

Tuition Fee – Challenges for Land Surveying Education in Sweden

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SUMMARY

Global competition for talented students is sharpening and the governments of many countries all over the world wish their national universities to compete on equal terms with universities in other countries. Due to this more and more countries in Europe introduce tuition fee within higher education. Recently, the Swedish parliament passed a law outlining tuition fees for students outside the EU/EEA area and Switzerland. Thus, the Swedish universities began this competition based on high quality and good study environments, not on free education.

The article is aimed at outlining new challenges for higher education institutions in Sweden emerged from globalisation in general and introduction of tuition fees in particular. It exclusively focuses on necessary changes within the existing education on Master level where foreign students compile a substantial part.

After introduction of tuition fees, the number of non-EU students decreases that demands from higher education institutions a new recruitment strategy. The article specifically describes new challenges came up after introduction of tuition fees such as recruitment along with modernisation of the educational content. Active work on recruitment of these students and on the content of the MSc programmes is seen as a solution to counter unavoidable students' reduction.

As for recruitment, the article indicates several noteworthy issues including information, a recruitment process and reception of the arriving students and their accommodation for Swedish higher education institutions to enrol highly qualified students from all over the world. The article mentions points of a special consideration such as marketing, best practices, obstacles encountered by the EU countries with a longer experience of tuition fees.

Modernisation of the content of the educational programmes is another challenge to overcome for attraction of the foreign students. It implies a smoother adjustment of the content to the current and future needs of profession. It particularly concerns globalisation, a freedom of choice, environment problems, tightening of urban land development and thereby solving more and more complex problems including legal, economic and technical issues.

To provide a deeper insight into higher education in Sweden, a range of the existing land surveying programmes is outlined. Recent changes in MSc land surveying education at Royal Institute of Technology are given as an example of curriculum modernization.

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1. BACKGROUND

Global competition for talented students is sharpening and the governments of many countries wish their national universities to compete on equal terms with universities all over the world. Due to this reason, tuition fees within higher education have become a common phenomenon in Europe and more and more countries decide to introduce it. Moreover, the number of students studying abroad, especially from the countries outside Europe, has increased the past ten years. Sweden is one of the countries representing this development trend. Specifically, in the last decade, the number of foreign students has more than tripled, totaling 36 000 in 2008/2009 and composing more than eight percent of the student population in Sweden. Prior to the autumn term of 2009, Sweden received 120 000 applications from students from the countries outside the EU/EEA (Ministry of Education and Research 2010). Since the number of foreign students has risen rapidly, the costs of taking on these students have also grown.

The intention behind introduction of tuition fees might be recognised as twofold: the increased number of students outside the EU/EEA ('third country students') and, as a consequence, the increased costs for higher education institutions to educate them. Secondly, this change is intended to ensure international competition on the basis of quality, not on the basis of free tuition. Swedish higher education institutions are referred as to having good prospects of successfully competing in the global education market since these institutions are normally distinguished by high quality and good study environments.

1.1 Introduction of tuition fees in Sweden

In 2010 the Swedish parliament passed a law outlining tuition and application fees for students outside the EU/EEA. These fees are applied from the 2011/2012 academic year and supplemented by two state scholarship programmes. Specifically, one on-going scholarship programme targets highly qualified students from countries with which Sweden has long-term development cooperation.¹ The funds are intended to cover both living costs and tuition fees. However, it in turn restricts a possibility of higher education institutions to choose talented students from the countries outside of this cooperation. Another scholarship programme, targeting highly qualified students from other countries outside the EU/EEA, covers tuition fees but not living costs. Moreover, Swedish higher education institutions as well as a range of the Swedish companies are planning to establish their own long-term scholarship funds for these students² (Samuelsson 2012). These programmes are intended to provide qualified students lacking the appropriate funding with the continued opportunity to study in Sweden.

¹ As of 2011, the following 12 countries participate in this long-term cooperation: Bangladesh, Bolivia, Burkina Faso, Ethiopia, Cambodia, Kenya, Mali, Mozambique, Rwanda, Tanzania, Uganda and Zambia.

² Preliminary from the autumn term of 2012.

However, it should be emphasized that the new rules are applied only to free movers studying at the Bachelor's or Master's level while PhD students continue tuition-free education in Sweden.

1.2 The design of tuition fees

Swedish higher education institutions independently determine the level of fees, based on full cost coverage. This level therefore depends on the design of educational programmes and varies annually between € 12 000 - 24 000³ (Eliasson 2011a).

