

# 15

Education and Science

1503-1600

## Education finance

2016 edition



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Home Affairs FDHA  
Federal Statistical Office FSO

Neuchâtel 2016

## Introduction

---

This brochure provides a summary of education finance in Switzerland. It is based 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: 2013 for public expenditure on education<sup>1</sup> and 2014 for higher education institution funding and expenditure.

In 2013, the Confederation, cantons and communes spent CHF 35.4 billion on education. Public expenditure on education accounts for 5.6% 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.

---

<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.

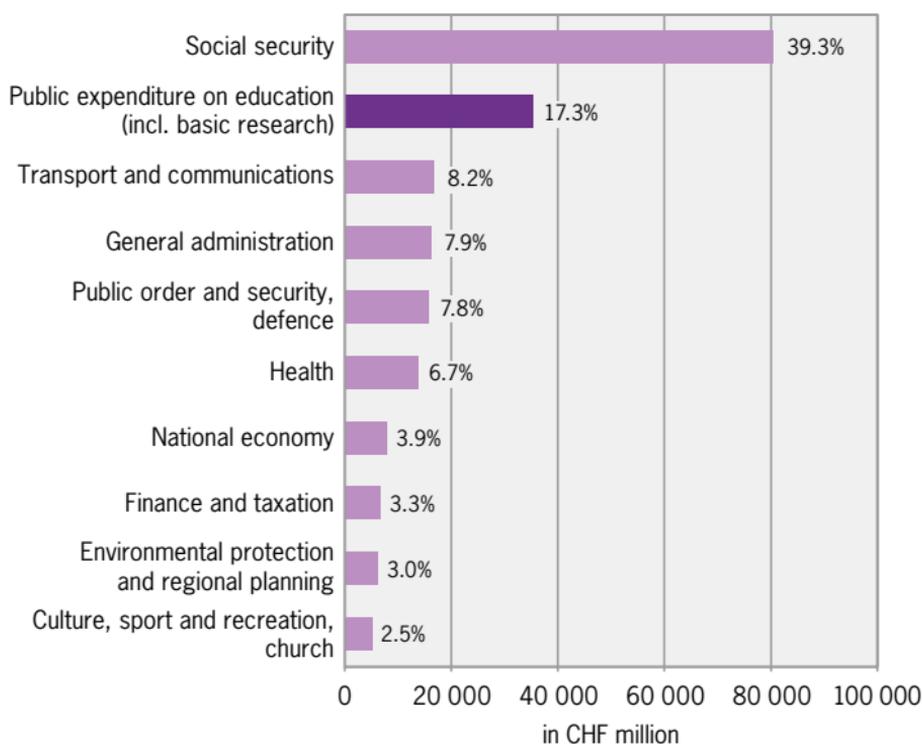
## Public expenditure by budgetary item

In 2013 the Confederation, cantons and communes spent 17% of their total expenditure of CHF 205 billion (incl. social insurances) on education.

Funding for education comes mostly from public authorities. The graphic shows that in relation to other budgetary items, education is a major public undertaking.

### Public expenditure by budgetary item in 2013

G 1



Sources: FSO – ÖBA; FFA – FS

© FSO, Neuchâtel 2016

In 2013, at 39%, “Social security” is the public sector’s greatest budgetary item. This is followed by “Public education expenditure” (incl. research). Since 1990, these two budgetary items have occupied the first and second place.

The distribution of total expenditure by budgetary item varies depending on the canton. With the exception of Graubünden, education is the biggest budgetary item in all cantons, accounting for between 21% and 34% of total expenditure. In Graubünden 23% of public expenditure is spent on “Transport and communications” and 19% on education.

