

INNOVATIVE PRACTICES IN THE FIELD OF EMPLOYMENT, SKILLS AND PES DATA MANAGEMENT – FOCUS ON VULNERABLE GROUPS

Challenges for the inclusion of economically inactive people into the labour market by PES in Poland

Adam Biernat

ETF Conference: Human Capital Development – building evidence on skills
and employment, 23 May 2024

Number of unemployed in Malopolska over 20 years



Number of unemployed in
Malopolska
In December 2002

208 175

Number of unemployed in
Małopolska
in December 2023

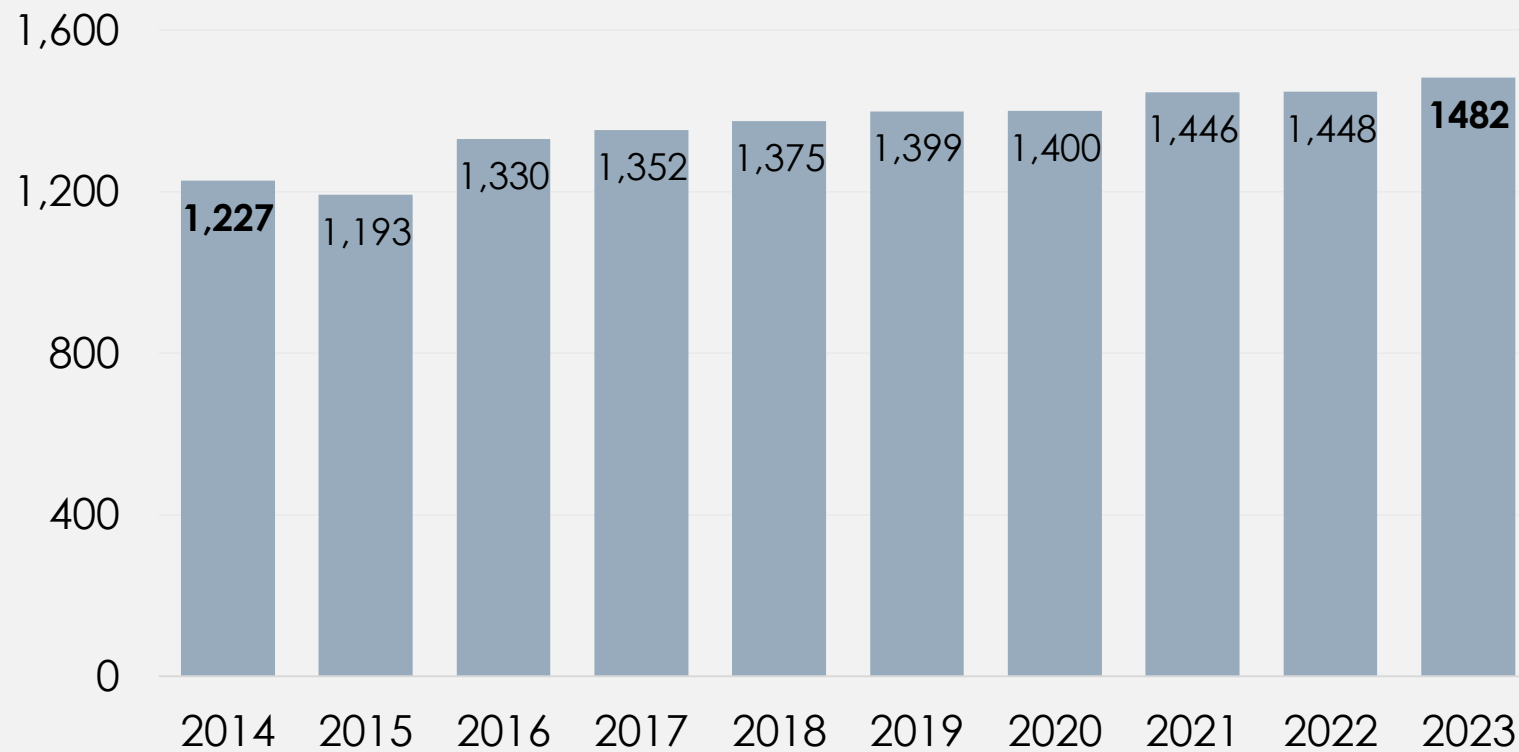
60 947

Increase in employment

+ 2,3%
than in 2022

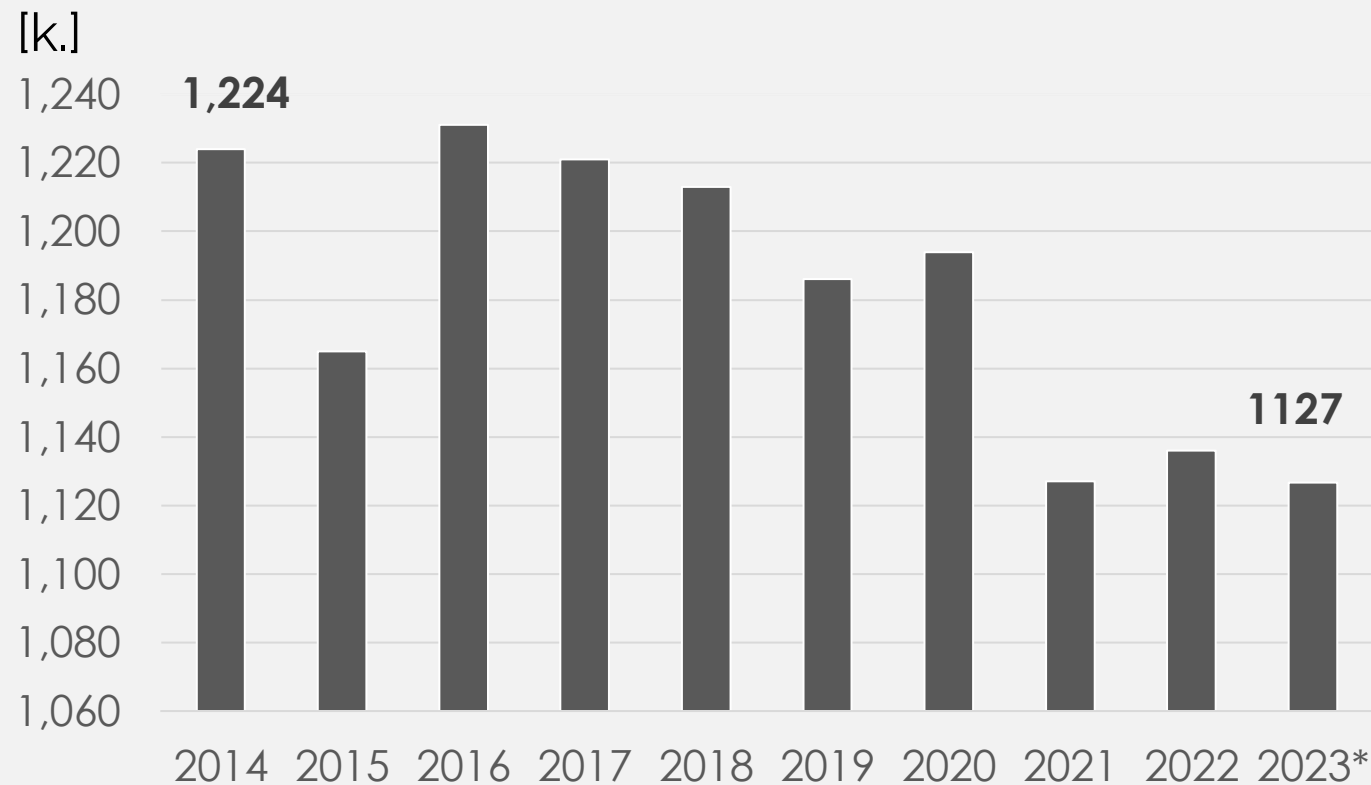
+ 20,8%
than in 2014

Number of employed in Małopolska in thousands



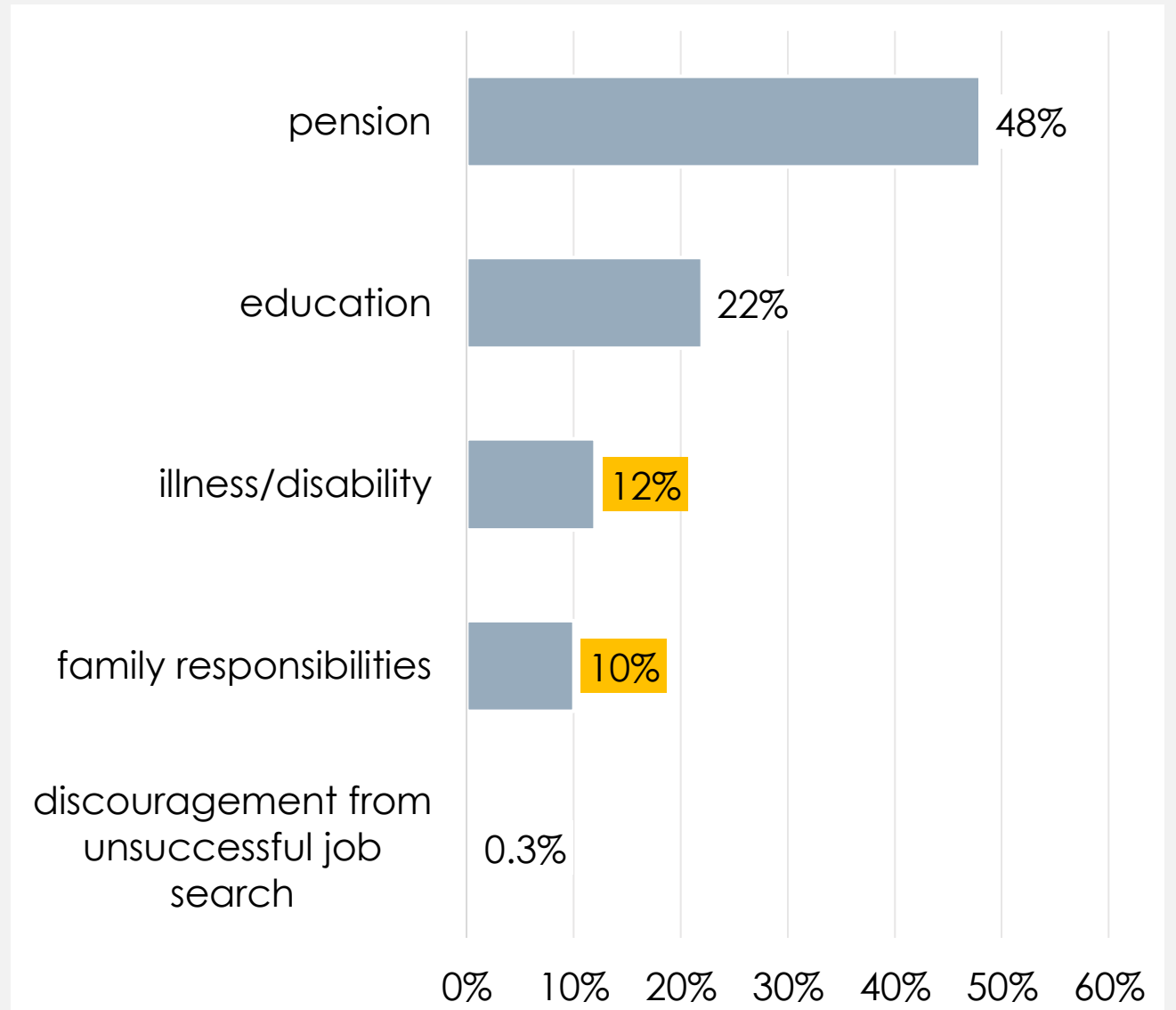
Less economically inactive...

Number of economically inactive persons aged 15-89 in Małopolska as of the 4th quarter in thousands

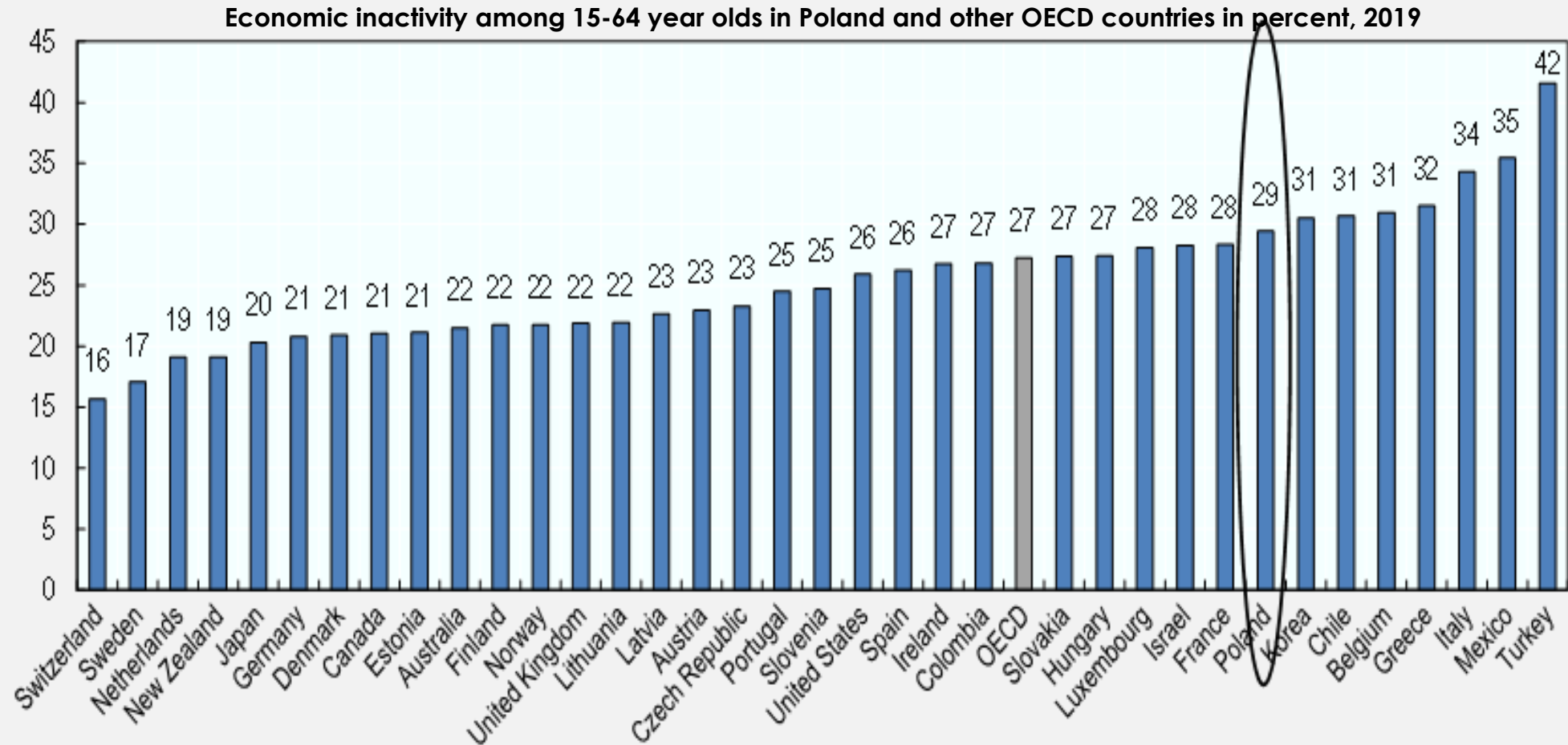


...but still a large group...