The revenue from tuition fees⁴ is at the disposal of higher education institutions and mainly used to increase quality in education. By reallocating tuition fees, the Swedish government wishes to specifically award higher education institutions showing particular excellence.

2. IMPLICATIONS OF TUITION FEES IN SWEDEN

Although one year went by since introduction of tuition fees, it seems the time to make an initial analysis. At large, the government acknowledges introduction of tuition-fee education in Sweden as a move in the right direction. In contrast, the representatives of Swedish industry recognise this change as a serious mistake in spite of available scholarship programmes. This dissatisfaction is based on a sharp decline of a number of foreign students outside the EU/EES countries from 16 600 to 1 200. This fall over 90 % is noted as more drastic than expected (Ekholm & Bennet 2011).

Introduction of tuition fees has significantly affected the number of students studying at international MSc programmes in Sweden. The available statistics demonstrates a rapid decrease in the number of applications for the 2011/2012 academic year in comparison with previous years (Table 1).

Table 1: Number of applicants to international MSc programmes in Sweden.

Years	2008/2009	2009/2010	2010/2011	2011/2012
Number of applicants	54 200	78 800	94 400	17 500
Of them liable for tuition fee	n/a	n/a	n/a	8300
Women, %	23	23	25	43/35 ⁵
Men, %	77	77	75	57/65 ⁵

Source: Statistics Sweden (2011).

³ In autumn of 2011.

⁴ All or some of which are paid in advance.

⁵ Liable for tuition fee.

The identical trend is also observed at the Royal Institute of Technology (KTH) and specifically at the Department of Real Estate and Construction Management, which runs the MSc programme in Real estate development and financial services. Figure 1 shows that the number of students enrolled at this MSc programme has decreased last academic year. In particular, as of the 2009/2010 academic year, this number was 60, consisting of 18 nationalities, in the 2011/2012 academic year this number was only 32 and 9, respectively.

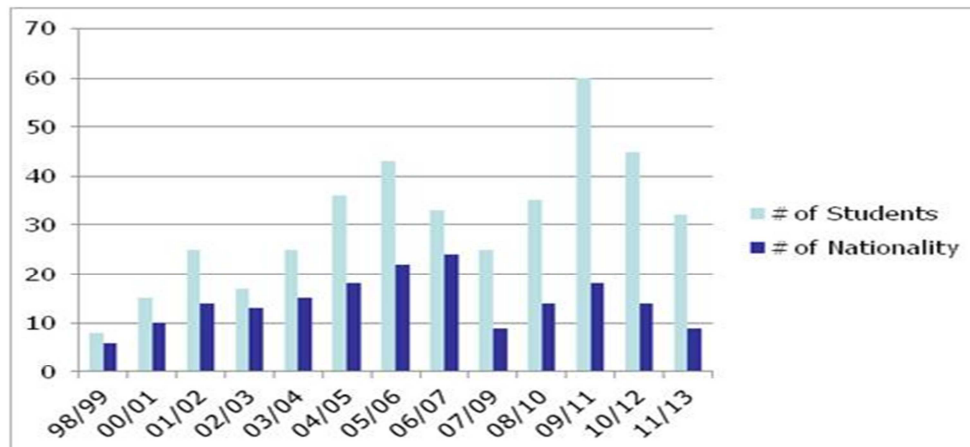


Figure 1: Number of MSc students and that of their nationalities at the MSc programme in Real estate development and financial services of the Royal Institute of Technology.

Such a decrease creates a risk for shortage of qualified labour for Swedish industry in the future and thereby weakens ability of the Swedish companies to compete in the international market. This decrease has also triggered abolishment of a range of the educational programmes in engineering and natural sciences at Swedish higher education institutions. For example, the Land management specialization⁶ of the MSc programme in Real estate development and financial services at KTH has been abolished from the autumn term of 2011 due to the insufficient number of applicants. Thus, it might be sensible to assume that the Swedish land surveying education presented by Ernard Borges and Eidenstedt (2008) hardly corresponds to the reality today.

Moreover, tuition fees negatively affect higher education institutions in terms of the increased direct and indirect costs for management of tuition-fee students. In particular, while the direct costs are tentatively estimated in 30 million SEK⁷, the indirect costs stand for approximately the same amount in which costs of administration and a system effect are the main components and moreover identified as permanent (Engström 2011).⁸

⁶ Run at KTH from 1996. To learn more about this MSc specialization, see Mattsson (2007), Mattsson and Vaskovich (2010).

