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Switzerland’s success as a location for business is due to its high level of competitiveness, strong innovation and low unemployment. This is in no small part thanks to the high quality of its education system.

An important element within this education system is the professional education and training (PET) sector. It is open to professionally qualified individuals. It is possible to obtain a tertiary level qualification even without holding a baccalaureate. And it is this possibility which makes vocational and professional education and training appealing to young people. Holders of tertiary-A qualifications also use the PET path to obtain professional qualifications.

One of the strengths of PET is its close correlation with the needs of the labour market. Holders of PET qualifications are highly sought after specialists who can count on a high return on investment. PET therefore has a positive influence on income and reduces the risk of unemployment. Furthermore, it also contributes greatly to lifelong learning, which is increasingly becoming a prerequisite for remaining competitive on the labour market.

Switzerland is dependent on a well-functioning PET sector. I am convinced that we will be able to maintain the momentum in this important sector in the future. To that end, particular emphasis will be placed on positioning the PET sector accordingly both at national and international level, securing continued funding and increasing the level of permeability with higher education institutions.

These enhancements need to be undertaken carefully, otherwise we risk losing the proven stated strengths of our unique federal PET examinations and PET colleges.

PET has earned our commitment and I thank everyone involved for their efforts.

Federal Councillor Johann N. Schneider-Ammann
Head of the Federal Department of Economic Affairs
Overview

PROFESSIONAL EDUCATION AND TRAINING

PET is closely correlated with the needs of the labour market. It prepares candidates for challenging occupations where high levels of expertise and/or managerial responsibility are required. Positioned at tertiary-level, PET consists of Federal and Advanced Federal PET Diploma examinations or enrolment in a PET college degree programme.

Positioned at tertiary level
Swiss tertiary level education\(^1\) is divided into the PET sector and the higher education sector. The higher education sector is comprised of universities of applied sciences (UAS), universities of teacher education (UTEs), cantonal universities and the federal institutes of technology (FITs).

The PET sector enables a wide range of people to obtain exactly the type of tertiary-level education and training needed on the labour market. This indirectly strengthens the research-oriented academic system in that those primarily interested in pursuing research take the higher education path. It also ensures that the Swiss labour market is provided with an ideal mix of qualified workers (skill grade mix).

Practical relevance
The key features of PET are a close correlation with the needs of the labour market and an approach that combines theory with the practical realities of the profession.

The involvement of professional organisations in the sponsorship of examinations and the development of core curricula at PET colleges allow new competency requirements to be implemented quickly. It also establishes a rapid rhythm of innovation and ensures that training programmes provide only those skills and competencies that are needed on the labour market.

Access via various pathways
The PET sector enables individuals to plan their own learning progress on the basis of individual life circumstances, learning curves and employment situation. It offers them the opportunity to acquire a tertiary-level qualification regardless of age. Generally, several years of professional experience in the field are required in order to register.

The PET sector offers VET graduates the opportunity to take their education and training to a higher level. This enhances the overall appeal of VET programmes and the VET/PET system as a whole. Holders of higher education qualifications also use PET examinations, particularly the Advanced Federal PET Examination, as a means of acquiring additional competencies for the labour market.

Public-private partnership
The Confederation, the cantons and professional organisations work together to ensure that the VET and PET sectors provide high-quality training. The extensive involvement of professional organisations ensures that examinations and training programmes are closely correlated with the needs of the labour market. Private and public education institutions offer preparatory courses for federal PET examinations and PET college degree programmes.

Funding
PET funding comes from both public and private sources. Individual students and employers contribute a significant share of the costs. According to surveys conducted by the Federal Office for Professional Education and Technology, the Confederation and the cantons spent nearly CHF 500 million on PET in 2009.

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\(^1\) A distinction is also made in international classification between tertiary A (universities) and tertiary B (PET).
Qualifications at tertiary level

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET qualifications²</td>
<td>28 200</td>
</tr>
<tr>
<td>(23 600 of which are federally regulated)</td>
<td></td>
</tr>
<tr>
<td>Federal PET Diploma Examinations</td>
<td>240 examinations</td>
</tr>
<tr>
<td>13 100 Federal PET Diplomas issued</td>
<td></td>
</tr>
<tr>
<td>Advanced Federal PET Diploma Examinations</td>
<td>170 examinations</td>
</tr>
<tr>
<td>3 200 Advanced Federal PET Diplomas issued</td>
<td></td>
</tr>
<tr>
<td>PET college degree programmes</td>
<td>33 core curricula with a total of 52 areas of specialisation and over 400 degree programmes</td>
</tr>
<tr>
<td>7 300 PET college degrees</td>
<td></td>
</tr>
<tr>
<td>Qualifications obtained from UAS, UTEs, cantonal universities and FITs³</td>
<td>37 900 (incl. PhDs)</td>
</tr>
<tr>
<td>of which at UAS and UTEs</td>
<td>13 200 Diplomas, Bachelors and Masters</td>
</tr>
<tr>
<td>of which at cantonal universities/FITs</td>
<td>24 700 degrees/Diplomas, Bachelors and Masters and PhDs</td>
</tr>
</tbody>
</table>


“The great strength of this training is that participants have held management positions in the hotel and restaurant industry for some time. They’re all practitioners at school.”

