LABOUR MARKET POLICY DATABASE IN SERBIA

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Abstract: The national employment services have become a central point in the struggle against unemployment in the most countries. In Serbia, National Employment Service is under direct administration of the government, especially in the scope of labour market policy. The government is unable to carry out its policy without reliably information which is generated by the solid labour market policy database. The specific objective of this paper is the analysis of labour market policy database in Serbia and comparison with Eurostat database and methodology. Labour market policy databases in different countries have the structure based on unique methodology. Despite that, most common structure involves labour market policy register, as first section, register of participants, as second section and register of expenditures, as third. For the purpose of this paper we conducted the brief analysis of overall information system in National Employment Service in Serbia and detailed analysis of database sections including input variables and the ability of generating different reports. The prior research in this area was conducted in the first half of 2011, as a part of the EUNES IPA programme "Technical assistance for capacity building of the National Employment Services – Republic of Serbia for data management, forecasts, monitoring and evaluation". Bearing in mind the conclusions in the previous research and findings of our analysis we found that there is no significant differences between scope of database, classification of interventions, expenditures and participants in the structure of database in Serbia in comparison with Eurostat methodology. We also find that the main problem in the matching in database is the differences between profession title list and job title list.

Key words: Labour Market Policy, Database, EU labour market policy database methodology, National Employment Service Serbia

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Introduction

The labour market is the subject of scientific attention and researches for a long period, but the topic has become particularly interesting because of the worldwide problem of unemployment. In most countries governments are making significant effort to reduce unemployment and one of the most important are interventions through public employment services (PES). The group of interventions with the great impact on job creation and protection of the unemployed are interventions in the scope of labour market policy (LMP). Considering the importance of these measures, the PESs have to monitor their implementation and to make assessment and evaluation. The problem of evaluation is a crucial for governments and Zubović (2011, p. 11) suggest that assessment and evaluation of ALMP2 require knowledge of evaluation methodology carried out in different countries. As a basis for good quality evaluation, governments use LMP databases with all required data and reports. In most cases the LMP databases are the central point of PESs operations.

PESs in the countries of the ECA region are facing a numerous of severe problems: lack of funds; understaffed and heavily constrained by a fragmented network of employment offices; an old-fashioned system of employment services of limited menu and scope; and, does not have access to labour market information and the wide range of potential modern labour market measures and techniques. An additional problem is the lack of modern ICT technology, which slows down the work and leads to lower efficiency (Kuddo, 2009, 1). Many countries, includes Republic of Serbia make an effort to solve this problem and to achieve a higher level of system operability. This research tends to perform analysis over the LMP database in Republic of Serbia and to determine the level of harmonization with Eurostat methodology, rev. 2006.

The paper consists of five parts: after introduction, the second part describes a brief history of LMP database methodology evolution in OECD and Eurostat, until the last revision in 2006. The third section contains the results of comparative analysis between LMP in Serbia and requests of Eurostat methodology. This section is divided into five sub-sections: scope of database, interventions – classification, expenditure, participants and reports. In the fourth section we presented conclusions and listed all efforts of National

² In general, active labour market policy (ALMP) is a group of interventions with an intention to create new workplaces and to give professional help in the process of job seeking. Further there is more precisely definition.

Employment Service (NES) in Serbia in the process of improvement of current conditions.

Evolution of Eurostat LMP database methodology and methods of research

A solid database is prerequisite for smooth data processing, updates and the ability to generate reports. That is the main reason why most projects that rely on databases pay a great attention about database methodology. The starting point for the analysis of LMP database in Serbia is the Eurostat's methodology for LMP database.

