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Educational structure and demand for qualifications in Lower Austria

Trend analyses and prospect for the future

The Economic Chamber Lower Austria is conducting a project on the strategic orientation of the business location of Lower Austria with an outlook on the future. In this connection, *well-founded empirical information* on education and vocational qualification constitutes a major factor to not only overcome the structural change reactively but also use it proactively. Therefore ibw was commissioned to survey and analytically process this information.

The economic structure and educational attainment of the population have undergone fundamental changes in the last two decades. Due to the globalisation of the economy and also due to demographic factors (migration, ageing) it is to be expected that schools as well as VET (vocational education and training) and CET (continuous education and training) will have to face considerable challenges.

This study analyses the educational development and demand for qualifications based on recent empirical information. Data from the most recent censuses and from the microcensus, as well as other accessible data and publications, are used as sources to determine the demand for qualifications and the population development. In addition, the results of a company survey conducted by ibw in 2008 will be evaluated with special focus on Lower Austria.

Higher qualifications and recruitment problems of companies

In Lower Austria there has been a clear trend towards higher qualification over a long-term perspective. This is connected with the extension of secondary academic school (AHS) and VET college (BHS) and a wide range of Fachhochschule (FH) programmes. The improvement of the formal qualification structure has been accompanied by a simultaneous rise in the annual average workforce from about 692,000 (1991) to around 806,000 in

2007. The workforce with a higher education (HE) or BHS degree has increased by more than 100 percent compared to 1991. Seen in this perspective, the seven percent growth of the labour force with an apprenticeship diploma is modest. The labour market statistics show that the educational expansion has been absorbed by the labour market. A large share of the HE expansion has - between the two most recent censuses - flowed into the private sector (some 60 percent); with regard to the BHS, this proportion has been even higher at 80 percent.

The share of the workforce with compulsory schooling as highest educational attainment has decreased over the same period (1991-2007) by 24 percent. The unemployment rate of this educational category is high, at the same time there are many jobs with semiskilled activities, and in mid-2008 companies complained about the difficulty of recruiting this qualification type. Whereas e.g. by late July 2008, those registered as unemployed included 8.6 percent compulsory school graduates, only 3.3 percent of the workforce with an apprenticeship diploma and 2.5 percent of those with a BHS diploma were unemployed.

Due to a fall in supply caused by demographic changes (decline of the autochthonous population, immigration of low qualified people) and other factors (the trend towards school-based education), bottlenecks of skilled workers at low and medium qualification level were seen by about mid-2008 while demand continued to be high or rising.

The ibw company survey of 2008 revealed a sector-specific lack of skilled workers with an apprenticeship diploma and of semiskilled labour. The shortage of higher qualifications (BHS, FH and university) was clearly more visible in relation to technical rather than commercial qualifications. This is also due to the larger supply of commercial qualifications.

The contradiction of enhanced educational attainment and continued skilled labour shortage in times of good economic conditions can be explained, among other reasons, by reference to the demographic development. The loss of some 26 percent of young adults between the two most recent censuses (1991-2001) could not be offset by the increasing (school-based) qualification rate. Although the outlook shows a slight rise in 20-24-year-olds by 2017, the former strength of these age groups will no longer be achieved.

Improved optimisation of potential

The measures to secure the demand for labour and skilled labour are manifold, therefore it is essential that they focus on different points. It will be vital to secure the future supply of skilled workers with an apprenticeship diploma by taking innovative measures, particularly by improving the optimisation of the potential of young people (e.g. coaching at entry to dual training, etc.) and adults (programmes in second-chance education: intensive training of skilled workers, etc.).

Ongoing problems of transition following completion of compulsory schooling are also identified for the province of Lower Austria. School expansion with a leaning towards VET schools and VET colleges alone cannot sufficiently ease the situation of young people at the “first threshold” on their way to training and employment. Since about 1996, quasi-provisional “safety measures” have been created in every autumn. In the future there will probably be no other choice but to set up access paths for 15-year-olds on a permanent basis.

Measures related to the training guarantee, which are designed either as external or as supra-company measures, can in principle *only be successful* if they are actively supported by companies and business associations. Without work placements and collaboration in the drawing-up of measures it will be almost impossible to ensure demand-driven qualifications are created and later on accepted on the labour market. This is also demonstrated by experiences made in the course of measures conducted pursuant to the Youth Training Guarantee Act (JASG). According to an evaluation study

from 2008, this training model is largely successful in practice, even though the envisaged placement rates have not been quite reached.