Reto Lüchinger, Restaurateur
Adv. Fed. PET Diploma
PRACTICALLY-ORIENTED ELEMENT OF TERTIARY LEVEL

Professional education and training facilitate the acquisition of skills and qualifications thereby allowing holders to assume demanding roles and positions of responsibility. With the Federal PET Diploma and the Advanced Federal PET Diploma and PET college degree programmes, it constitutes the practically-oriented element of the tertiary sector.

Federal PET Examinations and Advanced Federal PET examinations
These lead to the award of either a Federal PET Diploma or Advanced Federal PET Diploma. Only the examination itself is federally regulated. Preparation for the examinations is open and can take different forms.

PET colleges
Graduates of PET colleges are issued a PET college degree. This qualification bears the letters “HF” (PET college) in German. Both the degree programme and the final examination are federally recognised. In addition to their degree programmes, PET colleges also offer federally-recognised continuing education and training programmes.

Higher education institutions (HEIs)
The Swiss higher education sector is comprised of universities of applied sciences (UAS), universities of teacher education (UTEs), cantonal universities and the federal institutes of technology (FITs). The introduction of UAS in the mid-1990s gave professionals the opportunity to pursue training within the higher education sector. Admission to UAS is normally open to holders of an upper-secondary level Federal Vocational Baccalaureate (FVB).

Higher education institutions (HEIs) offer three main continuing education and training (CET) programmes, each leading to a formal qualification: the Certificate of Advanced Study (CAS), the Diploma of Advanced Studies (DAS) or the Master of Advanced Studies (MAS). These tertiary-level A programmes offered by the HEI sector compete directly with corresponding tertiary-level B programmes and courses offered by the PET sector, particularly in the services branch. While tertiary-level B programmes and courses within the PET sector are federally regulated and bear a close correlation with the needs of the labour market, the structuring of tertiary-level A programmes within the HEI sector enjoy a large degree of academic autonomy.
“I wanted to get further qualifications so I could take on a management role. Thanks to the Federal PET Diploma I’m now head of division.”

Yves Ducrest
Industry specialist for bakery and confectionary, Federal PET Diploma
“I would recommend PET to any employees seeking to boost their career chances. You learn exactly what is really needed for the job. On top of that, experts in the field are there to teach you, guaranteeing a high degree of practical relevance. Ultimately, the industry has an overriding interest in well qualified staff.”

Nadine Borter
Communications specialist
Adv. Fed. PET Diploma, Advertiser of the Year 2011
A JOINT UNDERTAKING BY THE PRIVATE AND PUBLIC SECTORS

The Confederation, the cantons and professional organisations work together to ensure that both the VET and PET sectors offer high-quality training. This principle of the VET/PET Act has also proven itself in the PET sector.

Efficient and effective thanks to proven partnership

PET has a long tradition. The main reason for its success has been the coordinated distribution of responsibilities between private and public sector partners. This not only results in a high degree of efficiency and effectiveness, but also ensures quality assurance.

• **Training options that match the needs of the labour market:**
  As sponsors of the PET sector, companies are heavily involved in determining training and competency requirements. They also include these requirements in examination rules and core curricula of training programmes. The involvement of companies in decisions regarding content enables the system to be quickly adapted as needed.

• **Comparability and transparency of qualifications:**
  The Confederation is responsible for strategic management as well as for ensuring the further development of the system as a whole. It verifies the needs expressed by companies and sees to it that PET qualifications hold a suitable position within the Swiss education system. It is also responsible for supervision of federal PET examinations. The cantons are responsible for supervising PET colleges.

• **High level of competition:**
  Different providers offer preparatory courses for federal PET examinations as well as for PET college admission. This offers the advantage of creating competitive dynamics and relieves any superfluous burden on public finances and ensures a high level of private return on investment in education and training.

