

This document serves as **Supplementary Material** to the paper “Exploring residential space use pattern: Findings from a multi-country survey” (Bagheri et al. 2024) published in the *Journal of Energy Efficiency*.

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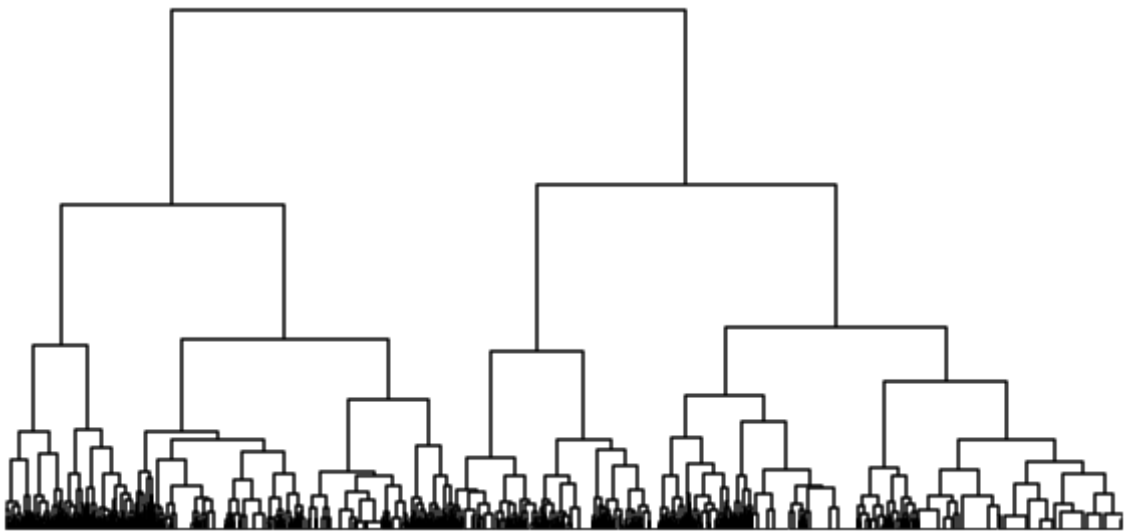
Mahsa Bagheri

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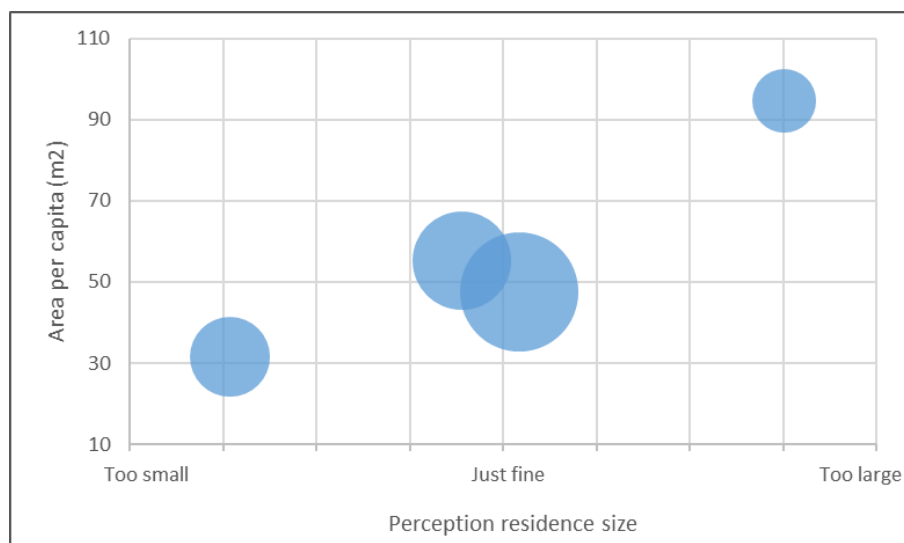
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## Results of hierarchical clustering