⁷ 1€ is 9,2 SEK (February 2012).

⁸ These estimations are made at the beginning of the 2011/2012 academic year.

Visa application procedure in Sweden is also not fully adapted to a demand of tuition-fee students. The process of getting visa might be recognised as time-consuming and sometimes inhibiting entrance of these students into Sweden. The latter might be exemplified by students from Ethiopia and Uganda who were not allowed to board the plane as the flight company was not able to recognize the new EU travel documents (Engström 2011).⁹ Thus, a visa application procedure for in-coming third country students in Sweden should be streamlined with involvement of all stakeholders.

3. FACING THE CHALLENGES

Foreign students are recognised as an asset to Swedish higher education (Global utblick 2011), who:

- Can contribute with new perspectives and strengthen the international environment and diversity at Swedish higher education institutions;
- Can be excellent ambassadors for Sweden and compose important resource for expanded cooperation between Sweden and other countries;
- Have high value for Swedish industry and form a recruitment base for further education, research and work in Sweden.

The last statement is especially timely as Sweden, as many other countries in Europe, has a growing proportion of older population supported by fewer and fewer people. Recently, the large group of people born in 1940s reached the retirement age of 65. The ratio of population over 65 to the labour force aged 16-64 is estimated 27 in 2000, while this ratio is expected to increase over 40 by 2050 (Innovative Sweden 2004). Thus, a demand for qualified labour force seems to be permanently growing.

Along with this large oncoming retirement, a difficulty to attract native students for entering higher education makes it urgent to solve the problems of the decreased number of third country students. Therefore, active work on the content of the educational programmes as well as students' recruitment with relevant information and their smooth reception help to counter this decrease.

3.1 Recruitment and marketing

Obviously that having introduced tuition fees for third country students, higher education institutions should intensify their recruitment. Successful recruitment depends, for example, on wider accessibility of information for future students. In general, higher education institutions are mainly responsible for spreading information about their own educational programmes, both in Sweden and internationally. Besides, the Swedish Institute, as a public agency,¹⁰ is responsible for communicating the image of Sweden and Swedish higher education abroad.

⁹ The requirement for a new ID-card has been introduced in the EU from May 2011.

¹⁰ www.si.se.

Moreover, learning the experience of other countries earlier introduced tuition fees (e.g., Denmark, the Netherlands) might be of help for elaborating a national recruitment strategy and finding acceptable solutions. Besides, the complex recruitment issues might also be studied deeper in the countries with a high potential for recruitment (i.e., India and China). For example, such study has been implemented and presented by the Swedish agency for growth policy analysis in which possible recruitment activities have been identified (Global utblick 2011).

First and foremost, development of well-balanced national recruitment strategy for third country students is of utmost importance. Separate targeted recruitment activities at specific foreign universities may harm long-term efforts of students' attraction. This common strategy is evaluated as more productive than a multitude of dispersed recruitment actions. In spite of the existing concurrence, Swedish higher education institutions should also cooperate closer with each other in order to compete for best students with high ranking universities all over the world. For example, joint theme days in third countries might be one component of such national strategy.

At present, the international market of education agents is recognised as unstructured with a variety of unserious agents having short-time perspectives. Agent's failure leads to negative effects not only for a host university but also for the entire nation. It normally takes a couple of years until future students discover empty promises about scholarships or job opportunities and possible research carrier. Education agents assisting in recruitment on the spot are valuable. However, they should be carefully appointed with a special attention on quality of their work. A possible way to avoid dishonest agents is seen in exchange of the experience on agents' performance between universities.

More efficient recruitment often occurs within the countries of similar size. As Sweden is a small player in the international market, it should carefully choose perspective geographical regions as marketing activities are costly and to make a country visible, rather significant funds are required. Thus, marketing activities should be targeted to a restricted number of similar countries. It has been proven that larger marketing efforts in lesser number of countries are more favourable than smaller efforts in more countries.

Educational fairs are considered as a minor tool for recruitment. Fairs' credibility is indicated nowadays as undermining as these fairs are perceived mainly as selling agents. To simply participate in the educational fairs is not enough for successful recruitment while preparatory work along with following up activities normally ensures better recruitment.

