ÖROK-PROJECTION 2001-2031
PART 2: HOUSEHOLDS AND HOUSING REQUIREMENTS – SUMMARY

Introduction

The present study is the 2nd volume of the comprehensive OEROK projections 2001 to 2031 and contents estimations of the future development of households and housing requirements. Based on the population projection for Austria, for states as well as for NUTS-3 regions and for districts published in the first volume, the future modifications of the number of households as well as their size distributions will be first projected. Thus, this household prognosis provides an important input for the estimation of the future housing demand which will be discussed in the second part of this volume.

Household projection

Methods and assumptions

The projection of households and their size for states, districts and / or NUTS 3-regions is based on the main scenario of the small-area OEROK population projection published in May 2004. The household representative quote procedure (HRQ procedure) is the methodological approach of this projection. With this technique disaggregated household representative rates (formerly called headship rates) of single-person and multiple-person households by five year age-groups and by sex are extrapolated and multiplied by the corresponded population. Consequently, numbers of one- and multiple-person households are predicted. In a next step, the multiple-person households are divided according to sizes (2, 3, 4, 5, 6 and more persons). This arrangement is a result of a functional dependence of size distribution on the average household size in multiple-person households which was won by empirical cross-section analysis based on census 2001. For this analysis household distributions of 124 forecasting areas as well as certain enumeration districts marked by low average household size were basically considered. An adjustment procedure guarantees consistence of regional results with particular state values.

Modifications in age- and sex specific household representative rates are assumed for the period till 2021. After 2021, the extrapolated values are kept constant on state level. However, a further convergence is assumed on district level till 2031. The projection is based primarily on modifications of age- and sex specific household representative rates between the censuses 1991 and 2001. For the specification of the future HRQ three approaches of extrapolation methods are used. For the youngest age-group the observed rates of the year 2001 are held constant. For the age-group 25 to 44 years the age specific differences observed between 1991 and 2001 are extrapolated till 2021 (age-method). In the higher age-group, a generation approach is chosen (cohort-method). According to this trend extrapolation, the modification of the quota between the census decade 1991/2001 is determined for members of each birth cohort who grew ten years older. For the period 2001/2011, the values are transmitted to the follow up cohort which is ten years younger. This procedure is applied again for the period 2011/2021.

Results

Future of development of household reprentative rates

The proportion of single-person households for men will increase continuously in future. This covers all age-groups above 25 years except for those who are 90-years or older, for whom the rates will keep relatively constant. For women no significant increase in single-person households is estimated. Among younger women, the share of the single-person households will grow slightly. On the other hand, hardly any modifications are to be expected for middle-aged population. In higher age groups, however, the proportion of those women living alone will even be regressive. This can partly be explained by the effect that remained and unscathed generations from war losses now move up into higher age groups. On the other hand, life expectancy of men continues to increase by what pairs will live longer together. On account of very different changes in family and partnership structures, the part of those multiple-person households, which is represented by a woman, will increase. Consequently, the HRQ of men for multiple-person households will decline in future, whereas the HRQ of women will continue to grow.

Development of number of households for Austria and States

The number of private households will proceed to increase in future. In the year 2001 about 3.34 million of private households were registered in Austria. In 2011, the number will rise up to 3.58 million and will be 7% above the value of the initial year. According to our assumptions, the number goes up to 3.77 million (+13%) till 2021 and will finally reach 3.85 million (+15%) in 2031. In future the total number of private households will increase in all states, nonetheless to different extent and not during the entire projection period till 2031. For longer periods, a growth above average is predicted in Lower Austria, in Upper Austria, in Salzburg, in Tyrol and in Vorarlberg. In Burgenland, in Carinthia, in Styria and in the federal capital Vienna growth rates below average are to be expected. The strongest rise will be in Vorarlberg (+31%),

followed by Tyrol (+28%). In these two states the number of private households in 2031 will be significantly higher compared to 2001. In Salzburg (+20%), in Upper Austria (+18%) and in Lower Austria (+16%) the number of private households is well above the nation-wide average of +15%. In Carinthia, the number of private households in 2031 will be 8.9% higher than in 2001. According to our projection, the peak with +9.3% will be achieved in 2026. A similar growth is predicted in Styria with +9.3% (2025) respectively +9.0% (2031). By the end of the prognosis period, the number of private households will be 10.6% higher in Vienna and 11,6% higher in Burgenland compared to 2001.

