

ÖROK PUBLICATION NO 196/II – LABOR FORCE FORECAST FOR AUSTRIA 2013-2030

Austria's regions are characterized by the ongoing demographic change. While the share of the young population is declining, the number of older people is increasing. Additionally, there are regional disparities: While peripheral regions show (partly considerable) population declines, urban agglomerations are growing. The Austrian regions need to respond to the demographic change and the resulting challenges. The development of the potential labor force is of crucial importance for a region; strategies for the future can only be successful when facing an appropriate availability of human capital. Based on the regional demographic forecasts the development of the labor force and of labor force subgroups in Austria at micro level (political districts) is illustrated.

For the statistical representation of employment different methods and concepts as well as different data sources can be used. In this case, a new data base was used to compute the labor force forecast. In contrast to the previous approach (micro census) this projection is based on a quasi-full survey of the labor force in Austria. The *labor market database* (Arbeitsmarktdatenbank, AMDB) of BMASK and AMS includes anonymous data of almost all socially insured persons in Austria. Thus, the concept of the labor force (employment and unemployment) is investigated from a specific (social security) point of view. Any person who has an existing employment contract or who pays social security contributions is classified as part of the labor force. The following terms are defined:

For this forecast the definition of economically active people according to the adapted subsistence concept was maintained. I.e., workers in minor employment are not classified as part of the labor force. For the first time labor force was divided into people who are actively employed on the one hand and people who are unemployed or who are attending AMS trainings on the other hand.

Above all, the labor force forecast was computed from a demographic point of view. Thereby, especially age and gender were considered as dominant components for the future development. In the setup of the activation scenario the assumptions for the labor force participation rates on the national level were based

on the trends of the recent years and were projected until 2030. Thereby, the scenario is based on the hypothesis that the current demographic trends remain valid in the future. For determining the global quotas three adaptations were made in addition to the existing trends, which reflect an activation of the labor force participation rate:

- The adaptation to the alignment of the retirement age of women by the year 2033 and the omission of the "disability pension" have already been anticipated.
- The assumption of a continually lower labor force participation of young people (especially caused by longer periods of education) was maintained throughout the forecast period.
- Basically, it was assumed that labor force participation will be extended in the future – people in general will retire later.

The corresponding labor force participation rates were projected for the period between 2031 and 2050, assuming only minor changes – especially taking into account the effect of the higher female retirement age.

In the course of this forecast two scenarios are presented. In case of the **status-quo-scenario**, which assumes constant 2013 participation rates for the entire forecast horizon, the workforce will start to decline in 2020. By 2030, around 3.5 %, or approximately 151,000 fewer labor force would be available than in 2020. Regarding gender this would mean a decrease in the labor force potential of around -78,000 women (-4.0 %) and -73,000 men (-3.1 %).

In contrast, the **activation scenario** implies a significant expansion of the labor force potential by 2020. After that, a period of consolidation follows until 2025 which is followed by a slight decrease until 2030. Regarding gender this would mean an increase in the female labor force until 2030. The male labor force will increase until 2020 and will afterwards decline by approximately -0.8 % until 2030. The ongoing demographic change will already cause major impacts by 2030.

The underlying assumptions result in the following development of the labor force for the period bet-

Table 1: Labor force, 2013-2030, by gender and scenarios

Year	ACTIVATION			STATUS QUO		
	total	female	male	total	female	male
Absolut in 1,000						
2013	4,187.1	1,920.6	2,266.5	4,187.1	1,920.6	2,266.5
2015	4,292.1	1,968.0	2,324.1	4,240.7	1,940.6	2,300.1
2020	4,365.4	2,002.9	2,362.5	4,187.3	1,895.6	2,291.7
2030	4,350.9	2,004.8	2,346.1	4,106.9	1,858.0	2,248.9
Index (2013=100)						
2015	103	102	103	101	101	101
2020	104	104	104	102	101	102
2025	104	104	104	100	99	101
2030	104	104	104	98	97	99

Source: ÖROK-Regional Forecasts 2014 – Labour force; editing: JOANNEUM RESEARCH.

ween 2013 and 2030: The labor force grows, at the same time the ongoing demographic change has clear impacts. On the one hand, it is expected that people will remain in employment much longer, on the other hand, the entry into the labor market will take place at a much later stage. The declining number of young people (up to 24 years of age) is accompanied by an increased attendance of higher education institutions, which will significantly decrease the participation rates of young people.

