



ACCESS



**The Croatian  
Higher Education  
Funding System  
in a European  
Context:  
A Comparative Study**

**Karin Doolan, Danijela Dolenc  
and Mladen Domazet**



Institute for the  
Development of Education



Ministry of Science, Education and Sports  
of the Republic of Croatia



# **The Croatian Higher Education Funding System in a European Context: A Comparative Study**

Karin Doolan, Danijela Dolenc & Mladen Domazet

**Title:** The Croatian Higher Education Funding System in a European Context: A Comparative Study

**Publisher:** Institute for the Development of Education, Preradovićeva 33 / I, 10000 Zagreb, Croatia, [www.iro.hr](http://www.iro.hr)

**For the publisher:** Ninoslav Šćukanec, Institute for the Development of Education

**Editor:** Thomas Farnell, Institute for the Development of Education

**Deputy Editor:** Vanja Ivošević, Institute for the Development of Education

**Authors:**

Karin Doolan, Institute for Social Research, Centre for Educational Research and Development

Danijela Dolenc, Faculty of Political Science, University of Zagreb

Mladen Domazet, Institute for Social Research, Centre for Educational Research and Development

**Additional contributions:**

Thomas Farnell, Institute for the Development of Education

Vanja Ivošević, Institute for the Development of Education

**Graphic design:** KOKE: kreativna farma

Zagreb, 2012



European Commission  
**TEMPUS**

This report is issued as part of the project "Towards Equitable and Transparent Access to Higher Education in Croatia (ACCESS)", funded by the European Commission through the Tempus programme (Grant number: 158 745-TEMPUS-1-2009-1-DE-TEMPUS SMGR).

This report reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Ministry of Science, Education  
and Sports of the Republic of Croatia

The project is co-funded by the Ministry of Science, Education and Sports of the Republic of Croatia. This publication reflects the views only of the author, and does not necessarily reflect the views of the Ministry.

ISBN 978-953-95614-7-3

# Table of Contents

<b>EDITOR'S INTRODUCTION.....</b>	<b>5</b>
<b>INTRODUCTION.....</b>	<b>9</b>
<b>SUMMARY OF MAIN FINDINGS.....</b>	<b>12</b>

## **PART 1: SYSTEM-LEVEL FUNDING OF HIGHER EDUCATION IN SELECTED EUROPEAN COUNTRIES.....14**

<b>1. BACKGROUND: OVERVIEW OF NATIONAL HIGHER EDUCATION SYSTEMS.....</b>	<b>15</b>
Three-cycle higher education systems.....	15
Unified, binary and diversified higher education systems.....	16
Types of higher education institutions.....	18
Size of higher education systems: trends in student numbers.....	20
Student body characteristics.....	22
Academic staff in numbers.....	24
<b>2. HIGHER EDUCATION FUNDING: LEVELS AND SOURCES OF FUNDING.....</b>	<b>25</b>
Total public and private expenditure on higher education.....	25
Public funding for higher education.....	26
Income from tuition fees.....	29
Income from third-party sources.....	32
<b>3. MODELS OF PUBLIC FUNDING FOR HIGHER EDUCATION.....</b>	<b>34</b>
Austria.....	34
Hungary.....	35
Sweden.....	36
Germany.....	37
Slovenia.....	37
Croatia.....	38

## **PART 2: INSTITUTION-LEVEL FUNDING OF HIGHER EDUCATION IN CROATIA.....40**

<b>1. BACKGROUND: STUDENTS AND STAFF IN CROATIAN HIGHER EDUCATION.....</b>	<b>41</b>
Student numbers and future projections.....	41
Student numbers by degree level.....	44
Proportion of full-time and part-time students.....	46



Proportion of students by fields of study.....	48
Staff-student ratio.....	50
Social characteristics of the student body.....	54
<b>2. LEVELS AND SOURCES OF FUNDING FOR CROATIAN HIGHER EDUCATION INSTITUTIONS.....</b>	<b>56</b>
Public funding and overall income levels.....	56
Proportion of public funding and own income.....	60
Sources of own-income funding.....	63
Assets: property ownership.....	67
<b>3. TUITION FEES AT CROATIAN HIGHER EDUCATION INSTITUTIONS.....</b>	<b>69</b>
Proportion of fee-paying students.....	70
Linear model of tuition fees at universities.....	73
Tuition fee amounts.....	76
Increases in tuition fee amounts.....	82
Exemptions from tuition fees.....	84
Other student fees and financial contributions.....	86
<b>4. FINANCIAL PLANNING AND MANAGEMENT AT CROATIAN HIGHER EDUCATION INSTITUTIONS.....</b>	<b>88</b>
Negotiations on allocation of public funds.....	88
Implementation of lump-sum funding model.....	90
Procedure for setting maximum tuition fee amounts.....	92
Collection of financial data.....	92
Organisation of financial services.....	93
<b>ANNEXES.....</b>	<b>96</b>
A. References.....	96
B. Higher education institutions in Croatia - fact files.....	100
C. Glossary of terms.....	107
D. About the ACCESS project.....	107

## Editor's introduction

Thomas Farnell  
Programme Manager  
Institute for the Development of Education

This report is published as a result of the project "Towards Equitable and Transparent Access to Higher Education in Croatia (ACCESS)," funded by the European Commission through the Tempus programme. The ACCESS project aims to contribute to ensuring equitable access to higher education in Croatia by removing financial obstacles, improving data availability and building capacity for action. The project, which will last from 2010 to 2013, is led by the Institute for the Development of Education (Croatia) and Technische Universität Dresden (Germany), and includes a consortium of 21 institutions, including representatives of Croatian higher education institutions, the Croatian Student Council, the Ministry of Science, Education and Sports, as well as research institutes and NGOs. Further information on the ACCESS project is provided as an Annex to this publication.

The expected result of the ACCESS project is to provide policy-makers, higher education stakeholders and the wider public with policy guidelines, developed by Croatian and international experts, for approaching the reform of higher education funding in Croatia, including the student financial support system. The specificity of these policy guidelines is that they place equitable access, retention and success in higher education as a central tenet. Overall, the project bases its approach on the importance of evidence-based policy making: effective reforms in higher education should be based on the collection and analysis of relevant data, on expert recommendations and the discussion of recommendations with stakeholders.

### Higher education funding and equity in higher education

The premise of the ACCESS project is that removing financial obstacles to higher education is a crucial aspect of equitable access, retention and completion of higher education for disadvantaged groups. Obviously, the factors influencing opportunities and decisions to enter and complete higher education are complex and cannot be reduced exclusively to the financial aspect. Most research on inequalities in access to higher education emphasises that these are primarily a result of inequalities that develop at earlier levels of education and that factors such as low levels of cultural and social "capital" among certain social groups are strong determinants of educational achievement and of the likelihood of enrolling in higher education. Practices of educational institutions are also argued to play an important role in reinforcing (or alleviating) such inequalities (see Bohonek et al, 2010 for overview of research and theory on educational inequalities). At the same time, however, financial obstacles have been recognised by researchers, policy-makers and stakeholders in higher education as a key factor that influences access to and completion of higher education, especially in the context of the introduction or increase of tuition fees. The European Commission, the Organisation for Economic Cooperation and Development, the International Association of Universities and the European Students Union all agree that removing financial barriers to higher education is a prerequisite for equity in higher education.<sup>1</sup>

<sup>1</sup> See the following documents: Communication from the Commission to the Council and to the European Parliament: Efficiency and equity in European education and training systems. Brussels, 8.9.2006; International Association of Universities (2008). Equitable Access, Success and Quality in Higher Education: A Policy Statement by the International Association of Universities; Organisation for Economic Cooperation and Development (2008). Tertiary Education for the Knowledge Society: Synthesis Report; European Student Union (2005) Policy Paper: "Financing of Higher Education".

Higher education funding policy has an impact on almost all aspects of higher education, which is why the topic is both extremely important and sensitive. Funding policies are closely related to achieving strategic objectives and priorities of the higher education system, and such policies therefore bring up issues of university autonomy, the quality of higher education and its efficiency, effectiveness and sustainability. But higher education funding is also closely linked to equity at a number of levels:

- **System-level funding:** In order to ensure that access to higher education widens to include underrepresented or disadvantaged groups, the prerequisite is that the higher education system as a whole is adequately funded and that increasing the educational level of the population is a priority.
- **Tuition fees:** Tuition fees (or other fees charged to students by higher education institutions) can represent a major financial barrier for access to higher education for students from low-income families so the question of who pays fees, what amounts are charged and what mechanisms exist for taking into account students' socioeconomic background when defining tuition fee policies have important equity repercussions.
- **Student financial support:** The most direct link between higher education funding and equity is made through national student financial support policies. The type of support provided (grants, subsidies, loans, tuition fee waivers, etc.), the levels of support and the criteria for receiving support are all essential indicators of how equitable a higher education system is.
- **Funding incentives for equitable access:** Targeted funding policies can increase access by, for example, setting quotas for certain groups of students ("affirmative action"), fund institutions to develop better support to enrolled disadvantaged students or outreach programmes for enrolling such students or rewarding institutions financially for ensuring the graduation of disadvantaged students.

The ACCESS project wishes to argue a case for systematically taking account of equity in each of the above segments of higher education funding policies in Croatia, and for making necessary improvements and reforms to the higher education funding system in a way to not only increase the quality and effectiveness of the higher education system in Croatia, but to make it truly equitable.

### Data and evidence-based policy making

Aside from equity, the "procedural" premise of the ACCESS project is that evidence, in the form not only of data, analyses and recommendations but also of conclusions of public discussions, can influence the agendas of policy-makers and can (and should) influence the outcome of the policy-making process.

In Croatia, however, key data related both to higher education funding and to access to higher education has until now been either unavailable, inaccessible or has not been the subject of analysis and discussion. The collection of relevant data and its analysis and discussion is therefore the foundation of the ACCESS project, which will complete three studies to collect, process and analyse both quantitative and qualitative data relating to aspects of higher education funding. With regards to data on higher education funding in Croatia, as this report will show, financial reporting of higher education institutions in Croatia has not been standardised which has prevented comparative data (for comparison of institutions at the national level) to be readily available to policy-makers or to the wider public. Additionally, there have been few studies on the Croatian higher education funding system<sup>2</sup>, and none of these have provided an internationally comparative approach to identified trends in higher education funding. With regards to data on access to higher education in Croatia, the international expert report prepared for the Organisation for Economic Cooperation and Development (OECD, 2008)

<sup>2</sup> The only exceptions are the valuable reports by Anto Bajo (2003 and 2008) and Tihomir Hunjak (2009), whose findings are used in this study.

notes that there is an “urgent need for better data, to enable an assessment of the effect of family income” on access to higher education and that this should “be treated as a high priority for policy research and development” (p. 52).

Due to this lack of data and analyses in Croatia, the ACCESS project will undertake three studies related precisely to higher education funding and access to higher education in Croatia. The first study carried out within the project and published in June 2011 was the Croatian EUROSTUDENT survey (Cvitan et al, 2011) on the social and economic conditions of student life in Croatia, presenting important indicators on underrepresented groups in higher education and the living conditions of disadvantaged students. The second study is the present report on the Croatian higher education system in a comparative, European context. The third and final project study will address the national financial support system for students in Croatia in the same comparative, European perspective as this report. The results of the three studies will complement each other and contribute to developing a policy framework based on data with an aim to enhance the equity-dimension of the higher education funding and student financial support system in Croatia.

### **International and comparative approach to higher education policy**

Internationally comparative studies on higher education are of particular value because by highlighting differences or similarities in policies, practices and outcomes across different countries, they allow for better understanding of the strengths and weaknesses of the national higher education system. This process can result in developing new approaches for addressing a policy issue based on best-practice, or in defining benchmarks in a policy area.

The ACCESS project has adopted such a comparative approach, by including the collection and analysis of data from European countries to compare to Croatian data. Since the project did not have the capacity for a major study comparing all 27 EU countries, five countries were selected as the basis for the comparative study (and as partners in the ACCESS project): Austria, Germany, Hungary, Slovenia and Sweden. The reason for this specific choice of countries was the following:

- The Austrian and German higher education systems are relevant since they have historically influenced the Croatian higher education system, which adopted a number of practices and structures from those countries.
- The Hungarian and Slovenian higher education systems are immediately relevant both as “transition economies” and as neighbouring countries to Croatia, which therefore share certain socioeconomic similarities to the country as a whole, as well as a number of structural similarities to Croatia’s educational system. Having also undertaken major reforms in higher education since the 1990s, the experiences and lessons learnt from these countries can therefore provide Croatia with valuable information and advice.
- Scandinavian countries obviously differ strongly from the aforementioned group in their approach to education policy. However, Sweden was intentionally included in order to provide a strongly contrasting approach to higher education as a whole, and especially to financial support for students, and to bring an alternative perspective on how equity in higher education can be addressed.

This study will analyse how these countries compare and contrast to Croatia in terms of their higher education systems as a whole and their funding policies.





## Aim and scope of the study on higher education funding

Although the ACCESS project as a whole is focused on the link between higher education funding and equity, the project recognises that the link in question cannot be made without ensuring that the higher education funding system is also efficient, effective and transparent, and does not negatively affect the quality of higher education. For this reason, the ACCESS project has taken a holistic approach, which analyses in depth the higher education funding system as a whole, and not just the aspects immediately relevant to equity. This study, in particular, analyses in detail higher education funding levels, sources of funding, public allocation models, tuition fee models and financial management practices, both at the national and institutional level. The theme of equity is included by mapping which segments of funding could have an implication on access to higher education. As a result of the scope of the study, the focus on equity may therefore be less prominent in this report than in the other project studies (the EUROSTUDENT survey and the study on student financial support).

The result of the study is that this comparative report represents the most comprehensive source of data on higher education funding in Croatia published so far, as well as a valuable source of information on funding trends and practices in a range of European countries that are relevant to Croatia. This report does not, however, intend to provide answers to questions on which higher education funding model “works best”, whether tuition fees should or should not be a part of that system, or what incentives for equity could be made through the funding system. Instead, the data and analyses provided will be the basis for policy guidelines that will be developed within the scope of the ACCESS project by an international expert team. This report should therefore be viewed primarily as a reference tool and a basis for policy discussions, as well as a basis for further research.

In conclusion, since major changes are currently (in 2011) being planned at the legislative level in higher education in Croatia, we believe that this is the opportune time to collect data and carry out analyses of the higher education system in Croatia in order to make an evidence-based contribution to higher education reforms, and to advocate for greater equity in higher education, or, using the Bologna Process terminology, for a higher education system which places emphasis on its social dimension.

# Introduction

## Aims and outline of the study

The aim of the study “The Croatian Higher Education Funding System in a European Context: A Comparative Study”, was to provide a basis for discussing reforms of the Croatian higher education funding system based on data and practices in other European countries. The study collected data on the Croatian higher education funding system, as well as on systems of five other European countries. The data collected was analysed to identify common trends and practices among all countries, and to identify significant differences in approaching higher education funding policies. Due to the focus of the ACCESS project on equitable access to higher education, the study also focuses on implications that certain higher education funding policies or practices can have for the enrolment and completion of higher education by disadvantaged groups.

The information collected through the study is presented in this report in two separate parts using two approaches: a system-level and institution-level approach.

The first section of the report provides a comparative perspective on aspects of higher education funding at the national level in Austria, Croatia, Hungary, Germany, Slovenia and Sweden. This section examines relevant background data such as the structure and size of these higher education systems, the educational and social characteristics of their student bodies and then examines public and private expenditure in higher education in these countries, their systems of tuition fees and their models for allocating public funds to higher education institutions. The aim of this section is to identify how certain trends in higher education can influence higher education funding policy, and to consider the main characteristics (as well as strengths and weaknesses) of different national approaches to funding higher education.

The second section takes an institution-level comparative approach, with the primary focus being on the funding of Croatian higher education institutions, and how institutional practices differ within Croatia. However, occasional reference is also made to international practices from specific higher education institutions in the European countries participating in the study. This section examines background information such as students and staff at higher education institutions (e.g. size, level of study, field of study, study status, social profile), funding sources, tuition fees (practices among different higher education institutions, amount of fees charged) and financial planning and management practices at higher education institutions.

## Methodological approach

The study was completed through a combination of desk research of relevant Croatian and international documents comprising data relevant for higher education funding considerations (see References) and through questionnaires completed by contacts from higher education institutions participating in the ACCESS project. This report is based on the information collected through both desk research and the completed questionnaires.

In the first phase of the study, a questionnaire was designed for and completed by representatives from Austria, Hungary, Germany, Slovenia and Sweden. The questionnaire was completed by representatives from the following higher education institutions:

- Corvinus University Budapest (Hungary)
- Mälardalen University (Sweden)



- Dresden University of Technology (hereafter TU Dresden) (Germany)
- Karl Franzens University of Graz (Austria)
- University of Maribor (Slovenia)
- Ministry of Higher Education, Science and Technology (Slovenia).

The questionnaire was divided into three main sections. The first section focused on aspects of higher education funding at the national level (e.g. structure of the higher education system, size of the student body, per cent of GDP allocated to higher education). The second section examined higher education funding at the institutional level (e.g. budget allocation at the university and faculty/department level, tuition fees charged and the organisation of financial services). The final and third section covered general observations such as providing an appraisal of the strengths and weaknesses of the higher education funding system across participating countries and institutions.

In the second phase of the study, the EU partner questionnaire was slightly revised to suit the specificities of the Croatian higher education system and was completed by contacts at Croatian partner institutions:

- Croatian Council of Universities and University Colleges of Applied Sciences
- University of Dubrovnik
- Juraj Dobrila University of Pula
- University of Rijeka
- University of Split
- University of Zadar
- University of Zagreb.

The selection of partner institutions involved all Croatian universities apart from the University of Osijek, which was not a project partner at the time of conducting the study, as well as Croatia's professional higher education institutions (through their national representative body, the Council of Universities and University Colleges of Applied Sciences). The questionnaire mirrored the structure of the EU partner questionnaire as described above. The questionnaire for both the EU and Croatian partner institutions was in English and developed in cooperation with the Expert Team of the Tempus ACCESS project (see list of Expert Team members available on the project web site [www.iro.hr/access](http://www.iro.hr/access)).

### Limits of data availability and data interpretation

The lack of a comprehensive system of information and data on the outcomes of the tertiary education system, which could assist in the formulation of policies in Croatia, was already noted in a report of the Organisation for Economic Cooperation and Development ([OECD] 2008). The lack of such data at the national level was one of the problems identified by this project and was one of the reasons why this study was developed. At the same time, the lack of such data makes a study such as this one challenging in terms of collecting data and assessing its comparativeness.

Regarding the collection of data directly from higher education institutions, this study confirmed the findings of a European University Association ([EUA] 2008) study on full-costing across different European universities, which

showed that the amount of data available varied dramatically between institutions (from a lack of even basic information to very sophisticated databases covering students, courses, staff, staff time, estates and use of space). The non-integrated nature of Croatia's three largest universities (the Universities of Rijeka, Split and Zagreb) proved to be a particularly significant barrier for data collection; each of the faculties or other constituent units have an independent legal status, which means that financial accounting and reporting is not conducted at the central level of the universities.