The number of one-person households will continue to grow significantly above average. In 2031, the number of one-person households will amount to a total of 1,52 million and will be +36% above the level of 2001 with 1,12 million. This can not directly be associated with the argument of continuing individualization of society. The main reason behind this predicted development can be explained by population aging which involves a significant increase of alone living elderly people who are widowed or divorced.

In Vorarlberg the number of one-person households will increase by almost two thirds (+66%). Even in Tyrol (+54%) the number of singles in 2031 will exceed around more than half compared to the initial year of our projection (2001). The growth of one-person households will even be significantly above average in Upper Austria (+42%) and in Salzburg (+39%). A development on an average level is predicted in Carinthia (+36%) and in Lower Austria (+36%). According to our projection the weakest growth of one-person households will be registered in Burgenland (+33), in Styria (+32%) and in Vienna (+27%).

In Austria, the number of multiple-person households will not increase over the entire projection period till 2031. At present, 2.22 million of multiple-person households are registered in Austria. The maximum will be expected in 2028 with about 2.33 million (+5%). Afterwards the number of multiple-person households will decrease slightly. By the end of the projection period, the reversal of the trend is strongly noticeable in some regions. The strongest growth of multiple-person households is estimated in Tyrol (2031: +18%) and in Vorarlberg (2031: +17%). In 2031, the predicted increase in multiple-person households in Salzburg (+10%), Upper Austria (+8%) and Lower Austria (+7%) will be marginally lower but still above the nation-wide average. The number of multiple-person households in these three states, however, will stagnate by the end of the projection period. Even in Burgenland, the maximum will already be achieved before 2031. In this eastern province, the number of multiple-person households in 2031 (+4%) will be below the nation-wide average of +5%. In the southern provinces, a growth of multiple-person households will only be expected for the first projected years and will decrease thereafter subsequently till 2031 below the value of 2001: in Styria a minus of 1% and in Carinthia a minus of 3%. In Vienna, the number of multiple-person households will slightly be regressive over the entire projection period and will be 3% lower in 2031 compared to 2001.

If one differentiates multiple-person households in terms of size, the following can be stated: Especially two-person households are going to increase significantly in future. The growth of three-person households will be clearly smaller. Households with four or more members, however, will decline. The number of two-person households in 2031 will be 19% higher (1.13 million) than in 2001 (0.95 million). Three-person households achieve their maximum already in 2028 with 582.000. This is a plus of 7% compared to 2001 (545.000).

Four-person households, which number still increased during the last census decade by balance, will decrease slightly in future. In 2001, there were about 464.000 households of this size on an annual average; in 2031 a loss of about 10% is to be expected (418.000 households). Even larger households become quantitatively less important: the number of five-person households will decline around a fifth (20%) from 169.000 to 135.000 between 2001 and 2031. For those households with six or more persons a loss of one third (32%) from 88.000 to 60.000 is projected.

On state level, the future development of households in Vienna differs clearly from all other eight states. While in all provinces the number of two-person households in 2031 will be between 54% (Vorarlberg) and 17% (Styria) and thus higher than in 2001, a loss of 11% over the whole projected period is to be expected for Vienna. In the case of three-person households, an appreciable growth till 2031 is projected in Vorarlberg (+20%), in Tyrol (+19%), in Salzburg (+11%) and in Upper Austria (+11%) as well as in Lower Austria (+10%). On the other hand, in 2031 the number of three-person households will be lower in Styria (-2%) and in Carinthia (-5%).

A development in the opposite direction is projected for larger households. The number will decline in all states except in Vienna. In the federal capital the increase in absolute numbers is relatively small though. Compared to the initial level, however, the estimated growth accounts for up to 25% (e.g. five-person households 2021). This is merely a result of a significant immigration to Austria that especially has been concentrating on Vienna for years.

