

Summary

Direct public expenditure on Swedish higher education, including financial aid for studies, amounts to a figure in the region of SEK 40 billion per year. The amount that higher education costs the economy is far higher. To an overwhelming extent, it is money well spent. On average, higher education leads to a more productive labour force and encourages an interest in increased knowledge in Sweden and beyond. Moreover, it contributes to the personal development of participants. Nonetheless, members of society have a right to expect the higher education sector to make the best possible use of the resources it requires.

The purpose of this report is to identify and analyse efficiency problems in Swedish higher education from an economic perspective, and to propose measures to improve the situation.¹ The report adopts a broad approach, concentrating on structural issues affecting all higher education programmes rather than details associated with individual programmes. The proposed policy measures are intended to be possible to implement within a public budget essentially equivalent to the current one and with essentially the same division of responsibilities between the state authorities and the higher education institutions as at present.

Framework for analysis identifies benefit and cost items

The framework for analysis used in the study relates the value created to the costs. On the benefit side, the value of higher education is broken down into how many students receive degrees or otherwise complete their studies and derive benefit from them, and the value per student. The benefit of the education is broken down into the higher productivity accruing to the individual, other

¹ The report deals with higher education as generally understood, i.e. higher education studies at undergraduate and advanced level (first and second cycle studies).

personal value gained from the education and external effects. The costs are broken down into how many people are studying in higher education and the cost per student. The economic cost per student is made up of the cost of teaching and the loss of production that results from the student studying instead of being in the labour market.

Increasing numbers of Swedes have higher education

The proportion of younger members of the labour force in Sweden who have higher education is about the same as in comparable countries. While interest in higher education studies covaries negatively with the business cycle, the trend is upward. The highest rates of growth in Sweden occurred in the 1960s and 1990s. In nominal terms, the reforms in 1977 also led to an increased number of students. It is unclear whether the increased interest is attributable to the higher value of human capital accruing to higher education graduates, the increased importance of education as a signal or some other factor.

Throughput is difficult to measure but varies between forms of education

There are certain difficulties measuring throughput in Swedish higher education. However, even though the measures of throughput available have their weaknesses, they appear to covary to some extent. Hence, it is possible to draw a cautious conclusion that throughput is highest in (i) vocational programmes leading to a professional status qualification², followed in descending order by (ii) vocational programmes not leading to a professional status qualification, (iii) general programmes, (iv) freestanding courses, on campus and (v) freestanding courses, distance education. Another measure of how many people benefit from their studies is establishment in the labour market. Studies indicate that labour market establishment lies at a level of around 80 per cent 1–1.5 years after graduating, and is highest for graduates in health and social care or engineering.

² In this report, vocational programmes leading to a professional status qualification do not include teacher education programmes.

Education premium is relatively low and varies between programmes

The education premium for private individuals in Sweden appears to be among the very lowest in the industrialised countries, even if it has risen in recent decades. Research findings suggest that the returns on higher education in general are in the range of 1.5–2 per cent per year. However, this figure masks considerable variation, particularly between different educational orientations. General higher education programmes in social sciences, humanities and natural sciences yield weak economic returns measured in higher employment levels and earnings. Labour market interest in higher education graduates appears at least to some extent to depend on previous education and/or classification in upper secondary school.

Higher education also provides other personal advantages

Higher education can also provide advantages apart from those associated with improved labour market status. Higher education is linked to better health, greater self-confidence in contacts with authorities and certain value shifts. The advantages of education that are difficult to measure should represent a positive value for society.

Higher education benefits society at large mainly by the welfare state distributing the individual's increased productivity

Education can also be thought of as benefiting society at large in various ways. The report shows that the most important external effects of Swedish higher education are due to the fact that individuals' returns on their education do not only benefit them but are shared with the rest of society through the tax and transfer systems.

Students spend a long time in education

Swedish students today spend a longer time in education than students did two or three decades ago. By international comparison, Sweden has a high proportion of students in long programmes (leading to a master's degree or a professional degree

requiring a longer course of studies), most of whom, however, are in the first three years of their programme.

Study intensity covaries with government compensation for teaching

Central government compensation for higher education is calculated per student and is intended to correspond to the higher education institution's total teaching costs. The compensation varies from subject to subject. Study intensity appears to have a strong correlation with the amount of compensation paid.

The greatest economic cost of higher education is lost production

A person engaged in higher education studies would otherwise in all likelihood be working. The lost production is a considerably greater cost to society than the teaching costs involved. At a cautious estimate, the loss of production is in the range of SEK 200 000 to SEK 300 000 per student per year. Multiplied by Sweden's 300 000 full-year equivalent students, the economic cost to society amounts to at least SEK 60 billion, which is more than the public cost of higher education and financial aid for studies combined. The cost of lost production is divided roughly equally between individuals and society.