The first steps towards the design of the present methodology have been made in 1996 in dialog between Eurostat, DG Employment³ and the OECD. It was conditioned by the need for adequate indicators to monitor implementation of employment strategy in Europe. OECD had the longest history of LMP database, which was created in 1985. However, in that database data were collected at an aggregate level, covering public expenditure but containing no comparable data on participants (Melis, 2007, p. 11). As a result of the improvement first, draft version of database was published in 1998, tested in 1999, and the first full data set was available in 2000. Right from the start of the LMP data collection, there has been problems with the data related to counselling, job-search assistance and other services provided by PES. Data collecting for the old categories, defined in the LMP Methodology from 2000, was very poor, with no data for many countries and varied interpretation of requirements for others, and the data were never considered reliable enough to be included in summary tables. With the help of two Task Forces, the methodological guidelines on LMP services have been improved in a number of stages. In the final version Eurostat overcome problems with missing data in the part of expenditure, because they adopted strict rule: not to calculate EU totals when some values are missing. A separate problem was data collection on ALMP, because of the classification of measures into seven categories. In many cases it was necessary to collect data from various sources, so the collection of detailed figures for some countries had been difficult. Before 2000, data on participants was not compatible with OECD database at aggregate level. There were some differences between categories like stock, entrance etc. After the improvement, Eurostat introduced three main variables: stock, entrance and exits.

³ Directorate-General for Employment, Social Affairs and Inclusion

By June 2006 Eurostat has produced seven publications covering data for the years 1998 through to 2004, including a wide range of data on: (a) Labour market policy total expenditure, expenditure by category, expenditure by recipient of the transfers, expenditure by type of payments, detailed labour market expenditure by category and by country, (b) Total participants (stocks) in labour market policy measures by category, participants' flows (entrants and exits) by category, detailed figures on participants by category and by country, with breakdowns by age and sex, etc. (EC, 2006, p. 4).

Last revision of LMP methodology was finished in 2006, and the result of that revision was a simplification of the Member States workload as well as an overall improvement in the quality of data for international comparisons (EC, 2004, 5). After this year both Eurostat and OECD jointly collect and publish the LMP data using the same methodology.

In this paper we used the 2006 version of methodology and based on that methodology we analysed the LMP database structure in Serbia. Analysis includes each part of database: structure, input variables and reports. This approach has enabled us to notice shortcomings in the structure. This is very important, because each fault can reflect on the reports and lead to the poor evaluation of LMP, especially of ALMP. As a result of comparative analysis we could provide recommendations for improvement.

One of the biggest problems that we faced during the research is the lack of an official document with methodology that provides structure and functioning of LMP database in Serbia, like the one in EU. Design, construction and improvement of database are done ad hoc, according to the current needs.

Results of the comparative analysis

Creating and implementing employment policies in the Republic of Serbia is under the jurisdiction of the Ministry of Economy and Regional Development, through the operation of National Employment Service (NES). NES is responsible for implementing the Labour Market Policy (LMP) in Serbia. The main instrument for the implementation of employment policy is a National Action Employment Plan, which establishes the government of the Republic of Serbia. The first National Employment Action Plan was for the period 20062008, and after that government brought Plans for 2009, 2010, 2011 and the last one, for 2012^4 .

Labour market measures are divided into passive and active measures. Passive labour market measures are intended to provide financial support during the period of unemployment. Accordingly, the main measure in this group is insurance and benefits in case of unemployment. The active employment measures include counselling and support in active job search, training (retraining, additional training, adult education, vocal education etc), as well as programs for jobs creation (help for self-employment, microlending, public works, employment subsidies etc.). In the past, passive measures are constantly being implemented in Republic of Serbia, and active measures, which were abandoned since the eighties, started to be implementing again by the 2005. Employment policy and especially active labour market policy (ALMP) impose the need for high quality data with methodology for monitoring and evaluation, as a precondition for the planning of programs and measures. For that purpose NES developed powerful informationcommunication system (ICT system). According to Kavana (2010, p. 33) strong central ICT based team provides management and development that can respond to the needs of the NES. This team provides a solid basis for the management and control to any ICT services that could be transferred to future external associates. This is a strategically very important in an increasingly complex environment in which the PESs around the world are going toward virtualization of services to employers and job seekers.

In 2012 the NES ICT system have three connected units: *Unique Information System* (UIS), *Cognos Business Intelligence* (Cognos BI), the outsource software IBM solution⁵ and *Financial System* (FS), as presented in Figure 1. System UIS is in charge for gathering, storing and monitoring of data in the process of LMP implementation, Cognos BI is software for reporting and it is important for evaluation of LMP outcomes and FI keeps all data about money transfers.