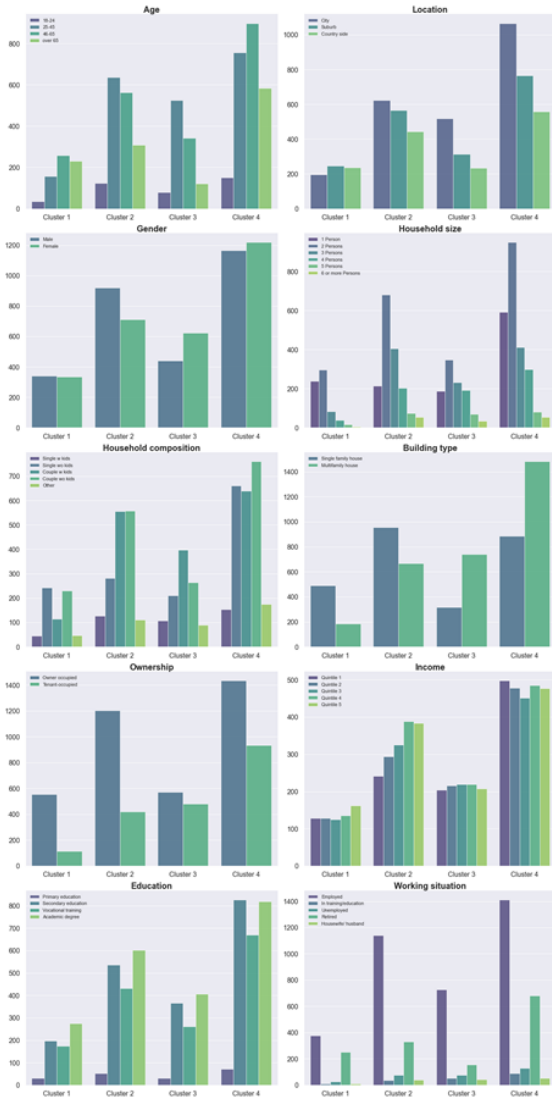
*Fig. SM3. 1 Hierarchical clustering dendrogram, showing the hierarchical relationship between observations*



*Fig. SM3. 2 Average actual and perceived floor area in the clusters of hierarchical clustering*

## Aggregated level

a.



b.

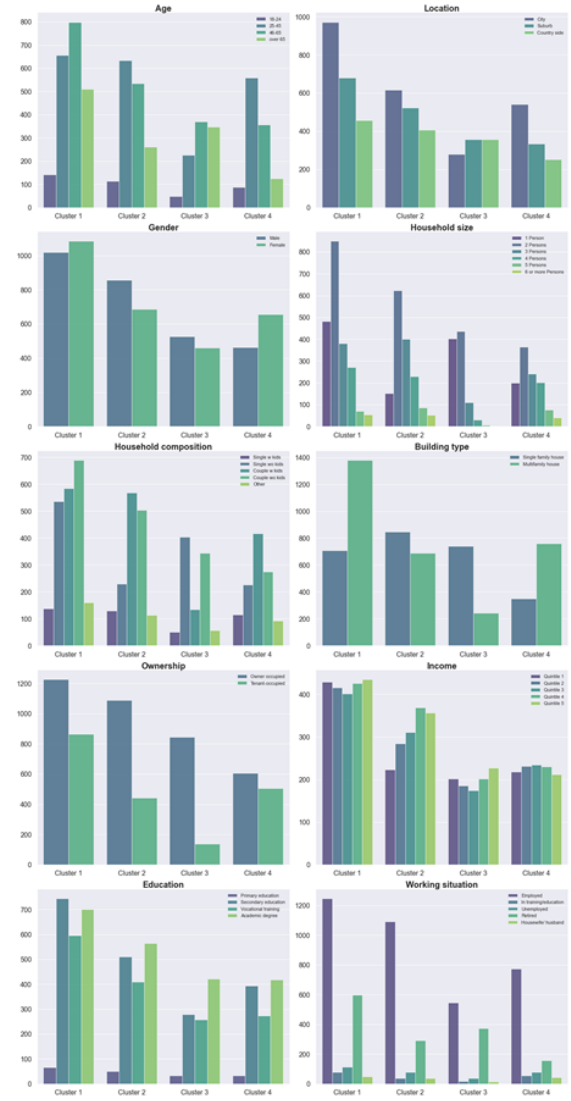


Fig. SM3. 3 Comparing the socio-demographics of the cluster results conducted at the aggregated level – a. hierarchical clustering, b. k-means clustering