... internally very diverse...



... and relatively large compared to other countries



Selected trends

shrinking population

**a decline in the
proportion of working
people relative to
pensioners**



Selected trends

**increasing average
age and lifelong
learning**



Selected labour market challenges in the 2030 perspective

- professional activation of 'untapped resources', e.g. economically inactive people in the regional labour market in view of the decreasing number of people of working age
- extension of the period of professional activity
- development of the potential and effectiveness of PES activities

Selected PES challenges

- age management
- prevention of premature professional deactivation
- supporting the upgrading of the skills of the working population, especially the low- and medium-skilled
- having instruments to mitigate the effects of sudden changes
- forecasting labour market developments

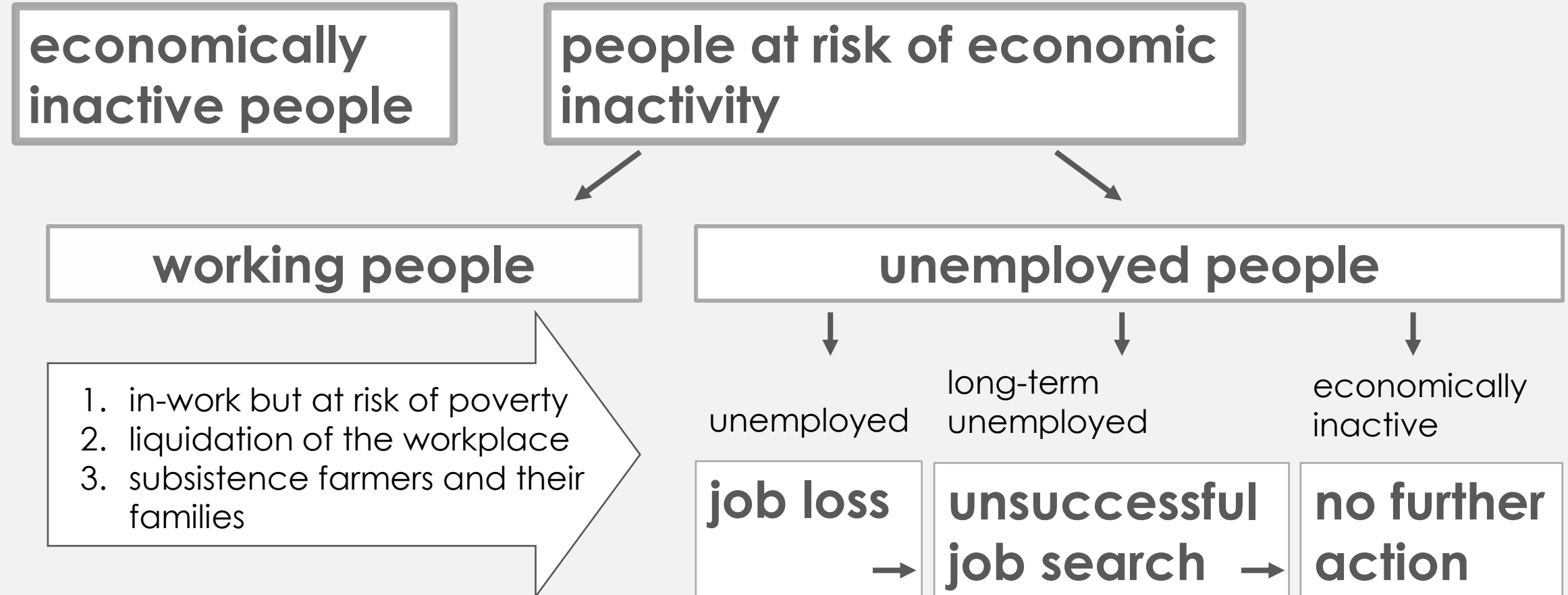


Ways to encourage economically inactive people and those at risk of inactivity to take action or maintain employment

The choice of topic results from the following arguments:

- the assumption that in the new Law the professionally inactive people will become a PES client
- the group of the professionally inactive has already been characterized in previous studies
- the problem of definition of economically inactive people
- low effectiveness of activation activities aimed at economically inactive people

Target groups



Expected project result

- recommendations for effective prevention of professional inactivity. The arguments will be helpful in reducing barriers to employment by economically inactive people
- specific tools for public employment services to work with selected groups of inactive people
- development and implementation of new research methods, e.g. forecasting the demand for qualifications

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INNOVATIVE PRACTICES IN THE FIELD OF EMPLOYMENT, SKILLS AND
PES DATA MANAGEMENT

Grouping economically inactive people for targeting by PES in Poland

Lars Ludolph, PhD, OECD

ETF Conference: Human Capital Development – building evidence on skills and
employment, 23 May 2024

