

# 15

Education and Science

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## Education finance

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Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Home Affairs FDHA  
Federal Statistical Office FSO

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## Introduction

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This brochure provides a summary of education finance in Switzerland. It is based mainly on the public education expenditure statistics and on the funding of higher education institutions statistics. Information is presented for the most recent financial year available: 2012 for public expenditure on education<sup>1</sup> and 2013 for higher education institution funding and expenditure.

In 2012, the Confederation, cantons and communes spent CHF 34.7 billion on education. Public expenditure on education accounts for 5.5% of the gross domestic product. The public sector invests the largest proportion of this expenditure in compulsory schooling.

One percent of all public education expenditure is paid out in the form of grants and loans, benefiting students study at the upper secondary and tertiary levels. The Confederation subsidises the tertiary level with CHF 25 million per year.

Higher education institutions are mainly funded by the cantons. In the higher education institutions, the greatest part of the costs is generated by research and development (R+D) in the universities; at the universities of applied sciences and the universities of teacher education by teaching staff.

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<sup>1</sup> Due to the great complexity of collecting and harmonising data on public expenditure, the final results of a given financial year are only available with a delay of roughly two years.

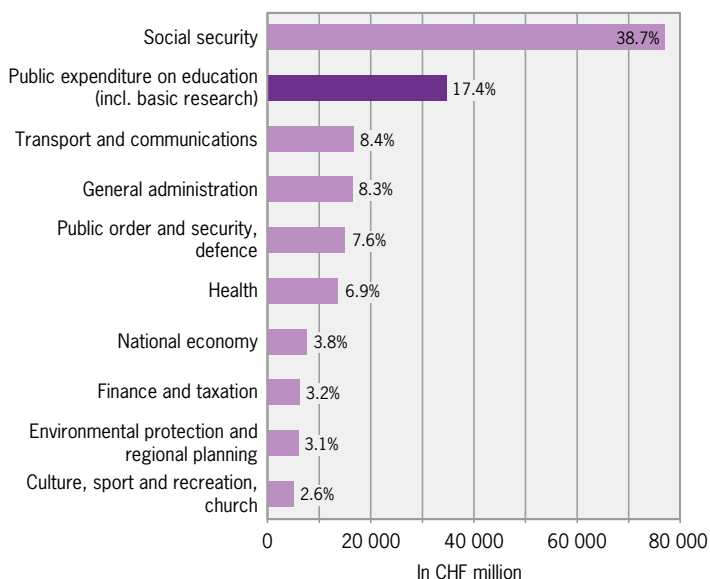
## Public expenditure by budgetary item

In 2012 the Confederation, cantons and communes spent 17% of their total expenditure of CHF 199 billion (including social insurances) on education.

The large amount of public expenditure used for educational purposes reflects the public authorities' financial commitment in this area.

### Public expenditure by budgetary item in 2012

G 1



Sources: FSO – ÖBA; FFA – FS

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In 2012, at 39%, “Social security” was the public sector’s greatest budgetary item by far. This was followed by “Public education expenditure” (incl. basic research). Since 1990, these two budgetary items have occupied the first and second place. The third place was occupied by “Public order and security, defence” in 1990 and 1991; from 1992 to 2007 by “Health” and from 2008 by “Transport and communications”.

The distribution of total expenditure by budgetary item varies depending on the canton.

## Financial flows for education

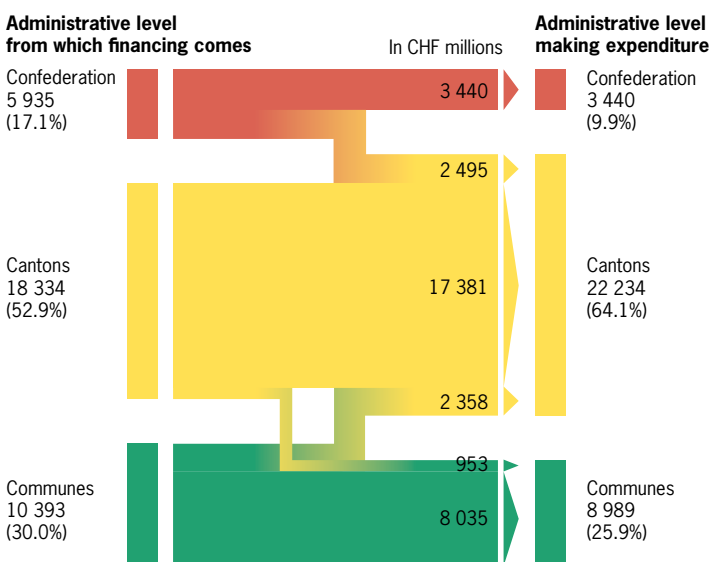
The 17% of total expenditure allocated to the public education expenditure corresponds to CHF 34.7 billion.