## Results of k-means clustering at the country level

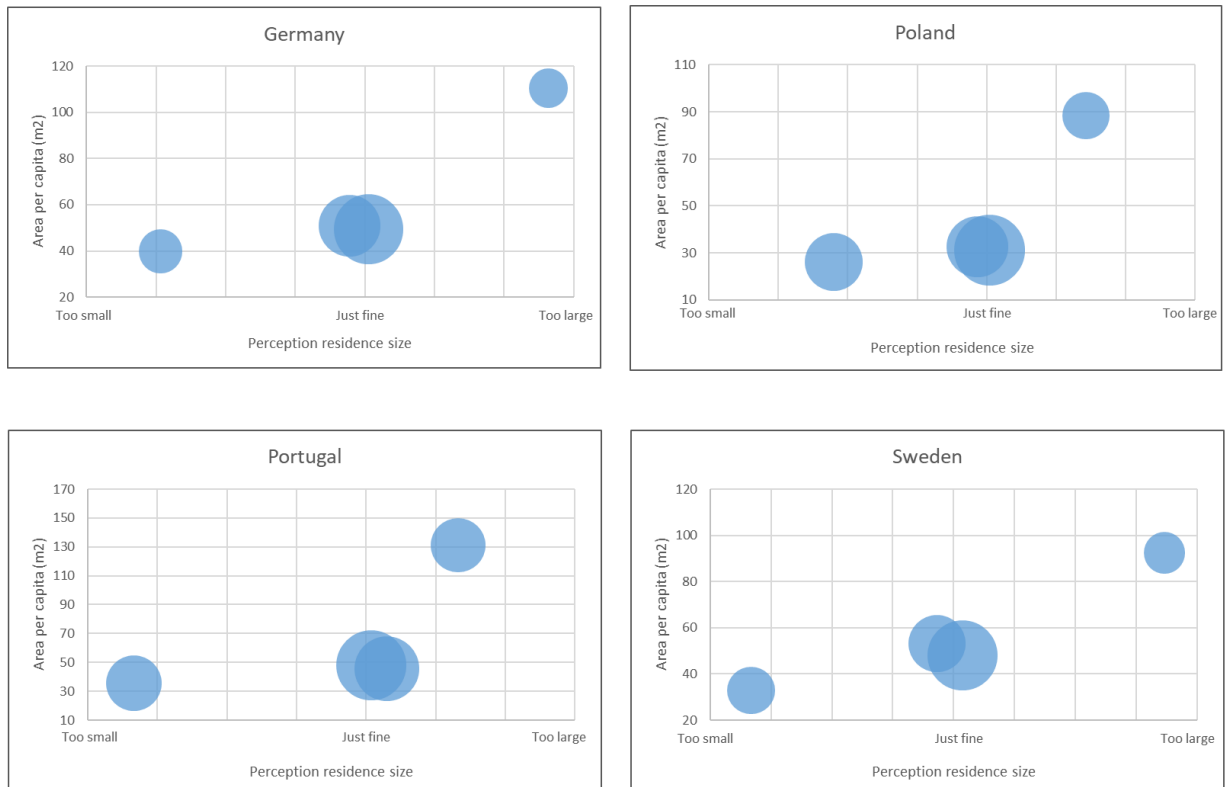


Fig. SM3. 4 Average actual and perceived floor area for clusters of each country- clustering conducted at country level