Aside from the difficulties in accessing data, another challenge faced by the study was the data collected about Croatia's professional higher education institutions (the universities of applied sciences and university colleges of applied sciences). Namely, due to the high number of institutions, it was difficult to ensure the collection of data in the limited time frame of the project, which meant that only 17 out of 44 professional higher education institutions completed the study questionnaire. Although this number is far from negligible, there is no method to ensure that this proportion of institutions is necessarily representative of all the professional higher education institutions. The data should therefore be seen as illustrative, and not as a definitive picture of funding trends for professional higher education, and all conclusions regarding the funding of professional higher education should therefore be indicative and provisional. However, much of the data collected draws interesting parallels with the situation at universities – and it should provide an incentive to further discuss the issues that emerge and to make further analyses based on more precise data.

Finally, regarding the international aspect of report, there is a major constraint in terms of the possibility of making close, comparative analyses of national data that does not come from the same source (such as Eurostat or OECD) and/or that is collected at the national level according to different methodologies. For this reason, the comparative element of the report should also be read as a collection of information and practices that should inform further discussions and new approaches, rather than as a way of measuring or ranking precise differences between countries.

Overall, taking into account such constraints in data collection and analysis, this report should be read primarily as reference document presenting a range of detailed data on Croatian higher education funding, with references to informative and useful practices and trends in other European countries. In this sense, we hope the report will provide the basis for policy discussions and dialogue of the challenges of higher education funding in Croatia and possible directions for its reform. The report should also serve as a reminder of the importance of collecting centralised data on the Croatian higher education system, and making it publicly available, as well as the need to carry out detailed analyses of the data and to discuss its implications.

## Acknowledgements

The authors would like to thank the following contact persons for the information provided in this report: Jozsef Temesi (Corvinus University Budapest), Katharina Plesse (Dresden University of Technology), Ulrike Krawagna and Roberta Maierhofer (University of Graz), Gudrun Paulsdottir (Malardalen University), Duša Marjetič (Ministry of Higher Education, Science and Technology of the Republic of Slovenia), Dušan Lesjak (University of Maribor and International School for Social and Business Studies, Celje), Darija Vučijević (University of Dubrovnik), Ivona Peternel (University of Pula), Miljana Bajšanski (University of Rijeka), Aleksandra Banić (University of Split), Stipe Belak (University of Zadar), Larisa Buhin Lončar (University of Zagreb) and Žarko Nožica (Council of Universities and University Colleges of Applied Sciences).



## SUMMARY OF MAIN FINDINGS

Based on the information presented in this study, the following main observations for the Croatian higher education funding system can be made:

- Croatia's **public investment into higher education** as a proportion of its GDP is lower than that of the other countries examined in this study, and is also lower than the EU-27 average.
- In comparison to the other five countries examined in this study, Croatia seems to be in the middle with regard to **proportion of public compared to private funding** for higher education institutions (higher education institutions receive more public funding in Austria and Sweden, less in Slovenia, while Hungary is similar to Croatia at 70% of public funding).
- **Tuition fees** have been a major source of private funding in Croatia. Croatia's latest system of tuition fees, whereby at first instance no undergraduate or graduate student pays tuition fees, is in line with the Austrian, Slovenian, Swedish, and to a certain extent German, higher education systems. However, the subsequent linear model of charging tuition fees annually depending on accumulated ECTS credits is unique to Croatia.
- **Maximum annual tuition fees** charged in Croatia seem to be high in comparison to, for example, Germany, which is a country characterised by a higher standard of living.
- There is an **unregulated system of tuition fees** across higher education institutions in Croatia: there is no limit on the maximum amounts of tuition fees, tuition fee amounts vary between various institutions and there are no clear criteria for determining fee levels or their increase.
- The granting of exemptions from the payment of tuition fees is largely **merit-based**. Social criteria such as low family income are not systematically taken into consideration.
- The fact that all **part-time students** in Croatia currently pay tuition fees and do not have any of the subsidies or scholarships opportunities available to full-time students makes this student status highly significant both in terms of equitable access to higher education and higher education funding. Additionally, this is also significant for equity since more part-time students in Croatia study professional higher education programmes as opposed to university programmes. Namely, professional study programmes in Croatia have a higher proportion of students from disadvantaged backgrounds than university study programmes.
- Taking into account **demographic trends (declining birth rates)**, current student numbers as a basis for funding of higher education is not likely to put additional strain on Croatia's state budget, as was the case in recent years with massification trends.
- **Funding agreements** between the state and higher education institutions covering a three-year budget plan is the dominant model for public funding of higher education in Austria, Hungary and Sweden, whereas in Croatia, Slovenia and Germany this is an annual process of negotiations, with no specific written agreement on the terms of the funding in Croatia.



- A combination of **input and output criteria** appear to dominate decisions regarding state allocations (e.g. Austria, Hungary, Slovenia, Sweden), whereas in Croatia and Germany only input criteria are taken into consideration.
- Austria is a best-practice example of a country that takes into account **social goals** (e.g. number of women graduates) when determining funding, whereas neither Croatia nor the remaining countries in the study have such specific incentives for promoting social equality. In Croatia, a further problem is the lack of systematic data that could allow the development of such indicators.
- There is an evenly split **financial management potential** with respect to the total number of administrative staff available across Croatian higher education institutions, with some institutions being in a slightly more favourable position than others. However, expertise in finance data management and transparent presentation of financial data has been identified as a challenge.
- **Financial reporting** is not standardised and there is a lack of systematic collection of financial and other data (e.g. social profile of the student body, exact academic staff numbers), which could contribute to a better informed, more transparent and more equitable higher education funding system in Croatia.

# Part I

## System-level funding of higher education in selected European countries

---

This chapter provides a comparative perspective of national aspects relevant for higher education funding in countries under study: Austria, Croatia, Germany, Hungary, Slovenia and Sweden. The chapter is divided in three parts. Section I provides an overview of higher education systems, including information on the structure of the higher education system, trends in student numbers and characteristics, and academic staff numbers. Section II provides information on the levels and sources of higher education funding, in particular public sources, tuition fees and income from third parties. Section III provides more detailed comparative information on the different models for allocating public funds to higher education institutions in all of the countries under study.

# 01

## Background: overview of national higher education systems

### Three-cycle higher education systems

As background information to this report, a commonality between the Croatian higher education system and the higher education systems of EU countries participating in this study (Austria, Germany, Hungary, Slovenia and Sweden) is that they are all signatory countries of the Bologna Process. This reform included the introduction of a three-cycle degree system in higher education consisting of a first cycle (undergraduate, Bachelor), represented by either 180 or 240 ECTS (European Credit Transfer System) credits, a second cycle (graduate, Master), typically including either 90 or 120 ECTS, and a third cycle (doctoral, PhD), which does not necessarily have credits associated with it. Higher education systems may also include "short-cycle" qualifications within or linked to first-cycle degrees which tend to include 120 ECTS credits.

The majority of students in the countries covered by this study are enrolled at the first-cycle level with varying numbers of second- and third-cycle students.

**Table 1. Number of tertiary education students at ISCED 5 and ISCED 6 levels**

Country	Students ISCED 5 (2008 data)	Students ISCED 6 (2008 data)
Austria	248,389	17,288
Germany	1.915,088	N/A
Hungary	378,135	7,153
Slovenia	71,232	1,582
Sweden	363,500	20,088
Croatia	145,263*	4,590*

Source: Eurostat 2010, except \*Croatian Bureau of Statistics 2010





## Unified, binary and diversified higher education systems

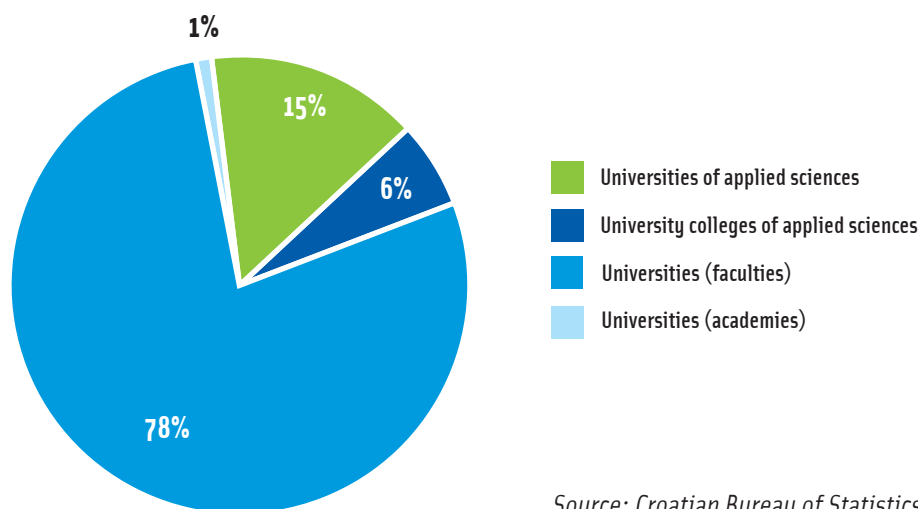
According to Shavit et al (2007), higher education systems can be categorised as unified, binary or diversified. In unified systems, higher education is mostly based around academic study programmes that are largely theory-oriented and predominantly provided by research universities. In binary higher education systems, there are two types of study programmes available: aside from academic study programmes, there are professional study programmes, which are usually more vocationally-oriented and usually provided by professional higher education institutions (such as universities of applied sciences or polytechnics). Finally, diversified systems have a combination of academic and professional programmes, with the distinction that most professional higher education institutions may also provide academic-oriented programmes.

A commonality shared by Austria, Croatia, Germany, Hungary and Slovenia is that they all have a binary system of higher education. The Swedish higher education system, although developed as a binary system in the 1970s, can be classified as a diversified system (Shavit et al, 2007), as it comprises a mix of academic, and professional programmes provided by different institutions. These similarities are an important consideration when comparing higher education trends in these countries.

Croatia's higher education system is binary since Croatian higher education institutions offer either "university studies" or "professional studies". Croatia also has two types of higher education institutions: universities and professional higher education institutions (which consist of universities of applied sciences and university colleges of applied sciences). However, a particularity of the Croatian system is that professional studies are not offered only at universities of applied sciences and university colleges of applied sciences (which are only allowed to provide professional study programmes), but at universities as well (which are allowed to offer both university and professional study programmes). In other words, there is a binary system of study programmes as well as a binary system of higher education institutions, but the two systems are not necessarily linked in all segments (Cvitan et al 2011).

In order to disentangle this dual binary system, data for the composition of students according to type of institution (Figure 1.1) is presented separately from data according to type of programme (Figure 1.2). The data is provided by the Croatian Bureau of Statistics.

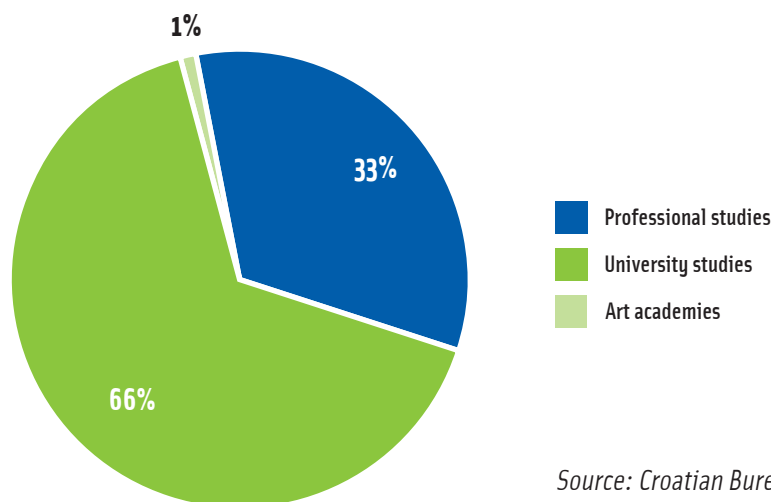
Figure 1.1. Proportion of Croatian students per type of HE institution, academic year 2009/2010



Source: Croatian Bureau of Statistics 2011

As can be seen from Figure 1.1, during the academic year 2009/2010 the majority of Croatian students were studying at universities (78%), followed by 15% at universities of applied sciences and 6% at university colleges of applied sciences. However, as was emphasized, a proportion of students studying at universities are enrolled in professional study programmes, as shown in Figure 1.2 below.

Figure 1.2. Proportion of students per type of programme, academic year 2009/2010



Source: Croatian Bureau of Statistics 2011

What we learn from Figure 1.2 above is that although 78% of students in Croatia study at universities, only 66% of students study in university study programmes. This data testifies to a strong presence of professional studies in the overall higher education system in Croatia.



Slovenia is the only other country apart from Croatia in this study in which professional study programmes are offered both at universities and at professional higher education institutions. According to data provided by the Slovenian project partners, 30% of students at the University of Ljubljana are enrolled in professional programmes, as are 50% at the University of Maribor and 70% at the University of Primorska.

Comparable data with respect to the size of student body per type of higher education institution is available for Hungary, Austria and Germany. Hungary is the exception in that there the majority of students study at professional higher education institutions. During the academic year 2005/2006 62% of undergraduate students were enrolled in professional study programmes (Dolenec 2009). In Austria less than 10% of the student body study at professional higher education institutions and in Germany the student body at professional higher education institutions is around 31% (Dolenec 2009).

### **Policy implications for higher education funding**

Having a binary system may have an implication on the funding of higher education institutions in the case that government decides that there is a strategic need to expand one or the other side of the binary sector. This was the case of Croatia which, in its last Education Sector Development Plan stated as one of its priorities the development of the binary system by strengthening the infrastructure of professional higher education institutions and launching a process of “polycentric development of professional studies” in order to establish new professional higher education institutions in smaller urban areas and regional centres (Ministry of Science, Education and Sports, 2009.a).

### **Types of higher education institutions**

With regards to higher education institutions, each national higher education system has a specific classification of higher education institutions. The table below provides a brief overview of the types of higher education institutions in Austria, Croatia, Germany, Hungary, Slovenia and Sweden, including information (where available) on the total number of higher education institutions of each type.



**Table 1.1. Type and number of higher education institutions in Austria, Croatia, Germany, Hungary, Slovenia and Sweden<sup>3</sup>**

Country	Higher education institutions
Austria	There are 22 public universities, six of which are art universities, three medical universities, and one university for continuing education (Master level). Private universities have existed in Austria since 1999, with 11 private universities accredited in 2009. There are also 20 universities of applied sciences and 17 teacher training colleges. Public universities are the largest sector (with 233,046 students), followed by universities of applied sciences (with 31,046 students) and private universities (with 4,237 students) (Centre for Higher Education Policy Studies [CHEPS] 2010).
Croatia	7 public universities (+ 3 private universities), 13 public universities of applied sciences (+ 2 private universities of applied sciences), 3 public university colleges of applied sciences (+ 27 private university colleges of applied sciences) (Agencija za znanost i visoko obrazovanje 2010).
Germany	The higher education system in Germany consists of universities, universities of applied sciences and colleges of art/music, etc. There are currently 104 universities, six colleges of education, 14 colleges of theology, 51 colleges of art, 189 universities of applied sciences and 30 universities of applied sciences for public administration (CHEPS 2010).
Hungary	Hungary's higher education system comprises 71 institutions: 31 public universities and colleges (86% of the students), 26 religious (church-run) educational institutions (6%) and 14 colleges operated by foundations (8%).
Slovenia	In 2009/10 there were three public universities with 53 member institutions, two private universities with seven member institutions, and 26 free standing higher education institutions, of which 12 receive state subsidies.
Sweden	14 public universities and 22 public university colleges, there are two private universities and several smaller private higher education institutions, some of them receiving state subsidies (Swedish National Agency for Higher Education [SNAHE] report 2009).

Source: ACCESS questionnaire and cited documents

<sup>3</sup> Since classifications of higher education institutions vary between countries, so Table 1.1 should be read carefully if used for comparative purposes.



Based on the table above, the two following institutional patterns can be traced:

- **Universities and professional higher education institutions:** all the countries that have a binary higher education system usually have at least two types of higher education institutions: universities and professional higher education institutions, which are usually called universities of applied sciences or colleges. The previous section provided data on the size of each side of the binary system in the countries, while this table provides more detailed information on the student numbers by types of institution. As also mentioned in the previous section, in countries such as Slovenia and Croatia universities may also provide professional programmes.
- **Public and private higher education institutions:** in each of the countries there is larger or smaller number of private institutions. Overall, the majority of students are enrolled in public higher education institutions (primarily funded through the state budget), and the size of the private sector varies: in Austria 13% of the student body studies at private higher education institutions, in Hungary 12%, in Sweden 7% and in Germany 3% (United Nations Educational, Scientific and Cultural Organisation [UNESCO] 2006). In Croatia, the proportion is 6% (Croatian Bureau of Statistics, 2009) while in Slovenia, in 2008/2009, 7.4% of students studied in the private higher education sector.

### Policy implications for higher education funding

Regarding universities and professional higher education institutions, the main significance for higher education funding is related to the conclusion of the previous section, i.e. whether there is a strategy to develop one or other segment of the binary system.

### Size of higher education systems: trends in student numbers

Overall student numbers and their growth trends are an important consideration for issues of funding higher education. As Beerkens-Soo and Vossensteyn (2009) note, "covering the expenses of higher education at the mass level is a serious burden on the public budget" (p. 4). It is therefore important to track whether the size of a higher education system is growing and also to predict to what extent the national government of any given country intends to further increase numbers of students and graduates in the future to meet its priorities.

According to Eurostat figures for 2006, 2007 and 2008, the largest higher education system by student numbers in this report is the German system (with 2,245,000 students), followed by the Hungarian higher education system (with 413,000 students), the Swedish higher education system (with 406,000 students), the Austrian higher education system (with 284,000 students), the Croatian higher education system (with 143,000 students) and finally the Slovenian higher education system (with 115,000 students). The trends in the increases (or decreases) of student numbers over the period 2006–2008 are provided in the table below.

Table 1.2 shows the total number of higher education students between 2006 and 2008 across the countries observed in this study. Whereas a slight increase in total student numbers can be observed in Austria, Croatia<sup>4</sup> and Slovenia, data for the other countries indicates a decrease in student numbers. According to Austrian data provided for this study, the observed trends in Austria can be accounted for by an increase in the number of PhD students (Bologna progress report Austria 2008).

<sup>4</sup> In Croatia, the total number of places for full-time university and professional higher education programmes is planned centrally at the state level (agreement between the Ministry of Science, Education and Sports and public higher education institutions).

**Table 1.2. Student numbers for 2006, 2007 and 2008 across selected countries.**

Country	2006	2007	2008	Trends 2006-2008
Austria	253,000	261,000	284,000	+31,000 (+12%)
Croatia	136,000	140,000	143,000	+7,000 (+5%)
Germany	2,289,000	2,278,000	2,245,000	-44,000 (-2%)
Hungary	438,000	431,000	413,000	-25,000 (-6%)
Slovenia	114,000	115,000	115,000	+1,000 (+0.9%)
Sweden	422,000	413,000	406,000	-16,000 (-4%)

Source: Eurostat 2010

This is also the case with Slovenia, as the Slovenian Statistical Office data (2009) reports that “in the last four years the number of students enrolled in doctoral study programmes has doubled” (p.19).

Regarding how these increases in student numbers have affected higher education funding at the international level, Beerkens-Soo and Vossensteyn (2009) note that:

“In most countries public funding in the period of massification increased but did not keep up with the increase in student numbers. As a result, funding per student dropped and staff student ratios declined.” (p. 4)

However, in considering future funding arrangements, it is important to note that projections suggest that a decline in student numbers is expected across the countries in this study (including Croatia) as a result of demographic trends (declining birth rates). According to a Eurostat (2009) report, long-term demographic projections made on the basic trend variation of the population show a decline of approximately 11% among those aged five to nine in the EU-27 by 2020 (p. 13). On the other hand, an MSES (2007) report on Croatian higher education states that:

“Increasing the number of people with post-secondary education is a major task of the tertiary education system in Croatia. Currently, the number of people with post-secondary education is too small (only 15% of the active population) to meet the needs of a knowledge-based economy and society” (p. 136).