In the future especially the age group 55+ will show an increase in its labor force participation. In addition to the legal adaptations concerning the retirement age the future economic need on the part of employers as well as employees will provide the necessary workload in order to keep this age group in active employment.

Particularly, two fundamental aspects were taken into account, which are important drivers of increased labor force participation. On the one hand, the increasing flexibility of the labor market (particularly regarding the development of the weekly hours of work) for many people means the ability to enter the labor market and thus to make a living. On the other hand, the improved access to higher education has a positive effect on labor force participation.

To utilize the presented labor market potential (activation scenario), appropriate adjustments of the labor market conditions have to be created. The demo-

graphic development is seen to be a particular challenge with regard to the shift of the workforce towards older age groups. This can only be achieved through the joint effort to improve the operational as well as the policy framework. Examples are occupational health care measures, measures addressing appropriate workplace design as well as incentives for companies to keep older workers longer in the employment process. It seems to be of special importance to strengthen current efforts to bring back elderly and other disadvantaged labor force participants from unemployment into employment.

Work-life balance is particularly a major challenge for women of all ages and is also a big obstacle for active labor force participation. In this context, the development of comprehensive childcare facilities especially for toddlers and infants as well as the expansion of the afternoon care in schools has to be supported.

The major demographic change in the labor force can also be presented in terms of the labor force participation rate, as the share of the labor force in the respective resident population. It shows the share of the population which will be actively participating in the labor market.

The figure below shows the dynamics of the labor force participation rates in the forecast regions between 2013 and 2030. From today's perspective the highest dynamics by 2030 are reported for large parts of Vienna and the provincial capitals Graz, Innsbruck and

Figure 1: Change of the labor force participation rate regarding the population between 15 and 64 years of age in percentage points following the adapted subsistence concept, Austria, 2013-2030