Education is not always funded directly, but also in the form of contributions towards the expenditure undertaken by other administrative levels. The Confederation contributes to the costs of this to the public sector, in accordance with the Vocational and Professional Education and Training Act (VPETA) (approximately 25%). The whole expenditure in this domain, however, is made by the cantons.

The graph below shows on the left side the financing administrative level, and on the right side the one making the expenditure.

### Financial flows for education in 2012

G 2



Sources: FSO – ÖBA; FFA – FS

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In 2012, the Confederation accounted for 17% of **funding** for education, the cantons 53% and the communes 30%.

If the administrative levels that **make the expenditures** are considered, cantons account for two thirds (64%) of educational expenditure, communes for a quarter (26%) and the Confederation for the remaining 10%.

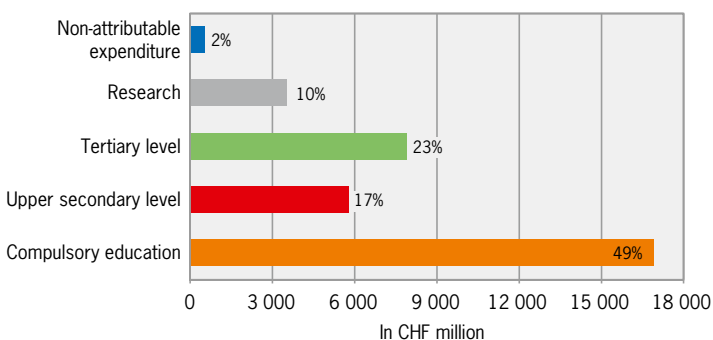
## Public education expenditure by educational level

The greatest share of public expenditure on education (49%) is spent on compulsory education. This level also has the greatest number of students, some 900,000<sup>2</sup> including pre-school and special schools. This corresponds to 60% of the total of all persons in education.

A quarter of the expenditure is dedicated to the tertiary level (higher vocational education and higher education institutions). 17% of people in education are to be found at this level. The upper secondary level (vocational and general education) accounts for 17% of public expenditure on education as well as 23% of people in education.

The proportions of expenditure on education by educational level changed little between 1990 and 2012.

### Public education expenditure by educational level\* in 2012 G 3



\* Educational level in accordance with the harmonised accounting model HAM2.

"Research" comprises basic research and "R+D in education".

"Non-attributable expenditure" corresponds to the HAM2 category "Other education expenditure".

Sources: FSO – ÖBA; FFA – FS

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<sup>2</sup> FSO, Student statistics and Swiss Higher Education Information System (SHIS), school year 2011/12

## Public education expenditure by administrative level that make the expenditures

The responsibility for educational funding is distributed among the Confederation, cantons and communes to varying degrees depending on the educational level concerned.

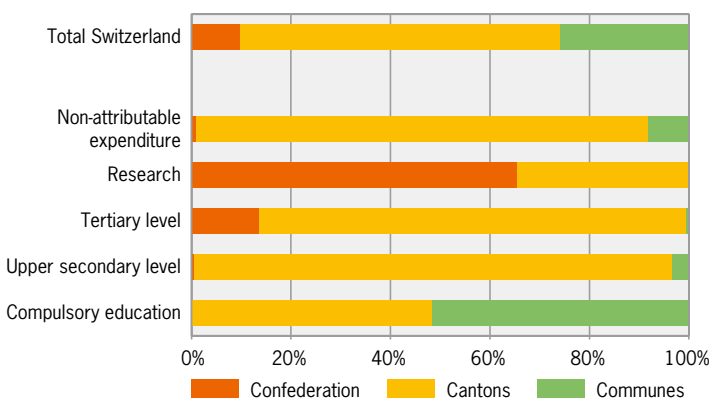
The cantons and communes share expenditure for compulsory education (including pre-school and special schools) equally.