### Policy implications for higher education funding

Taking into account the demographic trends of declining birth rates, the current student numbers as a basis for public funding of higher education is not likely to put additional strain on most European countries’ state budgets, as was the case in recent years with massification trends. At the same time, Croatia may need nonetheless to increase the overall proportion of citizens with higher education. Additionally, any measures to widen participation for disadvantaged groups may have an impact on student numbers and higher education funding (as will be further developed below).



## Student body characteristics

The following commonalities have been identified in the student bodies across the countries participating in this study, which can have implications for funding arrangements:

### Students by field of studies

The largest number of students study social sciences, business and law in Austria, Croatia, Germany, Hungary, Slovenia and Sweden. This is important information if costs of different courses are taken into account when deciding on funding arrangements (e.g. in Sweden public funding per student is lowest for the humanities, social sciences, law and theology and highest for programmes in the fine, applied and performing arts).

### Students by full-time or part-time status

The majority of students are full-time students in all the countries examined, although there are differences between countries in their proportion. In Austria and Germany all students are officially full-time students (with exceptions related to employment or family commitments), in Sweden 82.7% (SNAHE 2009), in Croatia 75.4% and in Hungary 56.8% (OECD 2009). In the academic year 2008/2009, 72.6% of Slovenian students were full-time students (Statistical Office of the Republic of Slovenia 2009). According to the OECD (2009), the EU average of full-time students is 79.5%.

It should be noted, however, that although the overall majority of students are full-time students in countries such as Slovenia and Croatia, there is a visible difference in the proportion of full-time and part-time students at universities compared to those studying at professional higher education institutions. For example, in 2006 the majority of Slovenian students in professional higher education (51.1%) were part-time students (OECD 2009). In Croatia in the academic year 2009/2010, 58% of students at universities of applied sciences were full-time students, 52% of students at university colleges of applied sciences were full-time students, whereas at universities 80% of the students were full-time students (Croatian Bureau of Statistics 2010).

When considering the status of part-time students in Croatia, it is important to note the specific position they occupy in the system. Formally, the concept of part-time students in Croatia implies students who study in parallel having full-time work. For this reason, Croatian part-time students must all pay tuition fees and do not have the right to receive public financial support (direct or indirect). However, although there is no tracking of part-time students and studies which would explore this issue in detail, anecdotal evidence suggests that part-time students in fact are not necessarily students who are in full-time employment, but rather students who were unable to enrol into available study places under the category of full-time student. Therefore, they are usually of same age as full time students and do not necessarily have an income from full-time work. Despite this, the concept of part-time students as working students remains unchanged in institutional practice and the issue remains unopened at the national level. This lack of clarity raises important questions about the equity-dimension of the part-time student system in Croatia, since this part-time student status results in an absence of public financial aid and therefore in a much larger financial burden for students.

### Students by socioeconomic status

According to comparative data on equity in higher education in Europe (Bohonnek et al, 2010) students with a lower socioeconomic status, measured by parents' occupational and educational status, have significantly lower chances to enter higher education in most European countries. The level of inequity differs across countries – among the countries analysed in this report, the representation of students from lower socioeconomic background is relatively good in Sweden and Slovenia, whereas inequity in access to higher education due to socioeconomic status is pronounced in Germany. In countries such as Sweden and Austria, participation of disadvantaged groups has seen moderate improvement in recent



years, while in certain Eastern European countries, such as Hungary, participation rates have actually decreased in for disadvantaged groups.

### Students by gender

There are more women than men in higher education in all the countries examined, yet a distinction in gender representation across fields of study can be observed. According to a Eurostat (2009) report:

“Women account for a large majority of enrolments in three main fields of studies, namely “education”, “health and welfare”, “humanities and arts”. At the other extreme, men largely outnumber women in “engineering, manufacturing, construction” and “science, mathematics, computing” and this situation has not changed much since 2002.” (p. 16)

### International students

The number of international students as a percentage of all students varies widely in the countries examined, with comparatively low proportions in the transition countries of Central and Eastern Europe who have recently joined the EU. Whereas Hungary has 3.5% international students and Slovenia 1.3%, the proportions in the remaining countries are the following: Austria 16.7%, Germany 11.3%, and Sweden 10.3% (OECD 2009). In countries that charge tuition fees for international students, the number of international students is an important consideration for higher education funding. In Croatia the share of international students is 2.6%, however, according to a report by the Ministry of Science, Education and Sports (2007) a large majority of these students are from former Yugoslav countries (2.2%), 0.14% from EU countries and 0.16% from the rest of the world.

### Policy implications for higher education funding

Information on student characteristics is crucial for the effective planning of higher education funding. From the perspective of equitable access to higher education, the information on student characteristics enables the state, as well as higher education institutions, to strategically plan equity measures through student support systems, as well as funding incentives for higher education institutions or programmes or through inclusion of social goals in higher education institutions or programme performance agreements or their mission statements. The importance of this information for funding arrangements can also be observed in Beerkens-Soo and Vossensteyn's (2009) note that countries such as the UK and Australia have funding initiatives to promote equity in higher education, e.g. in Australia universities receive extra funding for enrolling students from lower socioeconomic groups.

With regards to the differentiation between part-time and full-time students, information on student numbers in each group is essential since this has direct effect on the organisation of teaching and student services. In Croatia this information is of importance due to differences in tuition fees and availability of financial aid between the two categories of students.

With regards to international students, student numbers should be closely monitored to evaluate the internationalisation trends, which may have implications on organisation and provision of studies, student support services and overall financing having in mind that international non-EU students often pay higher tuition fees than home and EU resident students in EU countries.





## Academic staff in numbers

OECD (2010) data for 2008 on the ratio of students to teaching staff in all tertiary level educational institutions shows that Sweden has the most favourable teaching staff-student ratio (1:8.5), followed by Germany (1:11.5), Austria (1:14.6), Hungary (1:17.1) and Slovenia (1:20.8). According to data for the academic year 2009/2010 (Croatian Bureau of Statistics 2011), Croatia has 1:12.6 staff-student ratio, which presents a favourable ratio in comparison to Austria, Hungary and Slovenia. However, as the institution-by-institution approach in the second section of the report will show, such a ratio hides differences between fields (e.g. staff-student ratio is significantly higher in the social sciences than in biotechnical sciences) and levels of study.

In addition, according to an MSES (2007) report on higher education in Croatia, a major problem relates to provision of funds for adequate academic staff at professional higher education institutions:

“a large part of the academic staff at independent polytechnics and schools of professional higher education work at other higher education institutions, public scientific institutes or industry.” (p.53)<sup>5</sup>

## Policy implications for higher education funding

This information is important for countries, such as Croatia, which consider number of staff in their funding arrangements, particularly if funding arrangements are used as a tool to encourage optimal teaching staff-student ratios across different study fields. What this section suggests is that in Croatia the academic staff-student ratio seems favourable overall, but hides differences in academic staff-student ratio by field of study and level of study.

<sup>5</sup> Polytechnics” and “schools of professional higher education” refer respectively to universities of applied sciences and university colleges of applied sciences. Please see Glossary in the Annex to this report for explanatory note regarding disagreements in Croatia on the English translations of these terms.

# 02

## Higher education funding: levels and sources of funding

### Total public and private expenditure on higher education

Comparing levels of public and private expenditure into higher education as a proportion of GDP, presented in the table below for the countries examined in this study, provides an indicator of the priority given to higher education, not only by governments but by society as a whole.

**Table 1.3. Public and private expenditure on higher education (as per cent of GDP) in 2008**

Country	Public investment into higher education, as proportion of GDP (%)*	Private investment into higher education, as proportion of GDP (%)	Total public and private investment into higher education, as proportion of GDP (%)
Austria	1,49	0,2	1,32
Croatia	0,95	0,32	1,24
Germany	1,02	0,3	1,1
Hungary	1,21	0,25	1,23
Slovenia	1,22	0,18	1,11
Sweden	1,82	0,17	1,52
EU average (EU 27)	1,14	0,39	1,3

Source: EC (2011): [http://ec.europa.eu/education/higher-education/doc/wp0911\\_en.pdf](http://ec.europa.eu/education/higher-education/doc/wp0911_en.pdf) (includes allocations for research and development)

Regarding public expenditure on higher education, Sweden continues to invest the highest proportion of its GDP (1.82%) in comparison to the other countries in the study, followed by Austria (1.49%). Slovenia and Germany invest similar proportions (1.2%) whereas Hungary has the lowest public investments in higher education among the EU countries presented (1.02%). Data for Croatia indicates that its public funding of higher education (as a proportion of its GDP) is at 0.95%, which is both lower than the aforementioned countries and lower than the EU 27 average of 1.14%. Croatia's comparatively low public expenditure on higher education was acknowledged in Croatia's last Education Sector



Development Plan (2005–2010) where it was stated that there was a need to:

“ensure that the state budget allocation for education as a percentage of GDP moves closer to European standards. (...) An adequate allocation of budget funds should be reserved to finance improvements in the education system” (MSES 2005: 19).

Indeed, the Plan set a target of 4.9% of public education expenditure as a percentage of GDP in Croatia by 2010, which, however was not met.

With regard to private expenditure on higher education (from tuition fees and third party funding) as per cent of GDP, Eurostat data for 2008 (EC 2011) indicates that among the countries analysed in this project Croatia has the highest level of private investments in higher education (0.32%) (and is the closest to the EU 27 average) followed by Hungary (0.3%), Germany (0.25%), Austria (0.2%), Slovenia (0.18%) and Sweden (0.17%).

Combining total private and direct public investment in higher education as a percentage of GDP, Sweden has the highest investment in higher education (1.52%), followed by Austria (1.32%). As a result of high private investments (in comparison to the other countries), Croatia follows with 1.24% of investment, then Germany with 1.23% and Hungary and Slovenia with around 1.1%.”

According to Eurostat (2009) data, expenditure on education as whole is largely financed from public funds. Indeed, in all countries participating in the Eurostat study, and if taking into account all educational levels, public funding meets at least 75% of education expenditure (p. 129).

### Public funding for higher education

According to an EUA (2008) study, national public funding is the largest source of income for the majority of universities participating in the EUA study. In most cases national public funds are allocated to universities by the ministries responsible for higher education and research, while in some cases other ministries, national research councils and regional governments are also the source of public funds (p. 23). According to the study, national private funds are the second most important source of funds for participating universities, coming either from students and their families or from private sector institutions. Income from individuals usually comes in the form of tuition fees and academic or registration fees, but also as payment for student residences and meals, as well as fees for services not student specific, such as museum entrance fees or revenue from souvenir shops (p. 23).

Table 1.4 below presents the trends between 1995 and 2008 regarding the sources of higher education institution funding for Austria, Hungary, Slovenia and Sweden over a thirteen-year period. From this data, it is evident that the state budget is the dominant source of funding in all the countries discussed in this report, although Slovenia does stand out as having a significantly lower proportion of public funding than the other countries (60% of overall funding).

Regarding the trends over the given period, Austria, Hungary and Slovenia have experienced a decline in the proportion of public funding (around 10 percentage points lower). Only in Sweden has there been no observable change in the proportion of public funding. The overall amount of public funding of public higher education institutions remained steady at 88%. Other than Sweden, the countries presented have also experienced an increase in the proportion of

**Table 1.4. Data on trends in composition of higher education institution funding**

		Public funding	All fees	Third-party funding
Austria	1995	97%	0%	3%
	2008 (or latest)	78%	6%	16%
	Change in percentage points	Decrease of 9pp	Increase of 6pp	Increase of 13pp
Germany <sup>6</sup>	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a
Hungary	1995	80%	10%	10%
	2008 (or latest)	70%	15%	15%
	Change in percentage points	Decrease of 10pp	Increase of 5pp	Increase of 5pp
Slovenia	1995	60%	20%	20%
	2008 (or latest)	50%	25%	25%
	Change in percentage points	Decrease of 10 pp	Increase of 5pp	Increase of 5pp
Sweden	1995	88%	0%	12%
	2008 (or latest)	88%	0%	12%
	Change in percentage points	No change.	No tuition fees.	No change.

Source: CHEPS 2010

funding obtained from tuition fees (an increase of 5 percentage points), as well as from third-party sources - although third-party funding in Austria has significantly increased in comparison to the other countries (an increase of 13 percentage points, compared around 5 percentage points for the rest).

In Croatia, according to an MSES (2007:76) report, funding for higher education institutions established by the state is provided mainly from the state budget. Public higher education institutions receive additional funding from tuition fees and registration fees paid by students entering as full-time or part-time students. They also receive additional sources of funding through funding instruments developed for research activities, from income generated on the market and from donations. Regarding private higher education institutions, their operations are fully covered by their founders and by tuition fees paid by their students.

<sup>6</sup> In Germany's federal system, higher education system is, in principle, a responsibility of the individual federal states (Länder). Consequently, higher education institutions in Germany are primarily funded through the federal states' budgets, which means that no comparative national data can be provided in this table. It should be noted though, that some larger investments, such as buildings and large scale scientific equipment, have traditionally been shared between the federal government and the states at 50% each.



**Table 1.5. Proportion of public funding and proportion of own funding for Croatian universities between 2003–2007**

	2003	2004	2005	2006	2007
Public funding %	70%	70%	71%	72%	70%
Own funding %	30%	30%	29%	28%	30%

Source: Hunjak 2008: 97

The information provided shows that in comparison to the other higher education systems considered in this report, Croatia is most similar to the Hungarian system with 70% of total funding for universities coming from the state budget. Public funding is higher in Austria and Sweden, whereas it is lower in Slovenia. Regarding the proportion of third-party income, as mentioned above there is no national data distinguishing own income from tuition fees and own income from third-party sources. It should be noted, however, that in part 2 of this report, institutional data with this distinction is provided for all Croatian higher education institutions. The data shows that, at universities, between 41% and 60% of own income comes from tuition fees, whereas the rest comes from third-party income, which overall would make the proportions of income sources in Croatia similar to the situation in Hungary.

### Policy implications of data

Regarding the proportion of public compared to private funding of higher education institutions, Croatia has a lower proportion of public funding (70%) than Austria and Sweden (88% and 78% respectively), but is at the same level as Hungary. Slovenia stands out as having a significantly lower proportion of public funding (50%), and as having the highest proportion of third-party funds (which constitute as much as 25% of overall funding, compared to around 12–16% for the rest). Due to its decentralised, federal structure, the German higher education system cannot yield comparative national data for this specific question.

The main trend of significance for considering the future of higher education in Croatia is that in all countries apart from Sweden, proportions of public funds have been decreasing – on average, the proportion is 10 percentage points lower in 2008 than in 1995.



## Income from tuition fees

According to Jongbloed (2010), in continental Europe, undergraduate students often pay only a modest fee or no tuition fees at all (e.g. Austria, Czech Republic, Denmark, Estonia, Finland, Greece, Ireland, Iceland, Slovenia, Sweden). In certain countries fee levels are higher, but still below EUR 500 per year (e.g. Belgium, France, Bulgaria, Turkey), while in some countries the average fees range around EUR 750 per year (Italy, Spain, Switzerland) or have reached “substantial” levels (above EUR 1,000 per year in the Netherlands, England, Latvia).

Tuition fees can be a significant source of private funds for higher education institutions. As seen in the previous section, tuition fees constitute 6% of overall funds for higher education in Austria, 16% in Hungary and as much as 25% in Slovenia. Additionally, almost all the countries examined in this study have tuition fees, in one form or another, in their higher education systems. The only exception is Sweden, where there are currently no tuition fees for students across the system of higher education.<sup>7</sup>

However, stating that a country “has tuition fees” can be deeply misleading without a thorough detailed examination of the types of tuition fees, the criteria for charging tuition fees and the tuition fee amounts. For example, tuition fees may be charged only for certain cycles (undergraduate, graduate or doctoral), they may be charged universally (for all students enrolling) or selectively (for certain groups or proportion of students) and they may have fixed or variable amounts, which may be more or less affordable for students. All these aspects are closely related to how equitable a higher education funding system is. The section below will provide an overview of tuition fee systems existing in each of the countries discussed in this report.

In Austria, similarly to Sweden, full-time undergraduate students pay no tuition fees at enrolment. However, certain groups of students may be charged tuition fees: non-EU international students in Austria must pay tuition fees; students enrolled who take longer to complete their programme than the standard length allowed, must also pay tuition fees. Regarding the amount of these tuition fees for extended length of study, the amounts are regulated by the Federal Ministry at EUR 380 per semester. However, students may also request exemption from paying this fee under the following circumstances: illness, pregnancy, childcare, disability, military service or work. This structure of tuition fees in Austria was introduced recently (in 2009), after a period in which all students were charged tuition fees (Dolenec 2009).

In Slovenia, similarly to both Austria and Sweden, full-time undergraduate students pay no tuition fees, whether they are from Slovenia or another EU-member state. Part-time students and non-EU foreign students pay tuition fees across all cycles of study. In the case of third-cycle doctoral studies, tuition fees are charged but subsidies exist for domestic and EU students (Study in Slovenia 2011). The amounts of tuition fees in Slovenia are determined by the higher education institutions themselves, but in accordance with guidelines set by the Ministry of Higher Education, Science and Technology.

In Germany, the regulation of the higher education system is the responsibility of the 16 federal states, and hence regulations regarding tuition fees vary widely. In nine states the situation is analogous to Austria and Slovenia - i.e. full-time undergraduate students pay no fees while other groups of students are charged fees. Among the seven states in Germany that do have tuition fees, two states (Bavaria and North Rhine Westphalia) have an upper limit on the amount of tuition fees charged per semester, currently prescribed at EUR 500. Although this upper limit is set, institutions are free to charge lower fees at their discretion. In the remaining five German states that also have tuition fees, the specific

<sup>7</sup> However, it should be noted that the Swedish parliament adopted a resolution in April 2010, according to which non-EU international students will be charged tuition fees starting from the 2011/2012 academic year.



amount of fees is prescribed by law, although universities are allowed – based on legal preconditions fixed by the federal state – to take the final decision on the implementation of tuition fees. Therefore the actual practice of charging tuition fees is more diversified in practice than this overview suggests.

In Hungary, there are two groups of students with respect to fee-paying status: those subsidised by the state budget, and self-financed students. Such a dual categorisation of full-time students was introduced in the mid-1990s (Dolenec 2009). Those students who fall outside the quota of state-subsidised places must cover the entire cost of their studies. It should be noted that there is no state regulation capping the maximum amount of fees (*ibid.*). In practice however, fee determination takes into consideration a type of “market value” of the programs and not the real costs. While the number of state-subsidised places has been decreasing since 2006, the number of self-financed students has grown. In 2007, the number of self-financed students reached 50% of all students studying in Hungarian higher education. The upper quota of self-financed students is limited by the capacity of the institution, which is determined through a so-called “capacity accreditation” process. Self-financing students can be found at all levels of higher education, from full-time Bachelor studies to MBA programmes. In addition, as is the case in Austria and Slovenia, students in Hungary who study longer than prescribed are charged tuition fees.

