

Summary

ÖROK PUBLICATION NO 196/III – ÖROK REGIONAL FORECASTS 2014-2030 – HOUSEHOLDS

Introduction

In June 2015, a new small-scale ÖROK population forecast was published for the period of 2014 to 2030.¹ Among others, the regional developments presented are an important base for further projections to be derived. Accordingly, an employment forecast as well as a forecast regarding private households have been or will be prepared based on the small-scale ÖROK population forecast. The employment forecast was published in October 2015 already.² The present report contains the data base, the methodology and the results of a small-scale household forecast for Austria, the provinces, NUTS 3 regions as well as for 122 forecast districts – basically the political districts of Austria as well as the 23 Vienna districts. The forecast is computed bottom-up. This means that all computations will be made on the lowest level of the variable differentiation and will be aggregated step by step to the higher-level (regional) units.

The forecast model is based on the household member technique. This means that the population segments are forecast into the future according to the size of the private household and the number of persons who will live in institutional households, respectively. The linking of these percentages with the accordingly structured results of the most recent ÖROK population forecast yields the forecast population according to the size of the private household and the number of persons who will live in institutional households, respectively.

In this model, the number of projected households is calculated by a division of the population structured according to household size by the corresponding household size. The household forecast is prepared in two different variants for the period 2014–2030. Pursuant to the 2014 (base year) Register-based Labour Force Statistics (AEST) the **constant variant**

keeps the household member ratio structured according to the above characteristics constant over the complete forecast period. Thus, this variant measures the purely demographic influence on the development of household figures resulting from the forecast changes in the population figure and structure according to the 2014 ÖROK Forecast. On the other hand, the **trend variant** also takes into account recent trends within the household formation process of the population. These trends are determined by a dissection of past developments into a demographic component on the one hand and a trend component on the other. In both variants, the population in institutional households is determined on the basis of age-specific rates.

The setting of the forecast and general conclusions

Housing requirements are determined to a large extent by the size and composition of private households. Young people often spend their youth in rural or suburban areas before moving to cities, where they live as subtenants for some years while studying or working before buying or renting an apartment or house. Others move to regional centres that offer a certain range of services.

Population developments have spatial implications with respect to housing and public services. Firstly, the increasing number of children in all Austrian provinces (except Carinthia) could challenge the requirements for educational institutions. Education policies and services for children and youth are affected by demographic dynamics. Training and leisure facilities will gain importance as a consequence of the projected increase of pupils, many of whom will be migrants or descendants of migrants. Secondly, demographic change and ongoing medical-technological progress will increase the demand for health and long-term support for the increasing

1 ÖROK-Schriftenreihe Nr. 196/I: ÖROK-Regionalprognosen 2014-2020, Teil 1: Bevölkerung; Wien, 2015

2 ÖROK-Schriftenreihe Nr. 196/II: ÖROK-Regionalprognosen 2014-2020, Teil 2: Erwerbspersonen; Wien, 2015

number of elderly.³ Thirdly, the future demand for housing will differ from region to region due to demographic dynamics. Changes in the age and household composition, in turn, will lead to qualitative shifts with respect to housing demands.⁴

The main (or trend) variant of recent household projections is based on the assumption that the observed trends between 2001 and 2014 will continue until the year 2030. Consequently, the number of households in Austria would further increase while the average household size would decrease. Considering trends from the recent past, it is very likely that the number of households could increase faster than the overall population. This is because the share of persons living in one-person and two-person households is assumed to increase until 2030 while the population share in larger household sizes is projected to decrease.

Today, the share of larger household sizes is still relatively high in rural regions and in areas situated far from the main centres of population. However, there might be a shift to smaller household sizes until 2030 according to the trend variant of the household projections. The decrease of average household sizes in regions with net out-migration is a consequence of the general population decline in such areas. Regions with stable and growing populations are expected to experience the opposite, with further increases in the number of households. These regions would have to deal with an expansion of existing settlement areas. It is assumed that more people will live in larger household sizes by 2030 in urban centres, despite the current relatively high share of persons living in smaller household sizes in such areas. Consequently, the future population growth in Austria's cities must be covered to a large extent by an increase in the number of larger household sizes. This is especially the case in Vienna, where the projected increase in population numbers is assumed to outpace the increase in the number of private households.

The projected population growth in urban regions is based on the assumption that the relatively strong recent net migration gains driven by international immigration will continue until 2030. This would mean an increase of the foreign-born population, which on average occupies larger household sizes when compared to the Austrian-born population. Urban agglomerations must be prepared to further improve integration measures, especially with

respect to access to housing, education, and labour. Another reason for the projected increase in the share of people living in private households with three or more persons is the assumption that more young adults (below 25 years) will either share a flat with peers or continue to live in the parental household. This trend is due to increasing housing prices and the associated shortage of affordable housing and can already be observed.

