



## **16th LFS Workshop**

# **Incorporating administrative data in monthly LFS estimation of economic activity in Hungary**

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## Outline

- Introduction
- Administrative data sources
  - Employment
  - Unemployment
- Model estimation
- Results
- Publication
- Conclusions

## Introduction

- **Main factors behind the development**
  - COVID-19 epidemic
  - EU legislation
- **Issues of the monthly sample in the Hungarian LFS**
  - Quarterly sample (three independent monthly sub-samples)
    - Large-scale fluctuation
    - Low reliability

## Administrative data sources

- **Certain criteria**
  - Subgroups by sex and age
  - Back-calculation of long time series
  - Timeliness
- Tax records of the National Tax and Customs Administration → employed persons
- Registered jobseeker records of the National Employment Service → unemployed persons

## Employment

- Tax records: employee, self-employed, „small taxpayer”
  - **Issue of timeliness** → Available nearly two months following the reference month
- Records the monthly inflow and outflow of citizens into the Hungarian social security system through employment
  - **Prediction of the tax data** → quite accurate

Dimension of comparison	LFS	Administrative data source – tax records
<b>Observed population</b>	<ul style="list-style-type: none"> <li>• Hungarian private households</li> <li>• Residents of private Hungarian households working abroad</li> </ul>	<ul style="list-style-type: none"> <li>• Living in certain institutions</li> <li>• Living abroad – but working in Hungary</li> </ul>
<b>Conceptual differences of the indicators</b>	<ul style="list-style-type: none"> <li>• Average monthly estimates</li> </ul>	<ul style="list-style-type: none"> <li>• Number of people in the registry (obligatory)</li> </ul>

# Unemployment

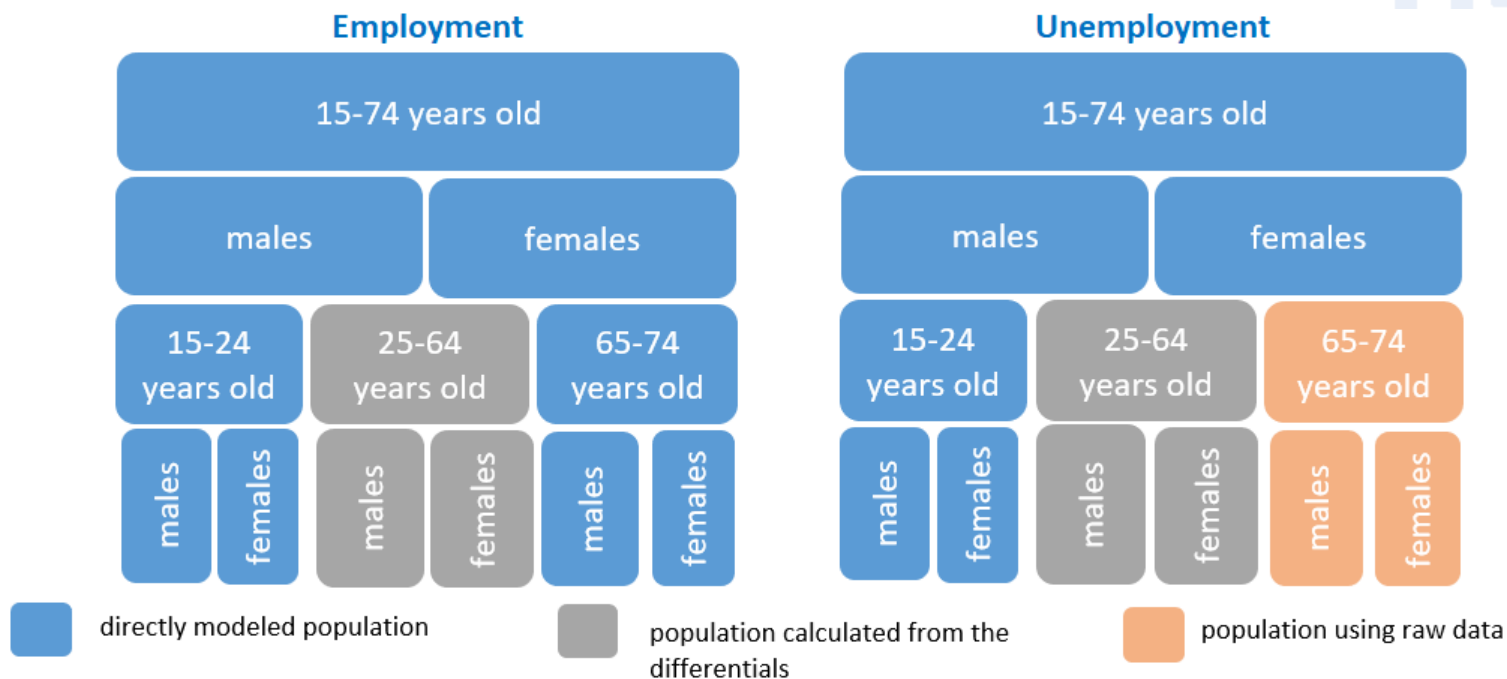
- Registered jobseekers might not satisfy the ILO concept of unemployment