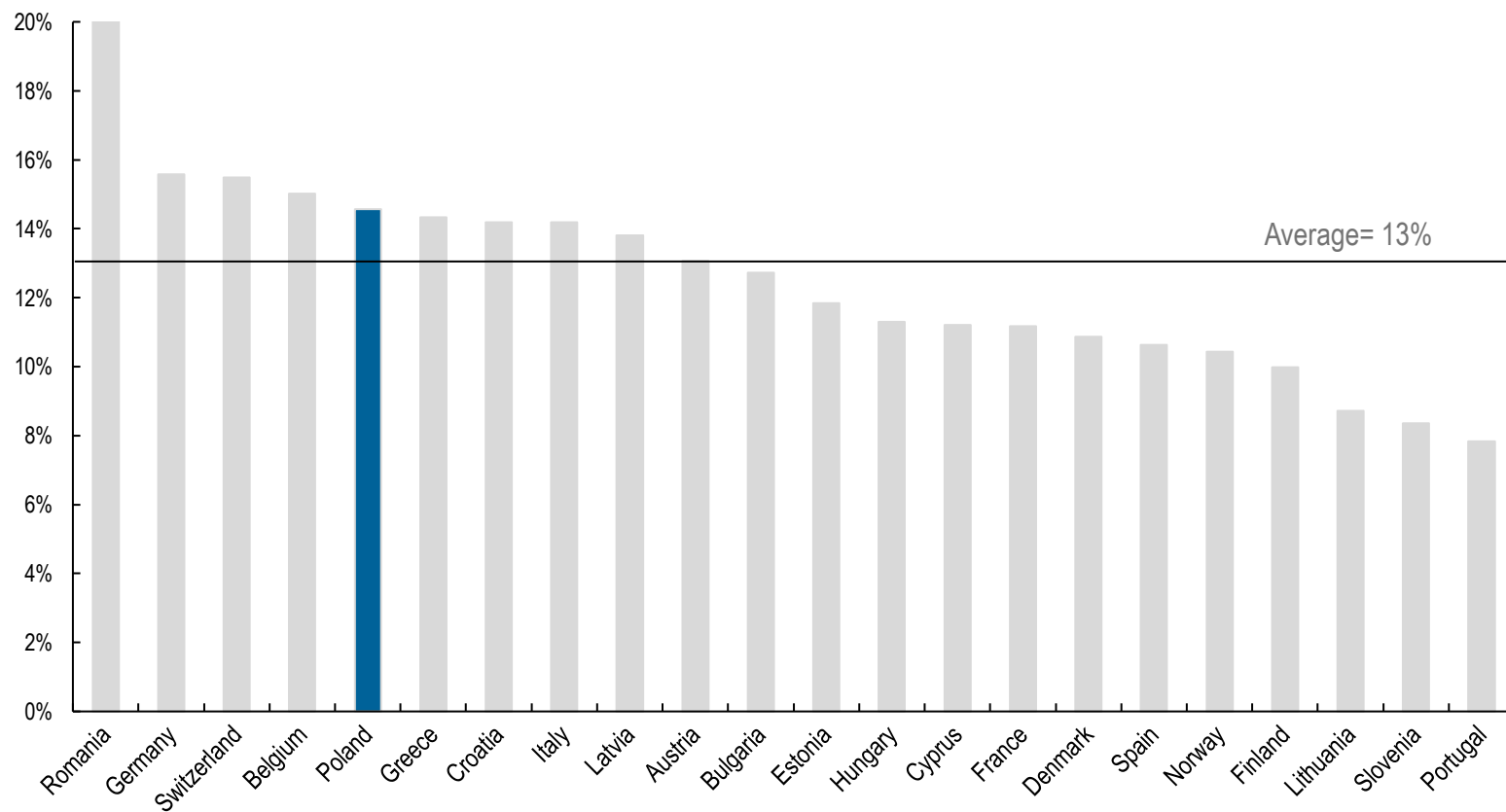


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Economic inactivity in Poland is high

Inactivity rate (excluding students),
Below the retirement age in Poland: women 16-59 & men 16-64



How does the inactivity rate in Poland compare to the European average?

↑ Age 16-69:
3.2pp higher

↑ Below the Polish statutory retirement age:
1.3pp higher

The rest of the analysis focuses on those below the statutory retirement age in Poland

Source: Own elaborations based on EU LFS, 2022.



The challenge: Gaining a detailed understanding of the economically inactive population in Poland

- If PES want to support the integration of economically inactive people into the labour market, they first need to **understand their client groups**:
 - Education and (recent) work experience
 - Health: Limited activities due to disabilities and chronic illness
 - Household: Children in the household, old or sick household members
 - Motivation to work I: Non-work income, nobody else working in the household
 - Motivation to work II: General willingness to seek employment
 - Migration background and language
- PES then need to **group the economically inactive by shared characteristics and get an idea of the size of these groups**
- In Poland, there are large regional differences in population characteristics (OECD, 2021) so we also need this **information at regional and local level**
- **How can this be achieved?**




Solution: A mixed method approach that proceeds in three steps



1. A machine learning approach to group inactive people by common characteristics using survey data from the EU Survey on Income and Living Conditions (EU-SILC)

2.1 Map these results onto EU-LFS data to gain additional information on the target groups

2.2 Map these results onto Polish Population Census data to gain geographically granular information about the presence of the target groups



3. Conduct focus group interviews with identified target groups to verify results and learn more about their motivation to work



High-level summary of results



High-level summary of results

1

The number of inactive people who receive **disability benefits** is high, some of whom could be activated.

2

Early retirement is significant and many older workers who retire early do not have health problems.

3

A large share of **mothers** remain inactive even **when their children get older**.

4

The inactivity rate among **young women** is among the highest in the EU, which is driven primarily by the childcare responsibilities of women without a University education.

5

Inactive **Ukrainian refugees** constitute a new potential target group for the Polish PES, with the uncertainty about the intention to stay complicating interventions.

6

First results suggest that there are some **regional differences** in the composition of economically inactive people; living in **rural areas** compounds the barriers to employment.



Methodology



Data sources

- Main data: SILC data (2022)
 - Main advantage: Includes data on socio-economic characteristics, potential employment barriers and non-work-related income
 - Main disadvantage: Sample size of inactive persons that are of working age is limited (2,849 observations), regional analysis only at the level of macroregions
- Solution to limitation:
 - Use SILC data to analyse barriers and groups; then use LFS to complement the analysis
 - Later: Use social benefit data to characterise benefit recipients and Population Census (2021) to break down the analysis by voivodeships and powiats



Decision tree: methodology and findings



How does a decision tree work?

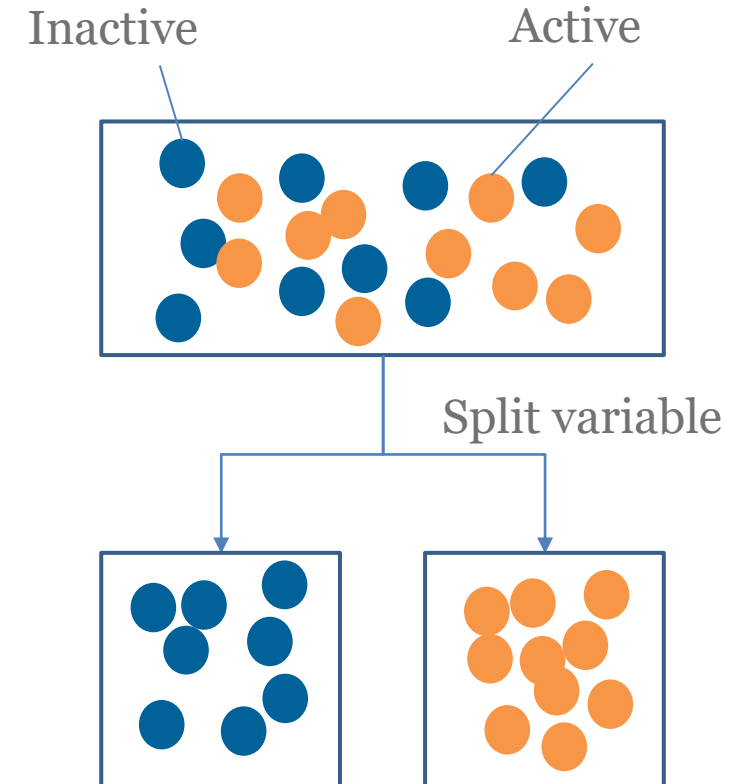
Objective: predict whether an individual is inactive based on their characteristics (observables)

Sample: active (employed & unemployed) and inactive

Method:

- Split the data repeatedly based on the observables
- To make a split, the algorithm identifies the observable that splits the active and inactive into the most homogenous groups
- As long as the created sub-groups are “impure”, i.e., they are composed of active and inactive, there is scope for further splits
- The tree continues to grow until all the data is partitioned or a stopping criterion is met to avoid overfitting

Result: groups that are as separate in terms of inactivity as possible





Sample and variables used in the decision tree model

SAMPLE DEFINITION:

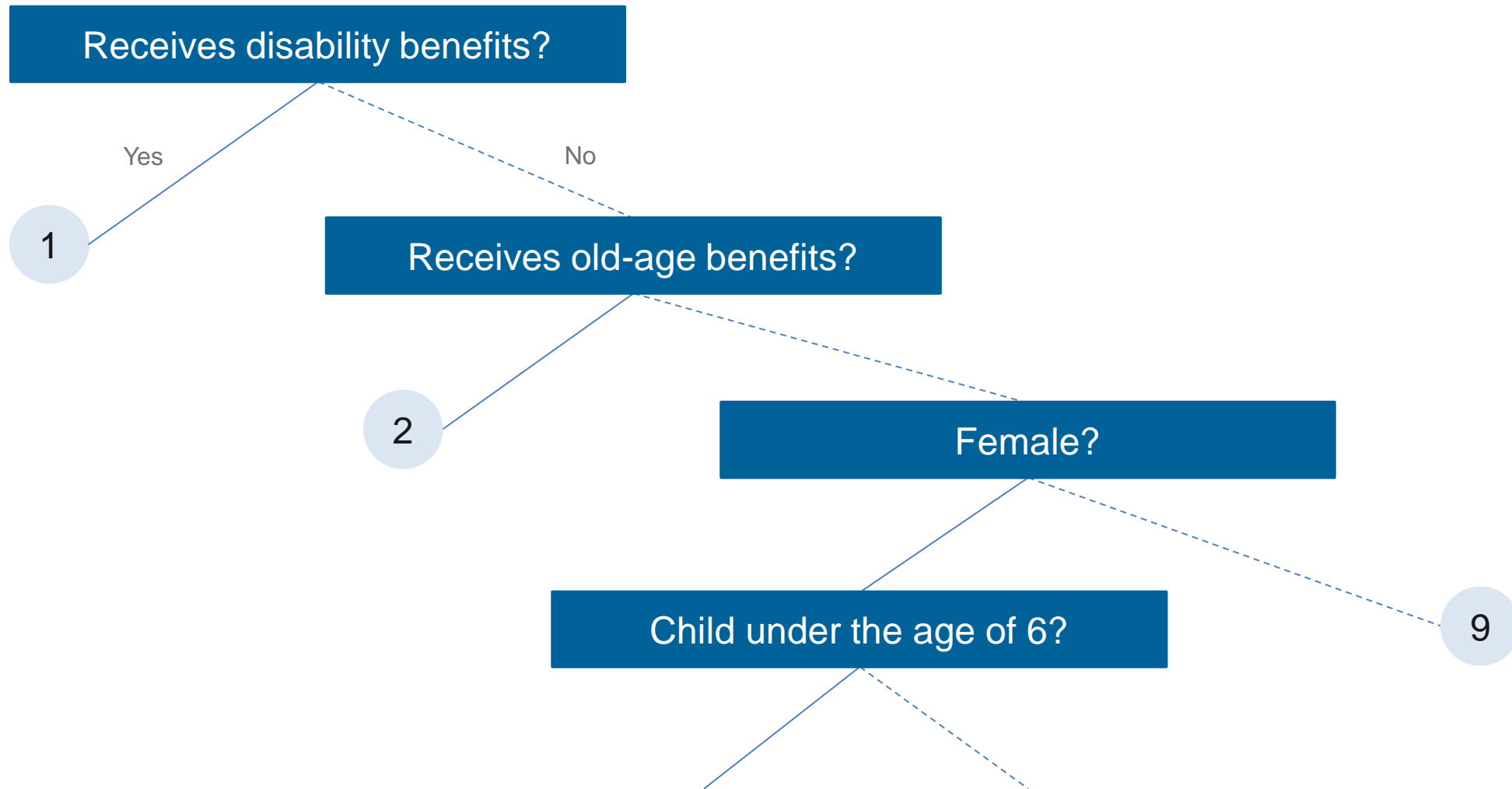
- Males aged 16-64 and females aged 16-59
- Exclude students

VARIABLES USED:

- **Socio-economic characteristics:** Age, gender, household composition
- **Barriers**
 - Experience and labour demand barriers (educational attainment, lack of experience)
 - Health barrier (limited activities due to illness, chronic illness)
 - Family barriers (children own and in the household, old or sick household members)
 - Motivation to work (non-work income, nobody working in the household)
 - Other (migration background, geography)
- **Benefits:** disability, old-age, unemployment, sickness, child, social, housing



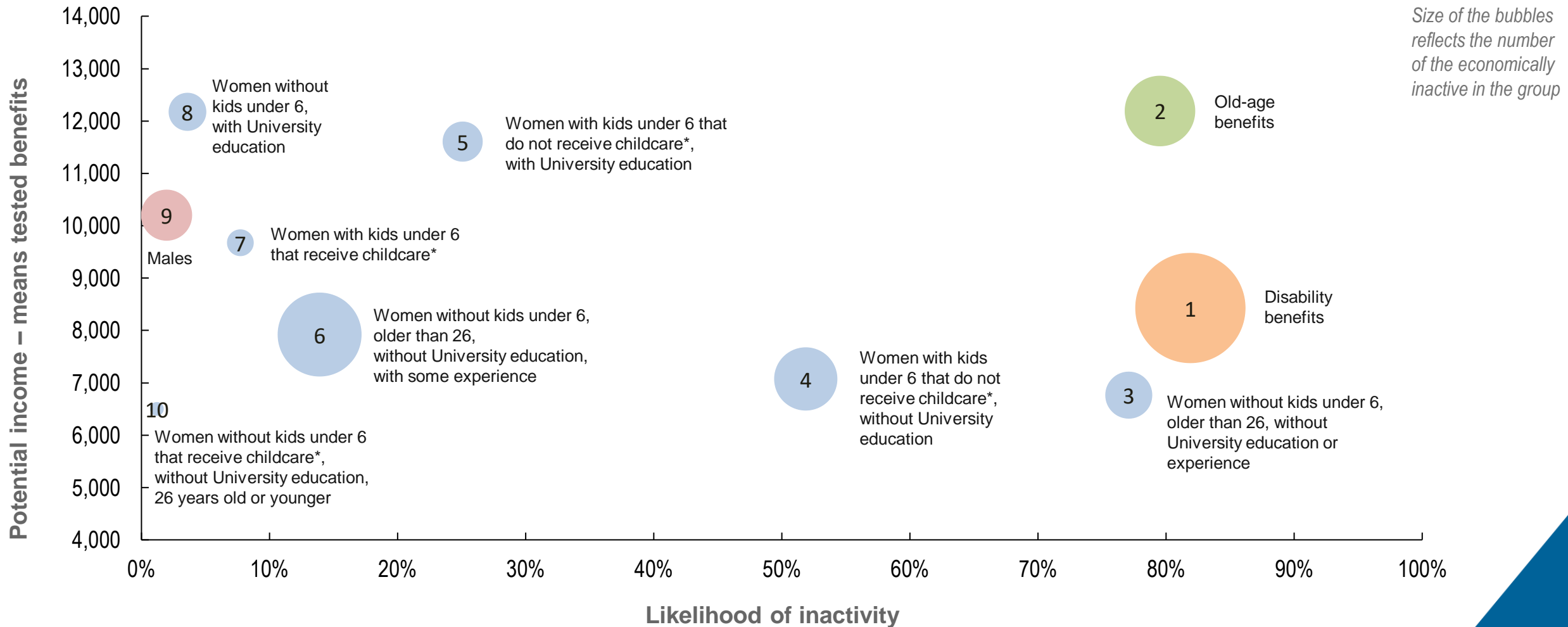
Examples of variables that predict economic inactivity in Poland



