

# Emigration behaviour of migrants in Austria – Accounting for heterogeneity in the official Austrian population projection

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The future size and composition of the Austrian population are significantly influenced by the demographic behaviour of its foreign-born population, which comprises 22% of its residents (Statistics Austria, 2023). However, immigrants constitute a highly heterogeneous group, evident from variations in age and sex structures upon arrival across groups such as university students from Western Europe, workers from East and South-East Europe, and refugees from the Middle East. Another source of heterogeneity is the duration of stay (Vanthomme & Vandenheede, 2021). Emigration risks differ substantially across groups and decrease at the individual level with the duration of residence.

Statistics Austria has developed a microsimulation model for its official population projection to address this challenge. Our approach incorporates a model of international migration that explicitly accounts for the relationship between emigration risk and the duration of residence. Additionally, place of birth is included as an individual-level attribute in the form of detailed country clusters. Through retrospective projection, we demonstrate the efficacy of the microsimulation model in accurately capturing emigration patterns, as evidenced by the close alignment with the observed emigration levels from 2013 to 2021. This period saw high levels of immigration which peaked in 2015/16. In contrast, population projections relying on the cohort-component method could not adequately capture the observed emigration levels following this peak in immigration.

We aim to gradually refine the microsimulation model to account for variations in fertility and mortality within the migrant population. Furthermore, we plan to expand the model by incorporating additional modules encompassing education, employment, health, and other socioeconomic characteristics. This comprehensive approach will provide a more robust foundation for generating population projections and facilitate a deeper understanding of the complex dynamics within Austria's population.

## REFERENCES

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