Dimension of comparison	LFS	National Employment Agency Registered jobseekers
<b>Conceptual differences of the indicators</b>	<ul style="list-style-type: none"> <li>A few hours of work is already considered as employment</li> <li>Active work seeking</li> <li>Unemployed by LFS standards</li> <li>Average monthly estimates</li> </ul>	<ul style="list-style-type: none"> <li>Doing casual work, but registered as jobseeker</li> <li>Registered but not seeking work actively</li> <li>Not registered as jobseeker (not obligatory)</li> <li>Number of people in the registry at a given date (20th of the reference month)</li> </ul>

## Model estimation

- „State space” models → for regularly measured data

Figure 1: Full and partial population estimates





# Results Employment

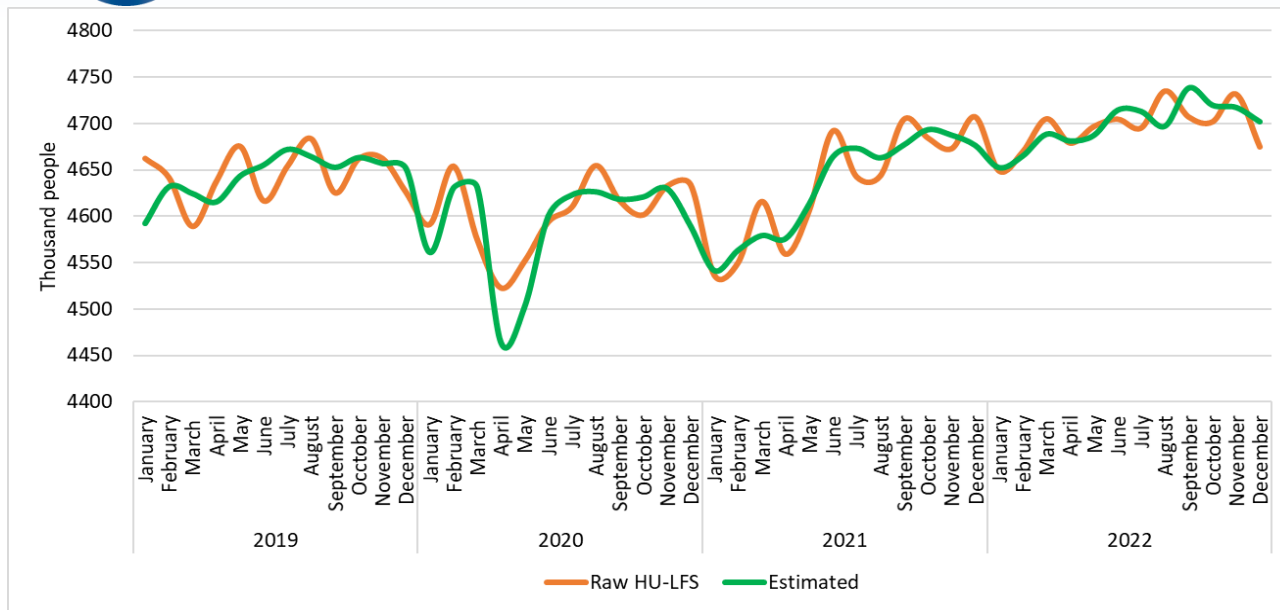
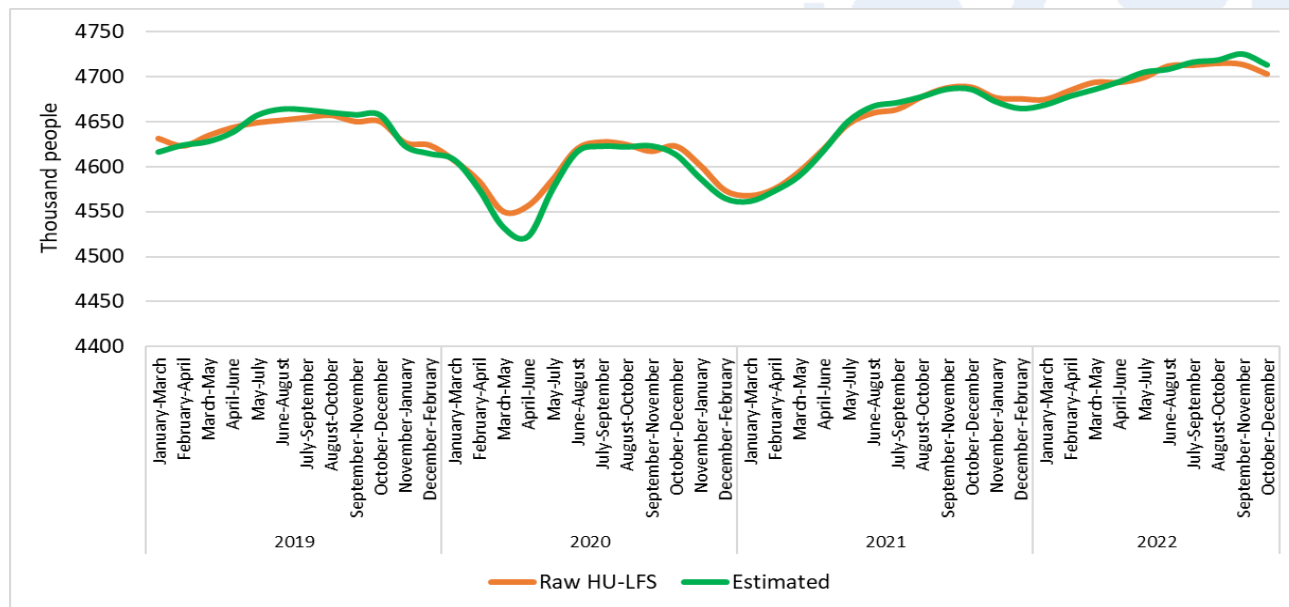


Figure 2: Number of employed people (monthly)

Figure 3: Number of employed people (three-month average)







