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Vocational Education and Training in Tyrol Achievements, Trends and New Challenges

The present study aims to draw a picture of vocational education and training (VET) in Tyrol on a broad empirical basis, covering all major VET pathways in apprenticeship training and full-time schooling; this analysis is then used as the basis for outlining future challenges facing educational policy-makers in the Austrian province Tyrol as well as recommended solutions. Although the study's primary starting point consisted in examining pathways of initial vocational education and training (IVET) for young people, including issues connected to the inclusion of all young people in the training system or to their retention after completion of training, also aspects of continuing vocational education and training (CVET) and, in a wider perspective, of lifelong learning have been analysed.

Method and empirical basis

Apart from census data on the educational and occupational structure of the residential population and labour force, also school-grade specific evaluations taken from the Austrian school statistics for Tyrol have been used as another major basis of data. The third key data source is the population data published by Statistik Austria. For apprenticeship training, data made available by the Tyrol Economic Chamber, and for the apprenticeship post market and the labour market, different sets of data published by the Public Employment Service (PES) Tyrol have been used for the analysis. In addition, the study draws on secondary analyses of published studies, surveys and detailed Internet research, as well as on talks with experts and their feedback to drafts of the study.

Output of pathways after compulsory schooling – more than 80 percent boast a final certificate

On the basis of demographic projections until 2011 it can be estimated that the potential first-time entrants in the labour market aged 20 to 24 will be higher by 10 percent than in 2001. In comparison to 1991, when the baby-boomers entered the labour market for the first time, this will still amount to a drop by 20 percent. The proportion of young workers without any qualifications will most likely decline further as long as support measures for

young people at a disadvantage and for apprenticeship training providers continue.

In the event that the measures taken to support apprenticeship training providers (training alliance, etc.) and the apprentices ('coaching for apprentices', etc.) are effective, the proportion of apprenticeship graduates is expected to remain stable at about 38 percent of young adults (between 20 to 24 years of age). The proportion of graduates from intermediate secondary VET schools of currently 13 percent among those aged 20 to 24 will hardly rise at all, and – by contrast – is more likely to decline as there is more demand for the VET college pathways on the one hand and dual training tracks on the other.

The ratio of people with university entrance qualifications will continue to grow: from 23 percent in 1981 to 31 percent in 2001 and an estimated 36 percent in 2011, which implies that the need for diversifying tertiary education pathways will not decline. The increase of holders of the Certificate of Secondary Education ('Reifeprüfung'), however, will be based mainly on the VET colleges.

Diversity of VET has proven its worth

The diversity of training schemes in apprenticeship training and in school-based education has proven its worth: More than 90 percent of young people in Tyrol start a programme with a duration of several years. Among the

20-to-24-year-old residential population of Tyrol, more than 82 percent obtain a certificate in a pathway after compulsory schooling – one generation ago, this was achieved only by 64 percent. Among those aged 20 to 24 without any qualifications, about 7 percent were not – or only for a very short time – in a school-based education pathway or the apprenticeship training system; about 5 percent of each age group remained in school-based education or dual training for a longer time but did not complete their respective pathway successfully. Taking into account the mobility of students between education and training tracks, it becomes clear that the great success of training is due to the diversity of existing tracks as well as to the students' opportunities of changing between them. Without the VET school and dual training, the selectivity of the VET college and the academic secondary school would not be acceptable, because we would be facing a proportion of young people without any qualifications considerably exceeding the 25 percent mark.

All the available indicators show that people who boast a certificate participate more frequently in employment than people without, and that they are affected more rarely by the risk of unemployment. Youth unemployment (of those aged below 25) on the whole can be rated as insignificant in Tyrol, above all when comparing the proportion of affected people to other European countries (5.9 percent in Tyrol as against 18 percent on the EU-25 country average).

All the VET tracks lead to a relatively high labour force participation: Young adults (aged 20 to 24) with an apprenticeship certificate boast the highest labour force participation with 97 percent, even before VET school and college graduates with 94 percent. 76 percent of young adults without training are in employment. Among people without any qualification, the risk of unemployment is clearly higher than among apprenticeship graduates (4.7 vs. 2.7 percent of the labour force), although both the PES and the print media list a large number of vacancies without any formal qualification requirements.