**Partners and areas of responsibility**

<table>
<thead>
<tr>
<th>Professional organisations (trade associations, industry organisations, etc.)</th>
<th>Confederation</th>
<th>Cantons</th>
<th>Public and private education institutions</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sponsor federal PET examinations and establish core curricula for PET college degree programmes</strong></td>
<td><strong>Strategic management, quality control and approvals</strong></td>
<td><strong>Supervise and subsidise training courses</strong></td>
<td><strong>Create preparatory courses</strong></td>
<td><strong>Employment</strong></td>
</tr>
<tr>
<td><strong>Federal PET examinations</strong></td>
<td>• Determine competency requirements</td>
<td>• Approve examination rules</td>
<td>• Subsidise preparatory courses (optional)</td>
<td>• Create jobs</td>
</tr>
<tr>
<td></td>
<td>• Draft examination rules</td>
<td>• Supervise examinations</td>
<td></td>
<td>• Work with professional organisations</td>
</tr>
<tr>
<td></td>
<td>• Conduct examinations</td>
<td>• Act as first instance in the event of contested examination outcomes</td>
<td></td>
<td>• Cover part of the costs incurred by candidates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Issue PET qualifications and update the registry</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Subsidise examinations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PET Colleges</strong></td>
<td>• Determine competency requirements</td>
<td>• Approve core curricula</td>
<td>• Offer degree programmes</td>
<td>• Create traineeships and jobs</td>
</tr>
<tr>
<td></td>
<td>• Draft core curricula</td>
<td>• Confer recognition upon degree programmes</td>
<td></td>
<td>• Work with professional organisations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Subsidise degree programmes (optional)</td>
<td></td>
<td>• Cover part of the costs incurred by candidates</td>
</tr>
</tbody>
</table>
“Even while I was still in training, I was offered the opportunity to become head of the information office for Heidiland Tourism in Amden and therefore take over the running of the local tourism organisation.”

Thomas Exposito
PET College degree in Tourism

“During my training I was able to directly apply what I’d learnt and take on new projects. For me the aim was always to acquire a broad, interdisciplinary knowledge; to understand what others do.”

Nicole Lüscher
Specialist in Printing and Packaging, Adv. Fed. PET Diploma
Admission requirements for federal PET examinations reflect the very different needs of the labour market and the manner in which competencies were acquired. Candidates are generally required to have several years of professional experience. Examination rules list all possible qualifications which can be taken into account as a basis in order to take federal PET examinations.

High value placed on professional experience
Candidates are usually holders of an upper-secondary level Federal VET Diploma or equivalent qualification and have several years of experience (i.e. normally 2-3 years for admission to the Federal PET Diploma Examination and 4 years for admission to the Advanced Federal PET Diploma Examination). Other admission requirements for specific examinations are set forth in the corresponding examination rules.

In addition to professionals, graduates of Swiss universities and UAS may also take federal PET examinations to obtain a professional qualification in their field. Examples include hospital experts, corporate accounting, taxation, fiduciary services and auditing.

Competency-based admission requirements
There are different paths leading to admission to federal PET examinations. This encourages lifelong learning. The chart below shows the various paths that someone might take prior to registering for the Advanced Federal PET Diploma in Human Resources Management examination. Great value is placed on practical experience. With regard to the example in question, this means that a future Human Resources Manager already has experience in recruitment and corporate restructuring or reorganisation.

Different pathways (A-D) to the Adv. Federal PET Diploma (taking the example of Human Resources Management)

A-D

Federal VET Diploma

Certificate

PET college

University of applied science Bachelor / Master

University Bachelor / Master

Federal PET Diploma Examination

Preparatory courses vary individually depending on previous education

Adv. Fed. PET Diploma in Human Resources Management

6 years practical experience, of which 4 years recognised practical experience.

Upper-Secondary Level — Tertiary Level

A, B, C, D = Education and training background of candidates: entry to the PET sector can occur from all levels, even from higher education institutions.
Permeability within the education system

A study conducted by the University of Zurich in 2010 shows that there is permeability between the PET and higher education sectors. Alternative education and training pathways account for 13% of all education pathways, which is a non-negligible proportion.

Mixed education pathways, the combination of professional and academic education, are also recognised by the labour market. Depending on the chosen pathway, income is on average between 10 and 30 per cent higher than a purely academic or purely professional pathway.4

Prevalence of mixed education pathways


“I wanted training with a strong practical element. That’s why the Federal PET and Advanced Federal PET examinations and the PET colleges suited me. My course colleagues and I had no problem finding a job afterwards. Specialists like us are much in demand on the labour market.”

David Rey

Master metal constructor, Adv. Fed. PET Diploma
TRAINING BY PROFESSIONALS FOR PROFESSIONALS

Federal PET examinations establish the competencies required in order to obtain the corresponding qualification. During these examinations, candidates are asked to perform authentic tasks that are typically encountered on the job. Professional organisations are responsible for establishing and drafting the various examination rules. The Federal Office for Professional Education and Technology is responsible for conferring federal recognition upon federal PET examinations, approving examination rules, supervising examinations and subsidising 25% of examination costs.

Structure of qualifications
There are two types of federal PET examination, the first leading to the award of the Federal PET Diploma and the second leading to the award of the Advanced Federal PET Diploma. If both types of federal PET examination exist for a given profession, then the Federal PET Diploma is often considered to be the prerequisite for admission to the Advanced Federal PET Diploma Examination. In all cases, the latter is legally considered to be more demanding than the former.

The Federal PET Diploma and the Advanced Federal PET Diploma are issued by the Federal Office for Professional Education and Technology at the request of examination sponsors.