## Financial flows in education

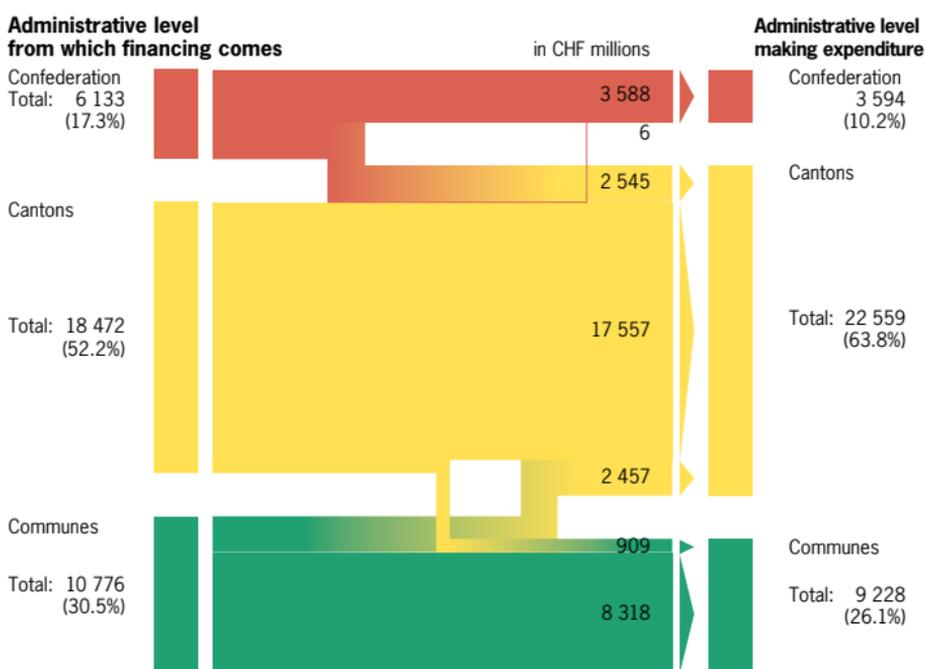
The 17% of total expenditure allocated to the public education expenditure corresponds to CHF 35.4 billion.

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 vocational and professional education and training in accordance with the Vocational and Professional Education and Training Act (VPETA) (approximately 25%). All expenditure at this level, however, is made by the cantons.

The graph below shows on the left side, which is the financing administrative level, and on the right side the one that makes the expenditure.

### Financial flows in education 2013

G 2



Sources: FSO – ÖBA; FFA – FS

© FSO, Neuchâtel 2016

In 2013, the Confederation accounts for 17% of **funding** for education, the cantons 52% and the communes 31%.

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 remainder 10%.

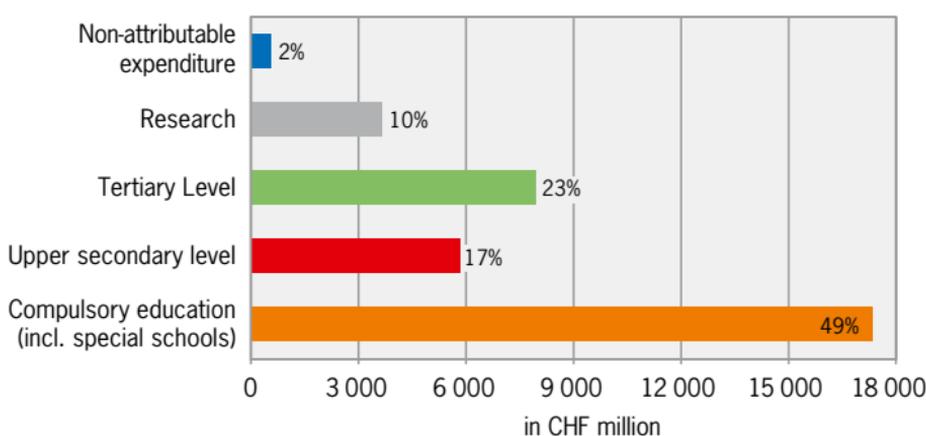
## Public education expenditure by educational level

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 special schools. This corresponds to 59% of the total of all persons in education.

A quarter of the expenditure is dedicated to the tertiary level (higher vocational education and university). 18% 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 2013.