Regional development

On regional level the following development of households can be estimated: In the coming decades the number of private households in Austria will increase almost in all regions. Some exceptions, however, are to be expected in some peripheral regions with eminent emigration and significant aging process. In addition to three Vienna municipality districts, there are six political districts in which there will be fewer private households

in 2031 than in 2001. By far the most outstanding decline is predicted for the district Leoben in the northern part of Styria. In this district the number of private households will be about 18% lower by the end of the projection period. But even in the following districts Judenburg (-6%), Gmünd (-5%), Bruck an der Mur (-5%), Mürzzuschlag (-3%) and Hermagor (-0.4%) a decline of private households is to be expected between 2001 and 2031.

The predicted significant fall on households in the mentioned districts in the northern region of Styria implies that both affected NUTS-3 regions, the "Östliche Obersteiermark" (-10%) as well as the "Westliche Obersteiermark" will register fewer households (-1%) in 2031. In all other NUTS-3 regions the number of private households in 2031 will be above the empirical number of households at present.

In those regions in which a significant population growth is to be expected in future, the development of households will be determined by a prominent increase. The sharpest rise is predicted in the surrounding areas of large cities, but even in all regions in Vorarlberg and in Tyrol. In the NUTS-3 region Tyrol "Unterland" as well as in Tyrol "Oberland", the number of households will be about a third (+33%) higher by the end of the projected period. In 2031, districts Schwaz and Imst are at the top with +38% followed by district Innsbruck-Land, Bregenz and Urfahr-Umgebung. In the NUTS-3 regions of the eastern part of Austria, the strongest increase in households is estimated for Wiener Umland-Nord (+29%) as well as for Mühlviertel (+28%). The district "Perg" with a plus of 33% belongs to the surrounding area of Linz. In the northern surrounding area of Vienna, a growth of 30% is predicted for the district Tulln.

The number of one-person households will increase both in regions with predicted high population growth and in regions where aging dynamic become apparent. As a result, a considerable growth can be estimated for Hartberg (+94%) and for the whole NUTS-3 region of the eastern part of Styria (+83%) as well as for the district Tamsweg which corresponds to the NUTS-3 region Lungau (+82%). The strongest increase in one-person households is estimated in the western part of Tyrol. In 2031, there will be twice so many one-person households than in 2001. The expected growth in the district Imst constitutes +103% and +96% in the corresponding NUTS-3 region of the Tyrol "Oberland". Even the district Perg (+97%) and the whole region Mühlviertel (+84%) are marked by a considerable growth.

In structurally backward regions, which were already characterized by high emigration in the past, only an insignificant increase in one-person households will be predicted in future. The expected growth in the eastern part of "Obersteiermark" will be around +7% in 2031. In the district Leoben, the number of singles will actually be around 7% below level of 2001 (see table 1.10). But even in Graz, in Linz and in Salzburg, hardly any more one-person households are estimated on medium-term.

For Austria, we expect a growth of just 5% for multiple-person households till 2031. In regions with estimated population losses, this type of household will be regressive. On NUTS 3 level, the top of regions with a loss of multiple-person households of around 18% are predicted in the eastern part of "Obersteiermark". In 2031, district Leoben will probably count fewer multiple-person households (24%) than in 2001, followed by district Judenburg (-17%) and Mürzzuschlag (-15%). Four of five districts with the most significant decline are located in the northern part of Styria. A similar development is predicted for the district Hermagor (-15%) in Carinthia.

In the western part of Austria, the number of multiple-person households will also increase during the forecasting period until 2031. District Schwaz (+24%) followed by Bregenz as well as Kufstein (+23%), Innsbruck-Land (+22%) and Imst (+20%) register the most significant increment. Four of five NUTS-3 regions, where the most outstanding increase are estimated, are located in the western part of Austria, like the Tyrol "Unterland" (+21%), Innsbruck (+18%), the region of Rhine-valley and Lake of Constance (+17%) and Außerfern (+17%). A similar eminent growth can be predicted for the region "Wiener Umland-Nord" (+18%).