Options
There are currently 240 federally-approved examinations for the Federal PET Diploma and 170 for the Advanced Federal PET Diploma. The content, structure and duration of examinations are established in the examination rules. Examiners are professionals with extensive experience and expertise in the given fields.

There is no specific route to be followed when preparing for federal PET examinations. Candidates are often well into their careers. Professional experience is an important prerequisite for passing the examinations and is validated accordingly as part of the examination procedure. Examination questions are designed in such a way as to verify the candidate’s level experience. Candidates for federal PET examinations are free to decide whether to attend preparatory courses to upgrade their knowledge and skills (see chart page 11).

Quality assurance
The main element for assuring the quality of federal PET examinations is the involvement of professional organisations as sponsors. This ensures that the competencies tested reflect the real needs of the labour market and represent a national qualification standard. A further quality assurance measure has been the continuous updating of examination rules to reflect the latest developments. Moreover, each federal PET examination is handled by an examination board comprised of experienced experts in the corresponding field. The examination board is responsible for evaluating examinations as well as for developing examination tasks.

A further factor ensuring the quality of preparatory courses is particularly apparent in the services sector, where the large number of PET providers catering to different needs spurs competition. Trade associations in trade and industry have a direct interest in ensuring that new employees receive high-quality training. They therefore offer preparatory courses for federal PET examinations.

Examination rules are approved by the Federal Office for Professional Education and Technology (OPET). OPET is also responsible for supervising federal PET examinations and is the first instance to be contacted in the event of disputes.

Federal PET and Advanced Federal PET Diploma Examinations (Examples)

<table>
<thead>
<tr>
<th>Federal PET Diploma Examinations</th>
<th>Adv. Federal PET Diploma Examinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Specialist in Human Resources</td>
<td>• IT specialist</td>
</tr>
<tr>
<td>• Police officer</td>
<td>• Public relations consultant</td>
</tr>
<tr>
<td>• Specialist in group management</td>
<td>• Tax expert</td>
</tr>
<tr>
<td>• Electrical safety advisor</td>
<td>• Fashion designer</td>
</tr>
<tr>
<td>• Construction foreman</td>
<td>• Specialist in training management and human resources</td>
</tr>
<tr>
<td>• Medical masseur</td>
<td>• Health institutions expert</td>
</tr>
<tr>
<td>• Archaeological dig technician</td>
<td>• Master goldsmith</td>
</tr>
</tbody>
</table>
“Following my law studies, I specialised at a high level as a tax expert by obtaining an Advanced Federal PET Diploma. Today, I’m a partner in a large corporate law firm.”

Danielle Wenger
Tax expert, Adv. Fed. PET Diploma
Federal PET Diploma Examination – the 20 most common professions (2010)

1. Police officer 811
2. Human resources specialist 757
3. Trainer 729
4. Technical commercial agent 662
5. Marketing specialist 604
6. Finance and accounting specialist 583
7. Medical Masseur 486
8. Specialist in social insurance 351
9. Electrical safety advisor 322
10. Building custodian 303
11. Farmer 291
12. Retail specialist 260
13. IT specialist 253
14. Logistician 247
15. Specialist in group management 243
16. Property manager 223
17. Specialist for management assistance 215
18. Process specialist 197
19. Sales specialist 197
20. Electrical project leader 194

Advanced Federal PET Diploma Examination – the 20 most common professions (2010)

1. Job attendant 367
2. Accountant 302
3. IT specialist 169
4. Master electrician 169
5. Expert for accounting and controlling 154
6. Sales manager 142
7. Financial analyst and asset manager 131
8. Farmer 128
9. Police officer 111
10. Tax expert 94
11. Purchasing manager 91
12. Expert in finance and investment 89
13. Production manager 69
14. Marketing manager 64
15. Business economist 47
16. Facility manager 35
17. Site manager (structural engineering) 35
18. Senior logistician 32
19. Car salesperson 31
20. Head chef / Head of production 30

* incl. CET.
* 30 diplomas were also awarded in the professions of animal physiotherapist and hairdresser.
PET colleges provide tertiary-level training within an institutional structure. With federal PET examinations, it is not the education path but rather the examination that is federally regulated and recognised. With PET colleges, however, it is the degree programmes that are federally recognised. In order to ensure that PET programmes match the needs of the labour market, professional organisations are systematically involved in the preparation of national training plans and qualification procedures.

Structure of degree programmes and qualifications
Part-time or full-time college degree programmes are offered by professional organisations as well as by private and public education institutions. The minimum requirement is a Federal VET Diploma and, depending on the degree programme, professional experience. Full-time programmes last at least two years and part-time programmes at least three.

With full-time programmes, 20% of the study time is devoted to a traineeship. The requirement for part-time programmes is that the person spends at least 50% of the time working in a relevant capacity. Half of all PET college degrees issued in 2009 were obtained following completion of part-time studies.