# Results Unemployment

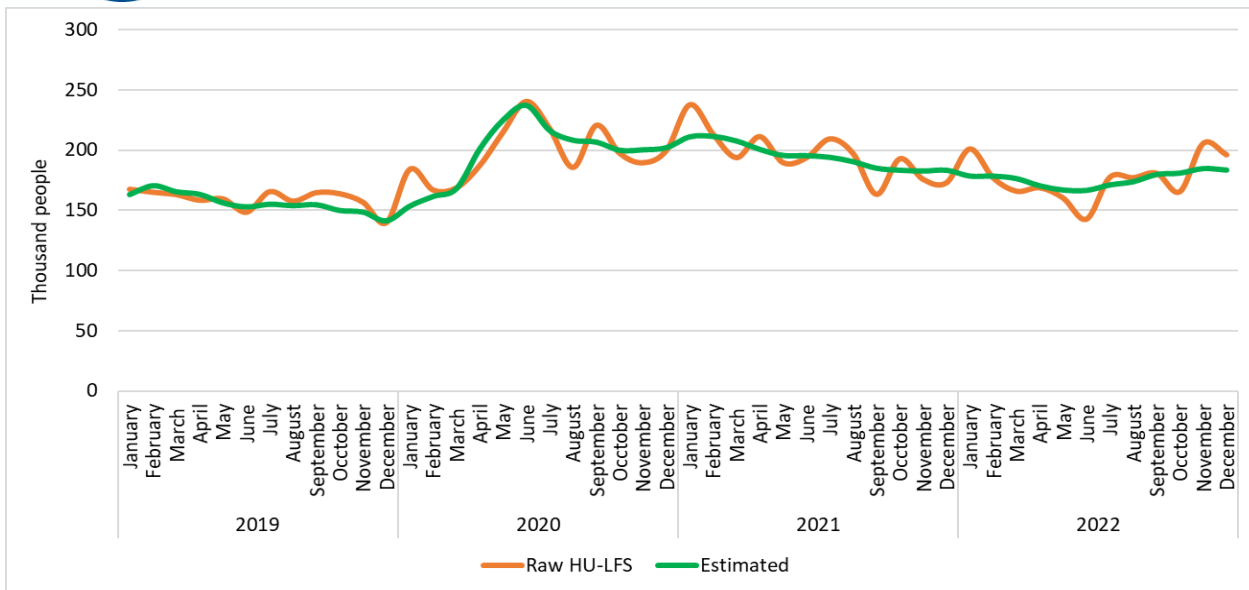
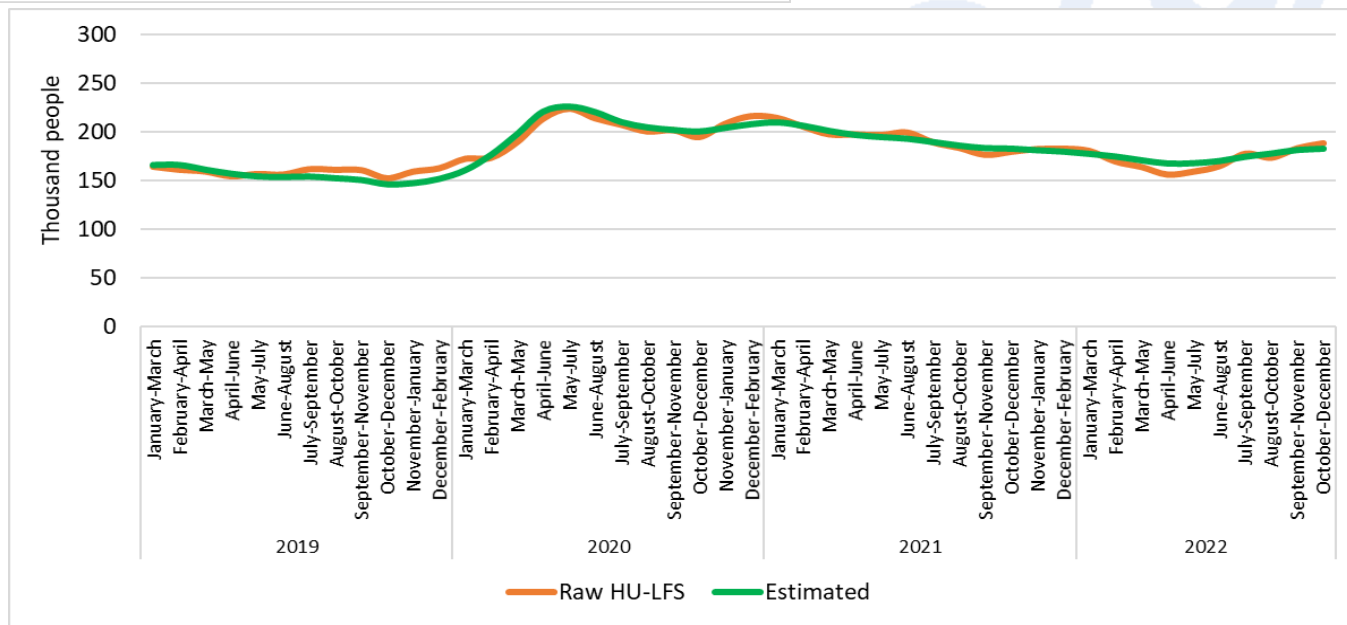