Veränderung der Erwerbsquoten 2013 bis 2030: Insgesamt nach Prognoseregionen

Veränderung in Prozentpunkten

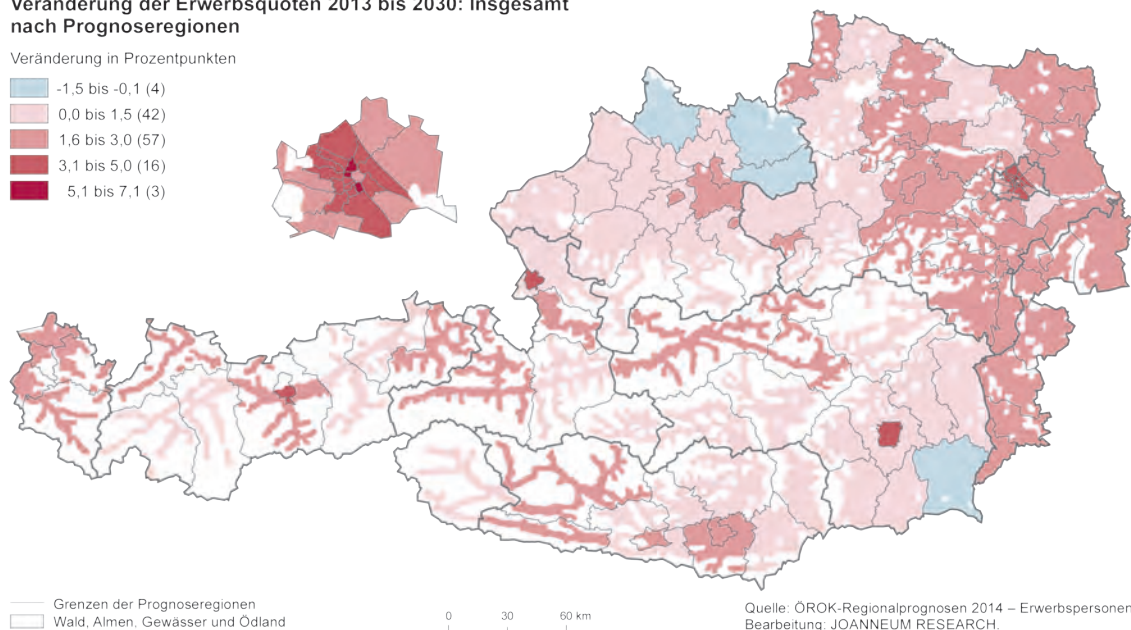
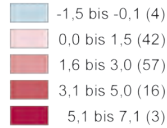
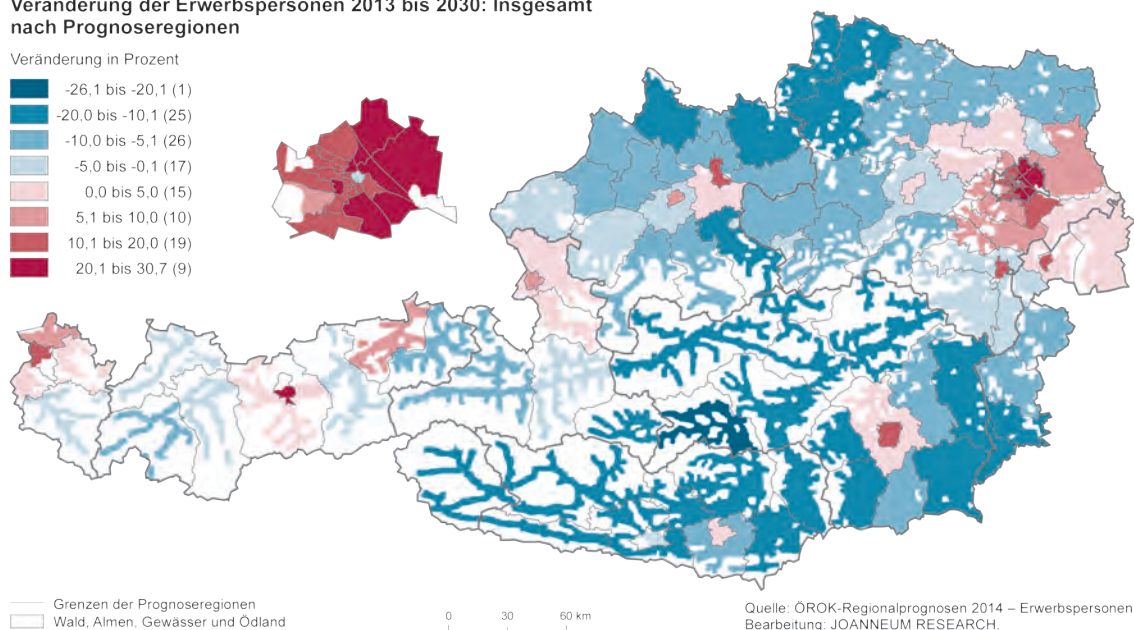
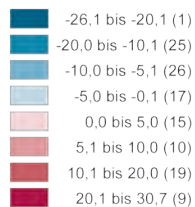


Figure 2: Relative change of the labour force (age 15-64) following the adapted subsistence concept, Austria, 2013-2030 in %

Veränderung der Erwerbspersonen 2013 bis 2030: Insgesamt nach Prognoseregionen

Veränderung in Prozent



Salzburg. This result is not surprising since these regions will also exhibit the highest gains in their population. In contrast, the lowest growth will take place in large parts of Styria and Upper Austria.