In 2031, the number of private households in Vienna will be probably around +11% higher than in 2001. Growth rates above the average are expected in the district Donaustadt (+42%), Simmering (+30%) and Liesing (+16%). In 2031, three districts will have fewer private households, like Innere Stadt (-2.6%), Währing (-1.8%) and Döbling (-0.2%). The number of one-person households will increase in all Vienna municipality districts. In the district Donaustadt almost twice so many single-households are predicted for 2031 (+95%). Even in the district "Simmering" (+62%) and "Liesing" (+52%), a strong growth of one-person household can be expected till 2031. On the other hand, only a marginal increase is estimated for the district Innere Stadt (+4%), Alsergrund (+5%), Währing (+7%) and Neubau (+9%). In Vienna the number of multiple-person households will only be above the initial year of 2001 in the district Donaustadt (+15%) and Simmering (+10%). The most significant decline is to be expected in the district Währing (-10%) and in Döbling (-10%).

Housing requirements

There are clear trends with respect to future housing requirements. While the number of households is increasing, the size of households is decreasing. Furthermore, the demands on the standard of living tend to rise. Singles and small families are no longer content with living in bed sits or one-bedroom-flats, which results in a need for appropriate accommodation. The number of flats and the housing space grows far quicker than the number of households and even more so than the residential population. Hence housing requirements are no longer solely linked to demographic developments, which generate a new, seemingly paradox

situation: despite the fact that the population is stable or even decreases, there is a need for new housing.

Future housing requirements cannot simply be calculated by diagnosing the development of the population. They are clearly linked to social and economic factors lying beyond demography. This also implies that long term projections are uncertain.

At the moment there are about 3.86 million flats in Austria (2001). The building rate of 60.000 new dwellings per year in the 1990s was markedly higher than in the 1980s (1981-1991: 40.500). In the coming decades the need for new dwellings will slowly decrease from about 46.000 for the current decade (2001-2011) to about 40.000 for the following decade. Only from 2021 onwards there will be a clear drop in housing requirements to about 28.000 per year. As the increase in households will subside, the projected requirement will replace dilapidated housing and fulfil the rising demand for second homes.

By 2030 the number of households will have increased by 15 and the number of new dwellings by 20%. Resulting from a rising demand for second and vacation homes and from the necessary replacement of old housing, the faster increase in new accommodation will continue. Between 2001 and 2031 the number of dwellings in Austria will rise by 700.000 to 4.58 million altogether. Compared to the period from 1971 to 2001, when 1.2 million new dwellings were built, the increase in housing will therefore slow down.

New housing will be required in all of the federal states and in all of them the demand will subside in the long run. However, the decline will be particularly obvious in those states where demographic developments counter the general increase in households. This holds true for Corinthia and Styria as well as for the areas bordering city agglomerations. In these federal states new housing will merely serve to replace unusable dwellings, i.e. flats and buildings which are dilapidated or old or do not comply with current building requirements and architectural standards. In areas such as Voitsberg, Murau or Knittelfeld the demand for new accommodation will decline to 1/3 of the building rate in the 1990s. This marked decrease will also initiate massive restructuring processes in the regional building industry.

The situation is quite different in Western Austria. Salzburg, Tyrol and Vorarlberg can envisage a moderate decline in their building rate by about 10% compared to the 1990s. However, they should avoid returning to the low increase in new housing in the 1980s. The decline in demand in these federal states can to some extent be explained by the low number of new households, which will, however, be countered by an increase in unusable dwellings. At the same time, the number of second and vacation homes will rise. The attractive living conditions in these three federal states could also lead to a higher demand for accommodation which would however not be desirable from the point of view of spatial planning.

Unlike in the demographically „younger" federal states, building activities could subside in Lower Austria, Burgenland and Vienna if it was not for the necessity to replace unusable dwellings. Experience shows that only half of the new housing in these federal states serves to meet the rise in number of households, 1/3 will replace old buildings or flats and the rest will be either vacant or serve as vacation and second homes. The high demand for replacement in these federal states is mainly due to the older basic building fabric. Furthermore, we have to take into account the spatial differentiation in Lower Austria and Burgenland. Particularly in Lower Austria building activity will be far higher in the urban areas, whereas it will only serve to replace unusable dwellings in rural areas. In areas such as Wiener Neustadt-Stadt, Gänserndorf, Klosterneuburg or Baden the number of new buildings will have to reach the level of the 1990s by 2021 in order to satisfy all forecast components of demand. In the peripheral areas, such as Gmünd, as well as in suburban areas where the phase of expansion has been completed (such as Mödling) building activity may decline by 50% in the long run, i.e. up to 2031.