### Public education expenditure by educational level\* in 2013 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

© FSO, Neuchâtel 2016

<sup>2</sup> FSO, Student statistics and Swiss Higher Education Information System (SHIS), school years 2012/13 and 2013/14

## Public education expenditure by administrative level making the expenditure

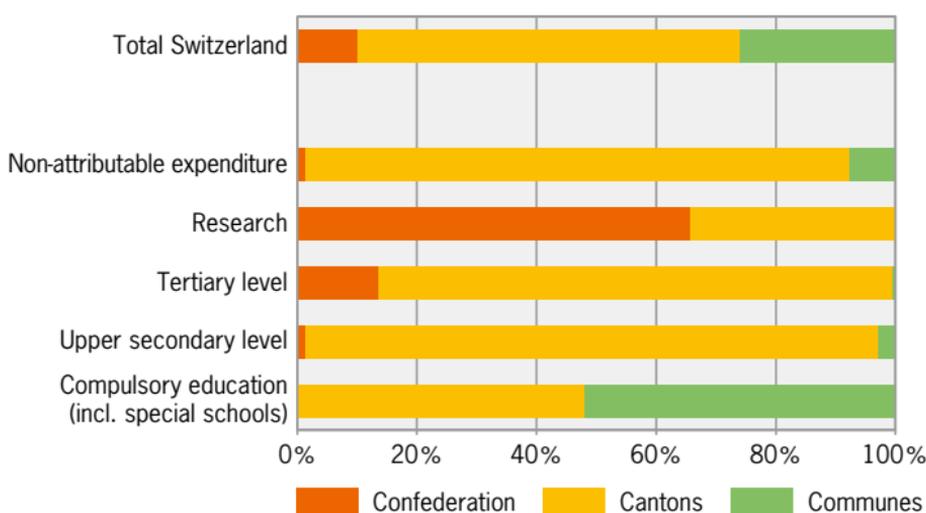
The responsibility for educational funding is distributed among the Confederation, cantons and communes to varying degrees depending on the educational level concerned.

The cantons and communes share expenditure for compulsory education (including 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 2013 **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

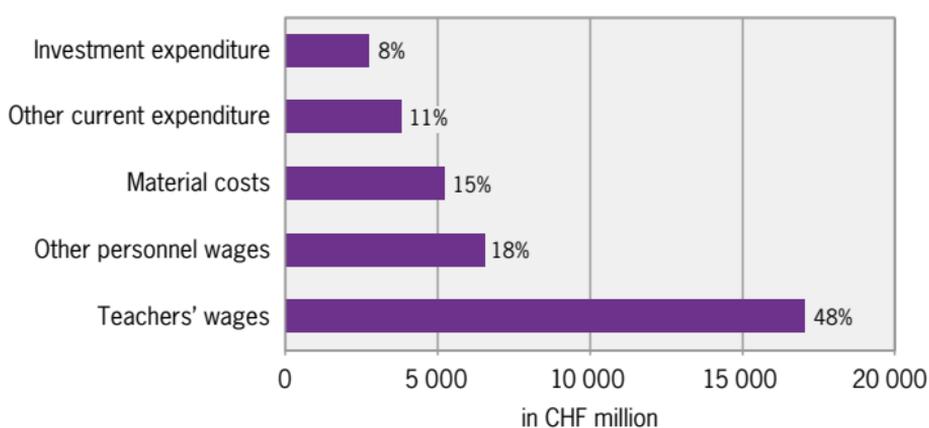
© FSO, Neuchâtel 2015

## Public education expenditure by type of expenditure

In Switzerland 92% of expenditure on education is incurred as current expenses, the remaining 8% as investments.

With CHF 17 billion, 48% 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 2013 G 5



Sources: FSO – ÖBA; FFA – FS

© FSO, Neuchâtel 2016

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.