Nearly 90 percent of 1,000 former apprentices, who were questioned 5 to 10 years after completing their training, assessed enterprise- and vocational school-based training with marks between very good and satisfactory. The survey also shows that about 90 percent are satisfied with their current job; 75 percent stated that they were able to take advantage, at their workplace, of many of the skills and much of the know-how they had acquired during their training. This proves that, despite the manifold other developments of apprenticeship certificate holders, who at the time of graduation are only about 18 or 19 years old, apprenticeship training forms a reliable basis for the future employment of the majority of apprenticeship graduates. The fact of mobility after completion of apprenticeship training (both in terms of the employer and vertically in their field) is frequently misinterpreted, but constitutes a feature of an open society characterised by occupational mobility and can be found in all VET pathways.

TABLE 1:

Educational attainment of the 20-to-24-year-olds in the Tyrolean resident population in comparison of time, per cent

Level of education	1981	1991	2001	2011 (Trend)
Vocational schools for apprentices	34	39	38	+-
Higher technical and vocational colleges (BHS)	5	9	14	++
Intermediate technical and vocational colleges (BMS)	16	14	13	+-
Higher general secondary schools	14	12	15	+-
Universities, Fachhochschulen, Post-secondary colleges	2	2	2	++
Compulsory schools	30	24	18	--
Total (abs.)	52,900	58,800	42,700	47,000

Source: Statistics Austria; *ibw*-calculations

New VET and occupational fields – increased support for apprentices

As the service sector grows, the pressure on the structure of the apprenticeship trades and on the apprenticeship post market to change increases. In Tyrol, not only a large number of new apprenticeship trades have been implemented to cope with structural change, but also a training alliance has been established, which aims particularly to support highly specialised enterprises through inter-company training. In the public employment sector, the most pronounced deficits in the ratio between apprenticeship graduates in employment and apprentices can be observed. In the future it will be vital that also the public sector (in general and in the form of simple jobs or the so-called 'practitioners' jobs') takes into account the needs of young people who have difficulties integrating in training and the world of work.

Therefore it will be necessary also in the foreseeable future to provide training slots complementing regular apprenticeship training and intermediate secondary VET schools. The recurring discussions on the required 'safety net', which crop up every year, should be avoided as they lead to insecurity among young people and their parents. Increasing the graduation rate beyond the attained mark of 82 percent will be possible only through continued active efforts of schools, the economy, the PES and the provincial government.

The creation of access to training for young people at a disadvantage, however, is but the first step, which must be followed by other measures during training. Another requirement is the networking of support activities between training providers, vocational schools and academic secondary schools as well as programme and project promoters, which represents a key prerequisite for a sustainable and efficient use of resources.

Parity of esteem of general education and VET

The improvement of equivalence of general education and VET pathways in the public view has already for a long time been a prime goal of educational policies. Various second-chance programmes, such as the academic secondary schools and the VET colleges for people under employment and (since 1997) the *Berufsreifeprüfung* (or BRP, i.e. certificate providing university access for skilled workers) have long played a key role in the promotion of equivalence of general education and VET pathways. In early 2005, the Tyrol Economic Chamber developed a new BRP concept. It is recommended to

further promote the well-proven tracks linking VET and general education as well as to create new pathways.

Additional qualifications and inter-linkage between VET schools and colleges and the world of work

Since the late 1990s, the full-time VET schools and colleges have made considerable contributions towards tackling the ICT challenges in education and the job-oriented skills training. As another focus, entrepreneurial spirit (i.e. 'entrepreneurship', however also 'intrapreneurship') should be intensified across specialist areas, to act as a 'seed' for developing young people. As a rule, they consider actually becoming self-employed only after having gathered many years of experiences. Therefore it is also necessary to strengthen the two general skills 'independence' and 'responsibility' in the world of work and CVET. One key area to be explored through contacts with enterprises and already employed graduates is in how far foreign language classes meet job requirements. When weighting Romance languages, for instance, entrepreneurs attach greater importance to Italian than to Spanish.