The greater part of expenditure for the upper secondary level (vocational and general education) as well as for the tertiary level (higher vocational education and university), is covered by the cantons.

The Confederation makes direct payments at the tertiary level, in the area of research and the Federal Institutes of Technology.

### Public education expenditure by educational level\* and administrative level that makes the expenditures in 2012

G 4



\* Educational level in accordance with the harmonised accounting model HAM2.

"Research" comprises basic research and "R+D in education".

"Non-attributable expenditure" corresponds to the HAM2 category "Other education expenditure".

Sources: FSO – ÖBA; FFA – FS

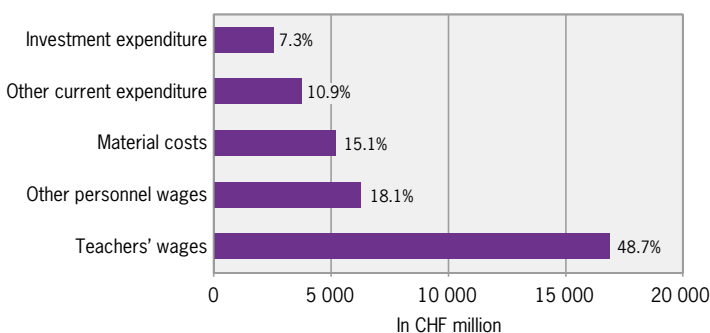
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## Public education expenditure by type of expenditure

In Switzerland 93% of expenditure on education is incurred as current expenses, the remaining 7% as investments.

With CHF 16.9 billion, 49% of total education expenditure is spent on teaching staff. The remaining current expenses are divided among other staff, material costs and other current expenses (subsidies and grants to private institutions and households).

### Public education expenditure by type of expenditure in 2012 G 5



Sources: FSO – ÖBA; FFA – FS

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The same division of expenditure applies separately to compulsory education, the upper secondary level and the tertiary level.

The breakdown in percentage of education expenditure by type of expenditure has hardly changed since 1990.

Expenditure on personnel accounts for the greatest share of public expenditure on education in all cantons.

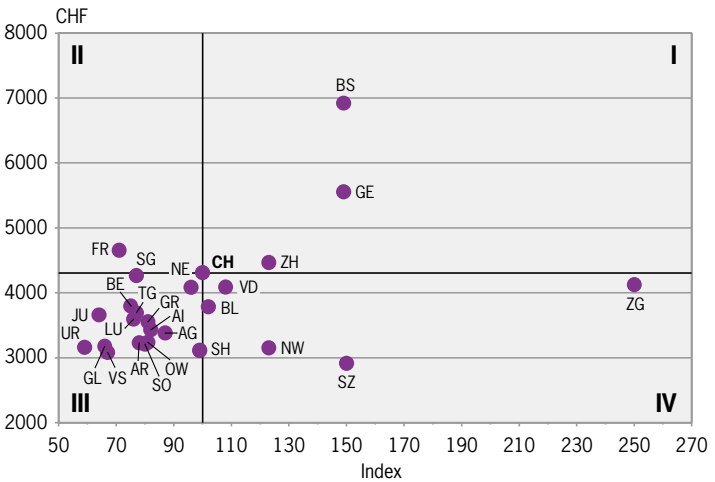
## Per capita public education expenditure

A direct comparison of costs can be made between cantons by means of per capita public expenditure on education. At the national level, the annual per capita education expenditure was CHF 4300, although considerable differences can be observed between the cantons.

Another means of comparison between cantons is the resource index. This reflects the extent to which a canton can generate resources from taxes. It is one of the key elements in the financial compensation system between the Confederation and the cantons.

### Per capita public education expenditure and resource index in 2012

G 6



Sources: FSO – ÖBA; FFA – FS

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The urban university cantons of Basel-Stadt, Geneva and Zurich show a high resource index and above-average per capita expenditure on education (quadrant I).