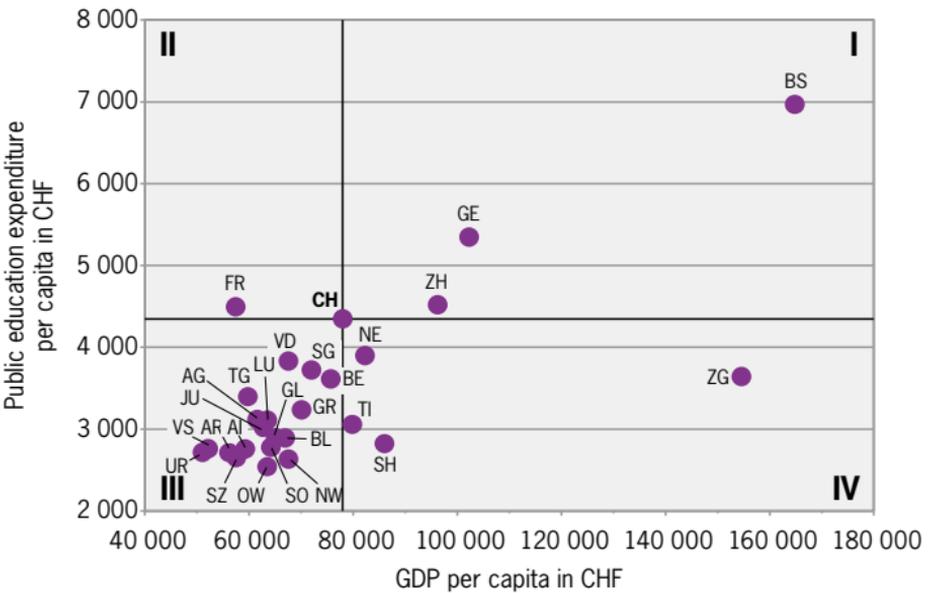
# Per capita public education expenditure

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 gross domestic product (GDP). The GDP quantifies the economic performance of the national economy. It is an estimate of the value of goods and services produced in a country as far as they are not used as input for the production of other goods or services, in other words it is the value added.

## Public education expenditure and gross domestic product in 2013

G 6



Sources: FSO – ÖBA; FFA – FS

© FSO, Neuchâtel 2016

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

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

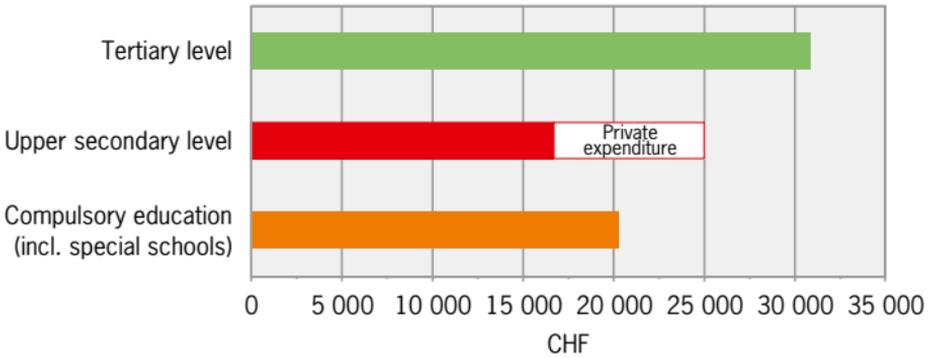
Per capita education expenditure in the canton of Zug, the canton with the second highest GDP of Switzerland, is lower than the Swiss average. By contrast, the expenditure in the canton of Fribourg, with a smaller GDP per capita, lies above the Swiss average.

## Education expenditure per person in education

In 2013, CHF 20,200 were spent per person in education in compulsory education (incl. special schools). At upper secondary level, CHF 16,700 were spent and at tertiary level CHF 30,900. These figures represent only the amount contributed by the public sector.

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

G 7



Sources: FSO – ÖBA, SDL, Studierende und Abschlüsse der Hochschulen; FFA – FS

© FSO, Neuchâtel 2016

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 2013 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 24,900.

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.