Regions with a high share of elderly persons (80 years and more) living alone, which is especially the case in larger cities and regions affected by out-migration, are challenged to provide an adequate supply of essential goods as well as health and care services. In general, the age group 80 years and older will be the strongest growing age group in the coming years in both absolute and relative terms. Although the share of seniors aged 80 years and older living alone is assumed to decrease until 2030 (due to the stronger gains in further life expectancy of older men), the number of single-person households of people in this age group will further increase.

The patterns of population, household, and economic growth differ from region to region. In central regions, the population below 15 years is projected to increase until 2030, while the opposite is true for rural and peripheral areas. It may therefore be necessary to further develop childcare facilities and school sites in urban areas while maintaining compulsory schools in remote areas. It is probable that the migration of younger people from rural to urban areas will continue in the near future. Consequently, there will be greater demand for adequate housing, sufficient higher education capacities, and additional jobs in Austria's cities.

It is likely that the majority of new jobs will be created in urbanised central areas. Private households in structurally weaker rural regions might be especially affected by future labour market developments. In general, it is expected that more people will hold part-time jobs by 2030. Private households in urban regions might benefit from more attractive employment opportunities, which could lead to even more commuters in the coming years. The results of the regional ÖROK labour force and household projections provide indirect guidance for the financing of ownership and rental housing and also frame potential investment needs with respect to mobility and general infrastructure. In the coming years, public

- 3 Niehaus, F. (2006): Auswirkungen des Alters auf die Gesundheitsausgaben. WIP-Diskussionspapier 5/06. Wissenschaftliches Institut der PKV.
- Statistische Ämter des Bundes und der Länder (2010): Demographischer Wandel in Deutschland. Auswirkungen auf Krankenhausbehandlungen und Pflegebedürftige im Bund und in den Ländern. Heft 2, Ausgabe 2010.
- 4 Rohr-Zänker, R. (2006): Wohnungsmärkte im Wandel. In: Bertelsmann Stiftung (Hrsg.): Wegweiser Demographischer Wandel 2020. Analysen und Handlungskonzepte für Städte und Gemeinden. S. 112–118.

services of general interest need to ensure the provision of necessities for an ageing society in the urban centres and fringes. Beyond that, it will be a particular challenge to guarantee and finance the future supply in peripheral municipalities that are affected by demographic decline. Finally, the impact of structural and regional policy measures concerning settlement and population developments needs to be regularly reviewed.

Results of the 2014-2030 household forecast – Details Households in total

Throughout Austria, the number of private households is assumed to continue increasing in the future. Starting from the 3.73 million households existing in the base year 2014 it will increase by 5.7% to 3.94 million households until 2020, by 9.4% to 4.08 million households until 2025 and, at last, by 12.4% to 4.19 million households until 2030. The major part of the rise will be due to population development: 10.1% of the calculated 12.4%, these are 81.6% and 464 000 units of the long-term increase until 2030 will be due to the demographic component, whereas only 2.3% (i.e. just under one fifth and 18.4%, respectively) will be due to changes in the household formation process. Differentiated by Laender, the span of increase in private households is between 7.2% in Carinthia and 19.0% in Vorarlberg during forecast period. Merely in Carinthia the influence of the population component on future household figures is smaller than that of the behavioural component: in

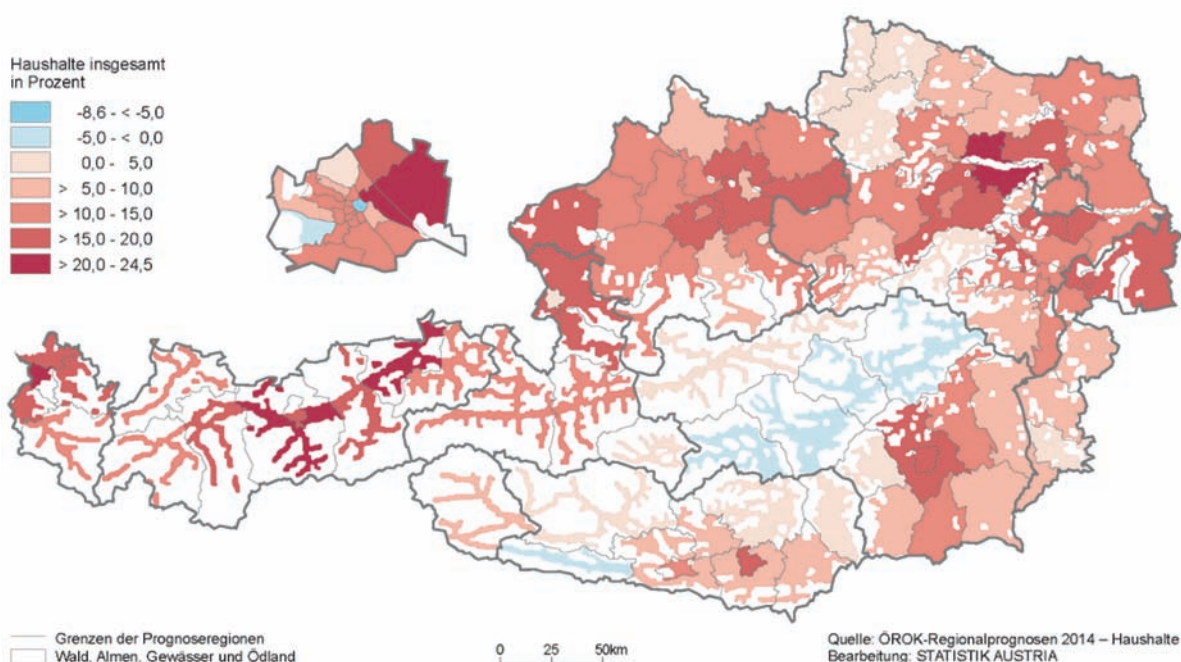
the most southern Austrian province a mere third of the increase will be due to future population development, two thirds of the increase, however, will be caused by trends in household formation. According to component-based assumptions, another negative trend component must be expected for Vienna, with 12.5% and by 3.7 percentage points households will increase less until 2030 than might be expected from population development.