The cantons in quadrant III show a comparatively low resource index and below-average per capita education expenditure.

Per capita education expenditure in the canton of Zug, the canton with the highest resource index, is close to the Swiss average.

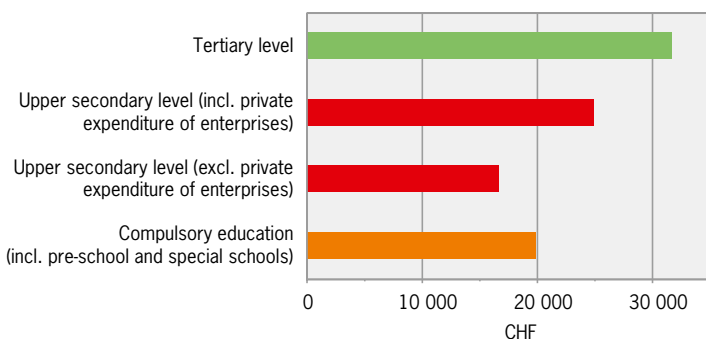


## Education expenditure per person in education

In 2012, CHF 19,800 were spent per person in education in compulsory education (incl. pre-school and special schools). At upper secondary level, CHF 16,600 were spent and at tertiary level CHF 31,700. These figures represent only the amount contributed by the public sector.

### Education expenditure per person in education by educational level in 2012

G 7



Sources: FSO – ÖBA, SDL, SHIS; FFA – FS

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Private contributions are particularly relevant for higher vocational education as well as for vocational education. However, there are currently no figures available at national level regarding higher vocational education. Estimates exist, however, regarding dual-track VET programmes for the educational expenditure undertaken by enterprises.<sup>3</sup> In 2012 private enterprises spent CHF 2.8 billion on their apprentices. If this amount is taken into account, expenditure per person in education at upper secondary level was CHF 24,800.

Overall, i.e. by including private expenditure at upper secondary level, education expenditure increases as the level of education gets higher. The higher the educational level, the higher the cost of wages and the need for administrative and technical staff as well as the infrastructure requirements. This applies at national level as well as in the cantons.

<sup>3</sup> Strupler, M.; Wolter, S.C. (2012): Die duale Lehre: eine Erfolgsgeschichte – auch für die Betriebe. Chur: Rüeegg.

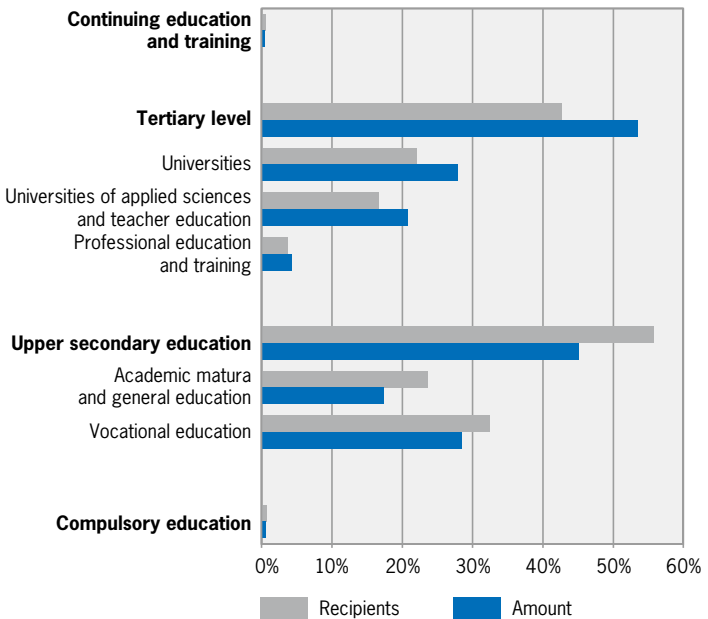
## Education contributions

Cantonal grants and loans, as well as education contributions from the Confederation to the cantons are part of public expenditure on education.

In 2013, the cantons paid a total of CHF 316 million in grants and CHF 18 million in the form of loans to persons in education. Although loans are also an important tool in the financial support of education, they are only a small part of the cantons' financial commitment (5% of education contributions).