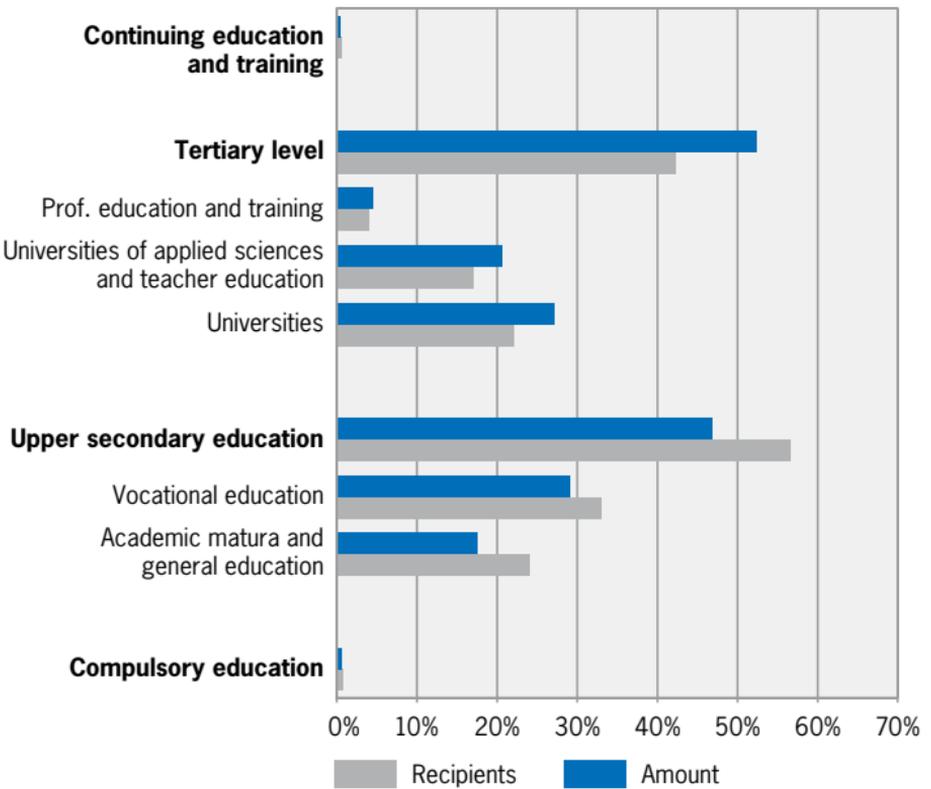
<sup>3</sup> Strupler, M.; Wolter, S.C. (2012): Die duale Lehre: eine Erfolgsgeschichte – auch für die Betriebe. Chur: Rüeegg.

## 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 2014, the cantons paid a total of CHF 305 million in grants and CHF 16 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 2014 G 8



Source: FSO – STIP

© FSO, Neuchâtel 2016

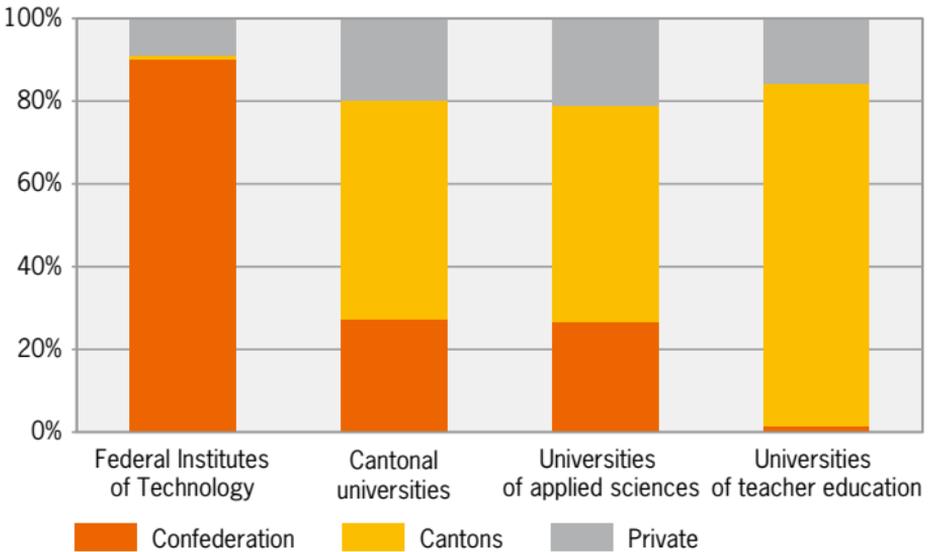
Grants play an important role at all levels of post-compulsory education. For compulsory education and further education, their importance is minimal.