Regionally differentiated, in 115 of the 122 forecast regions the number of private households will be greater in 2030 than in 2014. For the four Upper Styrian districts of the Mur-Mürz-Furche (Murau, Murtal, Leoben and Bruck-Mürzzuschlag), for the Carinthian district of Hermagor as well as the two Vienna districts Innere Stadt and Hietzing, the trend variant for the year 2030 yields lower values. In Innere Stadt, population as well as trend component are negative, which is why a decline of 8.5% is forecast until 2030. While in Hietzing the population component is positive and the trend component is negative, in the rest of the five mentioned districts in Styria and Carinthia the situation is exactly the reverse.

With 24.4%, the regionally largest increase in households is expected for Donaustadt (22nd Vienna district including the large urban expansion area Seestadt Aspern). According to the forecast population figure a long-term growth by even 28.5% could be expected, which is the highest demographic component of all 122 forecast regions. Regarding the extrac-

Map S1: Household Forecast 2014 till 2030 according to trend variant

Trendvariante: Veränderung der Haushalte 2014 bis 2030 nach Prognoseregionen



ted trend component entering into the forecast it must be expected that, a majority of rather larger households will move to the new areas of Donau-stadt, which is reflected in the negative sign adhering to the trend component (-4,1%). Therefore, in future, households there are likely to grow more slowly than the population; the average household size, however, will rise accordingly.

One-person households

In future, the number of one-person households will rise in all 9 Austrian provinces. For the whole of Austria, an increase of 17.0% can be expected until 2030, starting from 1.37 million (2014) up to 1.60 million. With regard to the two different components, population development is responsible for three quarters of this development while one quarter is due to the trend component.

With 6.2% the weakest growth is forecast for Vienna, the strongest one for the province of Vorarlberg with 31.1%. As already mentioned when describing household development in total, the increase in one-person households since 2001 Census is closely linked to the ageing process of the population. Thus, until 2030, the number of one-person households of the age group 65-79 years will rise by 33.7% throughout Austria, that of the age group 80+ will rise by 34.6% even, i.e. more than a third each of the initial stock of 2014. In this sense, the planning of new residential units and the adaptation of older buildings, respectively,

will have to focus in particular the requirements of elderly people, and especially of those who live alone in a household. Barrier-free lodgings and residential buildings, respectively, but also senior-friendly infrastructure (e.g. local suppliers, accessibility of public institutions etc.) will become increasingly important. Moreover, a great effort must be undertaken with regard to offers and opportunities particularly for older persons to have and to maintain social contacts.

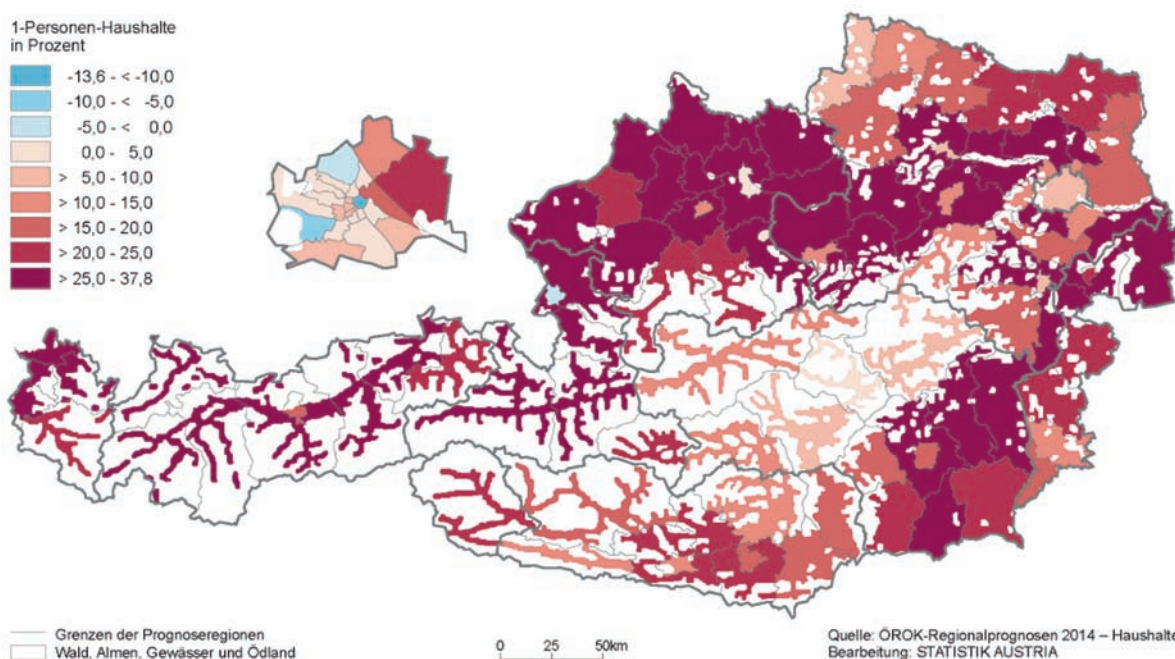
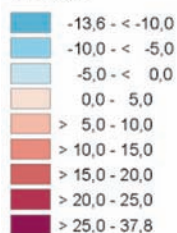
Burgenland as well as Styria show a trend component which is slightly higher than the demographic component. In the capital of Vienna, the demographically expected increase of 14.3% until 2030 is more than halved by the behavioural component of -8.1%.