Qualifications issued
Students who complete their degree programme receive a PET college degree and are entitled to use the following protected titles (e.g., “dipl. Technikerin HF Holzbau” or “dipl. Betriebswirtschafter HF”). The PET college degree is awarded by the PET college offering the federally-recognised degree programme.

Permeability
Individuals who complete a recognised degree programme from a Swiss PET college may be admitted to a UAS Bachelor’s degree programme that specifically relates to the PET college degree programme in question. Admission to other Bachelor’s degree programmes that do not specifically relate to the PET college degree programme will be decided on a case-by-case basis.

Some cantonal universities admit holders of PET college qualifications to their Bachelor’s degree programmes. Admission requirements currently vary from one cantonal university and/or faculty to another. Harmonised rules and standardised, legally-anchored aptitude tests between the PET and higher education sectors would ensure greater permeability at tertiary level.

Quality assurance
Professional organisations are involved in the preparation of core curricula to ensure and develop quality in PET college degree programmes. The Federal Office for Professional Education and Technology approves core curricula and closely reviews the corresponding degree programme before conferring recognition. Once the federal recognition procedure is complete, responsibility for supervising PET college degree programmes is transferred to the cantons.

Options
There are eight fields of study with 33 core curricula:

<table>
<thead>
<tr>
<th>Field of study</th>
<th>Core curricula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>Engineering core curricula with courses in the following subjects: Construction site management, construction planning, electrical engineering, building services engineering, wood engineering, information technology, food processing, mechanical engineering, media, metalworking, micro-technology, systems engineering, telecommunications, textile</td>
</tr>
<tr>
<td>HORECA, tourism, housekeeping</td>
<td>Hotel/restaurant/catering (HORECA), tourism and housekeeping</td>
</tr>
<tr>
<td>Business</td>
<td>Agribusiness, banking and finance, business administration, pharmacy management, marketing management, legal assistance, textile economics, insurance, business informatics, customs administration</td>
</tr>
<tr>
<td>Agriculture and forestry</td>
<td>Agricultural engineering, forestry</td>
</tr>
<tr>
<td>Health</td>
<td>Vitalisation, dental hygiene, radiological technology, biomedical analysis, surgical technology, visual therapy, nursing, podiatry, paramedicine</td>
</tr>
<tr>
<td>Social work and adult education</td>
<td>Adult education and training, child rearing, social pedagogy, workshop management</td>
</tr>
<tr>
<td>Art and design</td>
<td>Design core curricula with courses in the following subjects: Fine arts, communication design, product design</td>
</tr>
<tr>
<td>Traffic and transport</td>
<td>Air navigation services, air traffic control, charter aviation</td>
</tr>
</tbody>
</table>
In addition to degree programmes, PET colleges also offer job-related continuing education and training (CET) programmes. These CET programmes provide more specialised and detailed knowledge and skills. Upon completion, a CET qualification is issued with the initials “NDS HF” (e.g. “dipl. Hotelmanager NDS HF”).

LABOUR MARKET DEMAND FOR PET QUALIFICATIONS

PET qualification holders enjoy good employment prospects on the labour market. They are sought after by SMEs and large-sized companies alike and enjoy high rates of employment.

Balance between holders of PET and HEI qualifications
The Swiss economy employs as many holders of PET qualifications as holders of higher education qualifications.

Covering all economic branches
The various economic branches have different needs when it comes to holders of tertiary-level qualifications. Agriculture, construction, trade, repair services as well as the hotel industry employ a correspondingly low proportion of workers who hold such qualifications. Likewise, holders of PET qualifications are more commonly found in these economic branches than holders of higher education qualifications. In most other economic branches the proportion of holders of PET or higher education qualifications is more or less the same.

Proportion of employed persons (age 25-64) who hold tertiary-level qualifications

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>PET only</th>
<th>PET + higher education</th>
<th>Higher education only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td></td>
<td>17%</td>
<td>3%</td>
<td>19%</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td>12%</td>
<td>2%</td>
<td>15%</td>
</tr>
</tbody>
</table>

“An older colleague of mine inspired me to take up watchmaking. My passion for watchmaking evolved while learning the trade. Right after I then pursued an engineering programme at a UAS.”

Raúl Pages
PET College degree in Micro-engineering

“From a management point of view, PET is incredibly important. Businesses benefit greatly from the experience of PET graduates – it’s the backbone of a business.”