### Grants: Recipients and amounts by educational level in 2013

G 8



Source: FSO – STIP

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Grants play an important role at all levels of post-compulsory education. For compulsory education and further education, their importance is minimal.

54% of the total amount of grants is allocated at tertiary level and 45% at upper secondary level but only 43% of recipients are tertiary level students and more than half (56%) are upper secondary level students.

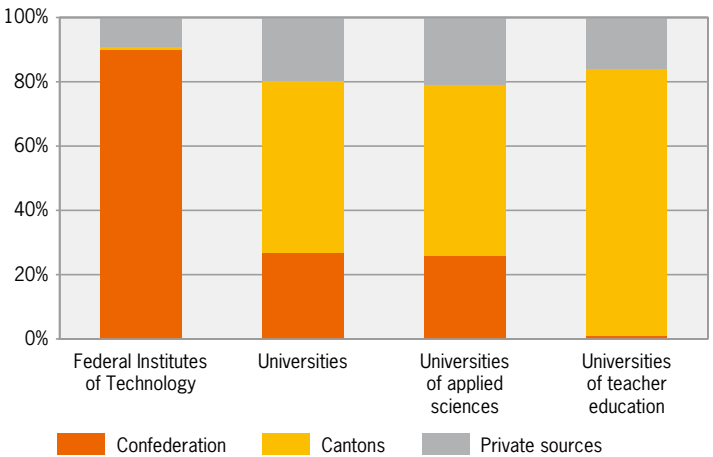
## Funding of higher education institutions

According to the Federal Act on University Funding and Cooperation in the field of University Education, the Confederation (27%) and the cantons (54%) have been responsible for the main part of university funding. The Federal Institutes of Technology (EPF/ETH) fall within the responsibility of the Confederation and have a particular global EPF/ETH budget. More than 90% of their costs are supported by federal funding sources.

The cantons (53%) are the main funder of the universities of applied sciences, by means of contributions regulated by the Intercantonal Agreement and budgetary coverage of the responsible cantons. Similarly to the universities of applied sciences and by means of the same sources of funding, the cantons are the main funders of the universities of teacher education and cover some 83% of their needs.

The rest of the funding is supported through private sources.

### Funding of higher education institutions by funder in 2013 **G 9**



Source: FSO – SHIS

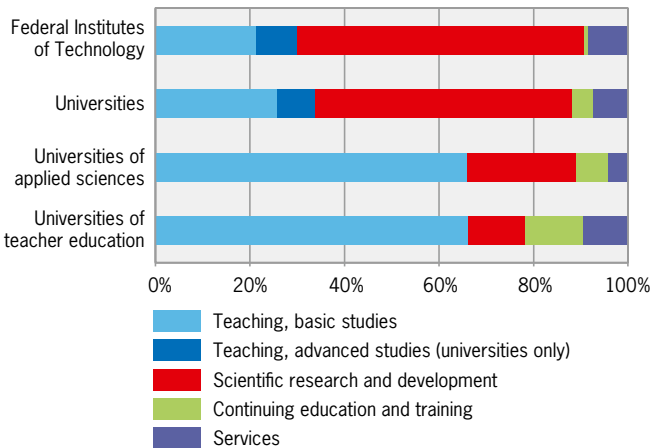
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## Costs of the higher education institutions

The services provided by the universities are fivefold: teaching for basic studies, teaching for advanced studies, research and development, further education and the provision of other services. In this type of higher education institution which includes the cantonal universities as well as the two EPF/ETH, research and development represent the largest budgetary item, with more than half of the costs. In second place comes teaching for basic studies which generates approximately a quarter of the costs of these universities.

In the universities of applied sciences and the universities of teacher education, the courses of study are oriented towards obtaining skills linked to a well-defined occupation. They offer an education and training that is practical in nature and for this reason the teaching of basic studies is by far the main service provided with roughly two-thirds of all costs in these two types of establishment. Applied research and development represent the second most important item of costs in universities of applied sciences. In the universities of teacher education, further education and research generate similar costs.