In the long run and according to regional differences, the most important increase in one-person households with maximum values of more than one third can be expected for the surrounding areas of big cities. The provincial capitals themselves usually show a significantly weaker growth as the influence of population growth is dampened by the behavioural component of household formation. In all Vienna districts except Leopoldstadt, in the provincial capitals of Linz and Salzburg as well as in Wiener Neustadt and the forecast regions of Schwechat, Gänserndorf-Großenzersdorf-Marchegg, Baden-Ebreichsdorf and Klosterneuburg-Purkersdorf the demographic influence of population development in the formation of one-person households is weakened by the trend component. In Vienna's Innere Stadt both compo-

Map S2: Development of one-person households 2014 till 2030 according to trend variant

Trendvariante: Veränderung der Haushalte 2014 bis 2030 nach Prognoseregionen

1-Personen-Haushalte
in Prozent



nents are decidedly negative, which is why the number of one-person households will decrease by 13.5% until 2030. In some respect, this also holds true for the Vienna district of Hietzing, where the number of one-person households will go down by 5.2% in the long run. In the four districts of the Mur-Mürz-Furche as well as in the town of Steyr and in Hermagor, the negative population component is compensated by the trend in household formation resulting in more one-person households than in 2014 in future.

Two-person households

With 20.3% the future increase in two-person households is slightly more remarkable than that in one-person households. While in 2014 there were 1.12 million two-person households 2030 will see 1.35 million of them. Again, the same applies: all over Austria, the main part of the increase (71.1%) is the result of population development. Among two-person households, too, the trend component is a bit stronger than the population component in Carinthia as well as in Styria. In the capital city of Vienna the population component is mitigated by the behaviour in household formation. In the long run, the strongest growth on a Laender level is expected for Vorarlberg with 31.3%, whereas – due to the negative trend component – the weakest increase must be anticipated for Vienna with 13.0%.

A familiar picture shows with regard to regional differentiation: the strongest growth rates are forecast for

the surrounding regions of the big cities. In the cities themselves, though showing strong population growth, the negative trend component diminishes the increase in two-person households. And again in the two Vienna districts of Innere Stadt and Hietzing, the number of two-person households will decrease in the long run. With -9.3% this decline is comparatively sharp in the 1st district.