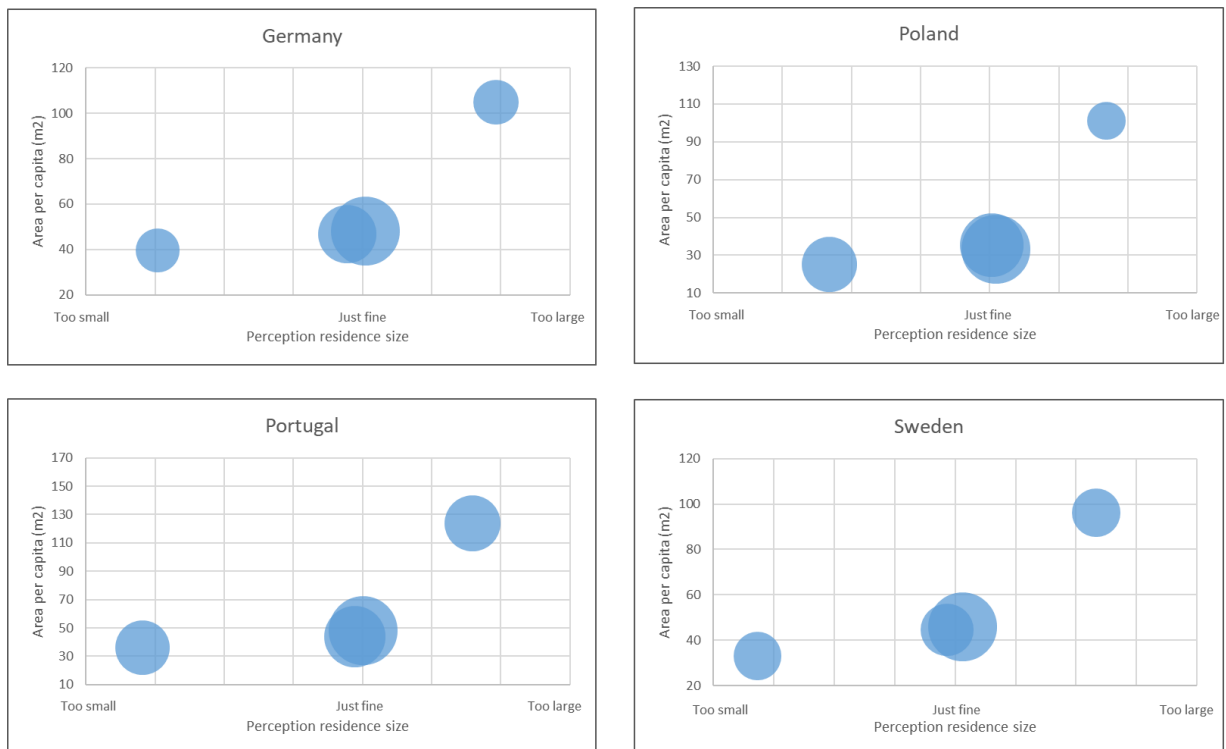
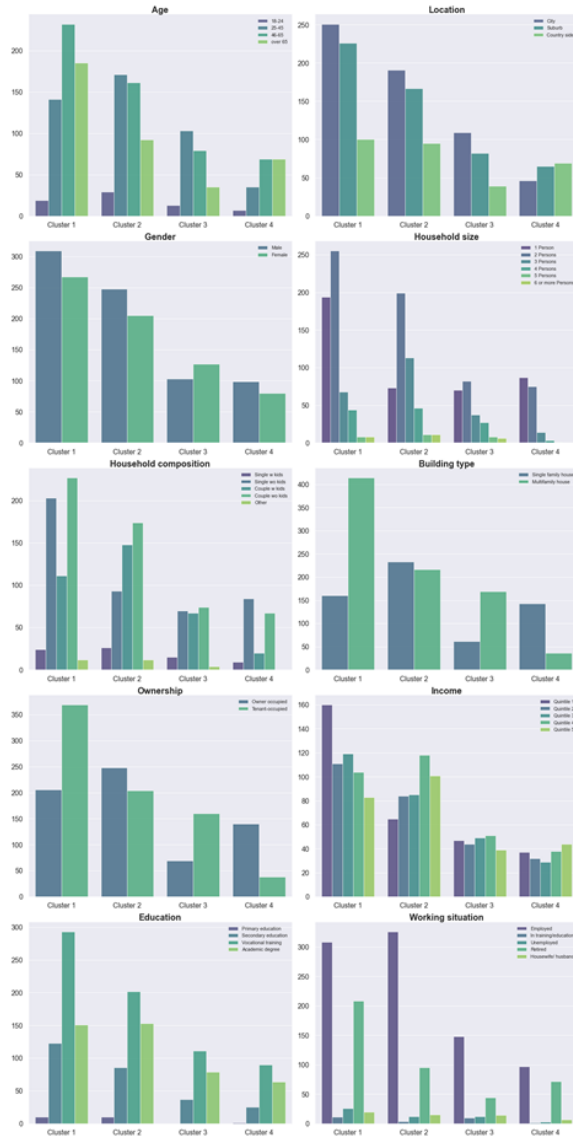