⁴ The Law on Employment and Insurance in the Event of Unemployment anticipate developing of Action Plans on an annual basis, and its adoption by 31st July of the current year for the next year.

⁵ Implementation of Cognos BI is done with the assistance of the company Poslovna inteligencija d.o.o. (*http://www.inteligencija.com/index.php/en/clients/clients-by-industry.html*).

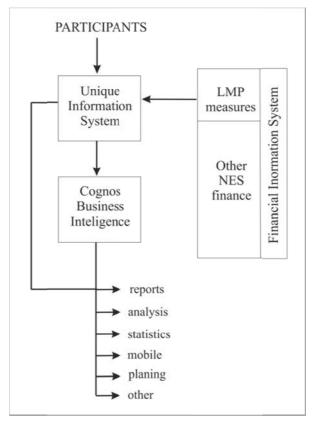


Figure 1: ICT system in National Employment Service in Serbia

Source: Authors' own research

UIS stores administrative data on unemployed persons (personal data like age, sex, education, data on unemployment, e.g. reasons why person cannot find a job). PES counsellors perform entry of data in central database. After first entry, the data are being updated with the information about participation in LMP. Technically speaking, in this step counsellor connects the measure with the actual participant. Finally, based on stored data UIS can provide numerous reports. Cognos BI is analytic software package for business outcomes, who is a responsible to complete the function of UIS and "it is very useful tool for providing additional information management information systems. Zubović, et al (2011, p. 368) argues that BI systems enable company to know their customers behaviour and their reactions, competitors' and business partners' expectations, as well as history of events from external and internal environment. The possibility of understanding and presentation

of obtained information in a clear and rational way is of a vital importance for management decisions making.

ICT working processes include fifteen subsystem elements like action planning, case management of job seekers, job providers database, additional education/training, entrepreneurship and tools for career guidance" (Kavana, 2010, p. 23). This system also has great relevance in analysis of questionnaire and focus groups and can improve results of analysis. The third part of ICT is Financial system of NES. It has broader context and contains financial data which has not linked with LMP. Only one part of that system is actually connected with UIS while other part of the system covers accounting and other similar processes.

The main trend in the approach of services is centralization. NES are trying to improve its efficiency by building the high-quality net of branches. The main office is in Belgrade, and the regional are in Novi Sad, Zrenjanin, Kikinda, Pančevo, Vršac, Sombor, Sremska Mitrovica, Subotica, Kragujevac, Jagodina, Niš, Pirot, Prokuplje, Bor, Zaječar, Valjevo, Vranje, Kraljevo, Novi Pazar, Kruševac, Leskovac, Požarevac, Smederevo, Užice, Prijepolje, Čačak, Šabac, Loznica i Kosovo i Metohija. Management structures are currently centralized, but regional level decision making is not sufficiently developed. To achieve that, NES need solid centralized database which could be effectively used by regional offices.

In order to make a conclusion about LMP database in Serbia, in the next part of the paper we performed partial comparative analysis according to Eurostat (OECD) LMP database methodology.

Scope of LMP Database

LMP database includes all state intervention in the labour market. According to Eurostat (2006, p. 6), the scope of the database covers all labour market interventions which can be described as: public interventions in the labour market aimed at reaching its efficient functioning and correcting disequilibria and which can be distinguished from other general employment policy interventions in that they act selectively to favour particular groups in the labour market.

LMP database includes all type of interventions: services, measures and supports.

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Services. Most significant labour market service is functioning of the public employment service such as placement, administrative function etc. This type of intervention does not belong in the group of active labour market policy (ALMP).

Measures. The participants who use some measure very often change their status and from unemployed become employed. An intervention can be classified as measure without changing of labour market status, but in that case it has to fulfil some criteria (more of the subject Eurostat, 2006, p. 7).

Supports. The supports are directly related to some form of financial assistance. Their aim is to compensate persons for disadvantage, for example job loss.

It is also very important to define participants target groups in the LMP database. The target group is persons with difficulties in the labour market and they can be divided into three groups: unemployed, employed at risk and inactive.