In Croatia, until the academic year 2010/2011, there was a dual categorisation of students based on fee-paying status similar to that in Hungary. In the former system, full-time undergraduate students who were enrolled above the state-subsidised quota were charged tuition fees (enrolment above or below the state-subsidised quota primarily depended on academic success at secondary school and success on the entrance exam). As in Hungary, the total increase of student numbers over the years meant an increase in numbers of fee-paying students. According to Farnell (2009), in the period between 1991 and 2004 the total number of students in Croatia increased by 82%, while the total number of self-financing students increased by 814% (the proportion of students fully supported by the state in Croatia fell from 88% in 1993 to 40% in 2010, Croatian Bureau of Statistics 2010).

According to an OECD study (2008) on Croatian tertiary education, this multi-tier tuition fee system is problematic because it is “is complex, does not appear to be equitable, in the sense of directing support to those students with the greatest needs, and does not encourage efficiency” (p. 33).

Until 2010/2011, the maximum amounts of tuition fees for full-time undergraduate programmes in Croatia were not capped or closely regulated by the state, although the amounts were determined through a coordination process between the government and the Rectors’ Council, and the fee amounts ranged from between EUR 750 and EUR 1270 per academic year, depending on the field of study (which categorizes Croatia’s maximum amount of undergraduate tuition fees in Jongbloed’s (2010) terms as “substantial”). Tuition fees for second- and third-cycle programmes are regulated neither by the state, nor by a coordinated process among higher education institutions in Croatia. In 2007, the University of Zagreb began developing a linear model of tuition fees for undergraduate studies, whereby fee-paying status became linked to success at studies – this model also spread to some other universities in Croatia. This model is described in more detail in the “tuition fees” section of this report.

The major change that came about regarding tuition fees in Croatia was caused by a Government decision on the matter in 2010. It was decided that from the academic year 2010/11 all undergraduate and graduate (Masters) students who enter the full enrolment quota will pay no fees during their first year of studies. After the first year tuition fees would be paid according to a linear model based on accumulated ECTS credits.

In summary, Table 1.6 below shows comparative data for the five EU partner countries and Croatia, specifying where possible annual tuition fees for full-time undergraduate students.

**Table 1.6. Tuition fees for undergraduate students at public higher education institutions.**

Country	Tuition fee practices and fee amount, in EUR
Austria	<ul style="list-style-type: none"> <li>• No tuition fees upon enrolment at all levels of study</li> <li>• Tuition fees for extended length of study: EUR 760 per year</li> <li>• Tuition fees for non-EU students: EUR 760 (per year)</li> </ul>
Croatia	<ul style="list-style-type: none"> <li>• As of 2010/2011 initially no fees for undergraduate or graduate students, then variable fees charged annually depending on accumulated ECTS credits</li> <li>• Before 2010/2011:               <ul style="list-style-type: none"> <li>• No tuition fees for state-subsidised students</li> <li>• Tuition fees for students over state-subsidised quota: EUR 750 - EUR 1,270</li> <li>• Tuition fees for international students: vary by university</li> </ul> </li> </ul>
Hungary	<ul style="list-style-type: none"> <li>• No tuition fees for state-subsidised students</li> <li>• Tuition fees for students over state-subsidised quota: EUR 200-EUR 2,000</li> <li>• Tuition fees for part-time students: payments made</li> <li>• Tuition fees for extended length of study: payments made</li> </ul>
Germany	<ul style="list-style-type: none"> <li>• No tuition fees upon enrolment in 9 out of 16 federal states at undergraduate level. Out of these 9 states, tuition fees for extended length of study students exist in 4 states</li> <li>• Tuition fees in seven out of 16 states: EUR 1,000 max per year</li> <li>• Tuition fees for graduate and doctoral study</li> </ul>
Slovenia	<ul style="list-style-type: none"> <li>• No tuition fees (including at private higher education institutions with concessions)</li> <li>• Tuition fees for part-time students</li> <li>• Tuition fees for students in postgraduate studies</li> <li>• Tuition fees for non-EU students (or from countries without a bilateral agreement with Slovenia)</li> </ul>
Sweden	<ul style="list-style-type: none"> <li>• No tuition fees at all levels of study</li> <li>• Tuition fees for non-EU students (from 2011/2012)</li> </ul>

Sources: Austrian Statistics Bureau 2008, EIB 2009, Dolenc 2009





As can be seen from the Table above, none of the countries examined have a universal tuition fee system at the undergraduate level, with the exception of seven of Germany's 16 federal states. Austria, Slovenia, Sweden and most of the German states do not charge tuition fees for full-time undergraduate students upon enrolment – although fees may be charged to students who study beyond the maximum length of study and to other groups of students within the higher education system (international students, part-time students, etc.). Hungary and Croatia have had a very similar tuition fee system (although Croatia's system has been changing since 2010/2011), which differs strongly from the other countries, whereby full-time undergraduate students who were enrolled above the state-subsidised quota pay tuition fees. Regarding the tuition fee amounts, while there is a very wide spread of annual fees in Hungary, between EUR 200 and EUR 2,000, the spread in Croatia has been smaller, between EUR 750 and EUR 1,270. However, the maximal annual tuition fees in these two countries are higher than those in the German states, even though Germany is a country with a substantially higher standard of living. According to World Bank data, in 2010 GDP per capita expressed in terms of power purchase parity amounted to 19.516 USD in Croatia and 37.260 USD in Germany. In other words, Croatia's standard of living is about 52% of Germany's standard of living.<sup>8</sup>

Overall, comparing the above data on different practices regarding the establishment and regulation of tuition fees in Europe, it can be observed that while Austria, Slovenia and Germany represent systems where higher education funding via student tuition fees is regulated by the state, Hungary and Croatia represent examples where the growth of student numbers since the early 1990s has led to the growth of an unregulated system of tuition fees, which are charged by higher education institutions to students who are enrolled above the state-subsidised quota (or recently in the case of Croatia according to study progress measured through accumulated ECTS points).

### Policy implications of data

The information provided in this section suggests that Croatia's current system of tuition fees, where at first instance undergraduate students do not pay tuition fees, is in line with the Austrian, Slovenian Swedish and, to a certain extent, German higher education systems. However, Croatia's linear model of charging tuition fees depending on accumulated ECTS credits is unique to Croatia. In addition, maximal annual tuition fees charged in Croatia appear to be high in comparison to, for example, Germany, where students arguably have a higher standard of living.

### Income from third-party sources

The "own income" of higher education institutions refers to all income they receive apart from public funds – this includes income from tuition fees, administrative charges, development projects, services, donations, and other sources. The term "third-party income" is a sub-category within "own income", but refers to all funding that is neither public funding nor income derived from students through tuition fees or administrative charges.

As presented earlier in the chapter, the proportion of third-party funding is similar across a number of the countries presented: Austria: 16%, Hungary: 15%; Sweden: 12%. Only Slovenia stands out significantly, since as much as 25% of overall higher education funding comes from third-party sources. For Croatia, there is no national data distinguishing own income from tuition fees and own income from third-party sources.

Unfortunately, data regarding the sources of third-party funding is not available for all countries included in this study, and the information that was collected does not provide a comprehensive or detailed overview. In Croatia, the 2003

<sup>8</sup> GDP per capita data is available at the online World Bank Dataset: <http://data.worldbank.org/>



Act on Science and Higher Education, Article 107, states that higher education institutions can finance their activities through their own sources of income generated from:

“research, development and art projects, intellectual services, publishing and other related activities, university foundations, profit from companies and other legal entities regulated by Article 66, as well as investments by individuals, companies and other legal entities, donations and other sources.” (2003, Article 107)

Based on the data received for the other countries examined in the study, the following notes can be made:

- In Austria key non-state sources of funding for higher education institutions are supranational institutions, industry and business, and private foundations (UNESCO 2006).
- In Germany, in addition to the base budget (*Grundmittel*), universities are financed from public funds through competitive research grants awarded to individual researchers, as well as from private sources (CHEPS 2007).
- In Hungary, higher education institutions are allowed to retain and accumulate residual amounts of funding, to keep their own income in a separate account, to pursue business activities without the obligation to pay taxes and duties (if certain conditions are met), to sell its properties, to launch limited liability companies, to take long term obligations within private-public partnership programmes, and to subscribe government securities. In other words, higher education institutions in Hungary have a wide range of financial strategies available for generating income.
- In Slovenia, higher education institutions receive third-party funds through “international research projects, business related research and other market activities” (CHEPS 2010: 179).



# 03

## Models of public funding for higher education

According to a study by EUA (2008), public funds for higher education originate from different sources and in a variety of forms – such as lump-sum funding or line-item funding. They may also be based on various formulas, performance indicators, volume indicators, etc. This section will provide information on how the model in each country examined in the study manages public funding for higher education institutions.

### Austria

In Austria, public funding is contracted with higher education institutions on a three-year basis. Since the adoption of Austria's Act on Universities in 2004, universities receive their general funds as a three-year lump sum, which is managed by each university autonomously. The first such three-year contract was signed for the period 2007–2009. The lump-sum is distributed on the basis of funding agreements, which are contracts between the federal government and the universities. In these funding agreements, universities must describe their strategic goals and aims for a period of three years (Kottmann 2008: 33–34). Kottmann (2008) reports that an amendment of the University Act in 2008 stipulated that the funding agreement can include performance indicators – 20% of funding is based on performance indicators, while 80% of funding is contracted between the university and the ministry (p. 34).

**Table 1.7. Indicators for funding agreements of Austrian higher education institutions.**

<b>Teaching</b>	<ul style="list-style-type: none"> <li>• number of active full-time students, weighted per field of study</li> <li>• number of students who graduated, weighted per field of study</li> <li>• proportion of students who completed their studies within the prescribed length of study programme</li> <li>• proportion of successful completion of studies among full-time students<sup>9</sup></li> </ul>
<b>Research / development / art</b>	<ul style="list-style-type: none"> <li>• number of doctoral graduates, weighted per field of study</li> <li>• research cooperation within the Austrian Science Fund and EU research funding</li> <li>• other types of research cooperation</li> </ul>
<b>Social goals</b>	<ul style="list-style-type: none"> <li>• increased proportion of women among university professors</li> <li>• increased number of women graduates from doctoral programmes, weighted per field of study</li> <li>• increased number of full-time students who participate in international mobility programmes (outgoing)</li> <li>• increased number of master's and doctoral students which had not previously graduated in Austria</li> </ul>

Sources: CHEPS 2008, Austrian Statistics Bureau 2008, Dolenc 2009

<sup>9</sup> It is important to note that in the Croatian higher education context, statistical findings show that over a 12 year period from 1991 to 2003, only 31.7% of the total number of enrolled first year students graduated in Croatia (Babić 2005). Those who did graduate studied for a relatively long time (e.g. students who graduated in 2004 on average studied for 5.8 years: 6.9 years in the university sector and 4.5 years in the non-university sector (Babić, Matković, Šošić (2006).



As is seen in the Table above, indicators are grouped into three categories: teaching, research and social goals. While teaching and research indicators are largely related to efficiency improvements, social goals take into consideration the participation of women in higher education, as well as the incoming and outgoing mobility of students. Apart from specifying the obligations of higher education institutions, the three-year contracts contain deadlines and time commitments regarding budget allocations on the part of the federal government (Dolenec 2009). Progress in the fulfilment of performance targets is monitored through annual reports that higher education institutions submit to the federal government. These “intellectual capital” reports inform the ministry of the university’s activities and goals, intellectual capital gained and (temporary) outcomes of the processes agreed upon in the funding agreement.

Overall it can be said that the changes introduced regarding public funding of higher education institutions in Austria were aimed at creating a longer budget planning horizon and the better targeting of public funds (Austrian Statistics Bureau 2008).

According to the information submitted in this study’s questionnaire (completed by an official from the University of Graz), the strength of this model of funding is that it provides for both base funding for universities, as well as funding based on performance targets in a three year cycle. However, concerns were expressed in the questionnaire that from 2013 universities will be faced with significant budget cuts: in contrast to other European countries, such as Germany, where the state has declared increases within the higher education budget, no such steps are being undertaken in Austria.

### Hungary

In 2006, Hungary also introduced three year funding contracts similar to those in Austria. The signing of three-year contracts is preceded by a negotiation period between individual higher education institutions and the respective ministry, whereby the exact amount of funding is determined. The three-year contracts guarantee higher education institutions a predictable and stable flow of funds, and in exchange they undertake the responsibility to increase their performance in certain fields. Goal achievement and progress is monitored by performance indicators. Goals, performance indicators and milestones are determined by the higher education institutions and are approved by the ministry. Additionally, budget allocation also takes into account standard input criteria such as number of students, number of qualified teachers, number of PhD students, and the resource intensity of the programs. Since public funding is linked to student numbers, this creates an incentive for higher education institutions to increase enrolment. However, in addition to input criteria, the state introduced additional output criteria, such as the number of graduates and the proportion of PhD students and employees with doctoral qualifications (Dolenec 2009). As a result, the public funding system in Hungary is based on a combination of output and input criteria similar to the Austrian model.

According to the information submitted for the study by an official from Corvinus University in Budapest, the recent financial crisis has had a negative impact on these university contracts. The contracted amounts of funding from the



state budget have been suspended, which has resulted in disappointment with this system. With respect to internal allocation of public funding, even though higher education institutions have been granted increasing autonomy since 2005, internal allocation is still significantly linked to agreed line-items with the respective ministry.

The representative of Corvinus University also suggested the following weakness of performance contracts in Hungary:

“It is unclear how institutions can be sanctioned if they fail to perform as agreed. For example, several institutions have not presented the obligatory report to the Ministry, or if they have done it, the reports were not based on reliable facts. Additionally, the Ministry lacks the capacity (persons and statistical database) to control the performances of the institutions. Finally, rules of public finance do not support long term agreements or contracts and this further reduces the credibility of the long term contracts.”

Similarly to the situation in Austria, the official reports that there has been a recent freezing of the “guaranteed” money as a consequence of the financial crisis, which has discredited the performance contracts. As is stated in the questionnaire, from an institutional perspective, performance contracts can be considered more a political declaration rather than a legal document with clear implications for their implementation.

### Sweden

In Sweden direct government funding takes the form of public grants distributed on a three-year basis. Allocations are based on amounts per student (full-time equivalents) and full-time performance in accumulated ECTS (CHEPS 2010). The main criteria for grants are the number of state-funded study places at the university, as agreed with the ministry. The amount of funding varies depending on the disciplinary domain. Payment is lowest for the humanities, social sciences, law and theology, which together account for 42% of the total number of students. The highest payments per student are for programmes in the fine, applied and performing arts, which together account for just under 3% of the number of students.

There is also a distinction between funding for first- and second-cycle study programmes, and funding for research and doctoral study programmes. First and second-cycle programmes are mainly funded through direct government funding (86%) allocated directly by the Swedish Parliament to higher education institutions, while less than half of the funding for research and third-cycle programmes comes directly from the government. These activities are increasingly financed through indirect government funding and external sources, including the government research funding body, foundations, local government, county councils and the private sector. With respect to direct governmental allocations for research and third level programmes, they are mainly based on historical/incremental funding. However, since 2009 a small performance-related component has been introduced for allocation of public research funding (CHEPS 2010). There is on-going discussion for further strengthening performance related funding for education by linking funding to national evaluations of student performance (ibid).

The weaknesses and strengths of the current model for funding higher education in Sweden were described as follows by an official from Mälardalen University:

“The weakness of the system comes from the fact that there has been a constant decrease in funding due to governmental allocations not following index. That was not a problem as long as there was a constant increase in the number of students enrolling each year. Sweden has however reached its limits of possible students that can/will enrol in higher education, and approximately 46 % of all youth leaving upper secondary school. To now pick up the index difference from 1995 is impossible. This has led to a decrease in teaching hours and very slim administration. On the positive side the university has been forced to make real priorities and is now

using their funds in the best possible way to ensure good quality results in education and administration. The strength of the system is that it allows the government to control the number of students in areas important for society and demand extra efforts from the universities in order to achieve this”.

## Germany

In contrast to Sweden, Austria and Hungary, public funding of higher education institutions in Germany remains largely input-based, incremental and based on a negotiation process (Dolenec 2009). The budget is essentially based on budget requests by higher education institutions that are negotiated with the respective state. In accordance with the basic “input” orientation of the budget, the most important criterion for determining the level of funding is the “historical” allocation of funds from previous years – primarily for staff costs, then for different categories of material costs and, to a lesser extent, the number of students.

Federal states have recently given universities greater autonomy in the use of budgetary resources. There have been experiments with introducing the “lump sum” model and contract funding related to the achievement of agreed objectives. In 2004, 11 of 16 federal states were using certain performance indicators as an element in determining budgets for higher education institutions. In general, input-based funding is used to protect higher education institutions from major budgetary fluctuations (CHEPS 2007). It is common in Germany for higher education institutions to enter contractual agreements with their respective states. These contracts provide universities with financial planning security for the length of an election period, usually lasting four or five years. The contracts stipulate the negotiated budget for the entire time period and therefore prepare higher education institutions in advance in case of planned cuts to the state budget.

Unlike in many European countries, German universities still do not receive a single “lump sum” amount for personnel expenses, even though there have been some experiments with that system. Instead, funds are allocated for specific positions according to the plan of employees (*Stellenplan*). According to this system, unspent funds can be transferred into the next fiscal year. Germany therefore still preserves the traditional approach to internal allocation of public funding, according to which budgetary funds cannot be reassigned and used for purposes other than agreed.

## Slovenia

Slovenia introduced formula-based public funding and the lump-sum model for higher education institutions in 2004. The Slovenian Ministry of Higher Education, Science and Technology prepares calculations of annual funding for all higher education institutions on the basis of data on enrolled students and graduates, as well as budget allocations from the previous year. There are essentially no negotiations with the individual higher education institutions.

The methodology for the allocation of the funds is divided into two parts: budget planning (at the state level) and allocation of the funds to higher education institutions. The budget planning at the state level is principally based on the level of public funds allocated to higher education institutions in the previous fiscal year (for teaching costs only), which is then increased in real terms by at least the growth in GDP but not by less than 2.5%. The allocation of funds to higher education institutions is a separate step, which takes place after the state budget is approved by the Government. Annual funds for teaching costs of a higher education institution are comprised of basic (fixed) annual funds and normative (flexible) annual funds.

In 2009, the basic annual funds were set at the amount of 60% of the overall annual funds allocated to the higher education institutions in 2008, increased by the annual rate of inflation for 2008. The normative annual funds for higher education institutions are determined by taking into account the annual initial value, the total number of students, and



the number of graduates, which is then multiplied by a weighting system which takes into account, among other factors, the study group to which the higher education institution belongs.

The Slovenian project partners who contributed to this study's questionnaire listed some of the strengths and weaknesses of the current model of funding. The financial autonomy of higher education institutions was listed as a strength, whereas a weakness is that the existing funding system from the national budget does not include a component connected to quality assurance and to promoting excellence.

## Croatia

Croatia's higher education funding model is historical and input-based; in large part determined by the allocation from the previous year (Hunjak 2008). This system pertains to both the universities and professional higher education institutions. Such a system, which used to be common for higher education institutions, is increasingly being viewed as rigid and as an obstacle for mid and long-term planning (OECD 2008). The input criteria include the number of state-subsidised full-time students, the number of employees and other material expenses. Since budget allocations from the state are based almost entirely on the previous year's allocations, no calculations are made regarding rates of budgetary investments per field of study or particular study programmes. According to an MSES (2007) report for Croatia, salaries for staff represent almost 90% of the budget of higher education institutions.