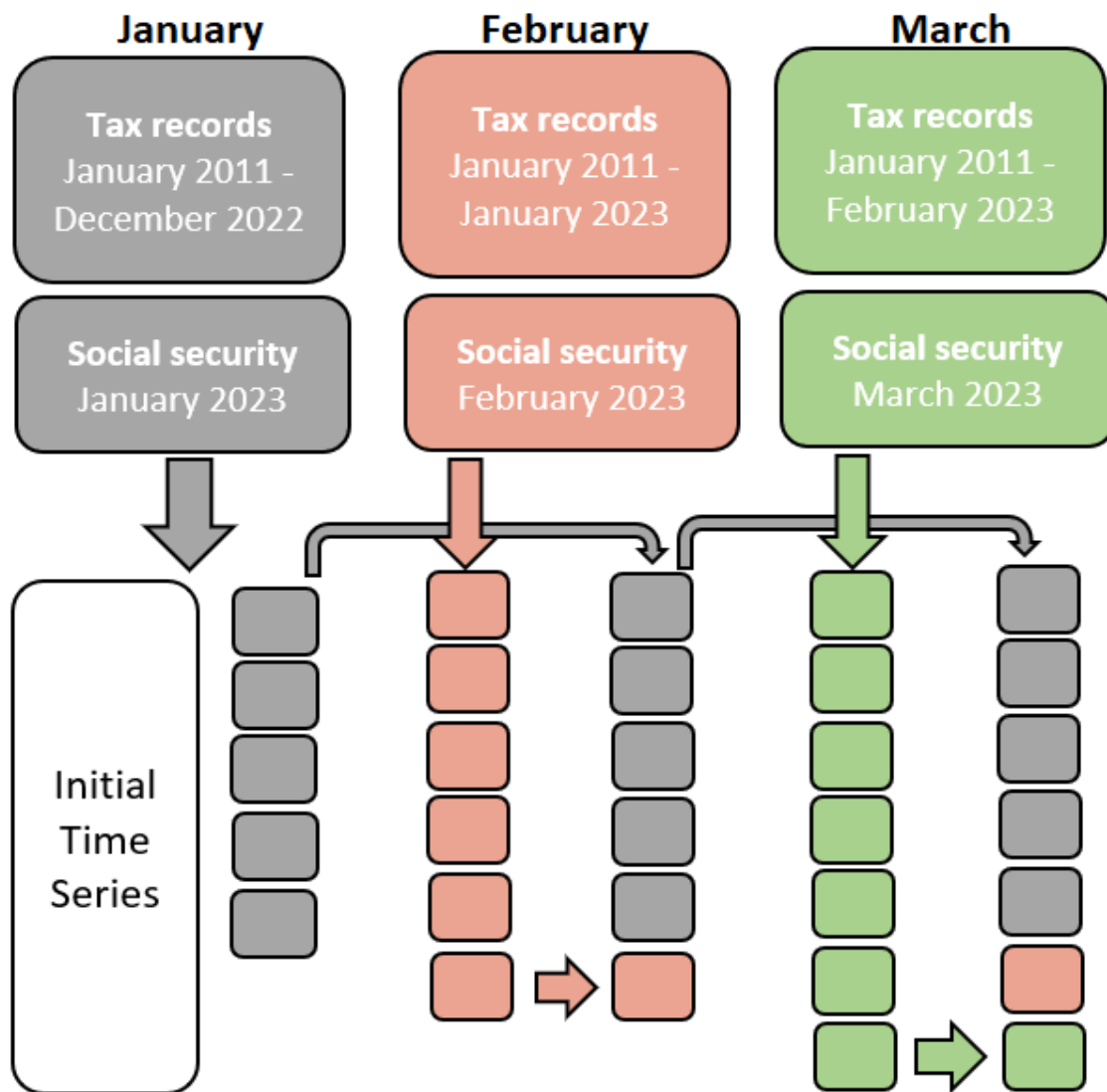
Figure 4: Number of unemployed people (monthly)

Figure 5: Number of unemployed people (three-month average)



## Publication

Figure 6:  
Publication  
process



## Conclusions

- Compliance with EU legislation
  - Comparable monthly data in time series
  - Follows the three-month moving averages
- Traces real life labour market changes



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**Thank you for your attention!**