Figure 1 shows the values of the alternative indicator series (U1-U6) at the Hungarian national level from 1994-2005.

U3, which is the KSH indicator, shows the standard unemployment rates. The range of this indicator is narrowed by U1-U2 and extended by U4-U6. One sees, with some fluctuations, that from 1994 to 2004 the lines run parallel; however, global unemployment tends to decrease. In 2004 the line begins to rise, i.e. the indicators follow the cyclic changes in the economy.

¾ of the standard unemployed (U3) in Hungary are unemployed for a long duration (U1), a population group whose rate has slowly been growing over the past years. According to US terminology statistics, long duration unemployed are persons with no job for 15 or more weeks, whereas in Hungary the KSH baseline is 12 months. We contend that, given Hungarian economic conditions, 12 months is too long a period for an individual to survive without mental, physical and intellectual suffering. The suffering is even worse if the jobless individual has to support a family. Given this fact, and utilizing indicators used in the USA, plus aspects of domestic Hungarian surveys, in our survey we categorize long duration unemployed as individuals who were without a job for more than 15 weeks in 1994 or for more than 3 months after 1995.

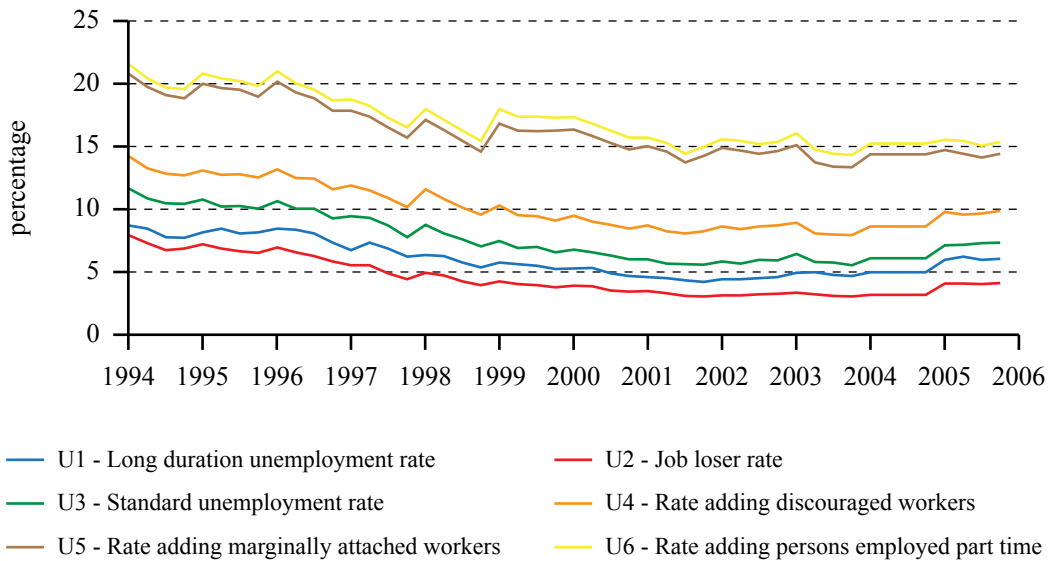


Figure 1: Alternative unemployment indicators in Hungary from 1994-2005

Source: Authors' Own development on the basis of KSH, 2008a

60-70% of the standard unemployed come from those who lost their jobs (U2). This category does not involve those who voluntarily quit their jobs, first job finders or those who became reemployed (US BLS, 2008).

Category U4 is an extended version of the standard unemployment indicator (i.e. the discouraged). This indicator **allows one to estimate the number of inactive workers. Between 1994-2005 some 100-130 thousand people annually** thought there was no hope in finding reemployment, and most of these were men. For them the negative relationship between unemployment duration and successful reemployment can originate from the degradation of their skills or from the stigma of long duration joblessness³. The cause could also be that the better qualified are more mobile or more determined to find a job, and are thus looking harder for work, which means they are more successful (Hughes et al., 1990).