With regard to how funds are distributed, in Croatia lump-sum budgeting was legislated in 2003 with the Act on Science and Higher Education. While some steps in the introduction of lump-sum budgeting have been made, the State Audit Office reported that in 2006 some faculties and other constituent units of universities were still directly financed by the Ministry of Science, Education and Sports, instead of via the university to which they belonged, and that many aspects of reform were halted since higher education institutions have not regulated internal financial management rules. Namely, Croatia's largest universities (Zagreb, Split and Rijeka) are non-integrated universities, which means that the constituent units (faculties and other units) have a separate legal status. This means, for example, that the budget of the University of Zagreb consists of 35 individual budgets that are managed separately (although the lump-sum is allocated initially to one university account). The non-integrated nature of universities is therefore an obstacle to efficient financial management at the university level.

Reflecting on the process for allocating funds to higher education institutions in Croatia, Vukasović et al. (2009) note that, despite formally having a lump-sum system:

"the allocation conditions remain closer to the line-item budget model since the budget approved in the parliament clearly prescribes what amounts are to be spent on salaries, infrastructural costs, etc. Therefore, it can be concluded that the system is geared towards the integration of universities, but not to extensive institutional autonomy" (p, 85)

Taken together, these characteristics make the public funding model of higher education institutions in Croatia most similar to that of Germany, which is also characterised by a historical, input-based and rather rigid budgetary process between the state and higher education institutions. An MSES (2007) report on higher education funding in Croatia qualifies the system as follows:

"the major challenges of funding tertiary education are: under-funding, the lack of equity and transparency in budgetary allocation, an unbalanced education budget, both in terms of expenditures and the sources of funds, and the lack of synergy (legislative, professional and institutional) for system change. The allocation mechanisms are rigid and based on incremental budgets with allocations from previous years.

These mechanisms lack medium and long-term planning and strategic investment targets. Control is usually exercised at the central level and is based on inputs. Because of the restrictive Act on Budget Execution, and the inadequate planning of expenditures, there are no mechanisms in place to reallocate money from one budget activity or project to another activity or project.” (p. 95)

The questionnaire responses by Croatian higher education institutions participating in this study<sup>10</sup>, and related to the strengths of the current model of funding in Croatia, can be roughly classified into three groups. Officials responding to the questionnaire at the University of Dubrovnik, the University of Zadar and the Croatian Council of Universities and University Colleges of Applied Sciences highlighted the regular payment of staff salaries as a strength of the current funding model. Officials at the University of Pula and the University of Split noted the importance of a tuition fee system for increasing university budgets, which enables them to cover costs not met by public funding. Finally, the University of Rijeka and the Croatian Council of Universities and University Colleges of Applied Sciences commented on the nature of tuition fees as a strength, the former focusing on the new proposal that students do not have to pay tuition fees during their first year of study.

On the other hand, a prominent weakness of the current model of higher education funding in Croatia has been identified as a lack of sufficient state-provided financial resources for material costs (the University of Dubrovnik, the University of Rijeka, the Croatian Council of Universities and University Colleges of Applied Sciences). In the questionnaire, the University of Pula mentions its dependence on the number of students who pay tuition fees, and the Universities of Rijeka and Split identify the lack of a student loan system as a further weakness of the funding system. Finally, the feedback provided by the University of Zadar and the Croatian Council of Universities and University Colleges of Applied Sciences highlights lack of transparency with regard to how funds are allocated. In addition, the University of Zadar mentions the lack of full costing as a weakness, and the Croatian Council of Universities and University Colleges of Applied Sciences emphasises that most of the funding is based on the number of students and the size of an organisation, whereas some regions and communities need more funding to expand their operations.

Finally, whereas the Croatian Council of Universities and University Colleges of Applied Sciences highlight the linearity of fund allocation to institutions as a weakness of the current system (and the University of Split also hints at this when noting the lack of outcome based allocation criteria as a weakness of the system), the University of Dubrovnik mentions that in its case the development of departments with higher income is slowed down since the University prioritises the allocation of funds to departments with less income.

### Policy implications of data

The data provided in this section suggests the following conclusions:

- Austria, Hungary and Sweden have three-year funding agreements whereas in Croatia, Slovenia and Germany funding is negotiated annually;
- A combination of input and output criteria dominates allocation of funds in Austria, Hungary, Slovenia and Sweden whereas in Croatia and Germany only input criteria are taken into consideration;
- Austria is a best-practice example regarding the inclusion of social goals (e.g. number of women graduates) when determining funding (as performance indicator), whereas neither Croatia nor the remaining countries in the study have such specific incentives for promoting social equality.

<sup>10</sup> It should be noted that the University of Zagreb did not provide comments on this section of the questionnaire.



# Part II

## Institution-level funding of higher education in Croatia

This chapter provides information on Croatian higher education institutions in a comparative perspective - with comparisons both at the national level and at the European level (with those higher education institutions which took part in this study). The chapter is divided in four sections. Section I addresses students and staff at higher education institutions - their overall numbers, spread across study fields, types of programmes and Bologna vs. non-Bologna programmes, as well as information or lack thereof on the social background of students at the institutional level. Section II addresses levels and sources of funding for Croatian higher education institutions. Section III discusses tuition fees from an institutional perspective, in particular the tuition fee models used in different institutions and the criteria used to set their amounts. Section IV addresses financial planning and management at higher education institutions.

# 01

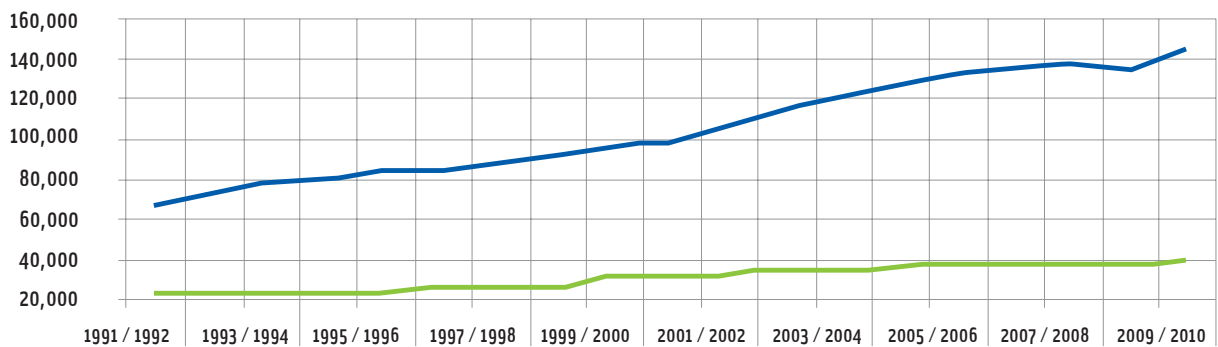
## Background: students and staff in Croatian higher education

### Student numbers and future projections

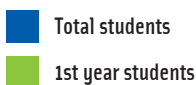
As was mentioned earlier in this report, one of the input criteria considered in funding arrangements by the countries participating in this study is the number of students enrolled in a higher education institution.

The increasing number of students in the Croatian higher education system over the last two decades (see Figure 2.1) resonates with the international trend of higher education expansion.

**Figure 2.1. Total number of students in Croatia at ISCED 5A+B levels.**



Source: based on Croatian Bureau of Statistics (2010)



Information provided by the Croatian Bureau of Statistics (2010) shows that the total number of undergraduate students enrolled in institutions of higher education in the Republic of Croatia in the winter semester of 2009/2010 was 145,263, which is an 8% increase in comparison to the academic year 2008/2009.

Regarding the proportion of students in both sections of the binary system, according to data of the Croatian Bureau of Statistics (2011) for the academic year 2009/2010, around two-thirds of Croatian students are enrolled in university study programmes (68%) and around a third (32%) are enrolled in professional study programmes. However, as described in part 1 of the report, since universities may also provide professional study programmes, the binary system of programmes does not correspond precisely to the institutional differences between universities and professional



higher education institutions. So in terms of student enrolment by institution, the proportions are the following: around 78% are enrolled in universities (114,202), 15% in universities of applied sciences (22,034) and 6% in university colleges of applied sciences (9,027). It is therefore interesting to note that a significant proportion of professional higher education students study at universities (11% out of the 32%).

### Comparative perspective: student numbers in binary systems

**Slovenia:** The situation of a majority of students studying at universities is similar to that in Croatia. In the overall student body in 2010/2011, there were 81,617 students in university programmes and 9,922 students in professional higher education (Statistical Office of the Republic of Slovenia 2010).

**Austria:** In the 2008 academic year, there were 318,043 students in university higher education and 33,615 in universities of applied sciences.

Precise numbers of students by higher education institution are listed in Table 2.1 below. Out of the 79% of students enrolled at universities in Croatia (Croatian Bureau of Statistics 2010), the largest number of students study at the University of Zagreb, followed by the University of Split and the University of Rijeka. Although not a project partner in this study, it is important to mention that the University of Osijek is in size similar to the University of Rijeka (18,096 students at the University of Osijek in 2007 according to Gašparović 2007). The University of Zadar follows in terms of student numbers, while the two smallest universities are the University of Pula and the University of Dubrovnik (see Table 2.1 below).

**Table 2.1. Total number of students (pre-Bologna and Bologna students) as reported by Croatian higher education institutions (ranked by size), and estimated increase in student numbers between 2005/2006 and 2009/2010.**

University	Total students	Estimated increase student numbers % over last 5 years
University of Zagreb (2007/2008)	62,196	12%
University of Split (2009/2010)	23,350	9%
University of Rijeka (2009/2010)	19,332	6%
University of Osijek (2007)	18,096	No data.
University of Zadar (2009/2010)	5,179 <sup>11</sup>	18%
Juraj Dobrića University of Pula (2009/2010)	2,889	21%
University of Dubrovnik (2008/2009)	2,064	No increase
Universities of applied sciences (2009/2010)*	22,034	59%
University colleges of applied sciences (2009/2010) *	9,027	123%

Source: ACCESS questionnaire; \*Croatian Bureau of Statistics (2010)

<sup>11</sup> This figure includes double-major students.

As expected, the increase in student numbers observed at the national level was also reported by the majority of Croatian higher education institutions participating in this study. In qualifying changes to the size of the student body over the last five years the most significant increase was reported by the Croatian Council of Universities and University Colleges of Applied Sciences. Such a trend of having most growth in the professional higher education sector has also occurred in Austria. At Croatia's universities, the highest increase in student numbers was reported by the University of Pula (21%), followed by the University of Zadar (18%), the University of Zagreb (12%), the University of Split (9.1%) and the University of Rijeka (6%). The University of Dubrovnik reported that student numbers have remained constant over the last five years. A staff contact at the University of Dubrovnik explained this as due to a lack of student accommodation - the University does not have a student dorm and private accommodation tends to be tourism-oriented and expensive.

The changing size of a student body can have implications for funding arrangements, and although higher education has witnessed significant growth in student numbers over the past two decades, projections of demographic trends indicate that further expansion of the higher education sector in terms of student numbers is unlikely. The Education Sector Development plan (2005-2010) for Croatia notes that by 2020 it is expected the 11 - 18 age group will decrease by about 30 per cent (p. 6).

### **Comparative perspective: declining student numbers**

**Sweden:** Student numbers will remain at approximately the same level in the years 2010-2012, while a decline is expected from 2013 due to a decrease in demographic numbers.

**Germany:** Although birth rates between 1990 and 1997 have decreased, it is interesting that a sharp rise in student numbers is expected at universities in western Germany, while a significant decrease is expected in eastern Germany.

**Hungary and Slovenia:** Hungary and Slovenia report similar scenarios with reference to declining student numbers.

### **Policy implications for higher education funding**

This section suggests that, when taking into account demographic trends, current student numbers as an input indicator for funding arrangements are not likely to put a further strain on the state budget in the near future. This contrasts to recent years marked by massification trends.



### Student numbers by degree level

Within the “number of students” input criteria, a distinction between levels of study can also have an impact on student funding. For example, as noted in part 1 of the report, in Sweden the first and second-cycle programmes are mainly funded through direct government funding, whereas less than half the funding for third-cycle programmes comes directly from the government.

The vast majority of students in Croatian higher education are enrolled in Bologna Process study programmes. In the 2009/2010 academic year winter semester, 97.4% of the total number of students were enrolled in Bologna Process study programmes and only 2.6% followed the pre-Bologna programme. The majority are also undergraduate students. The proportions of students by levels and types of degree programmes across the three cycles are listed below:

**Table 2.2. Proportions of students in Croatia - by level and type of study programme**

Level of studies	Proportion of students (%)
<b>First-cycle, undergraduate studies</b>	70.7%
Undergraduate university study	40.4%
Professional undergraduate study	30.3%
<b>Second-cycle, graduate studies</b>	12.1%
Graduate university study	10.2%
Specialist professional graduate study	1.9%
<b>First- and second-cycle, integrated undergraduate and graduate study</b>	14.6%
Integrated undergraduate and graduate study	14.6%

Source: Croatian Bureau of Statistics 2010

After this overview of the national level, it is interesting to examine differences at the institutional level. Data on the proportions of students by the levels of study programmes at specific higher education institutions is provided in Table 2.3 below.

**Table 2.3. Number and proportion of students as reported by higher education institutions by level of study**

Higher education institution	Number and proportion of students	Under-graduate	Graduate	Integrated undergrad. and graduate	Doctoral
University of Zagreb	Number	60,283	5,226	2,293	9,672
	Proportion	78%	7%	3%	12%
University of Split	Number	13,380	2,026	2,992	382
	Proportion	71%	11%	16%	2%
University of Rijeka	Number	14,810	2,084	2,308	199
	Proportion	76%	11%	12%	1%
University of Zadar	Number	3,206	863	-	47
	Proportion	78%	21%	-	1%
Juraj Dobrića University of Pula	Number	2,422	448	-	19
	Proportion	84%	15%	-	1%
University of Dubrovnik (08/09)	Number	1,571	359	-	134
	Proportion	76%	18%	-	6%
Universities of applied sciences	Total number	22,034*	N/A	N/A	N/A
University colleges of applied sciences	Total number	9,027*	N/A	N/A	N/A

Source: ACCESS questionnaire; \* Croatian Bureau of Statistics 2010  
Note: Data provided for the University of Split refers only to students in Bologna programmes.



Based on the data provided, it can be noted that the proportion of undergraduate students is similar throughout most Croatian universities (between 71% and 78%) although the University of Pula stands out as having the highest proportion of undergraduates (85%).

Regarding the levels of graduate students, out of the higher education institutions that provided data, the highest percentage of students per institution was reported by the University of Zadar (21%), followed by the Universities of Dubrovnik (18%) and Pula (15%). However, it should be noted that this does not take into account the University of Split, the University of Rijeka and the University of Zagreb, who also have integrated undergraduate and graduate programmes.

Doctoral (PhD) students accounted for only 1% of the student population at the Universities of Rijeka, Zadar and Pula. A slightly higher percentage of PhD students was reported by the University of Split (2%) and the University of Dubrovnik (6%). The University of Zagreb has the largest doctoral student body at 11%. According to data from the Croatian Bureau of Statistics (2010), out of the total of 572 doctoral students who graduated in 2009, 77.6% of them obtained their degree at the University of Zagreb, 7.9% at the University of Rijeka, 6.6% at the University of Split, 5.8% at the University of Osijek, 1.9% at the University of Zadar and 0.2% at the University of Pula.

### Comparative perspective: PhD students

Although the international universities participating in this study also reported their undergraduate student bodies as their largest, followed by graduate (Masters) and PhD students, respectively, the low percentage of PhD students at the Universities of Zadar, Pula and Rijeka contrasts, for example, with TU Dresden, where 6.43% of the student body are PhD students, and with the University of Graz, where 7.3% of the student body are PhD students. The Universities of Zadar, Pula and Rijeka are, however, similar to Corvinus University in Budapest, which reported the size of its doctoral student body as 1.6%.

### Policy implications for higher education funding

The information provided in this section suggests that, as far as input criteria are concerned (understood in terms of number of enrolled students at higher education institutions), funding in Croatian higher education mostly addresses the cost of study at the undergraduate level.

### Proportion of full-time and part-time students

The proportion of part-time versus full-time students at higher education institutions can also be of relevance in terms of higher education funding, since all part-time students in Croatia pay tuition fees.

The majority of students enrolled in Croatian higher education are full-time students. In the winter semester of 2009/2010 there were 75.5% full-time and 24.5% part-time students enrolled in tertiary education in Croatia (Croatian Bureau of Statistics 2010). However, a distinction can be observed between the status of students across different types of higher education institutions: whereas 80% of students enrolled in universities are full-time students, full-time students make up only 58% of students at universities of applied sciences and only 52% of those at university colleges of applied sciences.

Table 2.4 provides the percentage of part-time undergraduate students as based on data provided by higher education institutions. It can be noted that the University of Rijeka has a significantly higher proportion of part-time undergraduate students compared to all the other universities, with over a third of its students being part-time.

**Table 2.4. Percentage of part-time undergraduate students (not including integrated study) as calculated on the basis of information provided by higher education institutions.**

	University of Zagreb	University of Split (09/10)	University of Rijeka (09/10)	University of Zadar (09/10)	Juraj Dobrića University of Pula (09/10)	University of Dubrovnik (08/09)
Percentage of part-time students	18%	23%	36%	14%	27%	24%

Source: ACCESS questionnaire

### Comparative perspective: full-time and part-time students

**Slovenia:** The higher percentage of part-time students in professional higher education courses in Croatia is similar to the Slovenian higher education context. Whereas the majority of students in professional higher education in Slovenia in the academic year 2008/2009 were part-time students (9,532 part-time, 6,731 full-time), in university higher education the majority of students were full-time students (26,934 part-time, 71,194 full-time) (Statistical Office of the Republic of Slovenia 2009: 18).

**Austria:** It is interesting to note that all students in Austria are full-time students, as there is no “part-time” status there. Rather, 4% of all students study in a programme at a university of applied sciences which are especially designed for working students (Eurostudent report Austria 2005–2008).

### Policy implications for higher education funding

The fact that all part-time students in Croatia currently pay tuition fees and do not have any of the subsidies or scholarships opportunities available to full-time students makes this student status highly significant both in terms of equitable access to higher education and higher education funding. Additionally, the fact that many more part-time students study professional higher education programmes as opposed to university programmes also brings up both equity and funding perspectives – since professional study programmes in Croatia have a higher proportion of students from disadvantaged backgrounds than university study programmes (Cvitan et al 2011).

For these reasons, careful consideration of the equity dimension of part-time students must be taken into account when planning changes to funding policies and practices.





### Proportion of students by fields of study

Fields of study can play a central part in national models for the allocation of public funds to higher education institutions. In Sweden, for example, the amount of funding per student allocated to higher education institutions varies depending on the disciplinary domain. Funding per student is lowest for the humanities, social sciences, law and theology, and highest for programmes in the fine, applied and performing arts.

For the purpose of possible considerations of funding arrangements by disciplinary domain, as in most European countries it is important to note that the majority of students across the Croatian higher education sector are enrolled in courses within the fields of social sciences, law and business, although it is also important to note that not all fields of study are represented at all Croatian higher education institutions (see Table 2.5).

**Table 2.5. Fields of study available across higher education institutions**

Institution	Field of study
Juraj Dobrila University of Pula	No students in natural and technical sciences, biomedicine and health, biotechnical sciences
University of Dubrovnik	No academic study course students in natural sciences or biomedicine and health
University of Rijeka	All fields of study, however only 40 students overall in biotechnical field
University of Split	All fields of study
University of Zadar	No students in biotechnical and art fields
University of Zagreb	All fields of study

Source: ACCESS questionnaire

With regard to the distinction between universities of applied sciences and university colleges of applied sciences, a difference in student representation by field of study can be observed – the majority of undergraduate students at university colleges of applied sciences study in the field of social sciences, and at the universities of applied sciences the majority study in the field of technical sciences.