Fig. SM3. 5 Average actual and perceived floor area for clusters of each country- clustering conducted at aggregated level

# Germany

a.



b.

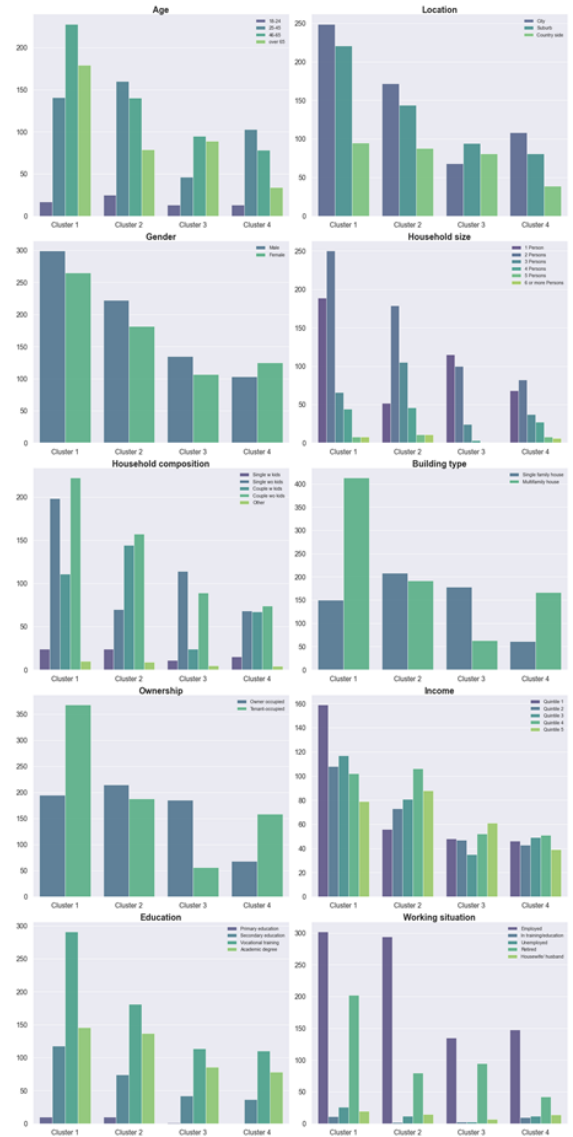
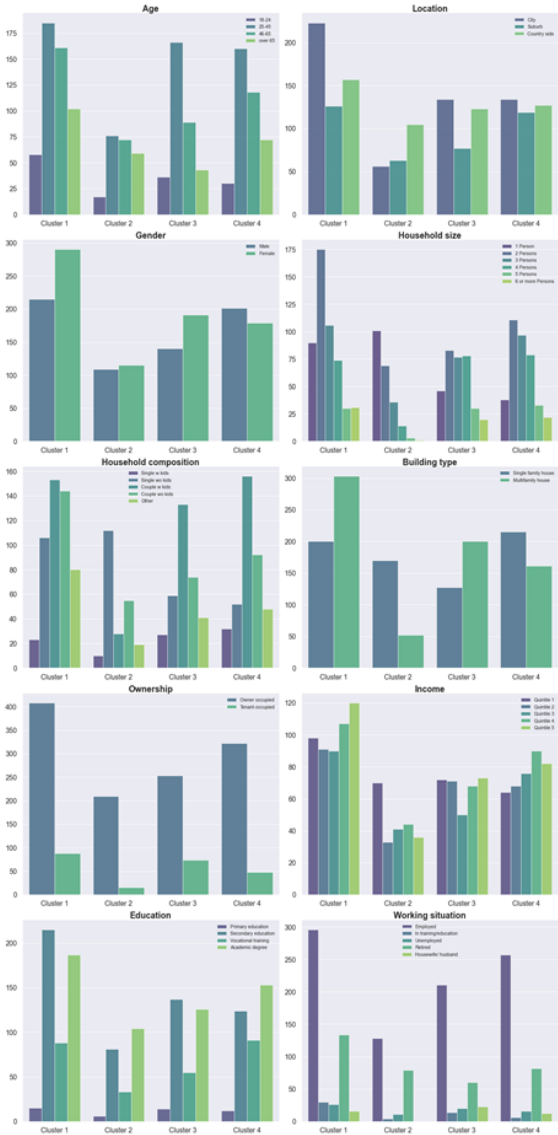