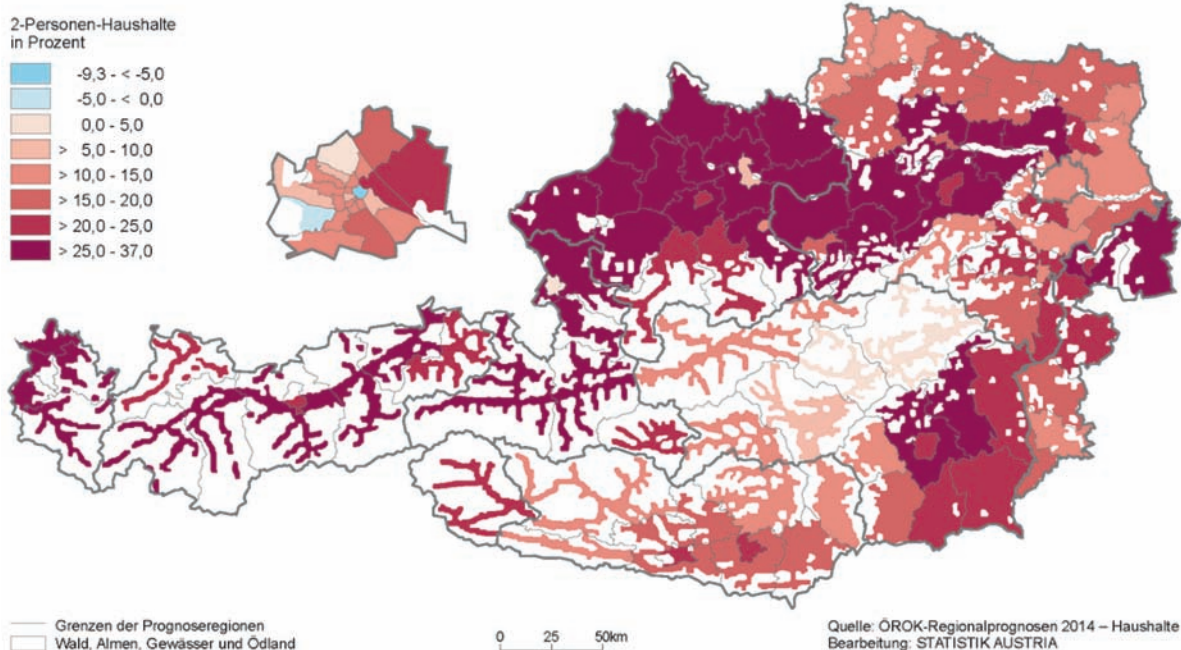
Three-person households

In the whole of Austria, the number of three-person households will rise by 3.6% from 565 000 to 586 000 between 2014 and 2030. This corresponds completely to the population development (constant variant), the trend component for the overall federal territory is 0.0%. Trend factors of more than one percent can be determined for Salzburg (+1.4%), Tyrol (+1.4%) and Vorarlberg (+2.2%) only. In Vienna, the increase in the number of three-person households will be particularly significant with 15.5% until 2030. This is a result of population development on the basis of which a plus of 16.3% could be expected. The behavioural component (-0.8%) weakens this increase only slightly. Other remarkable growth rates in three-person households can be anticipated for Vorarlberg (+8.0%) and Tyrol (+6.7%). In Carinthia (-6.4%) and in Styria (-2.6%) the number will decline, however, in future, basically as a result of demographic development.

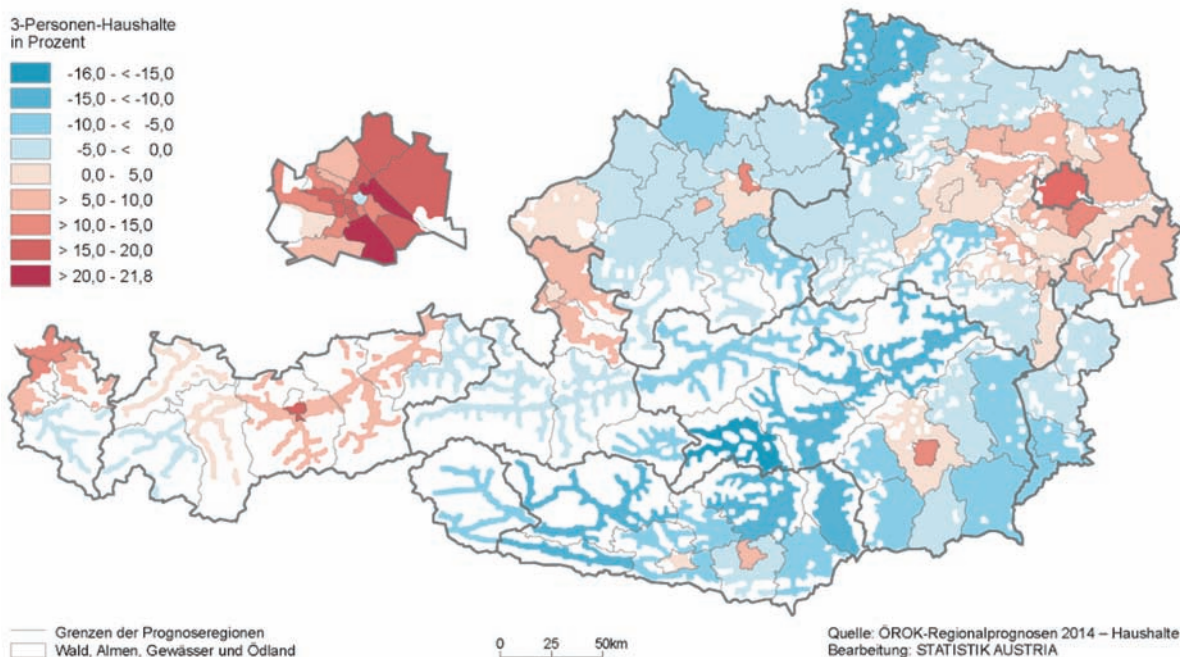
In the capital city of Vienna, the outstanding population growth in Donaustadt will produce an increase

Map S3: Development of two-person households 2014 till 2030 according to trend variant

Trendvariante: Veränderung der Haushalte 2014 bis 2030 nach Prognoseregionen



Map S4: Development of three-person households 2014 till 2030 according to trend variant