The increase in the labor force is mainly driven by the increased participation of women (especially of the age group 50+) and the changes regarding the female

retirement age. Adjustments in the pension systems are expected to have significant impact by 2025. By 2030 female labor force will be grown by approximately 4.0 % up to approximately 2.0 million people (men: + 3.1 % or 2.34 million).

Differentiating by federal state the estimated development of the absolute size of the labor force by 2030

clearly shows what has already been observed in recent years. By 2030 Vienna and its surrounding area as well as the provincial capitals and their surrounding areas will (partly) be able to significantly increase the labor force at the place of residence. All other regions, especially those with low economic attractiveness, will face a decline of its labor force potential.

Labor force by formal education

The growth of the Austrian population is characterized by a significant aging process. Thus, the growth of the resident population between 15 and 64 years of age will be slower than overall population growth. According to the current population forecasts this cohort will reach its maximum by 2021 and thereafter show a steady decline. Thus, it is of major importance to improve the utilization of the labor force potential. Thereby, the significant increase in the population's formal educational participation is an important issue. In recent years the part of the labor force with an education level of Matura and university/college level increased significantly and will continue to rise. In contrast, the share of the labor force with only compulsory education or less will decrease considerably.

At this point it should be noted that the aim of this analysis was not to create a forecast regarding educational matters. Rather, the description of the potential main currents regarding the distribution of formal education categories of the labor force was in the center of the projection. This is also reflected in the rather simple methodological approach (trend projections).

For the forecast regarding the formal education of the future labor force a trend projection of the gender- and age-group-specific distribution of qualifications was carried out at national level. The projection was based on the assumption of a future upskilling of the labor force.

In 2013 approximately 1/5 of the overall labor force (ca. 4.2 million people) living in Austria completed no more than compulsory education (19.8 %), half of the overall labor force achieved an apprenticeship or professional school as highest level of education. 29.4% had a formal education at or above the level of Matura. Based on the expected increase in the participation in formal education a significant shift in favor of higher educational attainment is assumed by 2030. From today's perspective by then compulsory education as highest formal degree will cover only around 18.0 % of the labor force, 47.0 % will have an apprenticeship or professional school degree and more than one third (35.1 %) will have a Matura or university/college degree. Demographic shifts result in a significant change in the absolute size of the labor force by its formal education: Compared to 2013 (828,300 people), by 2030 the part of the labor force (781.600 people overall) with no more than compulsory education as highest formal degree will decline by -6 % . The part of the labor force with apprenticeship or professional school as highest level of education will decline by -4 %. In contrast, the part of the labor force with Matura or university/college degree will increase by +24 % to approximately 1.5 million people.

Figure 3: Change in the part of the labour force with no more than compulsory education, 2013 bis 2030