Yvonne Purtschert
Specialist in training management, Adv. Fed. PET Diploma

Tertiary-level qualification holders by economic branch\textsuperscript{12}

<table>
<thead>
<tr>
<th>Economic Branch</th>
<th>PET</th>
<th>PET + higher education</th>
<th>Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate, rentals, IT, R&amp;D</td>
<td>22%</td>
<td>4%</td>
<td>26%</td>
</tr>
<tr>
<td>Credit institutions and insurance</td>
<td>22%</td>
<td>4%</td>
<td>22%</td>
</tr>
<tr>
<td>Government</td>
<td>19%</td>
<td>4%</td>
<td>23%</td>
</tr>
<tr>
<td>Health and social services</td>
<td>18%</td>
<td>3%</td>
<td>18%</td>
</tr>
<tr>
<td>Industry</td>
<td>18%</td>
<td>2%</td>
<td>11%</td>
</tr>
<tr>
<td>Education</td>
<td>15%</td>
<td>5%</td>
<td>42%</td>
</tr>
<tr>
<td>Transport, communications, Energy</td>
<td>17%</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>18%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Construction</td>
<td>16%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Trade, repair services</td>
<td>13%</td>
<td>1%</td>
<td>8%</td>
</tr>
<tr>
<td>Other services</td>
<td>12%</td>
<td>1%</td>
<td>20%</td>
</tr>
<tr>
<td>Hotel industry</td>
<td>10%</td>
<td>1%</td>
<td>7%</td>
</tr>
</tbody>
</table>

\textsuperscript{12} Own representation based on data from the Federal Statistical Office.
Employed in all company sizes
Holders of PET qualifications are somewhat more likely to be employed in a small-sized company. In contrast, holders of higher education qualifications are a bit more likely to be employed in a large-sized company.

With regard to the type of position held within the company, there are no major differences between holders of PET qualifications and holders of higher education qualifications.

High employment rates
Comparing the unemployment rate by education level, people with a tertiary level qualification have the lowest rates (end of 2010: 2.9%)\(^ {13}\). In addition, within the tertiary level, individuals with PET qualifications have good chances of quickly finding employment after graduation. In contrast, graduates from tertiary A institutions often take longer to find work or take on part-time or fixed contract employment.

Proportion of tertiary-level qualification holders by company size\(^ {14}\)

<table>
<thead>
<tr>
<th>Company Size</th>
<th>Higher education</th>
<th>PET</th>
</tr>
</thead>
<tbody>
<tr>
<td>100+</td>
<td>44%</td>
<td>38%</td>
</tr>
<tr>
<td>50 - 99</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>10 - 49</td>
<td>23%</td>
<td>25%</td>
</tr>
<tr>
<td>1 - 9 AN</td>
<td>22%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Employment shortly after completing education and training\(^ {15}\)

*Special forms of work: e.g. contract < 12 months, part-time employment < 6 hrs/wk, more than one job, certain types of self-employment, home-based work


\(^{14}\) Own representation based on data from the Federal Statistical Office (2009a).

PET is financially rewarding for qualification holders. Over 70% of students complete their training while in work and already earn a salary, which increases after they obtain their PET qualification. But the PET sector is also good value for the state. Due to the contributions of the private and public sectors, the programmes are cost-effective. At the same time, the state benefits from higher tax revenues and lower overall social costs.

**Professional experience and average age closely linked**

By the time they obtain their PET qualification, most candidates have already gained long years of work experience. This can be seen in the average age of candidates: 50% of the candidates who obtained a Federal PET Diploma or an Advanced Federal PET Diploma in 2007 were between the ages of 27 and 38. The average age of PET college students was somewhat lower.

**Gender ratios vary according to economic branch**

In 2010, 61% of all candidates who obtained their PET qualification were male. The reason for the above-average proportion of males is mainly due to the earlier nature of the Federal PET and Advanced Federal PET Diplomas. Until the start of the 21st century, the Federal Vocational Education Act was mainly concerned with trade and industrial professions (most of which were male-dominated). With the current Federal Vocational and Professional Education and Training Act, which came into effect in 2004, all economic branches are covered, including health and social care. The proportion of females in these latter professions is higher.

**PET qualifications by sex (2010)**

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PET</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Advanced Federal PET Diploma</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>PET college degree</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>Federal PET Diploma</td>
<td>61%</td>
<td>39%</td>
</tr>
</tbody>
</table>

**Educational background and employment situation**

Unlike the higher education sector, where studies tend to be full-time, candidates in the PET sector mostly prepare on a part-time basis. 90 per cent of all candidates who pursue PET part-time are employed on an 80 per cent workweek basis or higher. According to the Federal Statistical Office, three-quarters of all students attending a higher education institution work part-time.

Generally speaking, PET college students are already integrated into the labour market, which is reflected by the amount of income they earn while enrolled. On average, PET college students earn a gross monthly income of just under CHF 5500.

**Full-time and part-time programmes (2010)**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>UAS</td>
<td>68%</td>
<td>32%</td>
</tr>
<tr>
<td>PET</td>
<td>25%</td>
<td>75%</td>
</tr>
</tbody>
</table>

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17 Centre for Labour and Social Policy Studies BASS AG (2009), p. 24. Average gross monthly income of students enrolled in higher education is about 650 CHF.
Income situation after completion
PET qualifications have a positive impact in terms of higher income. Holders of PET qualifications earn over 30% more on average than holders of upper-secondary level VET qualifications.