Trendvariante: Veränderung der Haushalte 2014 bis 2030 nach Prognoseregionen

in three-person households of 22%. This is the strongest growth of this household size within Vienna. In all other Vienna districts except Innere Stadt as well as in the provincial capitals of Innsbruck, Graz and Eisenstadt the number of three-person households will increase significantly. For all other urban regions, but also for districts surrounding urban areas slight increases in three-person households are forecast. The rural Austrian regions as well as the city of Vienna, however, will experience a downward trend in this segment. These declines are most remarkable in northern Waldviertel as well as in the peripheral regions of Carinthia and Styria. In the big Austrian cities the number of three-person households will rise dramatically. Growth rates of 10% to 22% are almost completely the result of population development, the behavioural component featuring insignificantly only with three-person households. In general, it can be summarized that the number of three-person households will increase in the cities and their surroundings, only. In the peripheral forecast districts, their number will decline in future due to the forecast population development on which it is based.

Four-person households

Throughout Austria, the number of households with four persons is not going to grow in future. The present forecast calculates a decrease of 1.3% starting from 440 000 (base year 2014) to 435 000 until 2030 according to trend variant. While based on population development, only, an increase of 1.3% could still

be expected within the forecast period, this growth is more than compensated by the behavioural component (2.5%).

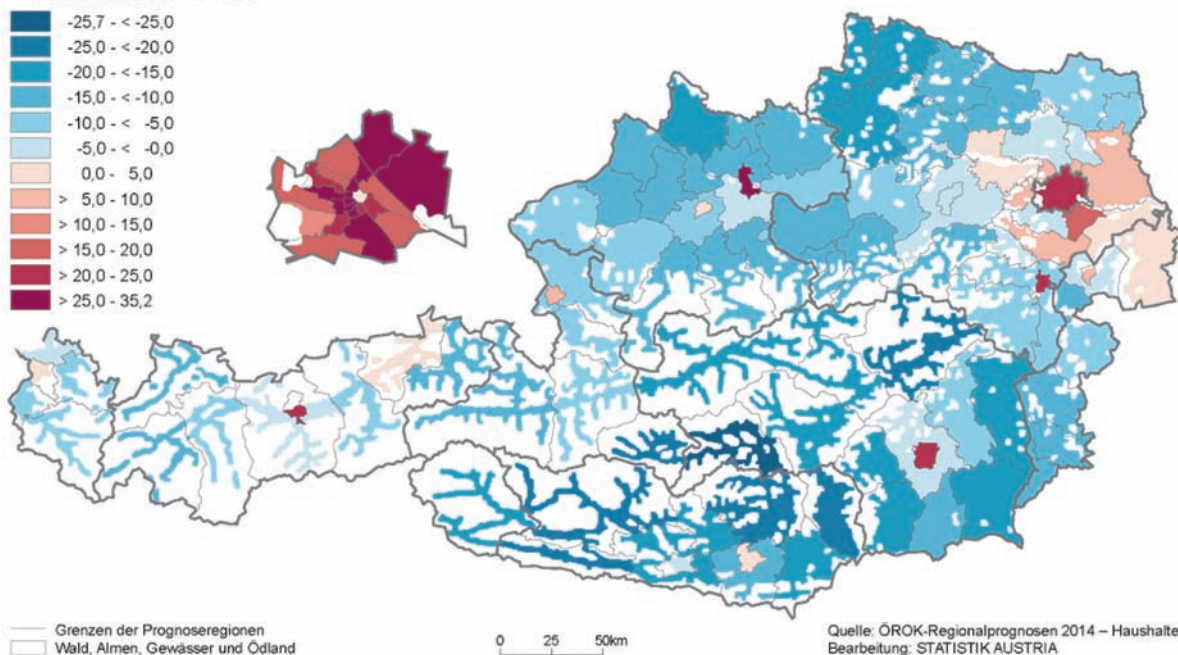
On a provincial level, the number of four-person households will not go on rising but in the capital city of Vienna, namely by almost one quarter or 24.1%. Around three quarters of this increase are the result of population development, almost one quarter of this aggregate change is due to the behavioural component. In all other Laender the number of four-person households will go down between -2.9% (Tyrol) and -14.9% (Carinthia) until 2030. In all of these Laender with the exception of Tyrol and Vorarlberg, the demographic and behavioural components are negative. In the two westernmost provinces of Austria, the population component is slightly positive.

With regard to regional differences, the number of four-person households increases in all 23 Vienna districts, most significantly in Mariahilf (+35.1%), in Innere Stadt (+2.7%) on the other hand, only insignificantly. Moreover, there are other provincial capitals and cities like Linz, Graz, Wiener Neustadt, Innsbruck, Eisenstadt and Salzburg as well as a number of surrounding urban regions for which more four-person households are forecast for 2030 than in 2014. Basically, and with the exception of the 13th Vienna district, these increases are the results of population growth. In Graz and Innsbruck the trend components are negative and, thus, curb household growth. In all other Austrian regions, we must reckon

Map S5: Development of four-person households 2014 till 2030 according to trend variant

**Trendvariante: Veränderung der Haushalte 2014 bis 2030
nach Prognoseregionen**

4-Personen-Haushalte in Prozent



with more or less significant decreases. In the rural areas, changes in population figures and population structures as well as the behavioural component of the household formation are responsible for a more or less significant decrease in four-person households.