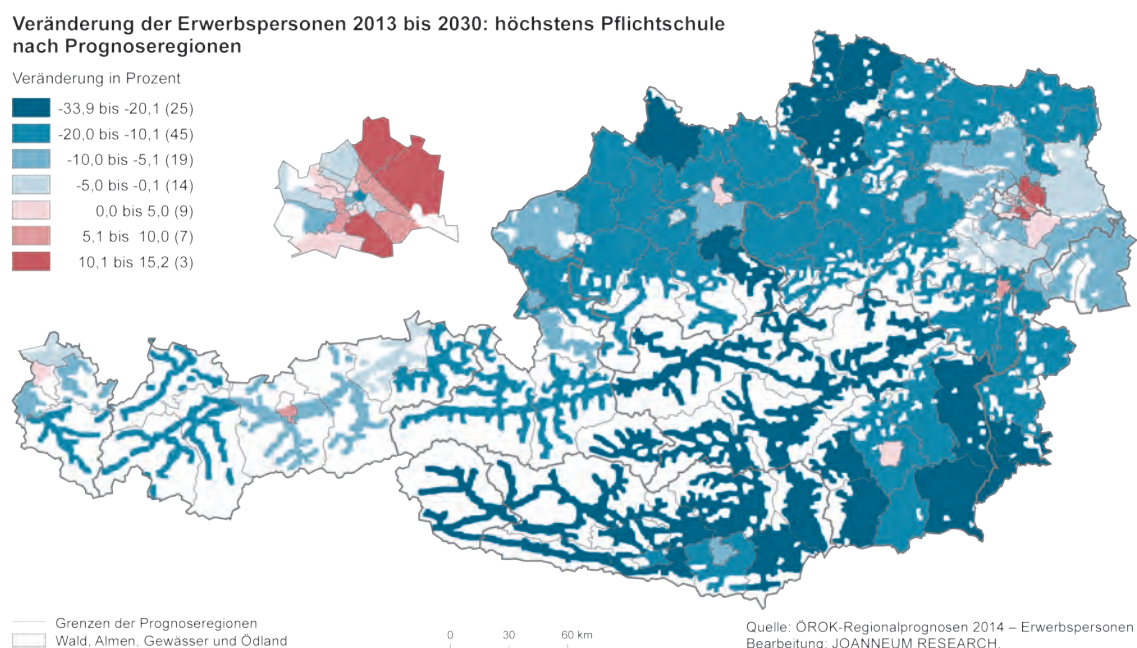


Figure 4: Change in the part of the labour force with apprenticeship or professional school degree as highest level of formal education, 2013– 2030

Veränderung der Erwerbspersonen 2013 bis 2030: höchstens Lehre bzw. Fachschule nach Prognoseregionen