The Institute of Economics of the Hungarian Academy of Science's research team posits that the U4 indicator rate will decline because many of the discouraged elderly unemployed will retire, and these people are fairly numerous. Among them are those who lost their jobs after the political/economic transition when demand for labour plummeted and was accompanied by a radical change in the professional-occupational-regional structure of the job market. After long periods of being unemployed, they gave up hope of finding new jobs and in economic terms became inactive. With these people gradually approaching retirement age, the rate of discouraged workers will automatically decline (Gábor ed., 2005).

Individuals in this group should be treated by current employment policy makers as potential human resources. Through retraining and realistic targets, they could reenter the work force since they are willing and ready to start work within two weeks. If these people had been provided jobs, at the end of 2005 the level of employment could have been raised by some 100-130 thousand people

³ It originates from the stigmatizing effect, i.e. because of the discriminative attitude of the employers it is more difficult for them to get job offers which, in turn, lower the efficiency of their job finding attempts.

at the national level, which means that the employment rate could have been improved by 1.3-1.7 percentage. Of course this is purely theoretical as we do not contend that the totality of discouraged workers can serve as an additional basis for the future working population. Although there will always be discouraged people, many of them could and should be urged to take up work.

Marginally attached workers (the majority of which are women) entail 7% of the inactive category. The graph shows that on **the U5 scale**, which incorporates the **marginally attached workers**, almost equals the standard unemployed scale (U3) in the fourth quarter of 2005 (7%). The estimated number of people in this category combined with the discouraged is 260-300 thousand. While the KSH classification involves marginally attached workers in the group of the inactive population, in our indicator series we consider them alternatively unemployed workers, since an individual may be inactive at a given period for more than one reason: either because they cannot find a job or the KSH no longer lists them as unemployed.

As during the past ten years, in year 2005 **40-60 thousand people** in Hungary would have liked to work more hours than they actually did. **This small group's desire to work should be embraced so Hungary does not lose part of its available human resources.**

Regional level investigations

Among the official regional unemployment rates, there exist significant deviations in terms of counties and settlements across the country. There is a noticeable difference in social and economic development between the Western and Eastern regions (Szabó and Katona-Kovács, 2008). While the Eastern region is and has traditionally been a leading power in agriculture, in the Western part services and industry play a much more significant role. After the political/economic transition, the western part of Hungary attracted much of the foreign capital, thus increasing the share of services in the labour market. In the eastern part of Hungary, earning a living became difficult, especially for those who lived on agriculture: Soviet markets disappeared, cooperatives ceased to employ a lot of people, and there were problems due to abuses in the compensation and privatization schemes. There was little will to invest which meant few employment opportunities, causing job losses. As a member of the European Union, the Hungarian government lacks the power to allocate domestic resources for investments that specifically target social and economic upgrading of disadvantaged regions like Hungary's Eastern region. One can presume that in this region communities, enterprises or individuals have much less chance of obtaining EU resources than those in western Hungary since they lack their own private capital, skilled workers, and expertise.

Below, we continue to demonstrate the alternative unemployment indicators of two regions (Figure 2), the less developed Northern Great Plain Region and the most developed Western Transdanubia, stressing the sharp differences between the data. When analyzing these indicators at the regional levels, it is necessary to gauge the role of the three national economic sectors (agriculture, industry, services) in the economy and employment. The first thing that strikes the eye when examining the graphs is that all of the unemployment indicators in Western Transdanubia are sharply lower than in the Northern Great Plain Region. The differences are especially striking between the respective rates of standard unemployment (U3), of those adding discouraged (U4) and marginally attached workers (U5).

The graph also shows that following the national tendency, **90-95% of the standard unemployed (U3)** in both regions **are long duration unemployed (U1)**, whereas **60-65% come from those who have lost their job (U2)**.