Efficiency potential lies in faster throughput, better preparation for working life and limited loss of production

Based on the analysis model, benefits can increase or costs decrease in various ways. Firstly, a higher percentage of students can benefit from their studies by taking the credits and degrees for which they have registered. Secondly, students can benefit more from their studies primarily by means of better labour market establishment. This will also be to the advantage of the rest of society. Thirdly, the costs of higher education can be kept down, primarily by limiting the loss of production.

Throughput is limited by weak support in the form of teaching and examinations

The report points to several explanations for the variation in throughput between different forms of education and for the weak throughput in certain areas. Possible reasons include inadequate prior knowledge, limited support from teachers and weak motivation. Defects in grading at upper secondary school and the questionable appropriateness of the Swedish Scholastic Aptitude Test as a tool for selection may result in an inefficient admissions process. High requirements, on the other hand, do not appear to be a reasonable explanation for a low level of performance by students in the humanities and social sciences. There may rather be reason to question whether students are sufficiently stimulated by teaching and examinations in certain areas. Moreover, deficiencies in the statistics make follow-up and management difficult.

Preparation for working life can be strengthened in several ways

Measures that give the average student a better chance in the labour market also increase the returns to society on higher education. Higher education institutions can prepare students better for working life by means of (i) better information about the labour market for prospective and current students, (ii) better training in and encouragement of practical and theoretical skills that are in demand in the labour market, (iii) work experience components in more programmes, and (iv) a degree structure that facilitates progress to more advanced levels rather than restarting.

Incentives for deciding between longer and more intensive programmes are not economically efficient

In economic terms, there are strong arguments for maintaining high intensity rather than prolonging higher education programmes. The analysis shows that there may be incentives for students to take longer, less intensive programmes rather than shorter, more intensive programmes. The limited resources provided to certain programmes and the design of the system of compensation mean that these incentives may also coincide with factors motivating education providers. Naturally, several factors

act against these related problems. Nonetheless, there appears to be some evidence that many higher education programmes have become longer and less intensive. The present responsibility and incentives for important educational administration may hinder the evaluation and governance of higher education. This applies in particular to the issuing of degrees and the deregistration of students who abandon a course.

Strong preparation for working life is compatible with academic responsibility

Sometimes an incompatibility is asserted between the tasks of higher education to promote both academic quality and employability. However, employers appreciate traditionally academic skills, regardless of subject. Ample evidence suggests that there is little opposition between academic development and preparation for working life. Having said that, practical experience and practical skills are an important area to develop, particularly for general programmes.

Measures target all aspects of the potential for greater efficiency

The report's analysis shows that Swedish higher education would be more efficient if students made more informed choices, if greater account were taken of the fact that the greatest cost of higher education lies in the loss of production and if higher education institutions made better use of their opportunities to combine academic training with preparation for working life. The proposed measures focus on these opportunities.

Throughput can be increased

The analysis in the report indicates several possible improvements to induce more students to take the credits and degrees for which they have registered.

- The higher education sector can coordinate its expectations to provide better input for the planning of upper secondary education. A delegation for collaboration between upper

secondary school and higher education can help improve the efficiency and raise the quality of both forms of education.

- If resources are available for reallocation, students in programmes with relatively limited resources should be given more teaching and examinations.
- Students' motivation can be enhanced by means of more studies in programme form, shorter foundation courses and changes in the system of financial aid for studies.
- A change in the division of responsibilities for awarding degrees can lead to more accurate statistics.

The benefit of education can be increased

Increasing the labour market benefit is central to improving the returns to society on its investments in higher education. The report highlights measures that can improve the labour market benefit while protecting academic interests.

- Better information for interested students would facilitate rational educational choices.
- Better training of certain skills can improve both academic results and labour market outcomes.
- Within reasonable limits, institutions should be able to require participation in work experience and other activities even if this does not earn credits.

The costs of higher education can be limited

The report also indicates certain opportunities to keep the costs of higher education down.

- There appears to be no adequate reason to further expand freestanding courses and general programmes in higher education.
- The actual length of time studied to obtain an undergraduate (first cycle) degree can be reduced by raising throughput.
- In second cycle education, costs can be kept down by means of more selective admissions and possible awarding of master's degrees after less than two years of study.

- Student aid for more than four years can be tied to conditions or consist to a greater extent of loans.

Resources saved in this way can be used elsewhere in higher education, for example, to increase allocations to programmes with limited resources. They can also be used earlier in the education system.

More structural measures are also warranted

The analysis in the report points to other possible improvements of a general nature that can promote increased throughput, better preparation for working life and lower costs at the same time.

- Study intensity – measured as the hours per week that students devote to studies – should be subject to follow up.
- Giving education providers overall responsibility for information on previous students' labour market outcomes and academic career can create more attractive degrees.
- The transition between first cycle and second cycle should be made more flexible, primarily by dividing more of the longer educational programmes – including professional programmes – into stages.