See [annex](#) to see the full decision tree



Groups of economically inactive in Poland



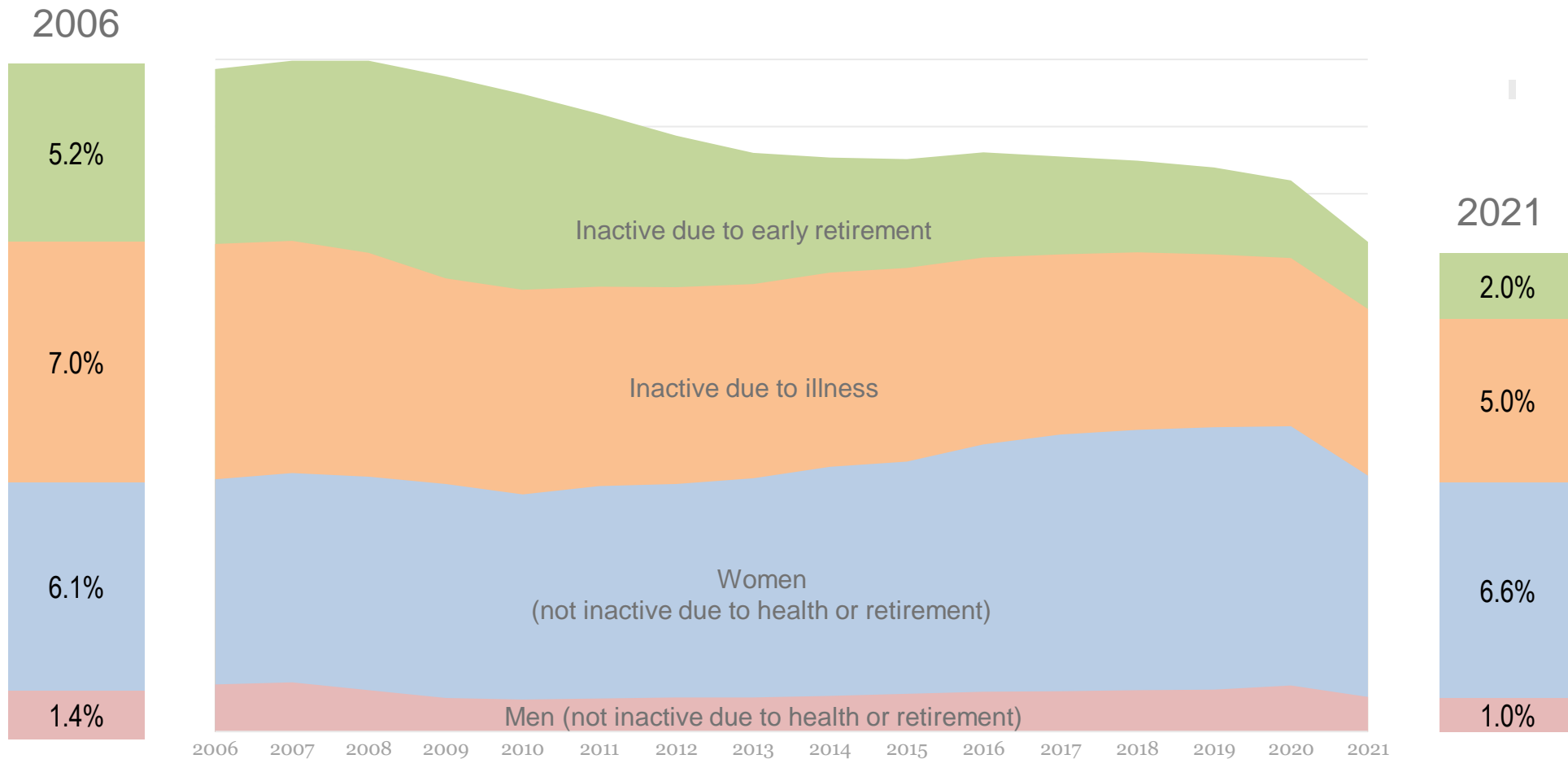
* No childcare refers to at least one child under 13 years old who receives less than 30 hours of non-parental care per week

Source: Own elaborations based on EU SILC, 2022



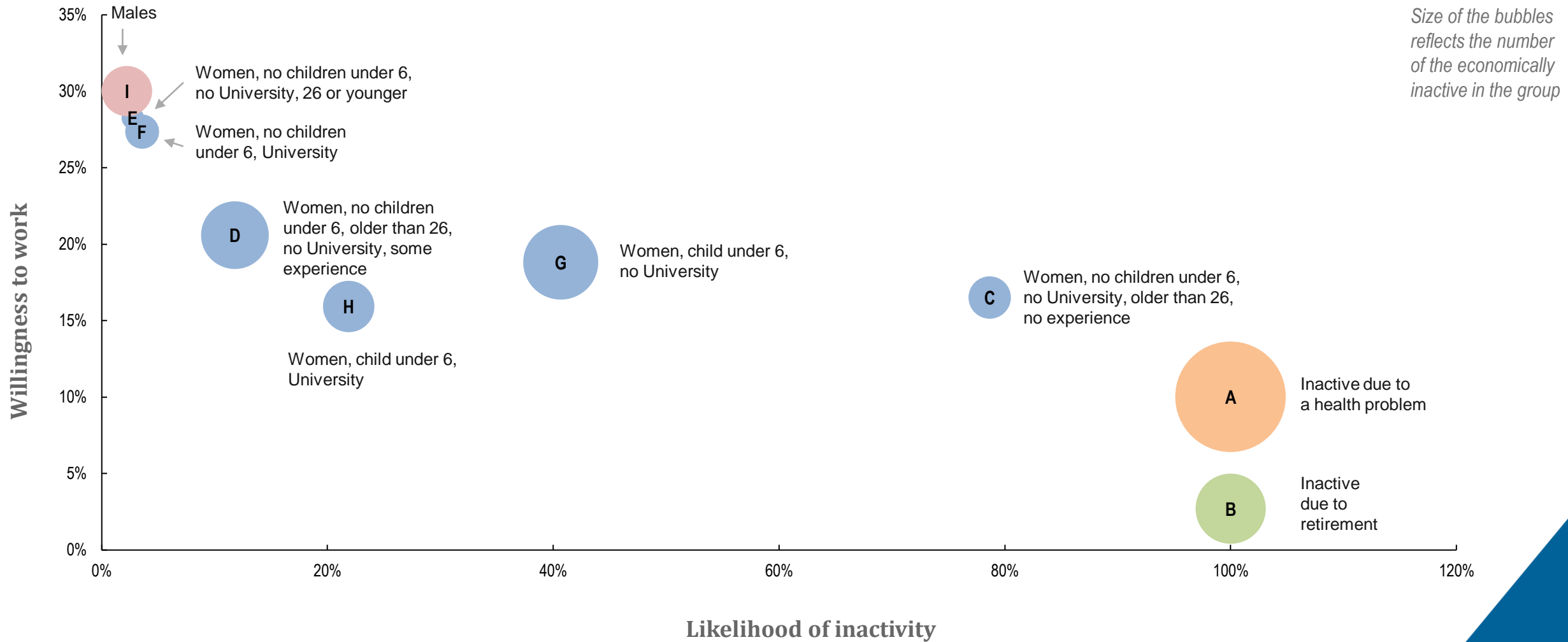
How did the size of these groups change over time?

Share of the working-age population (16-59 for women and 16-64 for men) who are economically inactive by reason of inactivity





What is the willingness to work in these groups?



Note that the groups slightly differ compared to those presented in slide 14 due to the use of a different data source.