Fig. SM3. 6 Comparing the socio-demographics of the clusters of Germany: a. clustering conducted at country level, b. clustering conducted at aggregated level

# Poland

a.



b.

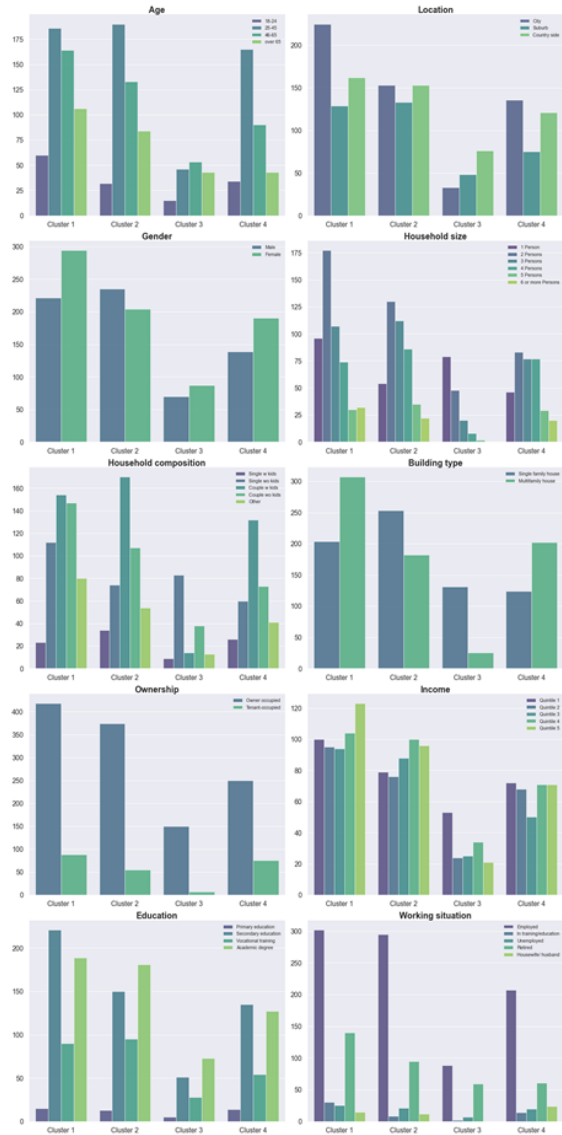
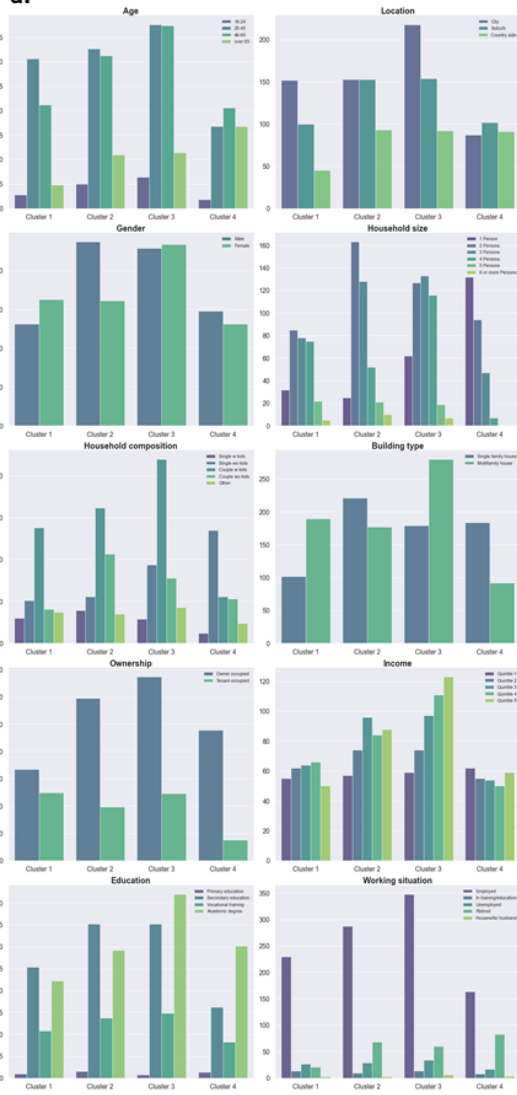