Positive returns on investment in PET
The private return on investment in PET is somewhere in between the one achievable for investment in UAS and HEI studies.

The state enjoys a high fiscal return on investment since employers and students bear most of the cost of PET. The state also achieves considerable social returns. In particular, holders of PET qualifications are at lower risk of becoming unemployed.

“My first encounter with PET dates back to when I was a young legal specialist. I quickly came to realise that my knowledge in the field of finance was in need of improvement. The PET part-time courses were exactly what I needed. They allowed me to gain the necessary knowledge very efficiently.”

Georg Staub
Director swisstaffing

Private, social and fiscal returns on investment in education and training for males (2004)\(^\text{19}\)

PET POSITIONING

The success of the Swiss education system is due to the close correlation that it bears with the labour market. However, the heterogeneity and large number of PET qualifications make it difficult to clearly position them outside a specific profession, on the international labour market or within education systems of other countries. The Confederation therefore works with its partners at various levels within the VET and PET sectors to achieve greater recognition of VET and PET qualifications.

Increasing mobility
It is often difficult for stakeholders and employers in other branches inside and outside Switzerland to assess the value of Swiss VET and PET qualifications. This is because they are unfamiliar with the knowledge, skills and competencies acquired. The problem is further compounded by the fact that each country has a different system and different qualifications. This makes it difficult to assess foreign qualifications and limits the mobility of Swiss PET qualification holders who would like to work abroad.

Measures to improve PET positioning

OECD study on VET systems
The Organisation for Economic Cooperation and Development OECD compares VET systems in various countries. The strengths and weaknesses of individual systems are therefore made visible. 2009 for example, saw the publication of a study entitled “Learning for jobs”. The report gave the Swiss model good marks in terms of practical and market-oriented VET. In 2011, Switzerland took part in the OECD “Skills beyond school” study on tertiary-level VET, which is referred to as PET in Switzerland.

EU Copenhagen Process
The main focus of the Copenhagen Process is on encouraging greater permeability, transparency and mobility on the European labour market. The aim is to make VET / PET qualifications transparent on the European labour market. The priority is to establish National Qualifications Frameworks (NQF). The European Qualifications Framework (EQF), which enables the comparison and translation of national qualifications of various countries, serves as a reference. Switzerland, represented by the Federal Office for Professional Education and Technology, is participating in this process.

In addition, all PET qualifications would be issued together with an explanatory Diploma Supplement in English – as is the case with higher education qualifications. This would make it easier to establish the holders skills and abilities.

EU Lifelong Learning Programme
Switzerland also participates in the EU’s Lifelong Learning Programme. The Leonardo da Vinci sub-programme gives VET students, teachers and trainers the opportunity to gain experience in learning or training abroad. In addition, organisations involved in the VET sector in European countries are able to work together in various ways.
CONTRIBUTION MADE BY ALL INVOLVED

PET funding comes from both public and private sources. Individual students and employers pay most of the costs. The public sector contributes both to federal PET examinations and increasingly also to PET colleges.

Public funding
According to a cost study conducted by the Federal Office for Professional Education and Technology, the Confederation and the cantons spent a total of nearly CHF 500 million on the PET sector. Of this total, CHF 347 million was spent on PET college degree programmes and CHF 145 million on subsidies for preparatory courses for federal PET examinations and job-related CET courses.

Public funding of the PET sector is currently the subject of heated debate. The following aspects need to be considered:

• **Significant contribution by students themselves:** This can be explained by the fact that PET candidates will immediately earn a higher salary once they obtain their PET qualification. In addition, students already enjoy a level of income which enables them to contribute to education costs. Employer HR development policies often mean that costs are shared (between the employer and the employee) and time is made available for education and training. The benefits of PET are felt directly by the candidates as well as by the companies that employ them.

• **Public funding of the PET sector has grown over time:** Differences in the size of contributions are great as a result. The large number of PET providers and courses, as well as the different structures, makes it difficult to establish a system of public funding that would be fair to all PET providers and not create competitive distortions.

• **Tailored courses:** Preparatory courses for federal PET examinations in particular are very flexible. They are intended to suit the individual needs of candidates and respond to new competency requirements. Greater public funding to meet all needs would unavoidably require these courses to be regulated, which would essentially put in question their very nature and diminish the corresponding advantages.

Measures to strengthen the PET sector

• Federal funding to professional organisations for the purpose of revising existing training plans and examination rules and developing new ones.

• Federal funding to cover part of the costs of federal PET examinations, up to 25%. A further increase in funding to cover 60% to 80% of the costs is currently being considered.

• The cantons are preparing a new inter-cantonal agreement that will cover funding of PET colleges.

• The question of whether preparatory courses for federal PET examinations should be funded (and if so, to what extent) is currently being considered.