### Comparative perspective: full-time and part-time students

**Sweden:** Similarly to the observed high representation of Croatian students in the fields of law, business and social sciences, in Sweden the subject areas with the largest numbers of students in the academic year 2007/08 were in law and the social sciences (SNAHE 2009).

**Germany:** The German case illustrates a similar pattern: most of the degree programmes offered are in the areas of law, economics and social sciences (Bologna progress report Germany 2005).

**Hungary and Slovenia:** According to 2006/2007 data from Hungary, economics and administration seem to enrol the highest number of students and Slovenian data shows that 49.9% of students who completed tertiary education in 2008 were studying in the social sciences, business and law.

**Austria:** In Austria, the social sciences (including economics and law) seem to have the largest number of students, and these numbers have been consistently growing over the last five years. An increase in the number of students in engineering and the natural sciences can also be observed.

It seems that there is uniformity in the preferred subject choices of students across the countries participating in this study.

### Policy implications for higher education funding

The information provided in this section draws attention to different costs of study incurred across different fields of study and shows that not all fields of study are represented across Croatian higher education institutions. This could have funding implications if such information were to be taken into consideration for funding arrangements.



## Staff-student ratio

The number of academic staff is a factor that is taken into consideration as an input indicator for funding allocations in Croatia. Therefore, this section examines numbers of academic staff in Croatian higher education as a whole, on the level of individual higher education institutions and within disciplinary fields in individual higher education institutions.

According to Croatian Bureau of Statistics data, in the 2009/2010 academic year, there were 15,863 members of academic staff working at higher education institutions on a full-time or part-time basis. Presented by the full-time equivalent, the total number of members of academic staff amounted to 11,459.5, out of which the share of those working full-time was 80.3% and those working part-time was 19.7%.

Table 2.6 shows the number of full-time academic staff reported by the institutions participating in this study, as well as the number of full-time administrative staff. Additionally, the table includes data from the Croatian Bureau of Statistics on the number of academic staff per institution.

What the table immediately shows is the lack of consistent data on the numbers of academic staff at higher education institutions in Croatia. Although data is collected at the national level by the Croatian Bureau of Statistics, the differences in data are in some cases large - which highlights the need to set a more precise data-collection mechanism.

The number of administrative and academic staff at Croatian higher education institutions generally corresponds to the size of the higher education institution - the number is highest at the University of Zagreb, which is also the largest higher education institution in Croatia.

**Table 2.6. Number of academic staff members and number of administrative staff members across higher education institutions in the academic year 2009/2010.<sup>12</sup>**

Comparison of data from higher education institutions and from the Croatian Bureau of Statistics.

Higher education institution	Data source	Full-time academic staff	Full-time administrative staff
Juraj Dobrila University of Pula	Higher education institution	159	73
	Croatian Bureau of Statistics	160	-
University of Dubrovnik (08/09)	Higher education institution	113	87
	Croatian Bureau of Statistics	155	-
University of Rijeka	Higher education institution	798	412
	Croatian Bureau of Statistics	1,170	-
University of Split	Higher education institution	937	513
	Croatian Bureau of Statistics	1,091	-
University of Zadar	Higher education institution	353	107.5
	Croatian Bureau of Statistics	358	-
University of Zagreb	Higher education institution	2,566	2,590
	Croatian Bureau of Statistics	4,877	-
Universities of applied sciences	Higher education institution	-	-
	Croatian Bureau of Statistics	509	-
University colleges of applied sciences	Higher education institution	-	-
	Croatian Bureau of Statistics	305	-

Sources: ACCESS questionnaire, Croatian Bureau of Statistics 2010

*The number of academic staff according to CBS data may be slightly lower if calculated in terms of full-time equivalent (since members of academic staff may teach at two or more higher education institutions).*

<sup>12</sup> Note: All data in the Table is for the 2009/10 academic year, except that of the University of Dubrovnik which provided data for 2008/09.



The following table shows staff to full-time student ratios as reported by higher education institutions that provided this type of data:

**Table 2.7. Staff to full-time student ratios for higher education institutions**

Higher education institution	Staff to student ratio
Juraj Dobrila University of Pula	1:14
University of Rijeka	1:17.1
University of Split	1:15
University of Zadar	1:11.1

*Source: ACCESS questionnaire*

The ratio of academic staff to students varies between Croatian universities. The University of Zadar reported the smallest (and most favourable) staff to student ratio (1:11.11), followed by the University of Pula (1:14) and the University of Split (1:15). The highest staff-to-student ratio was reported by the University of Rijeka (1:17.06). It is important to note that a 1:15 ratio has been identified as a goal in the University of Rijeka's Strategy for 2007-2013, which shows institutional awareness of this issue.

Apart from differences at the institutional level, it is also interesting to examine how the academic staff-to-student ratio varies by level of study and field of study. For example, the Universities of Dubrovnik, Pula and Rijeka reported smaller staff to student ratios at graduate level courses than at the undergraduate level. With regard to field of study, across all higher education institutions, the staff-to-student ratio seems highest in the social sciences (e.g. 1:22 at the University of Dubrovnik, 1:25 at the University of Pula, 1:37.6 at the University of Rijeka, 1:48 at the University of Split). The ratio is significantly lower in the biotechnical sciences (1:2 at the University of Dubrovnik and 1:3.6 at the University of Rijeka) and in the arts (1:4 University of Pula and 1:5 University of Split). In the humanities, the University of Zadar reported the smallest staff to student ratio compared to other universities at 1:7.74.

### **Comparative perspective: Staff to student ratio**

Compared to partner institutions on the project, the staff-to-student ratios reported by the Croatian higher education institutions seem favourable. For example, Mälardalen University reports an average of 23 students per teacher, Corvinus University reports 20 students per teacher, whereas the University of Maribor reports 19.9 students per member of teaching faculty. TU Dresden reported a ratio of 1:15.7 and the lowest academic staff-student ratio was reported by the University of Graz at 1:6.89.

The differences in academic staff-student ratios by field of study in Croatian higher education can also be observed internationally. At Mälardalen University a higher number of students per teacher were reported in the social sciences and humanities due to low government allocation for those fields of study. Similarly, at TU Dresden, according to 2008 data, the highest proportion of students per teacher is in languages, literature and cultural studies, followed by economics and then educational sciences.

### **Policy implications for higher education funding**

The information provided in this section suggests that on average Croatian higher education institutions have a favourable academic staff-student ratio in comparison to some of the countries considered in this study. However, it also illustrates discrepancies by institutions, field of study and level of study, and draws attention to the possibility that funding arrangements can take into account such discrepancies and attempt to address them for purposes of providing high-quality teaching at higher education institutions.



## Social characteristics of the student body

Information provided by participating higher education institutions regarding the social profile of their students (e.g. gender, ethnicity, age, parents' educational level) was scarce. Collecting and analysing such data is the foundation for planning initiatives to promote equitable access, retention and completion of higher education for disadvantaged groups, and for planning funding initiatives that may contribute to that goal.

With regards to the socioeconomic status of the students (either as parental educational level, income-level or occupation), the general lack of data on the social profile of the student body in Croatia is captured in an OECD (2008) report:

"There are few data on the characteristics of those who enter tertiary education...it is not known whether there is a significant differential access rate by social class, or income" (p. 45)

Ironically, some data on socio-economic data is collected systematically from every student upon enrolment into higher education for the purposes of the Croatian Bureau of Statistics. However, the data collected is not processed or analysed by higher education institutions, nor by state institutions other than the Croatian Bureau of Statistics. Additionally, the data collection form has not been adapted to make it relevant to all aspects of equitable access to higher education, and certain technical issues prevent it from being a reliable data source (due to the inability to track students who drop out or enrol more than once).

### Comparative perspective: socioeconomic status of students

**Sweden:** For the purposes of this report, Sweden was able to provide information on the social profile of the student body at both the national level and for Mälardalen University. According to a report by the Swedish National Agency for Higher Education (2009: 28), individuals whose parents have advanced education are overrepresented in higher education programmes, while individuals whose parents have little schooling are underrepresented. During the academic year 2007/08, about one-third of university entrants under the age of 35 had parents with advanced education (at least one parent had completed at least three years of post-secondary education). In the population as a whole, the corresponding proportion was just over 20%. There is therefore a clear overrepresentation of children whose parents have advanced education in higher education. However, at Mälardalen University the proportion of students from backgrounds with parents with no higher education is higher than the national average.

**Germany:** In Germany, the share of students with parents with university degrees is more than twice as high as the share among the whole population of corresponding age groups (Eurostudent data 2005).

**Austria:** In Austria there is a difference in socioeconomic status between the two parts of the binary higher education system. At universities 41% of the students are children of a university graduate, while at universities of applied sciences this group consists only of 29% of the students (Eurostudent Austria 2005-2008).

With regards to data relating to gender equality in higher education, data is more readily available. Data on the gender composition of the Croatian student body in the period between the academic year 1992/1993 (OECD 2008) and 2010/2011 (Cvitan et al, 2011) signals that the educational profile of Croatian students has been changing in favour of

women. Whereas women accounted for 48% of the total student population in 1992/1993, they formed the majority 56% in 2010/2011. The Universities of Rijeka and Zadar provided data reflecting this trend at their institutions.

The identified majority of female students in Croatia corresponds to international trends, and does not in itself have direct equity implications. Another international trend, however, points to an indicator of gender inequality in higher education, and this the distinction can be observed in the gender profile of the student body when examining individual courses. According to an MSES (2007) report there is a tendency for women in Croatian higher education to concentrate on the "traditionally female professions", such as education, humanities and art, social sciences, business and law, and health protection and social services (p. 72). It can also be noted that 59% of students in university programmes and 51% of students in professional study programmes are female (Cvitan et al, 2011).

### **Comparative perspective: student numbers by gender**

**Germany:** In the case of German higher education, whereas a total of 51.7% of all students at universities are female, women account for a total of 37.9% of all students at universities of applied sciences (Bologna progress report Germany 2009).

**Austria:** In Austria, according to the National student survey (2006), women made up 52.7% of the student body. However, as in the German case, there are big differences between the proportion of women at universities and at professional higher education institutions. In Austria, the proportion of female students at universities is 54%, whereas the proportion at university of applied sciences is on average 43%.

**Hungary and Slovenia:** The Hungarian and Slovenian cases also illustrate the gender divide in higher education participation. According to a Eurydice report (2006/2007), 58% of Hungarian higher education students are female; and according to the Statistical Office of the Republic of Slovenia (2009), there are more women than men enrolling in higher education (e.g. in 2008/2009, 66,304 women enrolled, compared with 48,087 men).

### **Policy implications for higher education funding:**

The lack of information on the social profile of students in Croatia suggests a need for collecting such data and considering it for socially sensitive funding arrangements. For this reason, the EUROSTUDENT survey, which collects data at the national and European level on socioeconomic and living conditions of students, was carried out in Croatia within the same project that this study is a product of (the Tempus ACCESS project).





# 02

## Levels and sources of funding for Croatian higher education institutions

Croatian higher education institutions are funded through contributions from the state budget and own-income sources. The latter includes income from tuition fees, administrative fees and from third-party income (this category includes income from national and international research and development projects, capital – human, financial and real-estate – commercialisation and donations). The section below examines in detail the sources and proportions of funding from these main sources.

### Public funding and overall income levels

Table 2.8 presents the overall income levels and levels of public funding for higher education institutions in Croatia for the last year available (2009/2010), as well as the trends over the last five years. It should be noted that some institutions reported data for calendar years, others for academic years. For comparative purposes with other sections of this study, the table below presents data according to academic years, which means that the total amounts presented must be taken as indicative and provisional. Additionally, some individual-institution data was inconsistent mainly because of divergent modes of financial reporting across different university constituents. Nonetheless, overall trends and tendencies can be extracted from the data.

**Table 2.8.a. Overall volumes of funding of public universities (approx.), and change over the last five years - comparison on University of Zagreb with all other universities combined**

	Total income 09/10 in million HRK	% change last 5 years	State budget income 09/10 in million HRK	% change state income in last 5 years
University of Zagreb	2,543	+21%	1,743	+19%
All other public universities (total)	1,108	+56%	837	+69%

Source: ACCESS questionnaire

**Table 2.8.b. Overall volumes of funding of sample of 17 universities of applied sciences and university colleges of applied sciences (approx.), and change over the last five years<sup>14</sup>**

	<b>Total income 09/10 in million HRK</b>	<b>% change last 5 years</b>	<b>State budget income 09/10 in million HRK</b>	<b>% change state income in last 5 years</b>
<b>Universities of applied sciences</b>	43	+69%	28	+68%
<b>University colleges of applied sciences</b>	11	+160% (over 3 years)	3	+460% (over 3 years)

Source: ACCESS questionnaire

Regarding the growth of overall income of higher education institutions over the last 5 years, Table 2.8 shows (despite limitations in how accurately the data can be interpreted) that it has grown significantly for all institutions in Croatia. This is in line with the trends outlined by Hunjak (2008) regarding the massification of higher education, the increase in available number of courses and the accompanying increase in public funding volume. According to another earlier study on university incomes (Bajo 2008), the 2003–2007 period also saw an overall growth of income (average annual growth of 11% across the whole public universities sector). In the overall income of universities for the period 2003–2007, the University of Zagreb contributed about 65% of the total amount, while the greatest average income growth in that report is attributed to the University of Split.

According to the latest data presented in the table above, it is the universities outside Zagreb that exhibit the greatest growth in funding, both in overall levels and from public funding, while the University of Zagreb has the lowest level of growth of overall income and public funding. However, a detailed breakdown shows that there are significant differences between the individual universities, as will be analysed in greater detail below. Nevertheless, the overall trends indicate that the total available funding for the universities outside Zagreb has experienced a proportional increase that is double that of the University of Zagreb (an 56% increase vs. 21% increase) over the last five years. At the same time the contribution from the state budget over the same period shows a proportional increase that is three times higher than that of the University of Zagreb (69% vs. 19%).

Regarding the amount of public funding allocated from the state budget to higher education institutions, the data above also shows an overall growth trend, consistent with the findings in Bajo (2008), but to a varied extent depending on status and type of institutions. Although universities outside Zagreb and professional higher education institutions show higher growth rates both in overall and public income, the University of Zagreb still receives greater funding in volume than all other institutions<sup>15</sup> combined. This shows a clear separation in trends of funding development and absolute volumes of funding available for the University of Zagreb and the other universities included in this study.

<sup>14</sup>The data presented here for universities of applied sciences and university colleges of applied sciences refers only to the 17 institutions (out of 44) that completed the questionnaire, and there is no clear indication how representative it is of the whole group of part-publicly funded professional higher education institutions.

<sup>15</sup>It should be noted that only 17 universities of applied sciences and university colleges of applied sciences submitted data. It should also be noted that the member institutions of the Croatian Council of Universities and University Colleges of Applied Sciences make up no more than 21% of the overall student body. Even if their figures were to diverge significantly, this would not affect the overall trend seen in the 17 institutions represented.



Looking more closely at the differences in growth of funding between the different universities outside Zagreb, the largest growth in overall income can be seen at the Universities of Dubrovnik and Zadar, where it grew on average by 69% and 87% respectively over the last five years. This can most likely be explained by the fact that, due to their relatively recent foundation, public funding increased rapidly (+101% for the University of Dubrovnik and +89% for the University of Zadar). The University of Rijeka shows the lowest level of growth in overall income (42% over 5 years), and it is just behind the University of Split (growth of 44%) – although it must be noted that this data does not include the campus development funds it received in 2009/10.

Additional comments and information provided by universities participating in this study can provide useful background information to understand the data on public funding and overall income as presented in the table:

- At the University of Dubrovnik, state funding (as well as overall income) peaked in 2008/09 and has decreased slightly over the last years. However, it still stands at double the total amount of 5 years ago.
- The University of Rijeka's level of public funding experienced a sudden increase in 2008/09 (from 260 million to HRK 430 million) due to public investments in campus development, however this is not reported in the 42% level of growth in overall income cited above.
- The data for the University of Split (44% growth) reported above does not include government-provided securities for a campus-development loan, but only funding for existing operating costs of the university. The loan funds contributed significantly to the state's investment in the University of Split.

### Comparative perspective: trends in levels of public funding for higher education institutions

**Corvinus University:** In 2008, Corvinus University in Budapest had a total income of about 63 million EUR (53% public funding, and 47% own income), with an income growth of 11.5% for the 2004–2008 period. This is a growth rate comparable to the Croatian higher education sector overall. The ratio of own income to state budget contribution of Corvinus University is far higher than the same ratio at Croatian higher education institutions.

**Mälardalen University:** Overall, public funding at Mälardalen University has constantly decreased in volume since 1995. Yet, all of its teaching costs are still covered by the state.

**TU Dresden:** In 2008, TU Dresden received over 350 million EUR in public funding, (representing 70% of overall income), with another 156 million EUR generated from own income (representing 30% of overall income). Public funding has been more or less constant over the period 2004–2008. No tuition fees are paid at TU Dresden – which means that 30% of its overall income comes exclusively from third-party income.

Regarding the public funding and overall income levels of professional higher education institutions, the data presented for universities of applied sciences refers to aggregate data across a selected number of different institutions and, as mentioned already, should therefore be taken as provisional and indicative data. Overall it shows significant growth in overall income (69%), matched by a similar increase in public funding (68%). The data for university colleges of applied sciences also represents aggregate data across widely different institutions (both private and public), and the trends presented cover only the last three years when a significant change in their position occurred. Since then they have been introduced to funding from the state budget, which explains why the levels of public funds have almost quintupled (increase of 460%) over the three years. However, public funding still accounts for only 1% of overall public funding for university colleges of applied sciences.

### **Policy implications of data**

This section indicates that there has been an increase in public funds for higher education in Croatia over the last 5 years. Although this seems to show a positive trend, it is important to note that data for Croatia indicates that its public investment into higher education as a proportion of its GDP is low in comparison to the other countries represented in this study. According to Hunjak (2008), the state budget does not provide sufficient funds for carrying out the basic functions of higher education institutions. Higher education institutions are, therefore, compelled to cover costs with tuition fees. Another interpretation, provided by Bajo (2008a), is that the financial liquidity of the Croatian higher education system (which also includes tuition fees) is satisfactory (both by university level and fields of study).



### Proportion of public funding and own income

Table 2.9 below shows the overall ratios of public funding and own income at Croatia's universities. As mentioned above, the data and trends should be taken as provisional since some institutions reported data for calendar years, others for academic years, and it should be noted that the funding at individual institutions does not always increase or decrease evenly over the five years presented.