Minimum employability level has risen

There are contradictory developments on the labour market, such as continued high unemployment among people without any qualification while there is a strong supply of positions for which employers do not demand any specialist qualification. In the vacancies in the print media in 2007 for example 28 percent of all advertised jobs were for low level professional jobs, this rose to as much as 46 percent of the Public Employment Service (AMS) vacancies. In addition, 24 percent of companies in Lower Austria (with 10 employees or more) stated in the 2008 survey that in the previous year they had frequently encountered problems in finding semiskilled labour (compulsory school graduates). At the same time, many were registered as unemployed and there was a high unemployment rate among people without any VET qualification.

The reason for this apparent paradox is that relevant jobs do not require any specialist training but still need broad basic skills, ranging from the willingness to learn, compulsory school knowledge in mathematics or German, as well as team spirit and communication skills, customer orientation or simple computer skills (e.g. for warehousing tasks or in system gastronomy) - not to mention a high degree of adaptability to corporate circumstances.

Here improvements will only be possible by undertaking a bundle of measures in training promotion and adult education. These include: extending the spectrum of apprenticeship occupations to offer more low level jobs as entry options; acquisition of qualifications in second-chance education for adults; and employment projects to promote entry. Apart from that it is doubtlessly the task of public compulsory schooling to raise the basic qualifications of all people to a level that enables entry to training and/or employment.

Here one can locate - not least due to immigration of families that are extremely unlikely to access education - the main challenges for the Austrian education policy in the next decade to protect the Austrian society from a division due to a divergent development regarding education and employment opportunities.

Knowledge-based economy means - and that requires a rethinking process - regular CET also at low qualification levels to develop and maintain process- and customer-oriented employability. Due to different factors (structural

change, computerisation, enhanced services component, etc.), the occupational structures in modern economies are increasingly characterised by permanently changing professional requirements. This necessitates more CET than in the past. Almost two thirds of companies in Lower Austria state that today more CET is required than 5 years ago to be successful. 84 percent of companies with 10 employees or more in Lower Austria stated in 2008 that they had been active in CET in the previous business year (of them, 57 percent frequently, 29 percent only rarely).

According to the 2003 microcensus, around 22 percent of the residential population of Lower Austria had taken part in CET courses in the previous year; this was the Austrian average. Upper Austria not only shows the highest participation in CET courses (27 percent course attendance) but also the highest grants from the provincial government. Apart from time and cost issues, there are also information problems about the appropriate course and also, to a minor extent, motivation problems of employees. It will be particularly important to subsidise easily accessible information and counselling services as well as courses *close to home* also in regions with low settlement density.

More than 40 percent of holders of the upper secondary diploma make flexibility in entry into work mandatory

The current rate of holders of the upper secondary school-leaving certificate (Matura) among the workforce in Lower Austria is around 27 percent. With a rate of Matura holders among young Lower Austrians of over 40 percent and rising, it will not only be increasingly important to expand the number of short post-secondary programmes but also to show flexibility on the labour market. New task designs should make it easier to make optimal use of the growing share of school and VET school graduates in industry.

After having overcome the international financial and economic crisis, a further growth of, in particular, computer- and health-/care-related services can be expected in all highly developed knowledge-based economies. Only a small number of these services require graduates of traditional university degrees. The large majority of jobs in Lower Austria - around 80 percent - will also in the foreseeable future be accessible for graduates of upper secondary VET programmes or short postsecondary programmes. This is also proven when compared internationally.

The occupation and qualification projection is very much compatible with the output of the education sector in Lower Austria in a *structural* respect, as long as both labour market parties are sufficiently flexible. Thus, for example, there are currently some 9,100 apprenticeship and BHS graduates a year. BHS produces some 4,500 new graduates per age group in Lower Austria, of which - depending on the attractiveness of labour market offers - half or more enter working life. FH and university combined account for some 3,600 HE graduations a year.

