TWINNING CONTRACT

BA 17 IPA ST 01 20

Further Support to the Reform of Statistics System in Bosnia and Herzegovina

MISSION REPORT

Activity 4.1C: Basic training in the statistical software SPSS
Subcomponent 4.1 Auxiliary activities to Labour Market Statistics
Component 4 – Labour Market Statistics

Mission carried out by
Oona Pentala-Nikulainen, Finnish Institute for Health and Welfare
18 – 20 September 2023

Version: Final

Expert contact information

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List of Abbreviations

BC   Beneficiary Country (BiH)
BHAS   Agency for Statistics of Bosnia and Herzegovina
BiH   Bosnia and Herzegovina
CBBH   Central Bank of Bosnia and Herzegovina
EU   European Union
FIS   Institute for Statistics of Federation of Bosnia and Herzegovina
MS   EU Member State
RSIS   Institute for Statistics of Republika Srpska
RTA   Resident Twinning Adviser
RTAA   Resident Twinning Adviser Assistant
ToR   Terms of Reference

1. General comments

This mission report was prepared within the EU Twinning Project" Further Support to the Reform of the Statistics System in Bosnia and Herzegovina". It was the first mission to be devoted to Subcomponent 4.1 - Auxiliary activities to Labour Market Statistics, within Component 4 - Labour Market Statistics.

The purpose of the mission was:

* Basic training in the statistical software: SPSS: Statistical Package for the Social Sciences.

The consultant would like to express her thanks to all officials and individuals from Bosnia and Herzegovina met for the kind support and valuable information, and which highly facilitated the work of the consultant.

This views and observations stated in this report are those of the consultant and do not necessarily correspond to the views of EU, BHAS, FIS, RSIS, CBBH, Statistics Denmark, Statistics Finland, Statistics Sweden, The Italian National Institute of Statistics and the Finnish Institute for Health and Welfare.

2. Assessment and results

The mission covered the following topics:

* SPSS interface tour: Data Editor, Variable View, and Output Viewer
* Data validation and checks, graphs
* Identifying and handling missing values in survey data
* Understanding the survey structure: Primary data, weights, and variables
* Importing survey data into SPSS: Dealing with different file formats and data layouts
* Recoding and transforming variables: Creating derived variables and aggregating responses
* Calculating and interpreting descriptive statistics for survey variables
* Creating frequency distributions, bar charts, and histograms for survey responses
* Designing effective visualization for survey findings
* Introduction to survey sampling weights and their application in analysis
* Hypothesis testing for survey data: Chi-square tests and t-tests
* Multivariate Analysis of Variance (MANOVA) and Principal Component Analysis (PCA)
* Linear regression with survey data: Incorporating weights and complex sampling designs
* Creating comprehensive reports: Tables, charts, and summary statistics

3. Conclusions and recommendations

The training was organized as a hands-on training and the participants were engaging actively. During the training the participants got to know both SPSS and the colleagues who have used it in their processes previously. Some of the participants got to share their knowledge and solutions based on SPSS. It is recommendable that the experts are further encouraged to use SPSS in their statistics production processes. This can be organized also via giving the experts possibilities to discuss SPSS topics and solutions together for example 2-4 times a year in a joint meeting between offices.

Annex 1. Terms of Reference for the current mission

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Terms of Reference

EU Twinning Project BA 17 IPA ST 01 20

Component 4.1 – Labour Market Statistics
18 (10:00hrs.) - 20 September (12:00 hrs.) 2023

Venue:
FIS meeting room, Zelenih beretki 26
71 000, Sarajevo
Bosnia and Herzegovina

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Activity 4.1C: Basic training in the statistical software:
SPSS: Statistical Package for the Social Sciences

1. **Mandatory result**

The component on Labour Market Statistics has the following objectives and Indicator / Relevant Milestones / Internal deadlines:

Component 4: Labour markets statistics: **Structure of earnings Pilot survey conducted and respective indicators produced**		
Objective as in Twinning Fiche:	**Indicator / Relevant Milestones / Internal deadlines**	**Status**
4.1 Questionnaire and methodology for implementing Structure of earnings Pilot survey prepared (including preparation of sample survey)	Questionnaire to be ready by end of 2021	Work completed
4.2 Developed application for entering data for the needs of BH institutions	February 2022	Work completed
4.3 Pilot survey conducted and data entered	Data expected to be collected during April 2022	Work completed

	and to be entered in June 2022	
4.4 Results of Pilot survey analysed	September 2022 *(Delayed due to lack of MS experts)*	Work completed
4.5 New indicators of the Labour market statistics based on the Structure of Earnings Pilot Survey such as: gross and hour wages by age, sex, occupation, duration of the working hours and type of contract services produced	December 2022 *(Delayed due to lack of MS experts)*	Work completed
4.6 Staff of the Labour market statistics trained for implementing full Structure of Earning Survey	February 2023/ End of project *(Delayed due to lack of MS experts)*	Work completed for the subject statisticians. The project is currently searching for appropriate assistance for a BC request for the sampling procedure related to SES

2. Purpose of the activity:

- Basic training in the statistical software: SPSS: Statistical Package for the Social Sciences

3. Expected output of the activity:

- Increased beneficiary knowledge of SPSS

Annex 2. Persons met

<u>BHAS:</u>

Radoslav Ćorović, Assistant Director in The Sector for Demography and Social Statistics
Vladimir Mijović, Head of Labour Market Department
Ivana Simić, Specijalist in Labour Market Department
Svjetlana Kezunović, Senior Officer in Labour Market Department
Tijana Popić, Senior Adviser in Labour Market Department
Tamara Šupić, Senior Advisor of Department for Population Statistics and Registers
Vedrana Đerić, Senior Adviser for Education Statistics
Zlatan Hadžić, Expert Advisor for the Statistics on Income and Living Conditions (SILC)
Dajana Mrgud, Senior Advisor for Household Budget Survey

<u>FIS:</u>

Emina Šabanadžović, Senior Adviser for Labour Cost and Earning Statistics
Anes Smailbegović, Senior Advisor for Employment and Unemployment Statistics
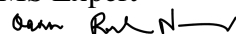
<u>RSIS:</u>

Biljana Glušac, Senior Statistician for Labour, Wages and Employment Statistics
Vladimir Koprivica, Senior Statistician for Labour Market Statistics

<u>RTA Team:</u>
Niels Madsen, RTA
Larisa Muslimovic, RTAA

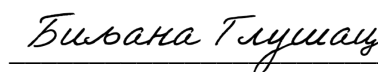The content of this report is approved by: (sign and date)

MS Expert
_____

BHAS Component leader   FIS Component leader

Свјетлана Кезуновић   *Emina Šabanadžović*
_____   _____

RSIS Component leader   RTA

Биљана Глушац   *Niels Madsen*
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