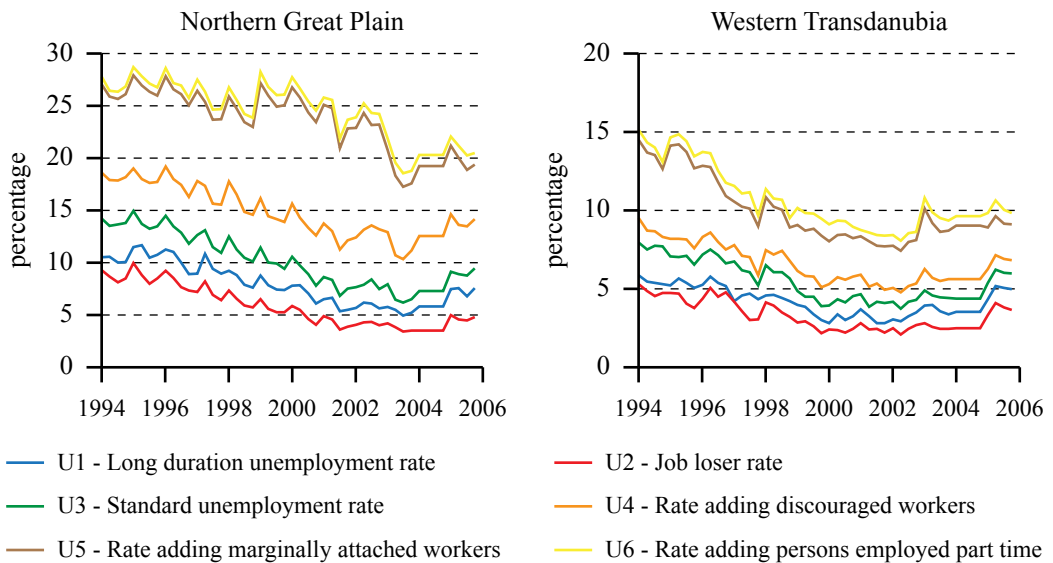


Figure 2: Alternative unemployment indicators in the Northern Great Plain and in Western Transdanubia between 1994-2005

Source: Authors' Own creation on the basis of KSH, 2008a

The discouraged workers rates (U4), however, differ significantly between the two regions. While in the Northern Great Plain Region it approximates 15% (cca. 25-28 thousand persons), in Western Transdanubia the rate is half that magnitude. As early as 2003, the rate of discouraged workers in the Northern Great Plain Region shot up, and EU Accession accelerated this trend. This was because Accession not only failed to lift existing industries, but many factories in fact closed and ended production. And not only industries suffered; those working in small agricultural enterprises, or as individual farmers, or involved in part-time farming to boost their incomes, all saw their livelihood dwindle. In animal production, quotas were introduced; labour-intensive activities like animal husbandry, crop, fruit and vegetable production were not subsidized by Community funds or merely received minimal funding. As they lack their own capital and economy of scale, competition as a means of generating subsidization is not a viable alternative for small and medium-size farm owners. As a result, many – especially individual poultry and pig farmers-abandoned farming. This process, unfortunately, is far from over. The reduction in agricultural activities and the radical decline of associated processing industries (e.g. A sugar factory in Kaba, and the HAJDÚ-BÉT poultry processing stock share company) affected the region very adversely. These people suffer not only mental or emotional damage, but their physical conditions are also badly affected, leaving them with health problems, depression and poverty. These problems escalate and feed on each other, and problems that were once “simple” employment issues accumulate into problems that cry for social and health care intervention. *The documented consequences of the high rate unemployment in the Northern Great Plain Region are evident:* resulting in a worse than the national average health status and a shorter life expectancy. It is not just an indicator we should see, but people, their lives, potential, constraints, and health. This indicator is much more than a measurement, it outlines a multitude of unemployment-related problems which need to be solved.