No general backlog in HE but bottlenecks for technicians (HTL, FH and university)

With some 20 percent of the population in the typical graduation age, the HE graduation rate of the two types of HE (university and FH combined) in Lower Austria is still slightly below the Austrian average (21 percent). Thanks to the FH development, however, Lower Austria is "on the fast track". The share of FH graduates of total graduates (universities plus FH) amounts to 37 percent in Lower Austria, this dips to around 28 percent in Austria as a whole. The study rate in Lower Austria is 35.2 percent (14.1 FH and 21.2 university) as compared to 34.9 in the Austrian average (11.3 FH and 23.6 university).

The 2008 ibw company survey clearly demonstrates that companies experience more bottlenecks with engineering colleges (HTL) and technical FHs than with colleges of business administration (HAK) and business studies. This is not because demand for higher business qualifications is lower but because the new supply is larger.

Today, some 330 graduates in Lower Austria come from technical FH courses and 580 graduates from business FH courses, on an annual basis. This underlines the significance of additional qualifications at HTL and technical FH, which however increasingly reaches its limits regarding potential.

It is therefore particularly important to strengthen and promote mathematics and technology not only at the "upstream" schools but also provide for a sufficient offer of relevant VET programmes in all districts at upper secondary level and additionally promote non-traditional access paths (special HTL forms and FH programmes).

The current HE graduation rate among the some 800,000 employees in Lower Austria is around 10 percent, which includes teacher training colleges and comparable institutions. The current HE student rate is - as

stated above - around 35 percent, when adding up the two HE types.

Assuming a success rate of 70 percent, approximately one quarter of young Lower Austrians with an HE degree will within a few years gain a foothold on the labour market. Entry into the world of work will require a high degree of flexibility by both labour market parties, as new activities and occupational fields have to be opened up in the private sector, to absorb the expanding new supply. The comparison with countries with an HE graduation rate of 35 to 60 percent (such as Australia, Ireland or Finland and Poland) does not help much, because advanced programmes which we offer in VET are in those countries summarised under a completely differently structured HE system. General backlogs regarding the HE rate represent a statistical artefact, as is proven by frequently recurring complaints about precarious employment conditions by young HE graduates. Future bottlenecks on the labour market - comparable with the situation until about mid-2008 - will, if at all, be primarily due to demographic reasons or a *subject-specific mismatch* (too small share in the technology-relevant qualification sector).

Strengthening entrepreneurship

Self-employment as an engine of business is also subject to structural change. When adding up self-employed people in the three sectors: crafts, trade and industry; liberal professions; and agriculture, this reveals - due to the decline in the agricultural sector - an insignificant quantitative decline in self-employed people overall in a longer-term perspective. Today it can be assumed that some 75,000 people in Lower Austria are self-employed in these three sectors, without agriculture and forestry it is an estimated 65,000.

The qualification structure of the self-employed in the non-agricultural sector has not unexpectedly shifted upwards with reference to formal education. In the most recent census, tertiary qualifications amounted to some 12 percent, Matura to some 14 percent, and non-agricultural VET school and apprenticeship to over 55 percent. In small companies (with up to 9 employees), the share of graduates of VET school and apprenticeship training totals around 70 percent. Here there will also be one focus of promotion for start-ups in future.

With the increasing share of formally higher qualified young people, however, it is also becoming ever more important to provide young people from AHS, BHS and FH with better access and insight into the small- and medium-sized enterprise business sector by contacts to companies, cooperation projects, and work placements, but also targeted training modules and additional programmes that promote entrepreneurship.

Following the overcoming of the global financial and economic crisis the following tendencies can be expected:

- (1) Recruitment bottlenecks regarding semiskilled and skilled labour will again become acute;
- (2) The problems at the “first threshold” (transition after compulsory schooling) will persist and it will only be possible to tackle them by taking a mix of measures comprising an improvement of previous education, support in entry to training, and additional programmes at training institutions;
- (3) The integration of children and young people with a migration background is a less important issue in Lower Austria than is currently the case in Vienna, but this topic will also come up in this province.
- (4) Employment spurts can be expected in computer-related and health- and care-oriented sectors and occupations;
- (5) The sharp jump in the number of formally higher qualified people will require a high degree of flexibility in entry to the world of work by both labour market parties;
- (6) Continual VET and CET undertakings by companies as well as their public subsidisation will be vital for maintaining high competitiveness in the knowledge-based production and service economy of the future.

The entire research study can be obtained from ibw in a printed form (ibw-Forschungsbericht Nr. 148, ISBN 978-3-902358-77-6) or [online](#).