### Costs of higher education institutions by service in 2013 G 10

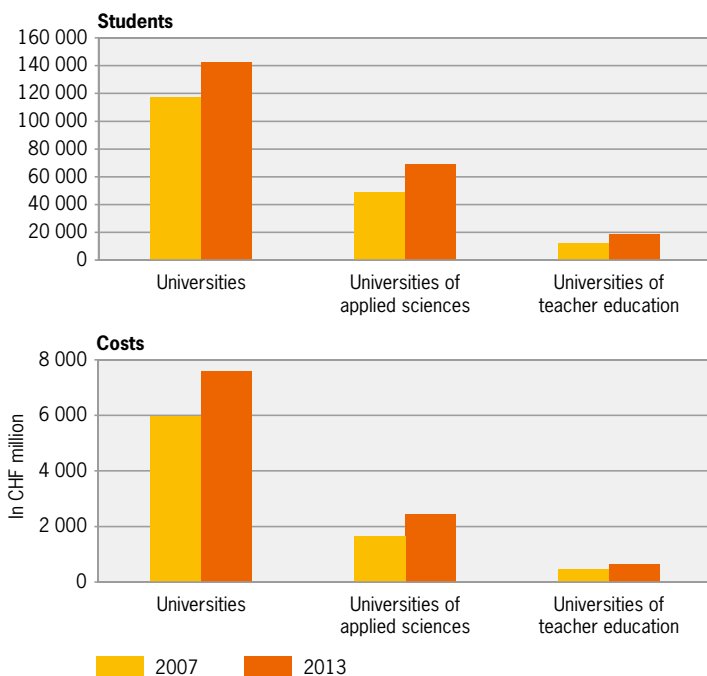


## Development of higher education institution costs

In recent years, these three types of higher education institutions have grown in Switzerland, accommodating more and more students. For example, the overall costs have increased continuously since 2007, the first year that an analytical accounting was used for all types of higher education institutions. In the universities, costs have risen by more than a quarter to over CHF 7.6 billion for student numbers which have increased by more than 20% to 142,000. During the same period, the costs of the universities of applied sciences have grown by more than 48% to CHF 2.4 billion, while student numbers have increased by 40% to almost 69,000. Lastly, in the universities of teacher education, the number of students has also risen greatly (+55% to more than 18,000) as have costs which reached CHF 620 million in 2013, representing an increase of more than 40% since 2007.

### Development of higher education institution costs and students in 2007 and 2013

G 11



Source: FSO – SHIS

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### **Statistics on public expenditure on education**

The statistics on public expenditure on education deals with the share of the public expenditure of the Federal Finance Administration (FFA) that concerns “Education”. It comprises public sector expenditure on education from pre-school to higher education institutions, therefore enabling the analysis of education expenditure across all educational levels. Childcare prior to starting school and further education are not included.

The finance statistics model is based on the harmonised accounting model used by cantons and communes (HAM2). The survey units of the finance statistics are the public authorities, i.e. Confederation, cantons, communes and public social insurances. In accordance with HAM2 expenditure on basic research is included in expenditure on education.

### **Higher education funding statistics**

At higher education level, the cost and performance accounting for the three types of higher education institution provide information about the costs and performances of the individual institutions. They include both public and private funding (e.g. tuition fees, R+D commissioned by companies as well as contributions from foundations).

For universities, the FSO has collected data on expenditure since the financial year 1996 and on costs since 2006. For universities of teacher education, data has been collected since 2008. The SBFI has provided information on the costs of the universities of applied sciences since 2000.

### **Further sources**

Information on financial assistance towards education from the cantons is based on the FSO’s Cantonal grants and loans statistics, which has existed since 2004 and which comprises data from the cantonal grant-providing agencies.

Private education expenditure is only partly taken into account. Apart from higher education information is only available for the upper secondary level. Estimated expenditure by enterprises for dual-track VET programmes is used to this end.

## Abbreviations

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EPF/ETH	Federal Institute of Technology
FDF	Federal Department of Finance
FS	Financial Statistics
FSO	Federal Statistical Office
ÖBA	Public education expenditure
R-D	Research and development
SDL	Student statistics (without universities)
SHIS	Swiss Higher Education Information System
STIP	Cantonal grants and loans

The Federal Statistical Office regularly produces publications and thematic studies on this subject. We invite you to visit our website:  
**[www.education-stat.admin.ch](http://www.education-stat.admin.ch)**

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