Since in many countries an important decision regarding financing of education is normally taken by elder family members, short and adjusted information in national languages directed to these members is advantageous for recruitment. Social media along with personal experience of present students might also be employed. For example, the recent poll by the Lund university revealed that around 30% of the international MSc students enrolled but not showed up at the university by the beginning of the 2011/2012 academic year, chose this university due to friends and family. Of those, 53% stated that the reason for not coming was

their insufficient resources for covering tuition fees and living costs in Sweden (Eliasson 2011b). In addition, personal blogs of present students even with negative experience as well as the personal experience of alumni are of high value for third countries applicants. For example, several Swedish universities (e.g., Malmö university) have intensified efforts to reach foreign students via social media such as Facebook and Twitter, which provide the possibilities for prompt replies on the questions, short contributions and comments.

International cooperation of higher education institutions is an important criterion for choosing university abroad. Foreign applicants prefer institutions with active multilateral international cooperation. For example, cooperation with top-ranking universities from the USA and the UK is perceived as an indicator of quality of education in a particular higher education institution.

For a long-term attraction of third country students, their reception and accommodation in the country should be also taken into consideration. Specifically, a quicker administrative process including admission, accommodation, visa application and financial arrangements is acknowledged as advantageous. In contrast, a longer admission process increases a risk for Swedish higher education institutions to lose third country students who can instead choose to study in a country with a smoother process. For example, simple practical things such as to open a bank account, to arrange student accommodation, etc. are to be in place and operate smoothly. Student accommodation is a real problem in Sweden and especially in Stockholm where many students refuse to study simply due to an acute shortage of accommodation. Besides, English skills of university lecturers are acknowledged as rather insufficient and therefore to be significantly improved in order to attract foreign students especially from the USA.

In order to raise a level of recruitment, all the above-mentioned aspects should be thoroughly considered by both the government and Swedish higher education institutions.

3.2 Curricula modernization

It is widely acknowledged that to be able to remain a knowledge-based economy, a country should keep high standard of higher education. One of the possible solutions might be an introduction of internationally competitive MSc programmes and development of a joint education programme between several universities with a common diploma certificate. Specifically, greater profiling along with a clearer division of labour and expanding national and international cooperation contribute to raising standards of higher education. It in turn increases attractiveness of higher education institutions for international students and researchers.

Specifically, to compete on equal terms with tuition-based institutions all over the world, higher education institutions in Sweden should bring up to date the existing land surveying education. It implies a smoother adjustment of the content to the current and future needs of the profession. For example, it concerns globalisation, a freedom of choice, environment

problems, tightening of urban land development and thereby solving more and more complex problems including legal, economic and technical aspects.

4. MASTER CURRICULUM IN LAND SURVEYING AT ROYAL INSTITUTE OF TECHNOLOGY

The on-going MSc programme in Real estate development and financial services¹¹ at KTH consists of the following five specializations:

- Building and real estate economics;
- Real estate development and land law;
- Architectural design and construction management;
- Financial services;
- Real estate management.

However, due to a decreasing number of applicants, this MSc programme is to be replaced by a new MSc programme in Real estate and construction: economics, law and management. The latter will consist of three recommended “course sequences” such as Real estate economy, Construction management and Real estate law. The new MSc programme is planned to be in place from the autumn term of 2013. At present, the final proposal has been passed to the KTH central administration for approval.

Students to be enrolled for the new MSc programme should have BSc background in one of the following areas: civil engineering and construction management, surveying, geomatics, planning, real estate economy, real estate management, architecture, construction technique, real estate and finances or law.¹² Such a broad background profile is intended to wider a base for future student recruitment.

To compare the existing MSc curriculum with the new one, the specialization in Real estate development and land law of the existing MSc programme has been chosen.¹³ Table 2 presents MSc course distribution within this specialization including mandatory courses along with conditionally elective and recommended courses.

Table 2: MSc course distribution of the specialization in Real estate development and land law (batch 2011/2013).

Mandatory courses ¹⁴	Conditionally elective & recommended courses
- Law of real estate formation - Law of planning, construction & infrastructure (15 ECTS)	- Real estate market analysis & development - Real estate valuation in an international context

¹¹ That is run for MSc students enrolled in the autumn term of 2011.

¹² It should be noted that the applicants should have at least 15 ECTS in national economy/business economy and/or statistics or alike as well as a good knowledge of English.

¹³ As closest to land surveying in understanding of Nordic countries.

¹⁴ All the presented courses (except two) are designed for 7,5 ECTS.

