Policy targeting assessment of Austrian Social Assistance schemes across federal states

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In a nutshell

⇒ In Austria, the social assistance system is characterized by a high fragmentation across federal states (NUTS-2 regions).

⇒ This translates into large differences in targeting and implementation of basic anti-poverty benefits.

⇒ This prompts us to begin evaluating the targeting of anti-poverty benefits

⇒ by disaggregating across federal states and household typologies, as households with children have been a debated category in the most recent reform.

Social assistance schemes

Social assistance schemes are one of the main anti-poverty tools. Their main social goal is to provide people who cannot meet their daily living costs with sufficient resources to do so.

These mostly translate into cash benefits and in-kind benefits directed toward very specific types of individuals, the ones:

⇒ without significant assets and

⇒ without sufficient income

⇒ and without sufficient support from other household members.

Social Assistance in Austria

⇒ The federal government is responsible for legislation in this area.

⇒ However, each of the 9 Austrian federal states regulated it through its own social assistance law based on Minimum Income schemes.

Minimum Income Standard (MIS)

is the minimum acceptable standard of living. It determines

(a) eligibility if income is below the MIS (jointly with other requirements)

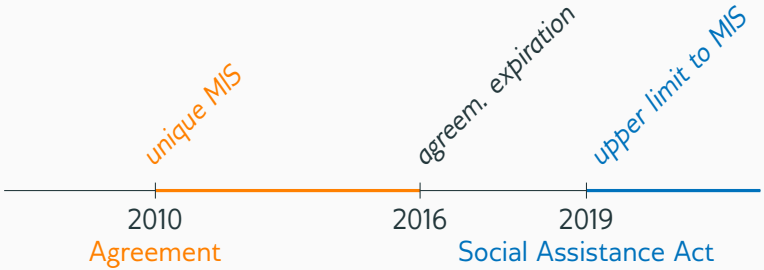
(b) the value of cash benefit as a differential amount between own income and the MIS.

Federal laws have varied significantly, each with different minimum standards.

Social Assistance in Austria

This situation has led to a severe problem of lack of harmonization and fragmentation:

- To avoid this, in 2010 the federal government and states reached an agreement to improve harmonization and set unique minimum standards for all federal states.
- the agreement expired in 2016 with a return to the federal states' legislation.
- A second attempt was the Basic Social Assistant Act passed in 2019.



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The Basic Social Assistance act

This was intended to be a milestone for the Austrian social system, but it ended up being a controversial reform for many reasons:

- Instead of unique minimum standards, an upper limit to regional standards were set for all federal states, potentially maintaining targeting inequalities.
- As of 1 January 2024, implementation laws are in force in only six, out of nine, federal states. In the remaining three, federal state laws still apply.

The Basic Social Assistance act

It introduced severe limitations to specific categories due to ongoing political debates:

- among others, families with (many) children receive lower benefits than before;

Such measure was declared unconstitutional by the Austrian Constitution Law, federal states can freely determine the level of benefits for children.

research question

Do different minimum standards involve differences in benefit targeting across federal states?

Potential targeting inequalities and federal state fragmentation pushes us to investigate:

⇒ the effectiveness of benefits targeting across federal states

⇒ across household typology, as a debated category in this context.

Almeida et al. [2022] scrutinize benefit targeting across EU countries via micro-simulation models, but no regional/socio-demo disaggregation is provided.

Measuring targeting effectiveness

what type of income data?

We integrate Austrian-SILC survey income data with beneficiary counts released by Statistik Austria.

what type of spatial and socio-demo dimensions?

- the federal state dimension in terms of 9 NUTS-2 region
- the household type dimension: 1) single-parent family with dependent children, 2) two-parents family with dependent children, 3) single-person households, 4) couple with no children, 5) others.

We consider all the interactions across all these dimensions.

Measuring targeting effectiveness

what type of indicator?

- Coverage Rate $= \frac{\text{Nr. of beneficiaries being poor}}{\text{Nr. of poor persons}}$ in line with Coady et al. [2004].
- Due to the aggregate nature of beneficiaries' data, we should assume Nr. of beneficiaries being poor $=$ Nr. of beneficiaries in line with Tonutti et al. [2022].
- This seems reasonable as, for Austria, the % of non-poor individuals being beneficiaries has been estimated as close to zero [Almeida et al., 2022].

Small Area Estimation

$$\text{Coverage Rate} = \frac{\text{Nr. of beneficiaries}}{\text{Nr. of poor persons}}$$

challenge

The poverty counts/rates for each household type/ federal state are unreliable due to small sample sizes.

We have to resort small area estimation (SAE) methods: model-based variance reduction techniques.

Tonutti et al. [2022] employs them to assess the targeting of Citizenship Income in Italy.

Small Area Estimation

- hierarchical Bayesian models with survey estimates of the poverty rate as responses,
- that integrate auxiliary information:
  - $\Rightarrow$ census data related to the subpopulation (citizenship, education level, migrants status of residing individuals)
  - $\Rightarrow$ employment rates from Labour Force Survey.
- to produce predictions of poverty rates for each subpopulation with an acceptable level of uncertainty.