Unemployed. Those are individuals without work, but available for work and actively looking for a job. A person can be consider as unemployed even if it does not fulfil all three criteria, but it depends of local (national) definition. There is a specific group of long term unemployed (LTU). LTU various with ages:

- Youth, less than 25 years more than 6 months of unemployment (continuous)
- Adult, more than 25 years more than 12 moths of unemployment.

Employed at risk. Those are individuals currently in work but with great risk of losing job for reason like restructuring of firm.

Inactive. Those are persons which are not in the previous groups but who would like to become a part of labour force.

In LMP database it is essential to define the statistical unit, and in this case it is **labour market intervention**. The database consist all requested parts for each interventions. Those are quantitative data for **expenditures** and **participants** and **qualitative data**. According to geographical coverage it is very important for LMP database to cover the whole territory of each country.

For each intervention data should be collected for period of one calendar year, but only if the intervention is active, and also in the case when intervention is active but not used (more of the subject Eurostat, 2006).

Bearing in mind that Serbia follows the same concept of LMP implementation as other European countries our analysis showed that there is no differences between the scope of LMP data bases in Serbia and Eurostat methodology. In NES's database there are the same types of interventions (services, measures and supports), and the quantitative and qualitative data are also collected for interventions, expenditures and participants.

Classification of interventions

In the Eurostat methodology all LMP interventions are classified into three mentioned groups (services, measures and supports) but there are additional subdividing (Table 1).

| LMP services | | | | | |
|--------------|--|--|--|--|--|
| 1. | Labour market services | | | | |
| LMP measures | | | | | |
| 2. | Training | | | | |
| 3. | Job rotation and job sharing | | | | |
| 4. | Employment incentives | | | | |
| 5. | Supported employment and rehabilitation | | | | |
| 6. | Direct job creation | | | | |
| 7. | Start-up incentives | | | | |
| LMP supports | | | | | |
| 8. | Out-of-work income maintenance and support | | | | |
| 9. | Early retirement | | | | |

Table 1 Classification of interventions by the type of action in EU

Source: Eurostat, 2006, p. 11

In the Table 1 there is only second level of detailed classification, but there are actually three levels. For instance fourth intervention – Employment incentives is dividing into 4.1. Recruitment incentives, which is also dividing into 4.1.1. Permanent and 4.1.2. Temporary. For the need of this analysis we will provide only the second level of interventions, and to suggest the further analysis in Eurostat, 2006, p. 58.

Table 2 Classification of interventions by type of action in Serbia

- 1. Career guidance and counselling service
 - 1.1. Intermediation⁶
 - 1.2. Professional orientation
 - 1.3. Active seeking job intervention
 - 1.4. Job Fair
- 2. Programs of additional education and professional training
 - 2.1. Informing the job providers and testing supply for further education and training (primarily contacts with job providers)
 - 2.2. Trainings
 - 2.3. Vocational education and training
- 3. Development of entrepreneurship and employment programs
 - 3.1. Promotion and development of entrepreneurship
 - 3.2. Subsidies for opening and equipping workplaces
 - 3.3. Subsidies of contributions for persons with disabilities
 - 3.4. Salary refunds
 - 3.5. Public works
 - 3.6. "With a severance package to new job"
 - 3.7. Incentives for employment
- 4. Projects for employment of vulnerable persons
 - 4.1. Project "Promotion of Youth Employment" MOR/SOROS
 - 4.2. Project "Youth Employment and Migration" YEM
 - 4.3. Project for Migration PRO Program" Sub-component of Inclusion of vulnerable groups in the labour market
 - 4.4. New projects
- 5. Subsidies for persons with disabilities
 - 5.1. Subsidies for persons with disabilities counselling
 - 5.2. Subsidies for persons with disabilities DOO
 - 5.3. Persons with disabilities Programs for employment
- 6. Local action plans for employment $(LAPE)^7$
 - 6.1. LAPE Subsidies for self-employment
 - 6.2. LAPE Subsidies for job providers for new workplaces
 - 6.3. LAPE Programs for apprentice
 - 6.4. LAPE Training programs
 - 6.5. LAPE Public Works

Source: NES database

⁶ Mostly related to the process of informing.