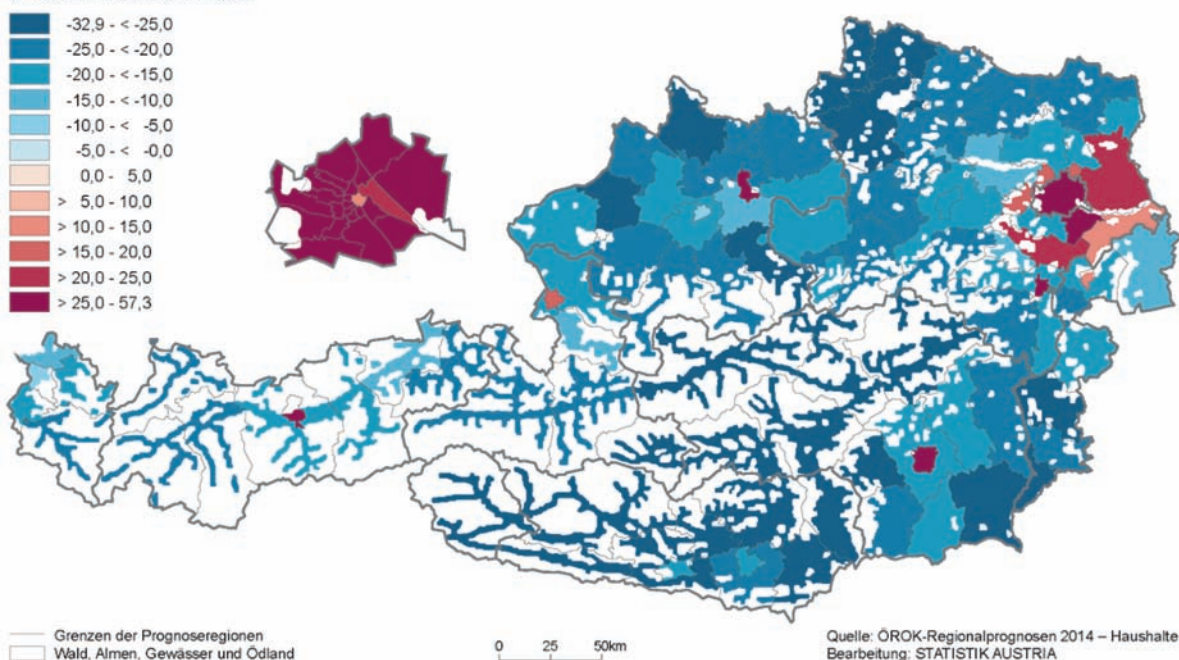
Five-person households

Until 2030, the number of five-person households will decline by -5.1%, that is significantly stronger than the decline in four-person households, namely from 155 000 in the base year 2014 to 147 000 in 2030.

Map S6: Development of five-person households 2014 till 2030 according to trend variant

**Trendvariante: Veränderung der Haushalte 2014 bis 2030
nach Prognoseregionen**

5-Personen-Haushalte in Prozent



From a purely demographic point of view, an increase of 4.4% could be expected, but this development is more than compensated by a negative behavioural component of -9.5%.

Similar to the situation with four-person households, the future development in Vienna is very different from that in the other Austrian Laender. While for all the other Laender a decline of five-person households between -26.6% (Carinthia) and -10.5% (Lower Austria) is estimated until 2030, the forecast value of the capital Vienna is at +38.5% for this time. This increase is created by population development (+22.3%), on the one hand, as well as by behavioural changes in household formation (+16.1%) on the other. In the other eight Laender, the decrease is mainly caused by the trend component, while the influence of population development is rather secondary – except in Carinthia (-6.8%).

On a regional level, once more urban forecast districts and some surrounding regions are the areas where the number of five-person households will significantly increase in the future. In the four Vienna districts of Mariahilf, Neubau, Josefstadt and Alsergrund the projected growth is more than 50%, but the absolute numbers are very low. In the urban areas, both population as well as behavioural component are responsible in most cases for the increase in five-person households. In the provincial capitals of Innsbruck, Graz and Eisenstadt the trend component is slightly negative. In

the rural and peripheral Austrian regions it is the negative influence of both components which reduces the number of five-person households. In these regions, the changes taking place with regard to the population figure and population structure as well as the behaviour in household formation influence the decrease projected in the long term.