**Table 2.9. Income of Croatian universities and five-year trends.**

Name of institution	% public funding 09/10	% own income 09/10
Juraj Dobrića University of Pula	72%	28%
change in absolute amounts of relevant type of funding over 5 years	n/a	n/a
University of Dubrovnik	85%	15%
change in absolute amounts of relevant type of funding over 5 years	+101%	-10%
University of Rijeka	77%	23%
change in absolute amounts of relevant type of funding over 5 years	+54%	+12%
University of Split	69%	31%
change in absolute amounts of relevant type of funding over 5 years	+55%	+24%
University of Zadar	92%	8%
change in absolute amounts of relevant type of funding over 5 years	+89%	+60%
University of Zagreb	69%	31%
change in absolute amounts of relevant type of funding over 5 years	+19%	+23%

Source: ACCESS questionnaire

Table 2.9 confirms the findings of Hunjak (2008), who reports that the state budget is still the main source of funding for all Croatian universities. Compared to the cumulative data analysed by Hunjak, the Universities of Rijeka, Zadar and Dubrovnik deviate from the cumulative ratio of state-provided and own income for 2003–2007, which stands at 70:30. According to Table 2.9, the proportion of public funding is the highest (and own income lowest) at the University of Zadar (92% public funding) and the University of Dubrovnik (85% public funding). The universities with the lowest proportion of public funding are the University of Zagreb and the University of Split, both with a proportion of 69% of public funds.

Regarding the growth of both public funding and own funding, these have increased overall in the last five years, although at a widely varying pace. Own sources of funding, which include income from tuition fees, administrative charges and third-party income (such as research and development activities, intellectual services and real-estate management, and local authority budgets), have in most cases increased at a much slower pace.

### **Comparative perspective: trends in proportion of public/private funding**

**Corvinus University:** Only 65–70% of public funding for Corvinus University in Budapest is for the teaching and maintenance grant, which is used to cover the cost of personnel and maintenance of teaching and research at the university.

**Mälardalen University:** All the teaching costs at Mälardalen University are covered by the state, while research funding has to be supplemented with other grants.

**TU Dresden:** TU Dresden is allowed to raise its own income from shareholding, while the remaining sources of own income are donations from industry and private foundations, as well as EU, federal and state grant schemes. The university is not allowed to generate income through the direct marketing of services (either expertise or teaching).

**University of Graz:** The University of Graz had a total income exceeding 150 million EUR in 2009, with about 80% coming from the state and 20% from own income (tuition fees and third-party funding).

Regarding the trends in amount and proportions of public/private funding of professional higher education institutions in Croatia, the table below provides this information. As mentioned earlier, this data is provided by a proportion of professional higher education institutions which is not necessarily representative of all the institutions. The data should therefore be seen as illustrative, and not as a definitive picture of funding trends for professional higher education.



**Table 2.10. Universities of applied sciences and university colleges of applied sciences income and 3/5 year trends**

Type of institution	Total income 09/10 in million HRK	% public funding 09/10	% own income 09/10
Universities of applied sciences	43.1	66%	34%
change in absolute amount of income over 5 years	+69%	+68%	+63%
University colleges of applied sciences	11.5	24%	76%
change in absolute amount of income over 3 years	+244%	+465%	+206%

Source: ACCESS questionnaire

With regards to university colleges of applied sciences, Table 2.10 shows data for these institutions for the most recent academic year and trends over a three-year period. Here it is important to remind the reader that the universities of applied sciences are dominantly public institutions (13 out of 15), while university colleges of applied sciences are dominantly private (27 out of 30). Table 2.10 shows that public funding represents 66% of the total income in universities of applied sciences, while in university colleges of applied sciences public funding comprises only 24%, and these differences are likely due to the mentioned differences in ownership of the institutions.

It is also important to note that the growth of overall income in institutions of professional higher education is a reflection of the policy priority adopted by the 2003–2007 government of Croatia within the Ministry of Science, Education and Sports programme entitled 'Network of Higher Education Institutions' (MSES 2007). The programme reflected the commitment to support polycentric development of the higher education sector in Croatia. Between 2005 and 2007 five universities of applied sciences and one university college of applied science were founded by the government (ibid.). The professional higher education sector continued to grow after 2007 as well. While in 2007 there were 15 universities of applied sciences and 22 university colleges of applied sciences (ibid.), in 2010 there were 16 universities of applied sciences and 29 university colleges (AZVO 2010). Finally, the very large growth figures in the case of university colleges of applied sciences need to be contextualised by emphasizing that this data covers only a segment of the total number of institutions and it may be exaggerating the effect in case that newly founded institutions were included in the survey.

### Policy implications of data

Overall, this section confirms the conclusion of the previous section that public funds have grown over the last 5 years across the higher education sector. Although this suggests a positive trend, according to Hunjak (2008) this is insufficient. It also shows that income from sources other than the state budget (tuition fees etc.) grew during this period at all higher education institutions, except at the University of Dubrovnik.

### Sources of own-income funding

For the 2003–2007 period Bajo (2008) reports tuition fees as the main source of own income at each public university<sup>16</sup>, which is confirmed by Hunjak (2008) for the universities system as a whole. According to Hunjak (2008), the legal status of public universities as institutions funded from the state budget lessens their potential for generating income from entrepreneurial activities or from marketing goods and services, since the activities permitted by law under these categories are limited. However, as the legal specification contains the “other activities” line, the scope of activities can be interpreted quite broadly. “Donations and other types of assistance” are also permitted.

The data provided by universities for this study on sources of own-income was often scarce and incomplete. Additionally, the classifications of different direct sources (fees, administrative charges, publishing etc.) vary greatly between institutions. The main reasons stated for this are the divergent accounting classifications in different departments and faculties. Where possible, the collected data is rounded up to overall figures and presented through four major categories:

- **Tuition fees:** tuition fees charged to students for undergraduate, graduate and doctoral courses leading to a certified degree.
- **Research and development project grants:** includes grants from international (e.g. EU) and domestic (e.g. Ministry of Science, Education and Sports, National Science Foundation) sources.
- **Commercial capitalisation of resources:** includes all income-generating activities a higher education institution performs in accordance with the legal provisions for recipients of public funding. These include profit from real-estate, expertise services provided by the staff and departments, and courses not leading to a certified degree (e.g. in-service training).
- **Other sources:** in some cases this category comprises a significant segment of the own-income sources. This might include elements from other categories for which precise amounts and definitions were not provided by the universities. In most cases these sources include administrative charges levied to students beyond regular tuition fees, fees for courses not leading to degrees, publishing fees, expertise services provided to businesses and local and regional authorities, student employment overheads and donations. Where possible, these sources were named in the table.

Although the term “third-party income” has been used so far in this report to refer to own income other than tuition fees and other administrative charges, the data received by the higher education institutions does not separate the sources of income in this way. The table below will therefore show several categories of own income and third-party funding combined.

<sup>16</sup> Even Zagreb University, which he singles out for size of research and development contribution, by the classification used here takes just a little bit more in income from fees (including fees for doctoral studies) than from the remaining two categories.





**Table 2.11. "Own income" composition of universities (data for 2009/2010 or most recent year available)**

Name of institution	Type of source	Amount in million HRK	% of total
Juraj Dobrila University of Pula	1. Tuition fees	7.5	55%
	2. R&D project grants	0.8	1%
	3. Capital commercialisation	6.1	45%
	4. Other	0.0	0%
	Total	13.6	100%
University of Dubrovnik	1. Tuition fees	5.9	68%
	2. R&D project grants	1.1	13%
	3. Capital commercialisation	0.4	4%
	4. Other ( professional courses)	1.2	14%
	Total	8.6	100%
University of Rijeka	1. Tuition fees	-	-
	2. R&D project grants	-	-
	3. Capital commercialisation	-	-
	4. Other	-	-
	Total	105.9	100%
University of Split	1. Tuition fees	61.2	43%
	2. R&D project grants	7.3	5%
	3. Capital commercialisation	21.0	15%
	4. Other (publishing, administrative charges, certification, in-service training courses, entrance exam fees,)	53.0	37%
	Total	142.4	100%
University of Zadar	1. Tuition fees	9.4	56%
	2. R&D project grants	3.5	21%
	3. Capital commercialisation	0.2	1%
	4. Other (student employment service, promotion, fees, exams, printed materials, courses)	3.8	23%
	Total	16.9	100%
University of Zagreb <sup>17</sup>	1. Tuition fees	267.8	41%
	2. R&D project grants	272.1	42%
	3. Capital commercialisation	0	0%
	4. Other	109.9	17%
	Total	649.8	100%

Source: ACCESS questionnaire

<sup>17</sup> It is not specified by Zagreb University which year the stated amounts refer to (though in rough totals it most closely approximates the data for 2005/06 academic year) and the amounts were already divided into the categories presented in the table, unlike in the case of other universities.

Overall, Table 2.11 indicates the significance of tuition fees in generating own income at universities. In most cases, over 50% of own income is generated in this way at universities. However, the following notes should be taken into consideration when interpreting this data:

- At the University of Split the proportion of own income derived from tuition fees is only slightly lower than the average of 50% of total income, but a large “other” category might hide some additional charges levied on full-time and part-time students.
- At the University of Zadar, fees levied on students may also be hidden within the “other” category.
- Regarding the University of Zagreb, significant ambiguities in the data (lack of specification of academic year and a presentation of sources of income categorically unified with those of other institutions) might be producing inaccurate relative percentages.
- The University of Rijeka was unable to provide data due to their accounting system, which records tuition fees, commercialisation and project grants income under different (often variously combined) account headings across different faculties within the university, However, the University noted that a new universal accounting system is being prepared for implementation.

Hunjak (2008) shows that in the period slightly preceding this report, most of the income (57%) generated by the universities themselves (own income) was allocated to staff salaries and benefits.

### **Comparative perspective: sources of own income**

**Corvinus University:** Most of Corvinus University’s own income is derived from fees on training and research programmes, tenders and applications, and the commercialisation of the university’s assets. 5% of their 2010 income came from “performance grants” for teaching improvements, mobility and widening access, with most of the money coming from EU sources.

**University of Maribor:** The University of Maribor is forced to increase income from commercial activities and additional charges for public services in order to supplement the financing of teaching full-time students. Public funding is therefore insufficient to cover the cost of teaching full-time students and own income must be generated to supplement the cost, as no fees are charged to full-time students.



Regarding the own-income sources of professional higher education institutions in Croatia, the limited nature of the data collected in this study makes any detailed generalisations impossible – however, the findings may be informative and indicative nonetheless. Overall trends indicate a dominating proportion of tuition fees as own income, both at universities of applied sciences and university colleges of applied sciences, although there are strong differences between the two, as can be seen from the table below.

**Table 2.12. Structure of own income at university colleges of applied sciences and universities of applied sciences (questionnaire response).**

Type of source	Universities of applied sciences	University colleges of applied sciences
Undergraduate tuition fees	66.81%	93.09%
Domestic development projects	0.46%	
Expertise and intellectual services	0.24%	
Other	32.49%	6.91%
Total	100%	100%

Source: ACCESS questionnaire

Universities of applied sciences raise 66.8% of their own resources from undergraduate tuition fees, while in the case of university colleges of applied sciences, as primarily private institutions, the proportion is obviously much higher: undergraduate tuition fees amount to 93.09% of own income.

Regarding their remaining sources of own income, only the universities of applied sciences mention income from development projects and services provided – although these are an almost negligible source of income (0,6% of overall own income). Regarding the remaining 32.49% of own income of universities of applied sciences, the sources of this income were unfortunately not specified. University colleges of applied sciences only have 6.91% of their income from sources that are not tuition fees, and these sources were also not specified. However, these may refer to administrative fees, such as enrolment and graduation fees.

### Policy implications of data

This section confirmed that tuition fees are the main source of own income per institution at all public higher education institutions in Croatia. It also confirms the need to have standardised financial reporting in order to identify trends, and especially the need to better define and categorise “Other sources”, in order to make this data comparable.

### Assets: property ownership

According to an EUA (2008) study, when budgeting an institution's activities it is vital to understand who covers the costs of buildings and facilities. In the case of Croatian higher education institutions participating in the study, this is a particularly important issue with a significant effect on their ability to manage their financial matters strategically in the long term. As some of the largest universities often have little control over the buildings in which their operations take place they are limited in medium and longer term development strategies, as well as commercialisation of assets. In the case of the universities of Split, Rijeka and Zagreb state funds have been invested as loan or loan securities for the development of university campuses, on top of the reported state funding above.

With regards to ownership of property used to perform the primary function of higher education institutions, the situation in Croatia is varied. In all cases, except for the Universities of Zagreb and Zadar, it is the universities or their constituent faculties (which in terms of property management is not a straightforward equivalent to university ownership) that own the premises in which they operate. However, entities such as local authorities and the state play a significant or essential role at some institutions, as is indicated in the table below. Data for the University of Split is only approximate, as the space used for university operations is not entirely separate and is often shared with other institutions in the city (e.g. schools).

**Table 2.13. Property ownership across universities in Croatia**

Buildings owned by	Faculties	University	Ministry of Science, Education and Sports	Other
Juraj Dobrila University of Pula	-	100%	-	-
University of Dubrovnik	-	100%	-	-
University of Rijeka	60%	30%	-	10% (City of Rijeka)
University of Split	20%	55%	-	25% (City of Split)
University of Zadar	-	-	-	100% (Republic of Croatia)
University of Zagreb	~20% <sup>18</sup>	1 building	1 building	~80%

Source: ACCESS questionnaire

<sup>18</sup> A total of 11 out of 33 faculties of the University own around 20% of the total property of the University.



Despite this varied picture of real-estate ownership, Hunjak (2008) characterises the overall financial situation of the Croatian higher education sector as generally good in the 2003–2007 period. This conclusion is based on the fact the overall financial assets are larger than financial commitments. However, because of the need to improve the material stock (including buildings) and the need to implement demanding capital development projects, this financial advantage quickly dissipates.

Looking at Table 2.13, the situation appears least clear at the University of Zagreb, where 11 out of 33 faculties fully own properties in which they operate, and this only amounts to roughly 20% of the property stock available to the University. The remaining 80% of the property has unresolved ownership issues with the state, is classified as “public ownership”, is owned either by private subsidiary companies that are only partly owned by the University (“Student Centre”), or by the City of Zagreb and other public institutions. Only one building, the seat of the rectorate, is owned by the University, and another building is owned by the Ministry of Science, Education and Sports.

Regarding the situation of property ownership at professional higher education institutions, no conclusions can be made based on the limited data collected in this study: only one of the institutions that participated in the study owns its own building, whereas the property situation at other such institutions contributing remains unclear.

# 03

## Tuition fees at Croatian higher education institutions<sup>19</sup>

Tuition fees started gaining prominence in Croatia's higher education system in 1993, following the passing of the Act on Higher Education Institutions. The system that emerged for charging tuition fees at higher education institutions at that time continued until the year 2010, when the Government decided that from the academic year 2010/11 all undergraduate and graduate students who enter the full enrolment quota will pay no fees during their first year of studies. After the first year of study, students may have to pay tuition fees according to a linear model based on accumulated ECTS credits. Due to the very recent nature of these changes in the system for charging tuition fees, this section of the report will analyse the practices of Croatian higher education institutions for charging tuition fees according to the previous system that was in place until 2010/2011.

According to the previous system, the state would set quotas for the total numbers of students whose costs can be covered through the state budget, but universities would have the autonomy to set enrolment quotas over the state-subsidised quota and to charge tuition fees to those students. In other words, university senates decided on full enrolment quotas, whereas the Ministry of Science, Education and Sports decided on what proportion of the total number of enrolled students will be state-subsidised. All students falling outside the Ministry's quota, but inside the total number of places allocated by universities, had to pay tuition fees. A student's status as state-subsidised or fee-paying would then be determined initially upon enrolment into a university, based on the student's ranking position at entry, which is calculated primarily on the basis of secondary school academic results and success at the entrance examination (i.e. merit-based).

### Comparative perspective: tuition fees in Hungary

As in Croatia, Hungarian institutions are allowed to enrol students above the state-funded quota and charge tuition fees. As noted by a representative of Corvinus University in Budapest, in Hungary – similarly to Croatia – there was never a political decision taken by the government to actually introduce tuition fees into the public higher education system. This decision was taken by higher education institutions themselves.

Fee-paying status in Hungary is determined in the enrolment criteria, and research has shown that social differences make the system unjust as there is a higher proportion of low-income families in the fee-paying category of students. In addition, the number of fee-paying students in Hungary has grown steadily between 1996 and 2005. While the positive effect of the introduction of fee-paying students has been a more rapid expansion of higher education in Hungary, the downside has been a negative effect on quality.

<sup>19</sup> All tuition fee amounts in this section are provided in Croatian Kuna (HRK), whose exchange rate to the Euro at the time of publication was 7.48 (Croatian National Bank data for September 2011).



### Proportion of fee-paying students

Funding arrangements at higher education institutions have been affected over recent years by a growth in student numbers, which has resulted in the growth in numbers of fee-paying students. While in the academic year 1993/1994 only 11.8% of students were paying tuition fees (Matković 2009), by 2010/2011 this percentage had increased to 60% (Cvitan et al 2011).

Fee-paying students in Croatia can fall into three categories: full-time students (some of whom pay fees) part-time students (all of whom pay fees) and international students (all of whom pay fees). The table below provides a partial overview of proportions of only fee-paying students in Croatia. The available data is partial since it only shows the proportion of fee-payers among full-time students of academic study programmes at public universities, thereby excluding part-time students, students enrolled in professional study programmes at universities and students enrolled in other higher education institutions:

**Table 2.14. Proportion of full-time fee-paying students at Croatian universities (academic studies only), 2009/2010**

University	Proportion of fee-paying students
Juraj Dobrila University of Pula	36.1%
University of Dubrovnik	31.1%
University of Rijeka	39.3%
University of Split	33%
University of Zadar	32.2%
University of Zagreb	44.7%
University of Osijek	34.55%

Source: Croatian Bureau of Statistics, academic year 2009/2010

According to this latest available data for full-time students in first- and second-cycle studies at Croatia's public universities, the proportion of fee-paying students ranges from 31.1% at the University of Dubrovnik to 44.7% at the University of Zagreb. The most likely reason why these percentages differ strongly from the Croatian national average of 60% of fee-paying students is precisely because (according to data in Cvitan et al 2011) fee-paying status in Croatia tends to be more concentrated in part-time students and in students enrolled in professional study programmes - and these two categories also greatly overlap (i.e. there are significantly more part-time students in professional studies compared to academic study programmes).

Disparities in the percentage of fee-paying students have also been identified between academic disciplines: while in the natural sciences only around 8% of students pay tuition fees, in the social sciences this proportion amounts to 48% (fee paying students constitute 21% of the student body in the biotechnical sciences and art fields and 24% in biomedicine and health) (Cvitan et al. 2011:21).

### Comparative perspective: who pays tuition fees?

At TU Dresden students generally do not pay tuition fees, with the exception of distance studies and graduate non-consecutive courses which do not make up a significant share in the overall student number. At the University of Maribor only part-time students pay tuition fees, while at the University of Graz international students from outside the EU and students who study longer than the regular study time are charged tuition fees.

In these three cases a minority of students are charged tuition fees, while at Corvinus University around 50% of students are fee-paying. In comparison to all these EU experiences, the University of Zagreb, for example, has a significantly larger share of students paying tuition fees (83%).

Despite an overall trend of increase in proportion of students paying tuition fees in the last five years, the data collected from Croatian universities for the purposes of this report shows some divergence from this phenomenon. Table 2.15 below provides data on whether the proportion of students who are fee paying has increased, decreased or remained constant at universities. The trends are established for the five-year period between 2005/06 and the most recent 2009/2010 academic year.

**Table 2.15. Tuition fee 2005-2009 trends for full-time students.**

University	Average increase in proportion of fee-paying students 2005-09
Juraj Dobrila University of Pula	No.
University of Dubrovnik	No.
University of Rijeka	1%
University of Split	No.
University of Zadar	8% (includes only Bologna students)
University of Zagreb	Data not provided

Source: ACCESS questionnaire

The Universities of Split, Pula and Dubrovnik report no increases in the proportion of students paying tuition fees. The Universities of Rijeka and Zadar report 1% and 8% increases respectively over the five year period. Again, since the percentages refer to a short five year period, an 8% increase in the case of Zadar signals a rather steep progression.