52% of the total amount of grants is allocated at tertiary level and 47% at upper secondary level but only 43% of recipients are tertiary level students and more than half (57%) are upper secondary level students.

## Funding of higher education

Since the entry into force of the Federal Act on University Funding and Cooperation in the field of University Education (UFundA), the Confederation (27%) and the cantons (53%) have been responsible for the main part of cantonal university funding. More than 90% of the costs of the federal institutes of technology (EPF/ETH), which fall within the responsibility of the Confederation, are met by federal funding sources, in particular global EPF/ETH budgets. The cantons (53%) are the main funder of the universities of applied sciences, through AHES (inter-cantonal agreement) contributions and budgetary coverage of the cantons responsible. 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.

### Funding of higher education institutions by funder in 2014 G 9



Source: FSO – SHIS

© FSO, Neuchâtel 2016

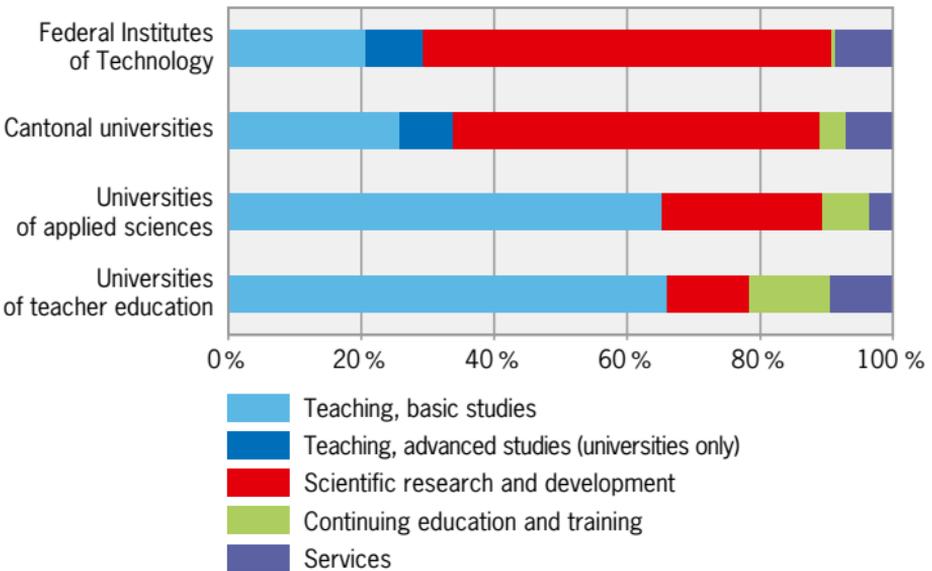
## Costs of higher education

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 represents the second biggest cost item in the universities of applied science; in the universities of teacher education, continuing education and research generate similar costs.