Veränderung in Prozent

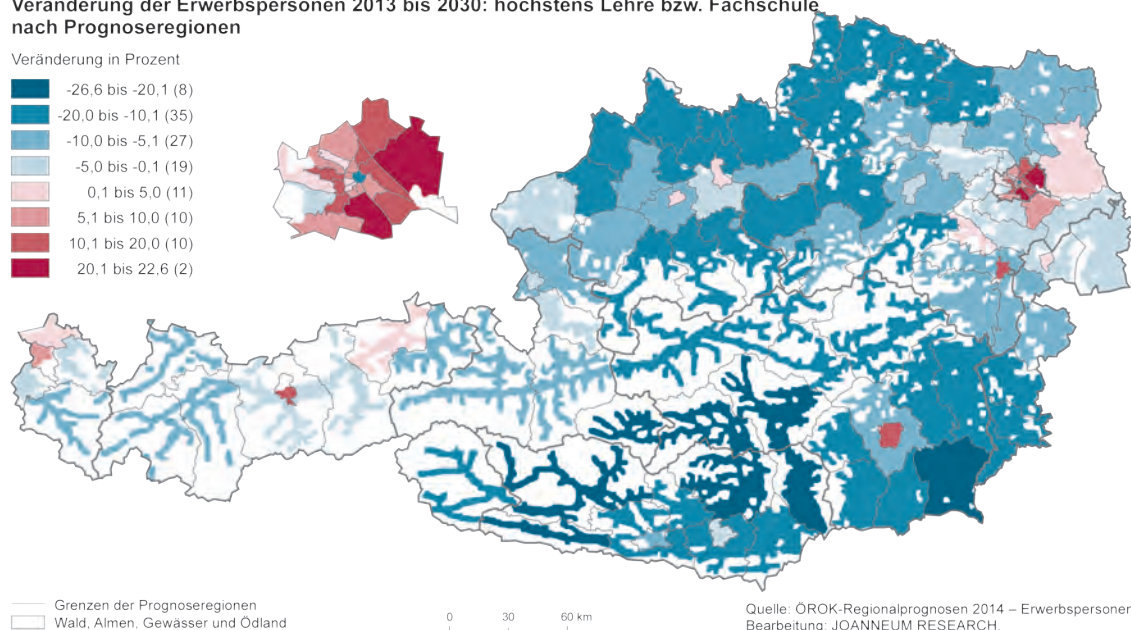
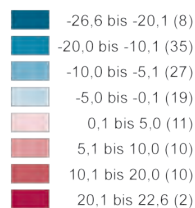
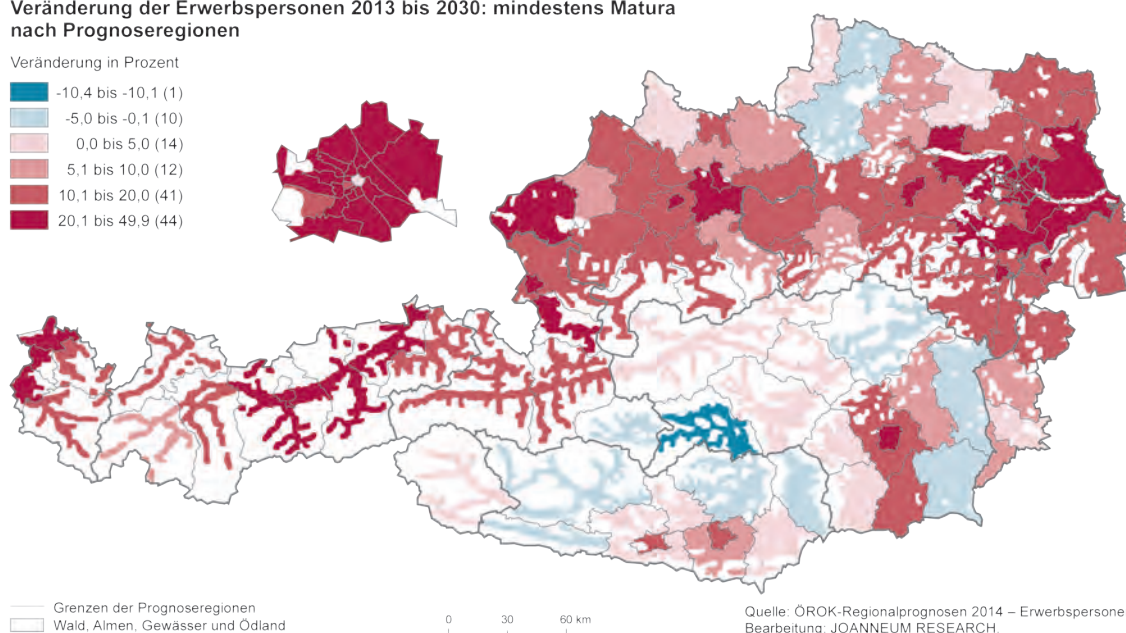
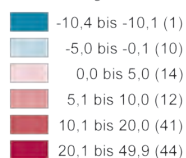


Figure 5: Change in the part of the labour force with Matura or university/college degree, 2013 bis 2030

Veränderung der Erwerbspersonen 2013 bis 2030: mindestens Matura nach Prognoseregionen

Veränderung in Prozent



Employment by full-time and part-time work

For the first time the ÖROK regional forecasts contain projections of the labor force including the distribution between full- and part-time employment (above minor employment threshold). The aim was to present the potential development of increasing flexibility. These calculations were also based on the labor market database (AMDB), taking into account only the active working population. This group consists of the labor force minus unemployed persons/persons

participating in trainings as well as recipients of childcare allowance with a valid employment status.

Following the method of forecasting the labor force participation rate, the projection was again carried out by perpetuating the gender- and age-specific full-time and part-time rates. Thus, the demographic aspect of the labor force was again in the focus of the projection. The central question of this forecast was: Which behavior with respect to the choice of the level of labor force participation can be expected?