Six- and more-person households

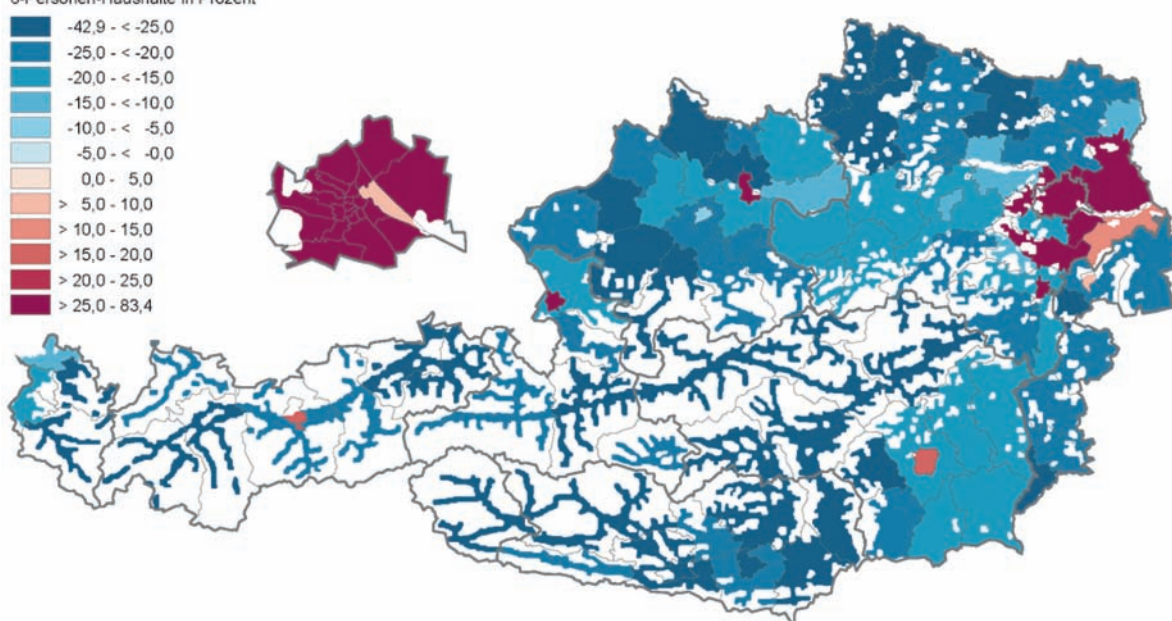
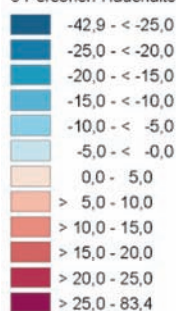
In future, the number of households with six or more persons will decrease throughout Austria, in fact by 3.8% from 82 000 (2014) to 79 000 (2030). On the basis of the demographic population changes, a significant increase could be expected for the future (+9.1%), which is, however, compensated by changes in household formation (-12.8%).

In the forecast period, Vienna reckons with an increase of six- and more-person households by 42.4%, in absolute numbers from 15 000 to 21 000. Responsible are, as already with four- and five-person households, the demographic (+24.1%) and the behavioural components (+18.3%). In the other eight provinces the number of these largest private households declines by between 26.6% (Carinthia) and -3.3% (Salzburg). Except Carinthia, where the demographic component is negative, as well, the reduction of households with six and more persons is caused by a decidedly negative behavioural component, which more than compensates the positive population component.

Map S7: Development of six and more-person households 2014 till 2030 according to trend variant

Trendvariante: Veränderung der Haushalte 2014 bis 2030 nach Prognoseregionen

6-Personen-Haushalte in Prozent



— Grenzen der Prognoseregionen
 □ Wald, Almen, Gewässer und Ödland

0 25 50km

Quelle: ÖROK-Regionalprognosen 2014 – Haushalte
 Bearbeitung: STATISTIK AUSTRIA

Particularly strong growth in the number of six- and multiple-person households will take place in the big cities and, partly, in some of their surrounding regions. In some forecast regions the increase is considerably more than 50%; these data, however, are based on relatively small absolute numbers. It is a fact, however, that in urban districts the number of six- and multiple-person households will rise as a result of both population development and the changes in household formation. These two components are very often negative in the rural regions of Austria.

Projected population in institutional households

The ever-increasing population in older age groups generates an increase in the number of persons living in institutional households. Thus, even now institutions for the elderly make up the biggest part of collec-

tive housing. Between 2014 and 2030 and throughout Austria, the number of persons living in institutional households will rise by 40 000 or 29.9% from 134 000 to 174 000 on the basis of demographic development. According to Laender the most remarkable growth can be expected for Vorarlberg with 42.5%, whereas the least significant rise is anticipated for Vienna with 23.2%.

In all the 122 forecast regions, the population in institutional households will grow with regional differences until 2030, the extent of this growth being with under 10% at its lowest in the Vienna districts of Hietzing, Döbling and Wieden as well as in the Styrian district of Leoben. In the forecast regions of Urfahr Umgebung, Innsbruck-Land, Dornbirn, Linz-Land, Wolkersdorf, Kufstein, Hallein and Salzburg-Umgebung as well as in the Vienna district of Donaustadt the increase will be strongest with 50% to 66%.