Basic Beta model in a Hierarchical Bayes framework

Consider y the unreliable poverty rate estimate and θ the true poverty rate for subpopulation d:

Sampling model

$$y_d|\theta_d, \phi_d \overset{ind}{\sim} \text{Beta}\left(\theta_d\phi_d, (1-\theta_d)\phi_d\right) \quad y_d \in (0,1);$$

where ϕ_d is related with the effective sample size.

Linking model

$$\begin{aligned} &\text{logit}(\theta_d) = \mathbf{x}_d^T\beta + u_d \qquad d = 1, \dots, D, \\ &u_d|\sigma_u^2 \sim N(0, \sigma_u^2). \end{aligned}$$

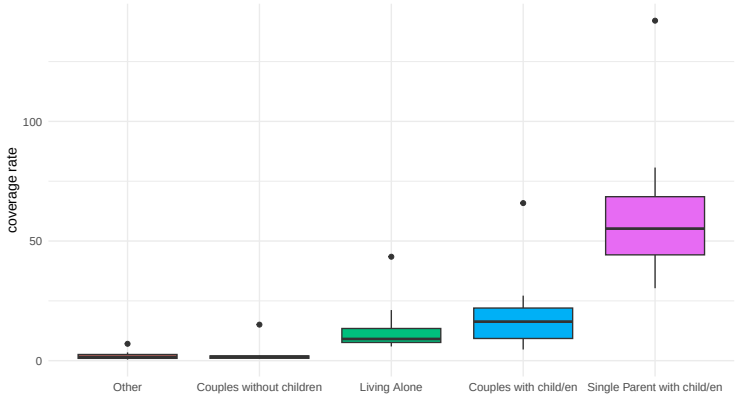
Priors for other parameters are standard non-informative priors.

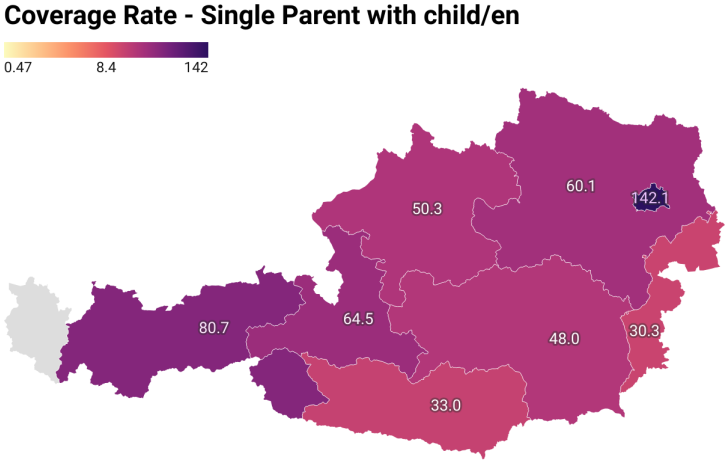
Preliminary results

$$\text{CR} = \frac{\text{Nr. of beneficiaries}}{\text{Nr. of poor persons}} = \frac{\text{\% of beneficiaries}}{\text{poverty rate}} \quad \begin{array}{l} \Rightarrow \text{released by Statistik Austria} \\ \Rightarrow \text{estimated via SAE} \end{array}$$

- SAE models determine a variance reduction up to 80%.
- Estimated national coverage level is 14.47%, in line with Almeida et al. [2022] results.
- Large heterogeneities in coverage levels are confirmed.

Coverage rate by household type





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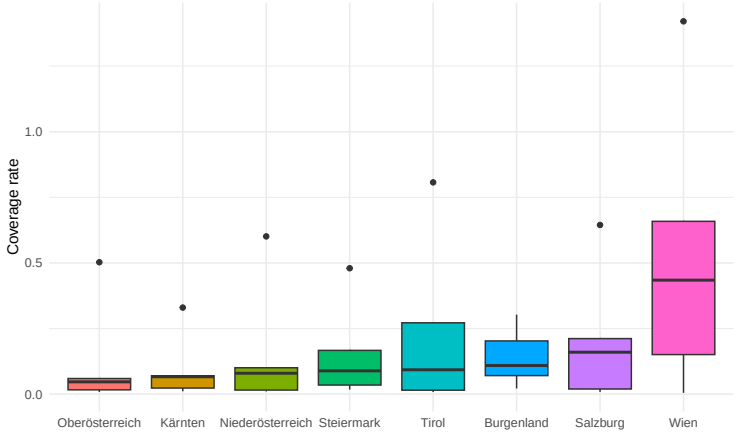
Coverage rate by Federal State



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Conclusions and Future Directions

- Satisfying preliminary results point out large heterogeneities in coverage levels.
- Is under-coverage due to policy design or non-take up, i.e. eligible individuals do not simply apply for benefits?
- We want to expand the analysis by evaluating the adequacy (how generous the benefits w.r.t. the poverty gap) and impact of such a policy.

References

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