Figure 6: Change in the number of people in full-time employment, 2013-2030

Veränderung der Vollzeitbeschäftigten 2013 bis 2030 nach Prognoseregionen

Veränderung in Prozent

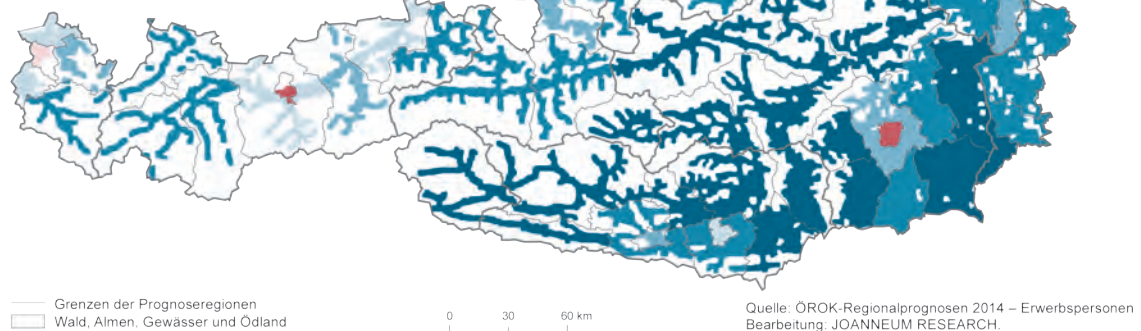
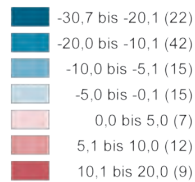
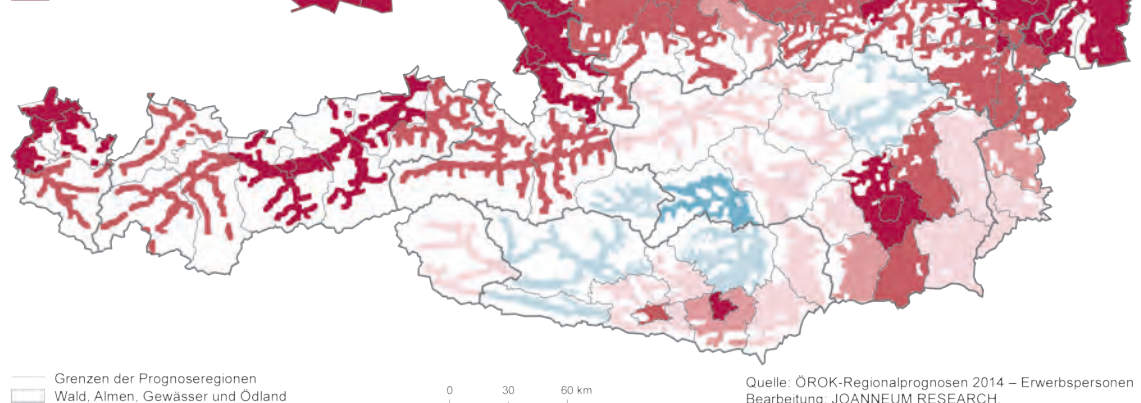
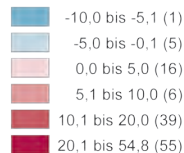


Figure 7: Change in the number of people in part-time employment, 2013-2030

Veränderung der Teilzeitbeschäftigten 2013 bis 2030 nach Prognoseregionen

Veränderung in Prozent



While on an annual average in 2013 around three quarters of the approximately 3.7 million overall active workers was in full-time employment (73.6 %) around one quarter (26.4 %) was in part-time employment. By 2030 this ratio will change to two third full-time vs. one third part-time employment. So far, part-time employment was dominated by female employees: in 2013 approximately 77 % of all part-time workers were women. It is expected that the existing trends will continue. By

2030, this share will decline to 73 %. The overall number of full-time employees is expected to decline by around -6 % to 2.6 million people (men: -4 %, women: -10 %). Regarding part-time work a significant increase is expected for both genders (men +45 %, women: +20 %). Overall, the number of people in part-time employment will increase by +26 % to 1.24 million. The overall size of the work force will increase by +3 % to 3.82 million people.