- Compulsory purchase & compensation - Land development (15 ECTS) - Theory of science and research methods	- Law & economics for land use topics - Management & leadership - Advanced issues in real estate development and financial services
Degree project in one of the sequences (30 ECTS)	

Table 3 presents in turn the planned MSc courses of the new MSc programme with their division into common and elective courses.

Table 3: MSc course¹⁵ division of the whole new MSc programme in Real estate and construction: economics, law and management (planned batch 2013/2015).

Common recommended courses	Conditionally elective courses
- Project communication (CM) - Quantitative methods (E) - Urban land development (L) - Real estate market analysis & development (E) - Theory of science and research methods ¹⁶	- Real estate economy – 10 courses - Construction management – 6 courses - Real estate law – 9 courses
Degree project in one of the sequences (30 ECTS)	

Several differences between presented curricula might be prima facie indicated. These imply a lesser number of mandatory courses (i.e., one vs. five) along with a broader spectrum of recommended courses in the new MSc programme, where all three subject areas such as economy (E), construction management (CM) and law (L) are presented.

Moreover, the new MSc programme grants more freedom of choice for students in comparison with the on-going MSc programme. Specifically, students are able to combine more freely their courses depending on own background and preferences. Besides, the courses offered are wider and indented to provide a broader range of skills and knowledge. Thus, it might be concluded that the new MSc programme ensures more possibilities to adjust individual education profiles to a broader demand of a labour market.

5. DEVELOPMENT TRENDS

Since tuition-fee education has a long history in the USA, it would be also interesting to mention the fundamental problems, American universities encounter nowadays (Economist 2011). The first problem is acknowledged as a continuous expansion of a range of offered courses. For decades universities offer ever-increasing number of undergraduate courses as

¹⁵ All courses are for 7,5 ECTS.

¹⁶ This is the only mandatory course.

well as professors take care of more and more PhD students. Such growth is substantiated by a strong believe that it would always be those willing to pay for these courses.

The second problem is seen in an increasing obsession of American universities with research. In particular, professors seem to be more interested in making research than educating students. For example, American professors in literature annually produce 70 000 publications that might be compared with 13 757 publications in 1959. In other words, professors mainly spent time by writing articles instead of teaching students that in turn hinders further development of critical thinking or analytical reasoning for students.

The most fundamental problem for American universities is their increasing costs trebled in the past three decades. This problem is being addressed by universities in different ways, mainly with help of the internet. For example, professors can give on-line lectures to millions instead of lecturing in person to a much smaller audience. Other universities choose to provide only popular courses and fully use the internet where making tests and marking exams are automated.

Thus, the traditional role of universities in the USA is changing. For example, Western Governors University provides only on-line teaching and has split up traditional university functions. In particular, professors decide what students have to learn through design of the courses and check what students have learnt through corresponding tests. In addition, teaching materials are bought from independent publishers and special mentors are employed for guiding students. It might be emphasised that American universities are forced to act more and more as business companies.

American universities experienced similar problems of increasing costs and separation from the society around 100 years ago. Lawrence Lowell, the president of Harvard, noted that “institutions are rarely murdered; they meet their end by suicide ... They die because they have outlived their usefulness, or fail to do the work that the world wants done.”

6. CONCLUSIONS

A rapidly changing world challenges universities that should make a choice whether to adapt to these changes or to squeeze the costs. Swedish higher education institutions face first and foremost a need for modernization of both curricula and administrative processes due to a decreasing number of students and therefore drop in their financial resources.

Specifically, curricula modernization is one of the solutions for students' attraction and acknowledged as permanent process since the professional practice within an institutional framework of society is changing all the time. The modern land surveying profession demands from the graduates a broader range of knowledge and skills as land surveyors in the near future are going to resolve more and more complex problems on junction of law, economy and surveying. Such modernization would make graduates more attractive for the labour market. Higher education institutions may capture on-going changes through, for example, strengthening the link between practice and education.

To reduce the costs, universities will most probably expand teaching on-line, develop web-based joint courses or concentrate on specific courses and abolish costly educational programmes and other minor activities.

Administrative processes within Swedish higher education institutions need also to be urgently streamlined. It specifically concerns infrastructure (e.g., accommodation), establishment of own scholarship programmes as well as closer communication with relevant governmental agencies (e.g., immigration). Besides, English language skills of lecturers are to be improved.

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BIOGRAPHICAL NOTES

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