The marginally attachment worker rate (U5) in the Northern Great Plain Region is also twice as high as elsewhere, which is understandable given that their average life conditions are worse than in western Hungary. Because of this health problems will render many people unemployed, but perhaps only temporarily. However, unemployment will mean that others will take to relying on child care allowances and other types of allowances, the latter especially common in Roma families. This indicates that, in the region, **the estimated number of potential job takers from the total number of the active age population is some 25-29 thousand**. We contend that a significant proportion of this group should be reintegrated into the labour market through various attractive training or retraining programs.

There were recurrent overlaps over the past ten years between indicators incorporating persons employed part-time (U6) and indicator U5 in the Northern Great Plain Region. The presumption is that due to scarcity of work and high unemployment in the region people do not typically consider part-time jobs a real alternative. This, of course, is not true for those who do farming as an additional activity to make extra income or for those whose aim is to provide self-sufficiency. This category incorporates “primary producers” and that part of individual farmers who also have full-time jobs.

Conclusions

The cluster of alternative unemployment indicators is substantially more informative than only the standard unemployment indicators published by the KSH. Our hypothesis that in recent years alternative unemployment indicator rates produced a more negative picture in the Northern Great Plain Region than in Western Transdanubia has undoubtedly been proven. One of the underlying causes is the significance of the geographical situation and the industrial or agrarian character of the two regions. As it was pointed out by Béres-Mártha, the higher the unemployment rate in a given region, the higher the number of those unemployed. In this regard, our study paid special attention to the discouraged who farm primarily to survive rather than for market aims (Béres-Mártha, 2008). Additional information would enable KSH analysts to define the magnitude of these alternative indicators (U1-U6) at both regional and national levels. This would prove especially useful for employment policy makers since they must have access to all relevant data when they are preparing their quarterly unemployment surveys. Since the indicators can be further specified (gender, education, type of aids received), this would allow specifying the nature of employment instruments required and to fine-tune the allocation of related sources among Hungary’s regions. This would permit more efficient development in those areas where unemployment problems are extremely severe. **We believe that the practical application of the information expressed by the indicators would not only support decision making at regional and national levels in human employment issues and in the allocation of rural development resources, but could also serve as a database of reference for the modernization of our educational system, which is to be closely integrated with employment policy. We recommend that alternative unemployment rates should be regularly calculated and published.**

Summary table of Hungarian U1-U6 alternative unemployment indicators

Indicator		
category	numerator	denominator
U1 – Long duration unemployment rate	Those of ILO unemployed who: 1994: were seeking for a job for more than 15 weeks; 1995-2005: were seeking for a job for more than 3 months	ILO employed + ILO unemployed
U2 – Job loser rate	Those of ILO unemployed who: 1994-2005: lost their jobs (lost work place, position, or other reasons), own enterprise bankrupt, seasonal, preliminary job finished	ILO employed + ILO unemployed
U3 – Standard unemployment rate	1. The previous week did not do at least 1 hour paying work. 2. does not have a job he was away from the previous week; 3. was looking for a job during the past 4 weeks; 4. was enquiring at the job agency, with a private job agent, personally contacted employers, advertised, responded to job ads, read job ads, enquired with relatives, acquaintances, applied for public servants jobs, was busy doing official/bank paperwork to start an own business, was looking to buy land, plot, shop, was writing tests, gave exams, went to an interview; 5. could start a job within 2 weeks.	ILO employed + ILO unemployed
U4 – Rate adding discouraged workers	ILO unemployed + 1. would like to work; 2. Does not think can find a job in his trade in the neighbourhood, there are too many unemployed, does not have the necessary skills, is too young, too old.	Numerator + ILO employed
U5 – Rate adding marginally attached workers	First two criteria of ILO unemployed + would like to work.	Numerator + ILO employed
U6 – Rate adding persons employed part time	First two criteria of ILO unemployed + 1. Would like to work; 2. 1994-1998: No full time job, lack of vacancy; 1999-2005: Yes, would like to have a parallel second job, or one to replace the current full time job to make more money, or in the frames of current job, or in any one way.	Numerator + ILO employed

Source: Bregger et al., 1995; US BLS, 2008; Kerekes, 2008; KSH, 2008a

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