Fig. SM3. 7 Comparing the socio-demographics of the clusters of Poland: a. clustering conducted at country level, b. clustering conducted at aggregated level

# Portugal

a.



b.

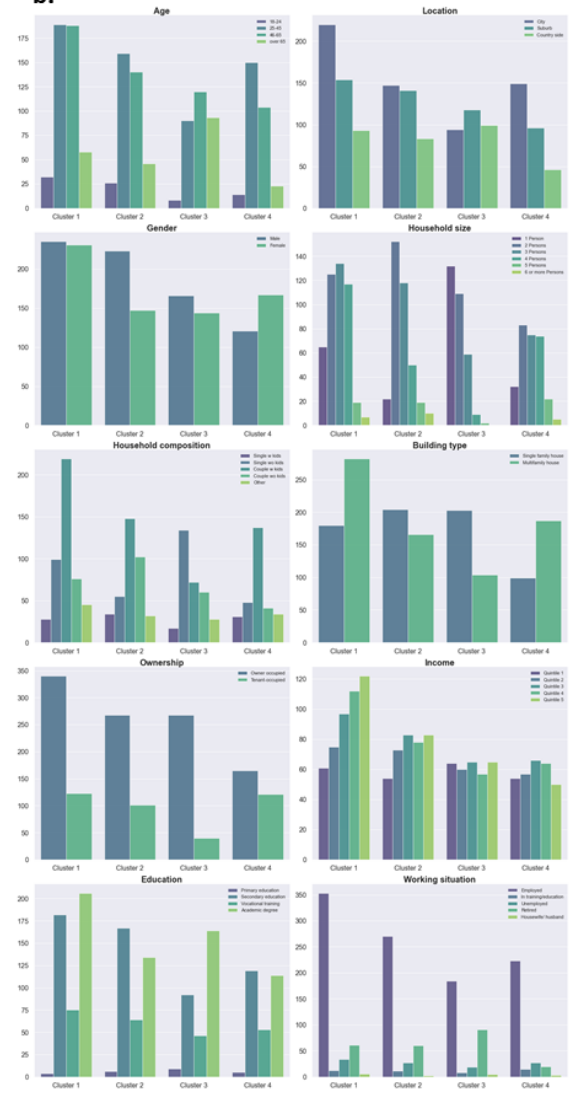
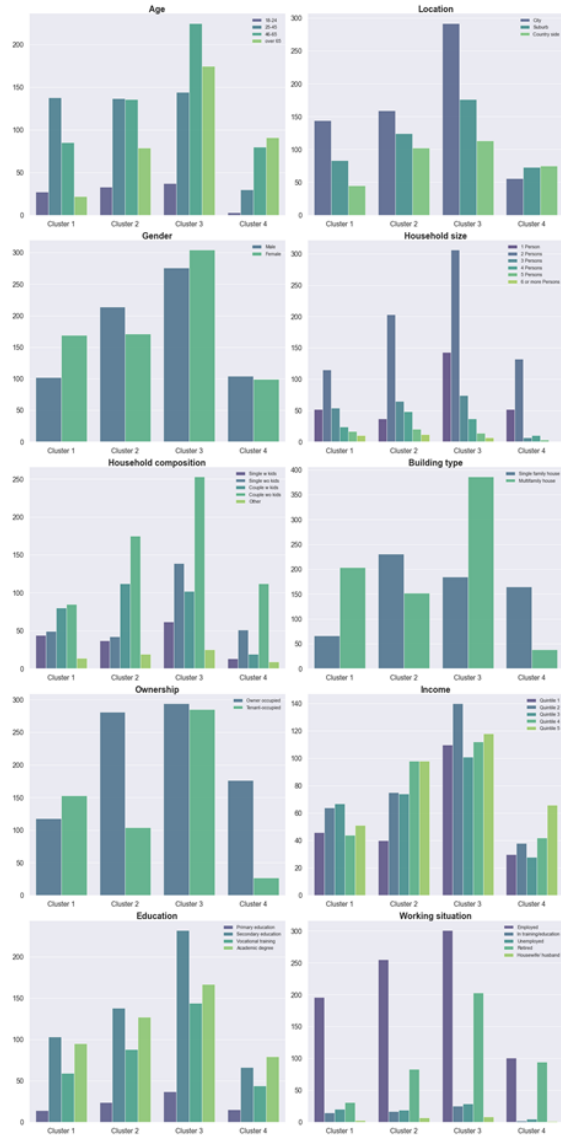