⁷ LAPE is a new dimension of ALMP measures in Serbia in which funds for measures are provided also from the budget of local governments. Minimum amount of local participation is 50% of total budget.

NES also use three general types of interventions, but there are additional five sub-levels. Classification of interventions, in two sub-levels, in Serbia is presented in Table 2.

There is a significant difference between labels of interventions in Eurostat methodology and in NES database. However, after comparing the purpose of these interventions, we can find that there are no substantial differences between them. LMP service, Eurostat intervention no. 1 - Labour market service corresponds to NES intervention no. 1 - Career guidance and counselling service. There is small difference in the case of intervention no. 2. LMP measures, Eurostat interventions no. 2.1 – Institutional training, 2.2 – Workplace training and 2.3 – Alternate training correspond with NES interventions no. 2.1 - Informing the job providers and testing supply for further education and training (primarily contacts with job providers) and 2.2 – Trainings, while Eurostat intervention no. 2.4 – Special support for apprenticeship can be connected with NES intervention no. 2.3 – Vocational education and training. In Serbia, there are no measures in labour market for job rotation and job sharing, so those measures are excluding from database.

The significant differences appear in LMP measures, Eurostat interventions no. 4.1 – Recruitment incentives and 4.2 – Employment maintenance incentives which can in some stage correspond with NES interventions no. 3.2 - Subsidies for opening and equipping workplaces, 3.3 - Subsidies of contributions for persons with disabilities, 3.4 – Salary refunds, 3.6 – "With the severance package to new job" and 3.7 – Incentives for employment.

LMP measures, Eurostat intervention no. 5 – Supported employment and rehabilitation can be connected with NES intervention no. 4 – Projects for employment of vulnerable persons. Eurostat intervention no. 6 – Direct job creation also can be connected with NES intervention no. 3.5 – Public works, while Eurostat intervention no. 7 – Start-up incentives correspond with NES intervention no. 3.1 – Promotion and development of entrepreneurship.

Despite all the differences, as estimated by the NES professional team, LMP database is able to prepare all the necessary reports for Eurostat, but at the future they will have to perform changes and adjustments according to European methodology.

Expenditure in LMP database

According to Eurostat methodology the LMP database collects data on the public expenditure associated with each intervention, and the data should be recorded in national currency units. In the case of Serbia this condition is fulfilled.

Expenditure should be reported as a total and broken down according to a two tier scheme, with distinguishes firstly the direct recipient of the transfer and then the type of expenditure involved (Eurostat, 2006, p. 22). Table 3 contains the breakdowns of expenditure.

Methodology also requires that records data on expenditure should be in two formats: qualitative and quantitative. Qualitative data are collected to describe the different direct recipients and types of expenditure that apply to each intervention and are considered as a classification of expenditure, and quantitative data are collected to specify the actual amounts of expenditure as a total and for each breakdown.

| Total | | | | | | |
|--------------------------------|--|--|--|--|--|--|
| Transfers to individuals | | | | | | |
| Periodic cash payments | | | | | | |
| Lump-sum payments | | | | | | |
| Reimbursements | | | | | | |
| Reduced social contributions | | | | | | |
| Reduced taxes | | | | | | |
| Transfers to employers | | | | | | |
| Periodic cash payments | | | | | | |
| Lump-sum payments | | | | | | |
| Reimbursements | | | | | | |
| Reduced social contributions | | | | | | |
| Reduced taxes | | | | | | |
| Transfers to service providers | | | | | | |
| Not specified | | | | | | |

Table 3: Breakdowns of expenditure

Source: Eurostat, 2006, p. 23

After the insight to NES's database we can conclude that there are no differences between the Eurostat methodology requests about expenditure data in LMP database and the way that NES records the data.

Participants in LMP database

According to Eurostat methodology the LMP database collects information on public interventions in favour of persons disadvantaged in the labour market. Three variables are requested in order to measure the numbers of participants in these interventions: stock, entrants and exits (Eurostat, 2006, p. 28).