### Higher education institutions costs by service in 2014

G 10



Source: FSO – SHIS

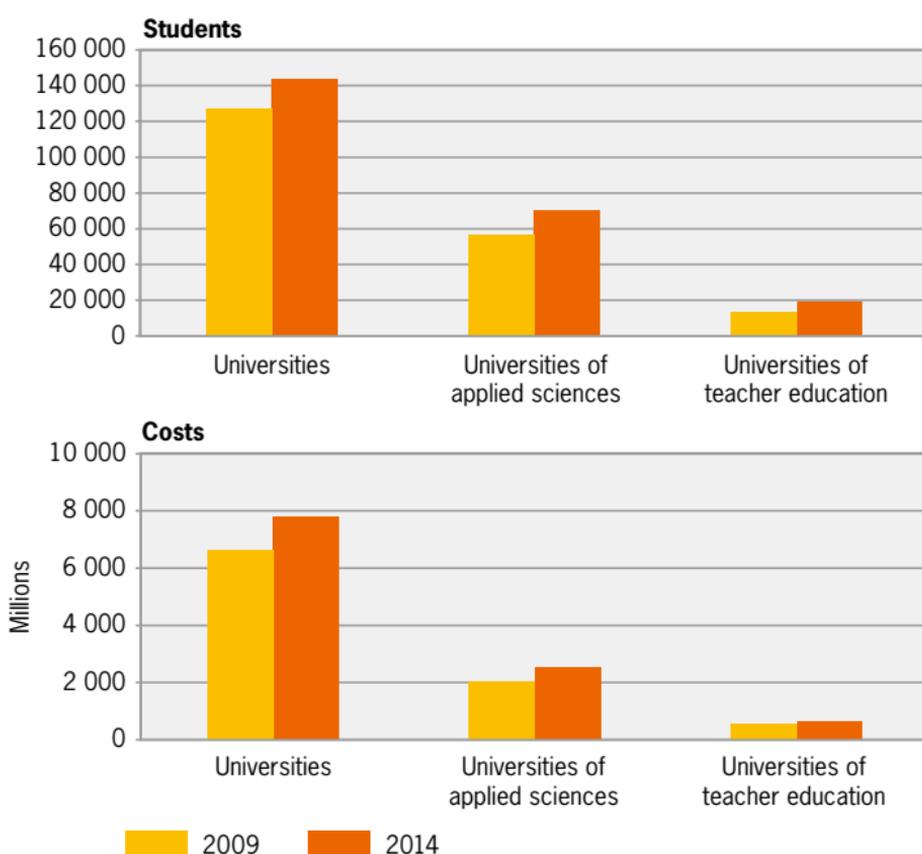
© FSO, Neuchâtel 2016

## Development of higher education costs

The three types of higher education institutions continue to develop in Switzerland, accommodating more and more students. The universities have the greatest number of students with some 144,000 registrations in 2014, i.e. 13% more than five years previously. The universities' costs rose by more than 17% over the same period, reaching a total of almost CHF 7.8 billion. The growth of the universities of applied sciences has been even greater, with over 70,000 students registered, i.e. almost a quarter more than in 2009. This growth has gone hand in hand with rising costs, which were more than CHF 2.5 billion in 2014. Over the past five years, the greatest growth in the number of students, however, was seen by the universities of teacher education; with an increase of almost 50%, the number of registrations is close to 20,000. The total cost of this type of higher education institute is now greater than CHF 643 million, i.e. more than 21% more over the same period.