Source: Own elaborations based on EU LFS, 2021

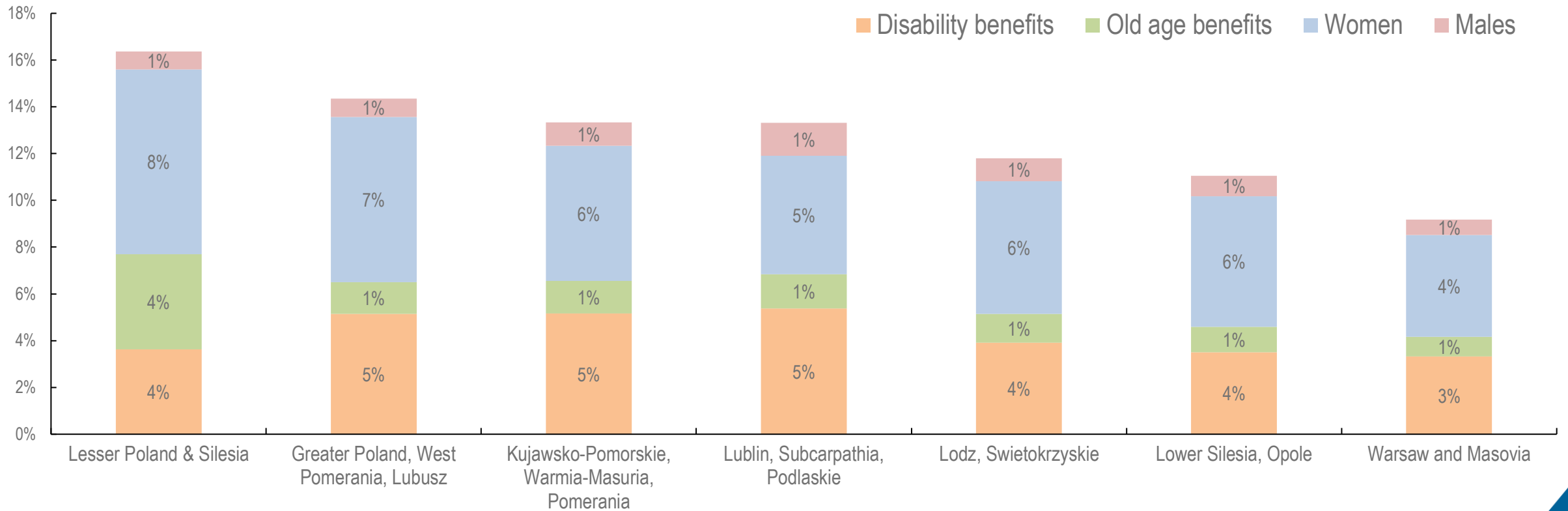


Regional differences in groups of economically inactive



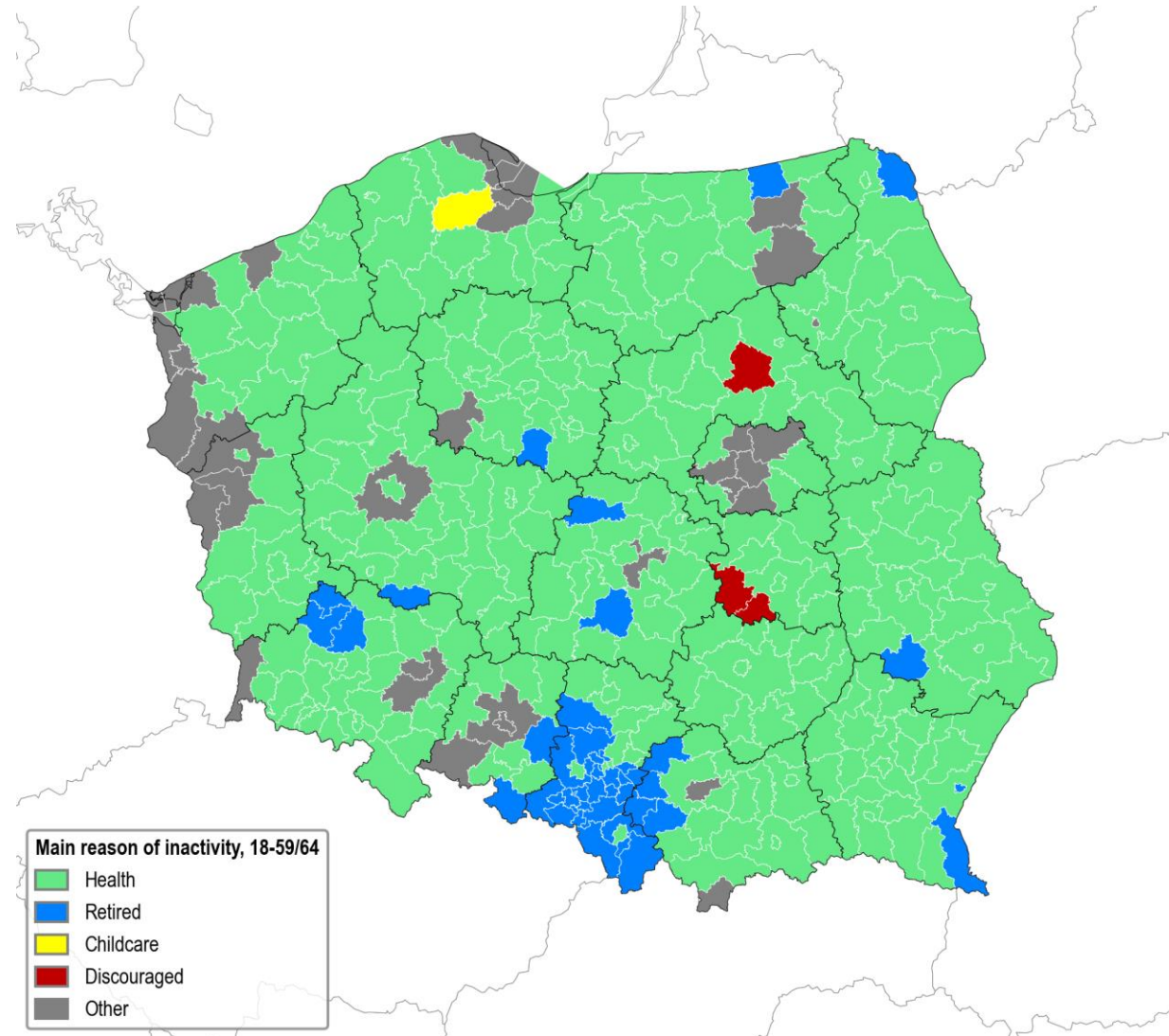
Decision tree: composition of the economically inactive by macro-regions

Share of the inactive in the working-age population, 2021





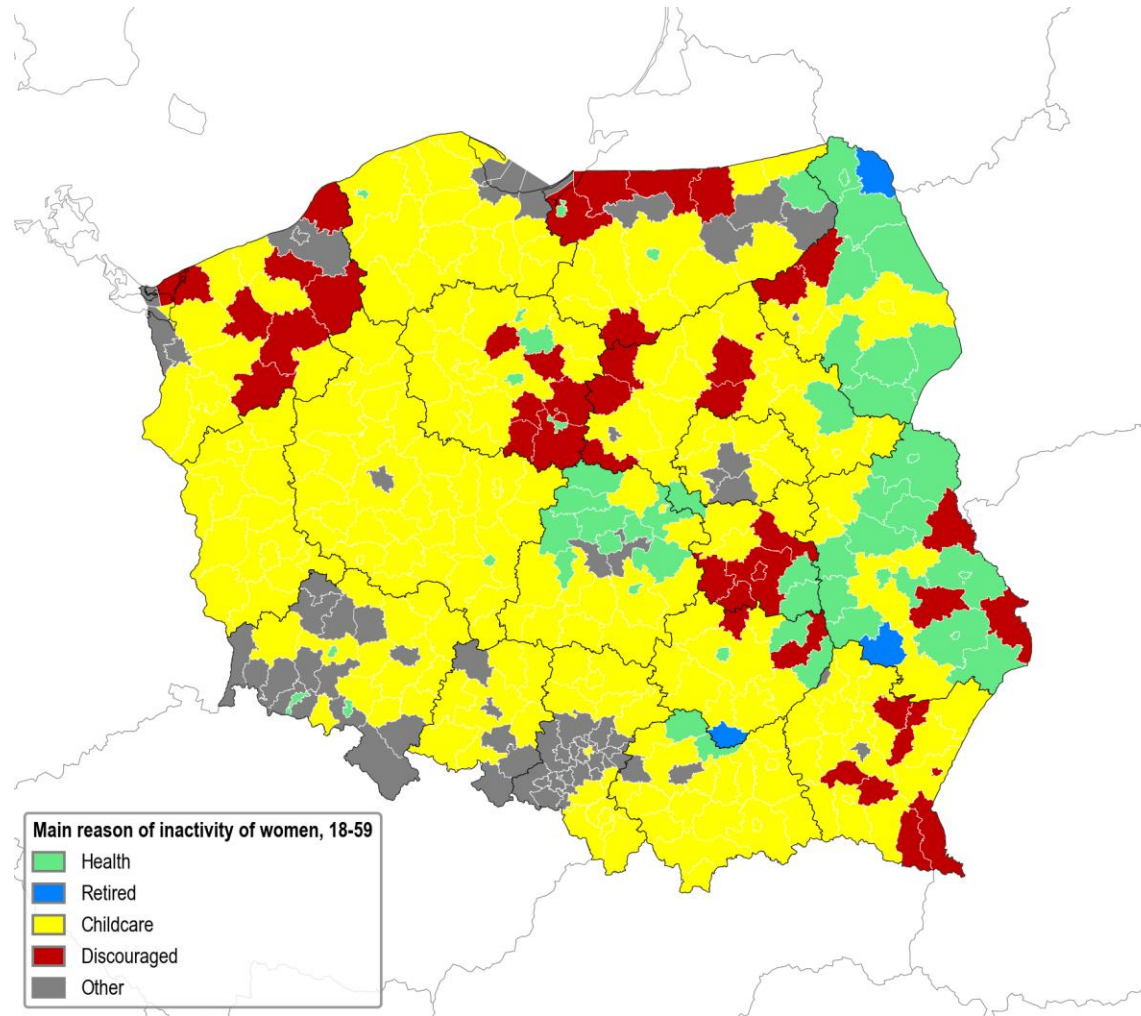
Main reason of economic inactivity: Results at Powiat level