Stock is the number of current participants in an intervention (total stock refers to number of participants for one calendar year; stock FTE refers to average number of participants for one calendar year). *Entrance* is the number of participants who started to use some of the intervention during the calendar year and *exits* refers to the persons who leave the intervention during the calendar year.

NES database contains all required fields, as indicated in Table 4. It also recognizes the same four main methods applied to the LMP intervention duration and the treatment of registration: a) unemployment spell is broken, b) unemployment spell is suspended, c) unemployment spell is continuous and registration is continuous and d) unemployment spell is continuous but registration is discontinuous.⁸

| Sex | | | | |
|---------------------------------------|--|--|--|--|
| Total (men and woman) | | | | |
| Men | | | | |
| Woman | | | | |
| Age | | | | |
| Total (all ages) | | | | |
| < 25 | | | | |
| 25-54 | | | | |
| 55+ | | | | |
| Unemployment duration | | | | |
| Total (for whom duration is relevant) | | | | |
| Total (unemployment for) < 6 months | | | | |
| Total 6-12 months | | | | |
| Total > 12 months | | | | |

Table 4: Breakdowns applicable to all participant variables

Source: Eurostat, 2006, p. 29

⁸ Detailed explanation of the methods can be found in Eurostat, 2006, p. 31-32

It is also very important to be aware of double-counting problem. Participants may get benefits (e.g. training) from one measure and at the same time receive reimbursements (e.g. travel costs) from another measure. In this case there can be a double-counting of participants (Eurostat, 2006, p. 37). In LMP database in Serbia these situation is taken into account when creating aggregates. Each participant has unique field in the database – JMBG⁹, and the software can recognize the situations with its double appearance in the aggregates and remove it automatically.

Reports from LMP database

Final step and outcome of LMP database are reports. According to Eurostat methodology (2006, p. 34) there are different approaches to monitoring the outcomes of LMP measures and that observation of what happens to participants may be made at different times (e.g. immediately, 3 moths or 6 months after exit).

In Serbia NES can prepare various reports of LMP measures outcomes. The system is operational for monitoring and measuring certain outcomes, based on UIS data input (containing personal information such as age, gender, education, unemployment data, expertise and information on the possibilities to find a job – premature end of training, long-term unemployment and other factors limiting the impossibility of finding a job).

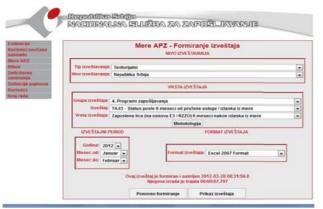


Figure 2: NES report interface

Source: NES IT Department

⁹ Each citizen in Serbia has this unique identification number with 13 digits.

Eurostat request a formal type of reports. For that reason, in the case of *stock* NES can prepare following reports: average of monthly figures, weekly figures, daily figures, quarterly figures and two year-end figures and end-year figure, start-year figure, other one-off observation. For *entrance* there are following reports: for new starts - sum of monthly figures, sum of quarterly figures, granted requests/approved applications and the number of total participants (new starts plus end year-stock). For *exits* there are reports about sum of monthly and quarterly outflows. All reports that NES prepare are fully harmonized with the Eurostat methodology.

Table 5: Report - Active job seeking and job fairs: entrance in measure and total number of participants, cumulative (for period: 01.10.2012.-29.02.2012.)

| | | Entrance | | | | Stack number partie (1MPC) | |
|-----------|--|--------------------|-------|---------------------|-------|-------------------------------|----------|
| | | Number of services | | Participants (JMBG) | | Stock - number partic. (JMBG) | |
| Measure | code Measure name | Total | Women | Total | Women | Total | Women |
| 1.3 | ACTIVE SEEKING JOB INTERVENTION | 6.058 | 3.550 | 5.889 | 3.438 | 104 | 76 |
| 1.3.1 | Seeking job club | 610 | 440 | 606 | 436 | 95 | 67 |
| 1.3.2 | Training for active job seeking - ATP1 | 5.239 | 2.946 | 5.130 | 2.880 | - | |
| 1.3.3 | Trening of selfeficiency - ATP2 | 209 | 164 | 207 | 162 | 9 | 5 |
| 1.4 | JOBS FAIR | 3.342 | 1.438 | 3.342 | 1.438 | - | |
| 28.03.201 | 2 | | | | | | 08:28:19 |

Source: NES IT Department

A Table 5 contains an example of report. The software can generate many different reports depending on parameters in interface (Figure 2). This is only one of numerous reports that can be generated with the support of Cognos BI.