Second-chance education pathways will become even more important

Demographic decline is the main reason why the share of skilled workers with an apprenticeship certificate who enter the labour market for the first time is relatively low. In view of the fact that the number of young people continues to be relatively low, VET programmes in the form of modified apprenticeship training schemes (shortened and intensified apprenticeship period) for young adults without any qualification or with retraining needs represent one of the most targeted strategies to combat the skilled workers' shortage. In 2004, second-chance education pathways made up the sizeable share of slightly more than 10.5 percent of 4,391 final apprenticeship exams passed successfully in Tyrol.

Ageing of labour force requires longer CVET participation

The proportion of 40-to-64-year-olds in the population in main working age can be expected to increase from 41 percent in 1995 to 52 percent in 2015. According to the 2003 Microcensus on Lifelong Learning (Statistik Austria), 28 percent of the 25-to-64-year-olds in Tyrol attended VET or CVET programmes within the 12 months' period before the survey was conducted. By the year

2013, this proportion will have to be increased to an estimated 40 percent of the population in an employment-oriented age in order to cope with structural changes and the ageing of the population in an employment-oriented age. The 2003 Microcensus showed that 70 percent of course participants in Tyrol perceived an 'improvement of their job situation' after attendance of CVET measures. These positive experiences must be used as a link to encourage future attendance. In this context, the spread of flexible training periods and the implementation and broad use of public incentives for private CVET investments constitute major points of approach. The Training Allowance 'update' Scheme is one major step in this direction.

Attaining the 'critical mass' in the engineering sciences at the higher education level

In Tyrol, the percentage of students enrolled in programmes focusing on engineering and technology pro-

vided by Fachhochschulen (i.e. the universities of applied sciences) is clearly below the national average (20 as against 50 percent of all Austrian Fachhochschule students). This backlog is aggravated by the fact that Innsbruck University does not offer any engineering courses oriented towards industry (but exclusively construction/architecture). The 'critical mass' of human capital in research, instruction and development that is required for innovation is missing in many areas.

Apart from the options currently open to them – with pathways such as the master craftsperson courses, the part-time industrial master colleges, the VET colleges for people under employment, and the BRP – apprenticeship graduates should be encouraged to enter occupation-specific technology-oriented Fachhochschule programmes (Bachelor's studies). This is in line with the aim of increasing the rate of entrants with alternative qualifications within the meaning of the Fachhochschule Development and Financing Scheme.

TABLE 2:

Vacant post application figure:

There are so many registered unemployment for every vacant post, Tyrol, 2004, in abs. figures

Feature	Compulsory schools	Vocational schools for apprentices	Intermed. tec. & voc. coll. (BMS)	Higher tec. & voc. coll. (BHS)	Higher gen. sec. schools (AHS)	Univ, FH, Post sec. coll.	Total
Number of registered unemployed at the Public Employment Service Austria (AMS) in the course of 2004	27,683	29,460	4,674	3,001	1,194	2,092	68,337
Inflow of notified vacancies 2004 in print media	12,417	32,693	1,247	4,786	-	1,029	55,889
Unemployed persons per vacant post	2.2	0.9	3.7	0.6	-	2.0	1.2

Source: Statistics Austria; Media & Market Observer; *ibw*-calculations

Encouraging transparency and credit transfer at the post-secondary level

CVET programmes awarding certificates to graduates are becoming more and more diverse in this country. The already existing forms of VET schools, VET colleges and academic secondary schools are complemented by various courses provided by schools, universities, private universities and other higher education establishments, as well as adult education establishments. In line with the principle of promoting lifelong learning through the economical application of time and resources as well as through vertically and horizontally clearly structured

qualifications and recognition schemes (in the meaning of credits and permeability), a credit transfer network of all post-secondary education providers (VET schools and colleges, Fachhochschulen, universities, adult education establishments) in the large areas of technology, business, tourism and the social and services sector should be taken into consideration, in order to encourage a broad participation in education and training as well as attainment of qualifications far beyond the age of IVET.

The unabridged text of the study (187 pages; German version only) can be obtained from the *ibw*, where it was recently published as *ibw*-research report No. 128 [*ibw*-Forschungsbericht Nr. 128], ISBN 3-902358-23-8. [Download](#)

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