Source: OECD calculations based on Population Census Data, 2021.



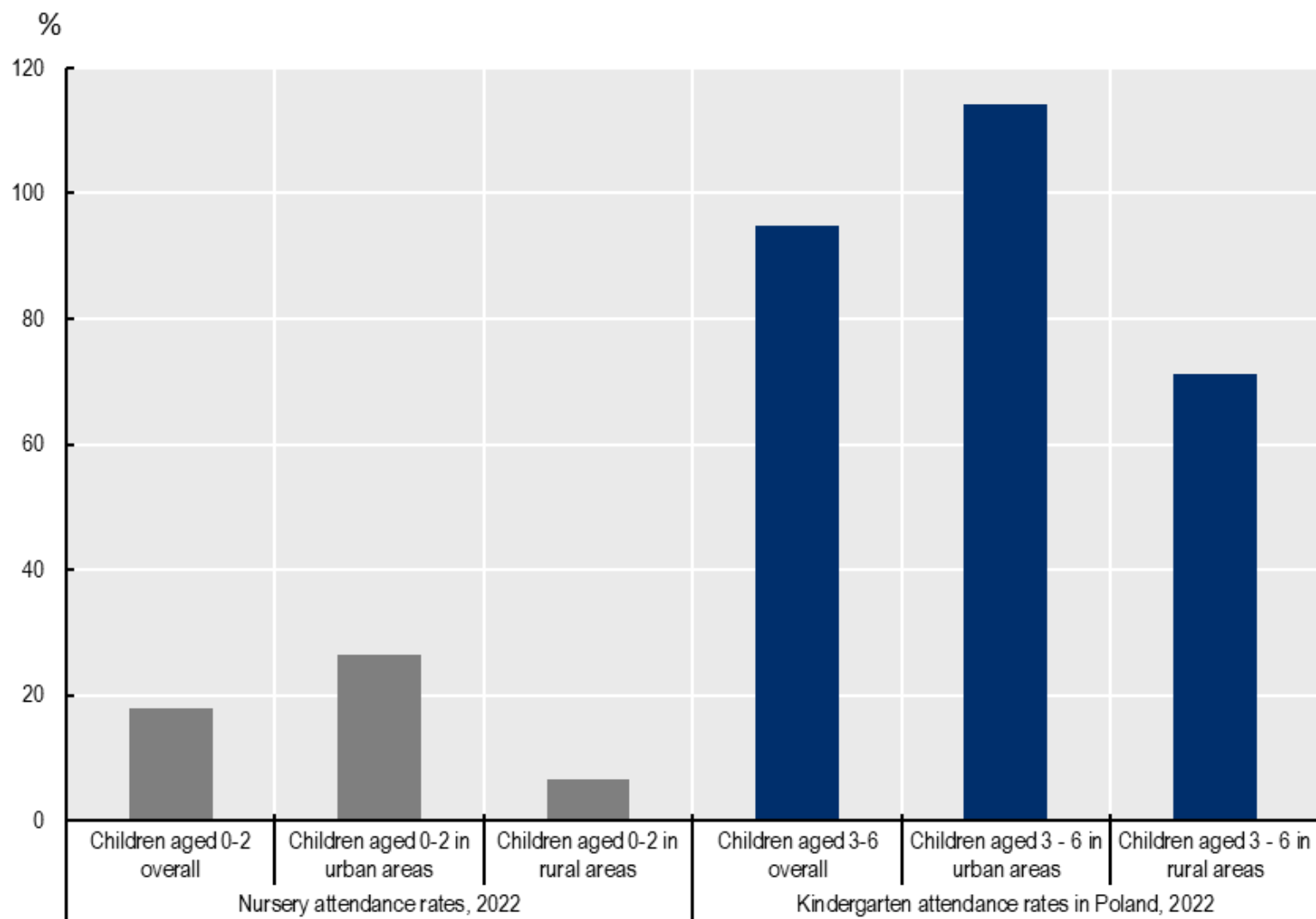
Main reason of economic inactivity for **women**: Results at Powiat level



Source: OECD
calculations based on
Population Census Data.
2021.



Inactivity of mothers in rural vs urban areas: Childcare





Main target groups



The results led to three main target groups

1. The number of inactive people who receive disability benefits is high, some of whom could be activated

- If 10% of those who receive disability benefits and who are currently inactive were put into employment, i.e. those who are willing to work, *70k more people would become active*

2. Early retirement is significant and many older workers who retire early do not have health problems

- The revealed preference to retire reflects a very low willingness to work, *stressing the importance of prevention*

3. A large share of mothers remain inactive even when their children get older

- Many (less-educated) mothers continue to *stay home once their children grow up*, despite the willingness to work in this group being relatively high

Note: Living in rural areas compounds the barriers to employment

- Lower childcare coverage and lower demand for labour play a role in determining inactivity in rural areas



Focus group interviews: First results



Focus group interviews – added value and preliminary results

- Population Census and LFS data have some major limitations in analysing why people are not economically active
 - Only major reason for inactivity listed: We know that the reason for economic inactivity is most often the sum or interaction of different factors!
 - The motivation to work is difficult to capture fully by a “willingness to work variable”
 - The type of PES support needed is not explicitly asked
- This is why we opted for a “mixed method” approach: Focus group interviews
 - Focus group interviews in four different locations across Poland with economically inactive people from the main target groups
- Preliminary results confirm that the decision to be inactive is often caused by interacting factors
 - Health limitations and caregiving responsibilities for instance are often not “standalone” problems but interact with:
 - Lack of demand on the local labour markets
 - Mismatch between individual professional skills and the needs of the local labour market,
 - Attitudes and expectations of employers, including those related to the broadly understood quality of jobs on offer,
 - Insufficient (not adjusted to real needs) support from PES



Three key takeaways



Three key takeaways

Combining different data sources and methods (quantitative and qualitative) produces reliable categories of economically inactive persons that can be targeted by PES

- The approach can be replicated easily

Considering the willingness to work in different groups of inactive people through different methods is crucial for an effective targeting

- Benefit levels
- Stated motivation to work
- Qualitative assessment

Within-country regional and local differences in the economically inactive population are large



THANK YOU

For more information, please contact
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Local Employment, Skills and Social Innovation Division
OECD Centre for Entrepreneurship, SMEs, Cities and Regions



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