Future efforts and conclusion

Based on analysis, we can conclude that despite of the fact that NES does not have established methodology in a formal way there are no significant differences in compare to the latest version of Eurostat methodology for LMP database. NES have all required parts of the database (measures, participants and expenditures) and can prepare all necessary reports. Lack of formal methodology does not affect the technical aspects of LMP database. However, the NES is faced with a problem that must be covered in a broader context. There is a difference between profession title list and job title list. Creation of these lists is in the responsibility of two ministries. The Ministry of Education and Science is responsible for the list of professions and the Ministry of Labour and Social Policy is responsible for the job title list. The difference creates a problem when it is necessary to match a profession, which significantly complicates the process of employment for some unemployed persons. Ministry of Education and Science and Ministry of Labour and Social Policy must provide match of the lists contents in order to avoid further problems. We believe that this difference is the biggest problem that exists in relation to the needs of Eurostat LMP database.

Constantly, NES is making significant efforts in order to improve efficiency and accuracy of the LMP database and ICT system, and to develop better process of monitoring and evaluation of implemented measures. Efforts can be classified into several groups:

- One of the most important projects whose completion is expected in the July of 2012 is establishment of *LMP data warehouse*. The warehouse will contain all the history data and will be use as the basis for a decision-support system, and "the data from different systems and applications are converging and integrating in a data warehouse in order to provide analysis of key indicators and trends and indicate the possible deviations from the original plans. Data warehouse provides delivery of information to all interested users. The main reason for use of data warehouse is that the analysts can make complex search and perform a variety analyses on given information and predict the effects of decisions and the consequences that they bring along" (Zubović, et al, 2011, str. 368);
- Kavana (2010, p. 3) also introduces the significance of case-. management system, as a part of NES ICT system, which can become an important part of the tools used by agents in the process of employment. It can provide them, supported with ICT tools, work with clients, record and track progress and implementation of measures agreed with the client. His idea is that if NES implements the development program for its agents the case-management program should follow the model of training. This means that the agent works in i) planning activity (career three phases: planning). ii) implementation (training / education / professionally education) and iii) evaluation (review / revision of the Acton plan / employment, etc.);
- NES constantly make an improvement on evaluation process. For that purpose they organize additional data collection through questionnaires and focus group. Questionnaires are a method for collecting data and this activity is performed in a certain period after the implementation of measures ant it is known as ex-post evaluation. The questionnaire is designed to examine the quantity and quality of em-

ployment and to measure the relevance of the services provided to employment outcomes.

- Instead of conducting individual questionnaires it is possible to organize focus groups. The focus group is a group of selected individuals with common interest or characteristic. Moderator uses the group and interaction between group members to get the information about a particular topic, e.g. opinion about specific measure or NES services. Usually the focus groups have 6-10 persons who are not familiar with each other.
- Evaluation instruments will be incorporated into the existing IT software (mainly Cognos BI), with necessary changes and will be used as standard tools for measuring and evaluation of measures outcomes, and all branches will have access to the data collection, analysis and reporting.
- Significant progress is expected in the field of Internet access. NES already have an Internet portal for job providers and job seekers, with the access to database. Users can chose several options to search the ads, but they cannot apply as participants in measures. The main restriction is connected with identity confirmation. The citizens in Republic of Serbia does not use digital signature and without it the NES cannot provide privacy and reliability of data.

General conclusion of this research is that despite several shortcomings the methods of collection, recording, monitor and evaluation in LMP database in Serbia is highly harmonized with the Eurostat methodology. However, it is very important to point out that the NES, as the most important institution in the process of LMP implementation, is aware of all problems and makes efforts to improve the ICT system and LMP database.

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