### Development of higher education institution costs and students in 2009 and 2014

G 11



Source: FSO – SHS

© FSO, Neuchâtel 2016

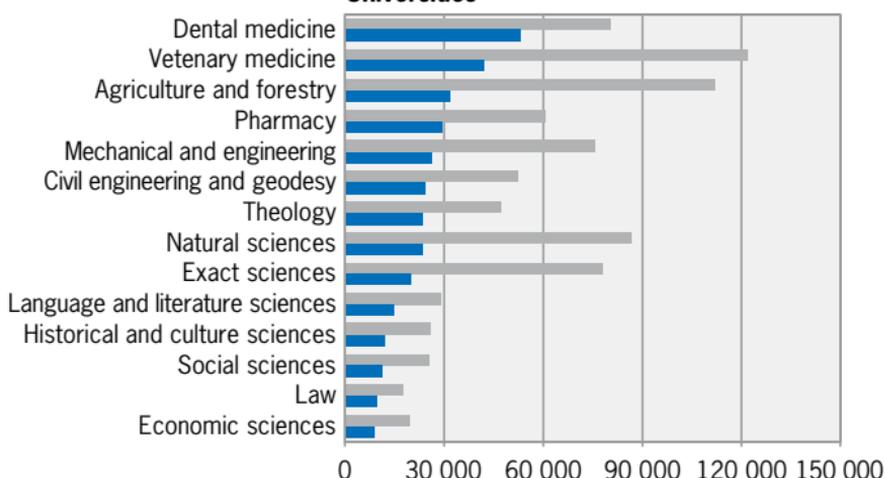
## Costs per student

Cost indicators per student allow average costs to be compared between the different categories of study. On average, a university student costs between CHF 9,000 and CHF 53,000. This indicator (indicator I) ranges from 15,000 to 47,000 per year in the universities of applied sciences and the universities of teacher education. If, in addition to teaching, research and development is also included in the calculation, the costs per student (indicator II) increases considerably. For the universities (HEU), the least costly fields cost around CHF 20,000, while the most expensive can cost more than CHF 100,000. In the universities of applied sciences, the minimum costs is around CHF 20,000, while the maximum cost is below CHF 75,000.

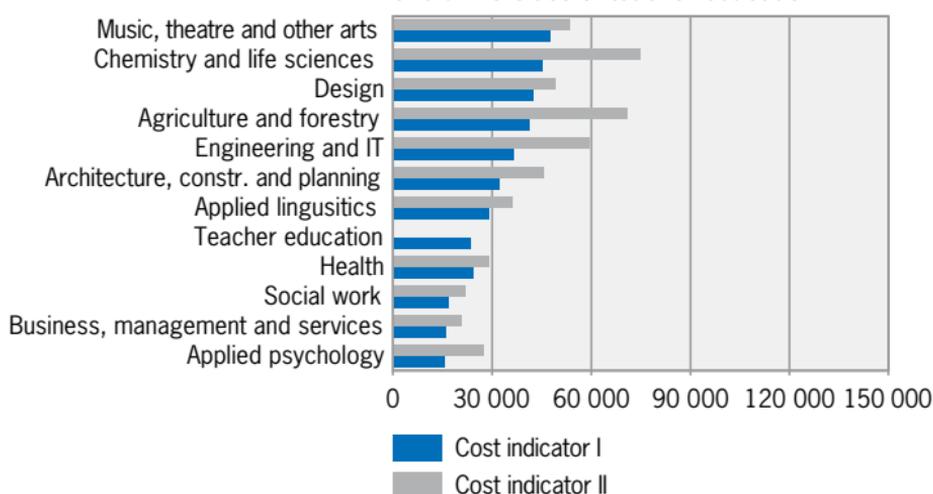
### Cost indicators I and II, 2014

G 12

#### Universities



#### Universities of applied sciences and universities of teacher education



### **Statistics on public expenditure on education (ÖBA)**

The statistics on public expenditure on education is the share of the public expenditure of the Federal Finance Administration (FFA) that concerns “Education”. It comprises public sector expenditure on education from compulsory education 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 (HRM2). The survey units of the finance statistics are the public authorities, i. e. Confederation, cantons, communes and public social insurances. In accordance with HRM2 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 (STIP)**, which has existed since 2004 and which comprises data from the cantonal grant-providing agencies.

The data used to calculate the expenditure per person in education is based on the **Statistics on pupils and students (SDL)** and on the **Swiss university information system (SHIS)**

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

---

EPF/ETH	Federal Institute of Technology
FDL	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)**

---

<b>Information:</b>	Statistics on public expenditure on education: schulstat@bfs.admin.ch Higher education funding statistics: persfinHS@bfs.admin.ch
<b>Graphics/Layout:</b>	Section DIAM, Prepress/Print
<b>Original text:</b>	German
<b>Translation:</b>	FSO language services
<b>Cover graphics:</b>	FSO; Concept: Netthoevel & Gaberthüel, Biel; photo: © gradt – Fotolia.com
<b>Order number:</b>	1503-1600
<b>Orders:</b>	Tel. 058 463 60 60, fax 058 463 60 61, order@bfs.admin.ch