Tax deductions and scholarships

Individual costs of PET can be deducted to varying degrees from income tax as continuing education and training. Proposed amendments to federal legislation will enable taxpayers to deduct continued education costs. Deductions are currently only possible if the costs are directly related to the current occupation or are essential for retraining or re-entering the workplace.

It is also possible to apply for PET scholarships, which account for around 5% of the total budget set aside for education scholarships. The average amount of a PET scholarship is practically identical to that awarded for a UAS or university scholarship. Efforts are currently under way to compensate for regional differences in the scholarship systems.
**Employer contributions to PET**

According to a survey of individuals enrolled in PET on a part-time basis, nearly 60% stated that their employer was either paying part of the costs of PET or had set aside the time needed to pursue PET. This contribution to PET increases in direct proportion to company size.

In order to allow their employees to attend classes during working hours, some companies allow staff to arrange their work schedules flexibly or to reduce their level of employment. Although the individual burden of training is high, it does not entail a loss of income and the employer does not experience a temporary staff loss. The support of an employer is a non-negligible element of staff development and HR policy.

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“After a number of detours I’m now in my third year of training to become a paramedic. I first studied business administration and worked as a marketing manager.”

Marc Blunier  
PET College degree in Paramedicine (in education)

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**Employer contribution to PET by company size (in no. of employees)**

<table>
<thead>
<tr>
<th>Company Size</th>
<th>Financial Contribution</th>
<th>Non-financial Contribution Only</th>
<th>No Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 staff</td>
<td>27%</td>
<td>43%</td>
<td>29%</td>
</tr>
<tr>
<td>10 - 49</td>
<td>32%</td>
<td>14%</td>
<td>54%</td>
</tr>
<tr>
<td>50 - 249</td>
<td>28%</td>
<td>17%</td>
<td>55%</td>
</tr>
<tr>
<td>250 +</td>
<td>14%</td>
<td>15%</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>23%</td>
<td>19%</td>
<td>57%</td>
</tr>
</tbody>
</table>

20 Centre for Labour and Social Policy Studies BASS (2009), weighted figures.
INFORMATION

Authorities and organisations

Federal Office for Professional Education and Technology (OPET)
Legal basis, implementing provisions and background information about the PET sector. Information is also provided on measures to position the VET and PET sectors at national and international level.
www.bbt.admin.ch

Federal Statistical Office (FSO)
PET statistics and education indicators
www.education-stat.admin.ch

Swiss Conference of Cantonal Ministers of Education (EDK)
www.edk.ch

Swiss Conference of VET/PET Agencies (SBBK) (not available in English)
Conference of heads of cantonal offices responsible for VET/PET.
www.sbbk.ch

Confederation of Swiss Employers (not available in English)
www.arbeitgeber.ch

Swiss Union of Crafts and SMEs (not available in English)
www.sgv-usam.ch

Confederation of Swiss Trade Unions (not available in English)
www.sgb.ch

Travail.Suisse (not available in English)
www.travailsuisse.ch

Dualstark (not available in English)
Swiss Conference on Federal PET examinations. Interest group of examination sponsors.
www.dualstark.ch

Swiss Conference of PET Colleges (not available in English)
Represents the interests of PET colleges
www.konferenz-hf.ch

Information platforms

List of VET occupations and list of PET professions (not available in English)
All federally recognised VET occupations and PET professions: legal basis and addresses.
www.bbt.admin.ch/bvz

Website on occupational, educational and career guidance (not available in English)
Among other things, this website contains comprehensive information about PET options.
www.berufsbegutachtung.ch

Berufsbildungplus.ch (not available in English)
Information about Switzerland’s VET and PET sectors. Links to additional information:
www.berufsbildungplus.ch

Berufsbildung.ch (not available in English)
Information and useful tools for people who work in the VET and PET fields
(e.g. Lexicon of VET and PET terminology in German, French and Italian; addresses of authorities and organisations).
www.berufsbildung.ch

Panorama (not available in English)
Electronic newsletter and technical journal for VET and PET fields.
www.panorama.ch
INFORMATION

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References


Schweizerische Koordinationsstelle für Bildungsforschung SKBF. Bildungsbericht Schweiz 2010.

THE PET SECTOR IS AN ASSET WITHIN THE SWISS VET/PET SYSTEM

- **Tertiary-level qualifications through professional training**
  The PET sector complements UAS, cantonal universities and FITs as an integral part of Switzerland’s tertiary-level landscape.

- **Training reflects the needs of the labour market**
  Federal PET examinations and PET college degree programmes are aligned with the needs of the labour market.

- **Very good employment prospects**
  Holders of PET qualifications carry out managerial and/or highly technical tasks. Unemployment rates are very low.

- **Sponsored by employers**
  Flexible rules established by professional organisations ensure a rapid response to changes taking place in the labour market.

- **Highly efficient**
  The substantial share of costs borne by the private sector keeps state regulation low and ensures quality.