Fig. SM3. 8 Comparing the socio-demographics of the clusters of Portugal: a. clustering conducted at country level, b. clustering conducted at aggregated level

# Sweden

a.



b.

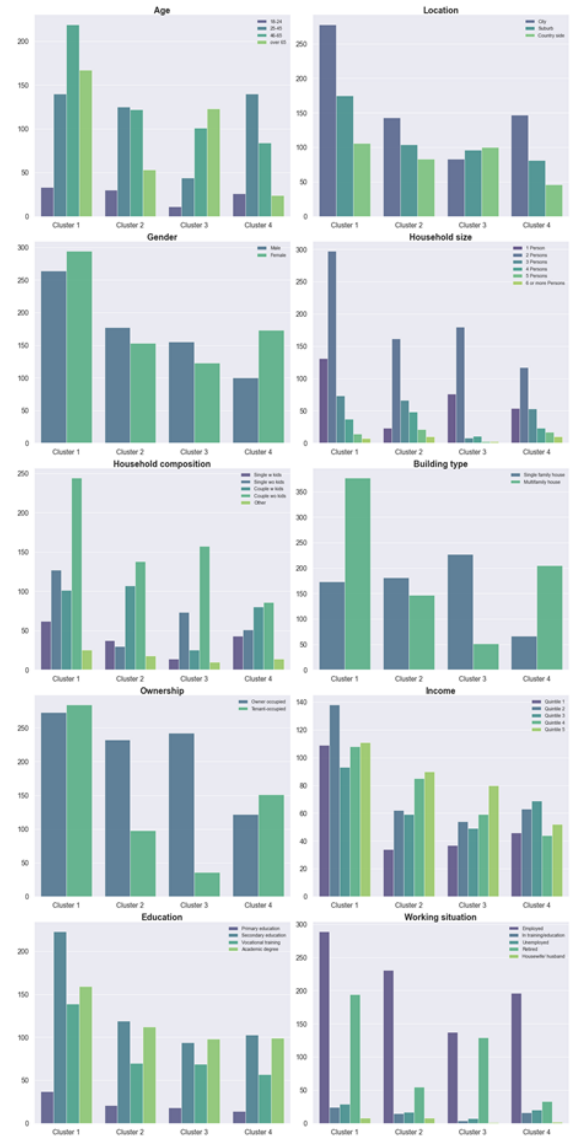


Fig. SM3. 9 Comparing the socio-demographics of the clusters of Sweden: a. clustering conducted at country level, b. clustering conducted at aggregated level