Regarding the proportions of fee-paying students at professional higher education institutions in Croatia, Table 2.16 below shows the differences between universities of applied sciences and university colleges of applied sciences.

**Table 2.16. Proportion of total number of students paying tuition fees at university colleges and universities of applied sciences**

Academic year	Universities of applied sciences	University colleges of applied sciences
2009/10	58%	97%
2008/09	56%	89%
2007/08	55%	100%
2006/07	52%	100%
2005/06	54%	100%

*Source: ACCESS questionnaire*

At universities of applied sciences the proportion of students paying tuition fees is at a similar level to those of the Croatian higher education system as whole (56.7%, according to Matković 2009) and the proportion is growing, albeit at a slow pace (from 54% to 58% over five years).

As can be expected, since university colleges of applied sciences are predominantly private institutions all students used to pay tuition fees, while in more recent years this is slowly changing. In the most recent academic year 2009/2010, 97% of students were paying tuition fees. This change occurred after the academic year 2007/2008, when public university colleges of applied sciences were probably being founded.

#### **Policy implications of data**

The information provided in this section indicates that there is a divergence between higher education institutions in Croatia with regard to proportions of fee-paying students, which points to an unregulated nature of the system of tuition fees.

### Linear model of tuition fees at universities

While the tuition fee system of the 1990s was based on the distinction between Ministry-subsidised quotas on the one side (who study free of charge), and students who pay tuition on the other, in recent years universities in Croatia have developed their own systems of variable tuition fees based on success and progress during studies, the so-called “linear model”.

According to the linear model, which was first developed and introduced by the University of Zagreb in 2007/2008 for undergraduate studies, students are charged higher or lower amounts of tuition fees based initially on their success at entrance exams and school-leaving results, and in subsequent years on their successful completion of course requirements and received grades. Aside from the fees being variable, the major difference to the previous system is the following: while students who fall outside the Ministry' subsidised quota pay full tuition fees (in the same way as the previous system), those students who are within the state-subsidised quota may also pay fees. Those students are ranked according to the merit-based criteria mentioned above and charged a fee based on a linear model.

An example of how the linear model works in practice can be provided by examining the University of Split (Senate Decision, May 19, 2010). The criteria of this university for setting levels of linear fees are the following: after the completion of their first year of studies, students pay the full amount of tuition if they collected less than 42 ECTS credits and a variable amount of fees if they collected between 42 and 59 ECTS credits. Students with 60 ECTS credit points pay no tuition fees. The resulting linear system of payment at the University of Split is displayed below, using the example of a HRK 7,000.00 tuition fee study programme:

**Table 2.17. Linear model of tuition fees based on ECTS credits at University of Split.**

<b>ECTS</b>	0-41	42	43	44	45	46	47	48	49	50
<b>HRK</b>	7,000.00	6,631.58	6,263.16	5,894.74	5,526.32	5,157.89	4,789.47	4,452.63	4,052.63	3,684.21
<b>ECTS</b>	51	52	53	54	55	56	57	58	59	60
<b>HRK</b>	3,315.79	2,947.37	2,578.95	2,210.53	1,842.11	1,473.68	1,105.26	736.84	368.42	0,00

*Source: University of Split Senate Decision May 19, 2010*

The University of Rijeka also recently adopted this system in which ECTS credits serve as the basis for calculating the amount of tuition fees a student pays (Senate Decision July 20, 2010). As with the University of Split, a 100% successful annual collection of ECTS credits results in a student continuing to be fully subsidised, while lower percentages lead to variable amounts of fees.



The linear model has, since starting at the University of Zagreb, spread to the second- and third-largest universities (the Universities of Split and Rijeka have also introduced the linear model of tuition fees for the academic year 2010/2011), while smaller universities in Pula, Zadar and Dubrovnik did not mention the introduction of this new system.

Regarding professional higher education institutions, the data collected in this study is inconclusive. The Council of Universities and University Colleges of Applied Sciences reports only in broad terms that some institutions link a student's progress in their studies to their tuition fee status.

Although the linear model was developed and launched independently by universities, the model was adopted at a national level in Croatia in 2010 through a government decision. According to this decision, the state will fully subsidise the first year of undergraduate studies, meaning all students who enter the full (university) enrolment quota for the academic year 2010/11 will pay no fees during their first year of studies. After that they will pay tuition fees according to a linear model based on accumulated ECTS credits. The criteria for fee-paying status is therefore based on academic merit, while there is no mention of other factors such as a student's socioeconomic status. In their meeting at the end of the academic year 2009/2010, the Rectors' Council elaborated on this linear model based on ECTS credits and proposed its introduction in all universities, after which several universities introduced the model, such as the University of Split and the University of Rijeka.

It is important to note that none of the EU partner countries and participating universities included in this study has experience with a linear model of tuition fees. It is unclear whether such a model has been implemented elsewhere outside of Croatia. Having in mind this lack of comparative perspective, it seems difficult to assess the potential impact this model will have on the overall system of higher education funding in Croatia.

### Policy implications of data

In summary, when compared to the other systems participating in this report, fee determination status based on accumulated ECTS credits can only be observed in the Croatian higher education system. It also tells us that social criteria, such as parental income level, are not taken systemically into consideration for fee determination in Croatian higher education.

### Tuition fee amounts

#### Tuition fees by degree level and field of study

As will be described in more detail later in this chapter, the maximum amounts of tuition fees at the undergraduate level at universities are determined in an annual coordination process between the Ministry of Science, Education and Sports, and Croatia's universities, which occurs during meetings of the Rectors' Council. The recommended maximum amounts of tuition fees are set according to criteria of academic discipline, and, in principle, all universities abide by this joint decision.

However, in practice and according to the information collected for this study, the annual amounts charged to undergraduate students differ among universities. As can be seen from Table 2.18 below, which shows the ranges of annual tuition fees charged at undergraduate programmes in Croatia, the high end of the range is driven by the University of Split, which has the most expensive undergraduate programmes.

**Table 2.18 Annual amounts of undergraduate tuition fees in HRK by field of study and by university.**

Field of study	Juraj Dobrića University of Pula	University of Dubrovnik	University of Rijeka	University of Split	University of Zadar	University of Zagreb
Natural sciences	/	/	7,320-9,240	8,000	5,500-9,420	3,000-5,500
Technical sciences	/	7,500	7,370	8,000	7,370	2,000-9,100
Biomedicine and health	/	10,000	9,240	10,000	9,420	9,240
Biotechnical sciences	/	7,500	7,370	8,000	/	4,000-7,500
Social sciences	2,750-5,500	5,500	5,500	7,000	5,500	5,000-9,500
Humanities	2,750-5,500	/	5,500	7,000	5,500	5,500-6,000
Artistic field	9,240	9,500	9,240	10,000	/	9,240
Interdisciplinary fields	2,750-5,500	/	/	7,000	/	/

Source: ACCESS questionnaire

Note: The table does not reflect the linear model but rather maximum amounts of tuition fees charged.

In addition to data provided in the table, the University of Zagreb also runs two undergraduate programmes in English, where tuition fees are set separately and according to market criteria. The first one is the Integrated Medical Study at the Faculty of Medicine with an annual tuition fee of HRK 51,100, and the second is a Bachelor's Degree in Business run by the Faculty of Economics with an annual tuition fee of HRK 28,000.

At the graduate level, tuition fees for full-time studies are currently not charged at Croatian universities. However, this practice has not been formalised by law or by a long-term government policy, rather it is subject to an administrative decision taken each autumn before the start of the academic year by the Minister of Science, Education and Sports. According to latest data (MSES 2010), it was decided that the state would continue to fund all second-cycle degree students in the academic year 2010/2011. The full amount of the budget necessary for this measure has apparently been secured, and amounts to HRK 69 million.



Regarding tuition fees at the doctoral level, it should be noted that it was only after undertaking the Bologna Process reforms that full-time three-year doctoral programmes were formally introduced into Croatian higher education, and these are now part of all universities in Croatia. Before this re-structuring there was no doctoral study programme in place. Instead, the degree was earned through individual work supported by mentorship. Although the degree-restructuring reform was initiated in 2005, the new system of doctoral studies is still not fully regulated, especially regarding tuition fee charges. As a rule, universities do not charge fees to teaching and research assistants employed at the same institution, but charge all other students - including assistants from other universities and institutions, in which case the fees are paid for jointly by the Ministry and the employer. Students attending doctoral programmes and who are not employed in the system of higher education and research pay full tuition fees. The amounts of these fees vary significantly and they are several times more expensive than undergraduate fees. According to data compiled by this study, the fees range, for example, from HRK 6,000 at the University of Zadar to HRK 24,000 at the University of Dubrovnik for the social sciences.

**Table 2.19. Doctoral programme tuition fees by field of study and by university, in HRK, annual amounts**

Field of study	Juraj Dobrića University of Pula	University of Dubrovnik	University of Rijeka	University of Split	University of Zadar	University of Zagreb
Natural sciences	/	/	/	/	/	9,000 lowest
Technical sciences	/	/	7,000	/	/	5,000-10,000
Biomedicine and health	/	/	15,000-20,000	/	/	7,500-12,500
Biotechnical sciences	/	/	/	/	/	7,000
Social sciences	32,000	24,000	9,000-25,000	/	6,000-7,000	10,000-22,000
Humanities	/	60,000	12,000-14,000	/	7,500	4,000-13,000
Artistic field	/	/	/	/	/	7,000-14,000
Interdisciplinary fields	/	/	/	/	/	6,000-9,750

Source: ACCESS questionnaire



The smaller universities in Pula, Dubrovnik and Zadar run only doctoral programmes in the social sciences and humanities. But whereas at the University of Zadar the fees for doctoral programmes in the social sciences and humanities are commensurate to fee levels at undergraduate programmes, in Pula and Dubrovnik these fees are several times higher - ranging from HRK 24,000 (University of Dubrovnik) to HRK 32,000 (Juraj Dobrića University of Pula) per year in the social sciences. In addition, the University of Dubrovnik runs a doctoral programme in the "history of populations" that charges an annual tuition fee of HRK 60,000.

The University of Rijeka on the other hand runs doctoral programmes in the fields of technical sciences, biomedicine and health studies; its tuition fees ranging substantially, from a HRK 7,000 annual fee for a programme in the technical studies, to a maximum HRK 25,000 annual fee for a programme in the social sciences. The University of Zagreb has doctoral programmes in all fields of study with tuition fees ranging from HRK 5,000 in the technical sciences to HRK 22,000 in the social sciences.

Based on this limited insight into doctoral level fees, these appear much less regulated than undergraduate fees, with wide variance among programmes.

### **Comparative perspective: tuition fees for doctoral programmes students**

**Hungary:** At Corvinus University in Hungary the situation is similar to that in Croatia. Tuition fees are charged for doctoral programmes, and the universities themselves determine the fee structure.

**Slovenia:** Slovenian doctoral students also pay tuition fees set by the higher education institutions, but the state provides co-financing through public tenders. Higher education institutions that fulfil conditions of the public tender receive around 60% of doctoral students' tuition fees from the state (however, this scheme ended in the academic year 2009/2010. The ministry is planning to introduce a new scheme in cooperation with universities in which universities will be responsible for selecting students for co-funding).

In the academic year 2008/09, around 42% of enrolled doctoral students received co-financing, and an additional 16% received co-financing via the "Young Researcher" funding scheme, which covers full tuition fees, part of material costs for research and the salary for the young researcher.

### **Policy implications of data**

The information in this section shows that tuition fees in Croatian higher education are not standardised or clearly regulated at any level of higher education. It is also interesting to recall here that tuition fees charged in Croatia are on average higher than in, for example, Germany, a country of a comparably much higher standard of living.



### Tuition fees for part-time students

In addition to the structure of tuition fees by degree level and field of study, it is also necessary to consider the structure of tuition fees with respect to full-time versus part-time status. Table 2.20 below presents information on tuition fees for part-time students that the participating higher education institutions provided for this report. While the data is incomplete, some information can still be extracted.

**Table 2.20. Tuition fees for part-time undergraduate students, by university and level of study, in HRK**

	Juraj Dobrića University of Pula	University of Dubrovnik	University of Rijeka	University of Split	University of Zadar	University of Zagreb
Undergraduate	3,300-5,500	10,000	3,300-6,468	Equivalent to enrolled ECTS credits.	5,500-7,370	Highest annual tuition fee for full-time students.
Graduate	/	/	3,300-6,468	/	/	Highest annual tuition fee for full-time students.
Doctoral	32,000	24,000-60,000	7,000-25,000	/	/	Highest annual tuition fee for full-time students.

Source: ACCESS questionnaire

As can be seen from the table, the available data seems to suggest that, as in the case of doctoral programmes, there is very little regulation of part-time tuition fees at universities in Croatia. As a result it is possible to study part-time in an undergraduate programme for as little as HRK 3,300 at the University of Rijeka and as much as HRK 10,000 at the University of Dubrovnik.

In addition, the ECTS system of credits, which was introduced into Croatia's higher education institutions as part of the Bologna reforms, has recently become a tool in modifying the system of charging tuition fees both for both full-time and part-time students. As a result, the amount of tuition that part-time students currently pay at, for example, the University of Split is determined primarily by the number of ECTS credits a student enrolls in per semester.<sup>20</sup> The application of this system should result in part-time students paying lower or equal fees to full-time students. Data provided by universities, though scarce, seems to corroborate this expectation. In contrast, at the University of Zagreb, which also implements the linear model of tuition fees, part-time students are charged the maximum tuition fee of full-time students regardless of their course load and progress in studies. As a result, overall it seems that part-time students are in some cases in a comparatively worse position than full-time students.

### Comparative perspective: tuition fees for part-time students

**Slovenia:** While in Croatia both a proportion of full-time and all part-time students pay tuition fees, in Slovenia full-time undergraduate and master's students do not pay tuition. Part-time students on the other hand pay tuition at all levels of university study (CHEPS 2010). In the case of the University of Maribor, part-time students at undergraduate programmes pay around EUR 3,380 – EUR 4,330 annual tuition fee, depending on whether they are studying programmes that are in-line with the Bologna Process or the pre-Bologna study programmes, as well as depending on the year of study. The University of Maribor reports an increase in tuition fee amounts of around 2-20% (depending on field of study) over the last five years, but at the same time also a decrease in the number of part-time students.

**Germany and Austria:** In Germany and Austria all students are officially full-time students, while the category of part-time refers to exceptional cases related to employment or family commitments.

### Policy implications of data

This section suggests that, just as with full-time students, very little regulation of part-time tuition fees exists at universities in Croatia.

### Tuition fees for international students

Foreign nationals may enrol in Croatian higher education institutions under equal terms as domestic students, but they may be charged additional fees (MSES 2011). The decision to charge international students is left up to universities to implement according to their preferences. However, once Croatia becomes a member country of the European Union, member state nationals will enrol under equal terms with domestic students, and will subsequently receive the same treatment as domestic students regarding tuition fees.

Based on information collected through this study, universities currently apply different rules for international students (see Table 2.21).

<sup>20</sup> At the University of Split, ECTS credits have been set a price, and hence the total number of enrolled ECTS credits is multiplied by the set price for one point. According to information provided by the University of Split, the "price" per ECTS point is calculated by taking the annual tuition fee, e.g. HRK 8,000 for a natural sciences programme, and dividing it by 60 ECTS credits which is the equivalent of a full-time study programme. The resulting HRK 133.33 per ECTS point can then be multiplied with the amount of ECTS credits a part-time student decides to enrol in for the year. For instance, if a part-time student enrolls in half of the study programme, i.e. 30 ECTS credits, his or her annual tuition fee will be HRK 4,000.




**Table 2.21. Annual tuition fees for international students, by university and level of study, in HRK**

	Juraj Dobrila University of Pula	University of Dubrovnik	University of Rijeka	University of Split	University of Zadar	University of Zagreb
<b>Undergraduate</b>	No fee - EU exchange programmes.	Same as domestic fee.	Max 3 x domestic fee.	Same as domestic fee.	16,500	Highest domestic student fee.
<b>Graduate</b>	/	/	Max 3 x domestic fee.	Same as domestic fee.	16,500	Highest amount: 51,100
<b>Doctoral</b>	/	Same as domestic fee.	Max 3 x domestic fee.	/	/	Highest domestic student fee.

Source: ACCESS questionnaire

In Dubrovnik and Split international students pay the same amount as domestic students for undergraduate programmes. In Zadar international undergraduate students pay HRK 16,500 per year, which is higher than domestic yearly fees (maximum undergraduate 9,420 HRK). The University of Rijeka has a guiding rule for its constituent faculties which stipulates that international students may be charged a maximum of three times the domestic tuition fee. The University of Pula reports that all their international students currently study under EU programmes and funding, and that as a result they pay no fees to the university. The University of Zagreb applies the rule that international students in undergraduate and doctoral programmes are charged the highest domestic student fee, while the maximum amount charged at a graduate programme is 51,100 HRK. This data indicate that the Ministry of Science, Education and Sport's stipulation according to which universities are allowed but not required to charge international students higher tuition fees has been implemented in contrasting ways across Croatia's public universities: while some treat international students the same, others charge differential fees. Arguably such disparities, apart from not encouraging international student mobility, present specific obstacles if such students want to take courses outside the university they have enrolled in.

EU member states (Austria, Hungary, Germany and Sweden) are obligated by community law to treat international students from other member states as domestic students in all aspects including levels of tuition fees. In all four countries international non-EU students are charged tuition fees.

### Policy implications of data

This section suggests that tuition fees for international students across Croatian higher education institutions are not regulated which is similar to the situation for the tuition fees for home students.

### Comparative perspective: introduction of tuition fees for international, non-EU students in Sweden

While in Croatia both a proportion of domestic and in principle all international students currently pay tuition (except students taking part in exchange programmes), in Sweden tuition fees have traditionally not been permitted regardless of the students' status – domestic or foreign. This changed with a parliamentary decision from April 2010 in which international students are subject to tuition fees starting from the academic year 2011/2012. According to information provided on the official Swedish student portal<sup>21</sup>, the rule applies to undergraduate and master's programmes, while doctoral programmes remain tuition-free. This stipulation is applied, however, only to international students from outside the EU/EEA area. Fee amounts are set by higher education institutions themselves, and the "Study in Sweden" portal provides a range of annual fees between EUR 8,500 and EUR 15,000.

According to information provided by the Swedish National Agency for Higher Education<sup>22</sup>, during the academic year 2006/2007 two thirds of international students in Sweden were from Europe and the Nordic countries, while one fifth came from Asian countries. Asian student numbers are on the rise, and overall international student numbers are rising, especially in master's programmes. In the autumn semester 2008, 33 higher education institutions were offering 530 masters programmes in English.

### Tuition fees at professional higher education institutions

With respect to tuition fees charged at professional higher education institutions Croatia (for both Croatian students and international students), the Croatian Council of Universities and University Colleges of Applied Sciences does not collect systematic data on tuition fees charged by its member institutions since they are not obliged to provide the Council with financial reports. Hence, the data provided in Table 2.23 below provides only provisional guidance since it is based on feedback from only a few member institutions of the Council.

**Table 2.22. Annual tuition fee range at university colleges of applied sciences and universities of applied sciences, in HRK.**

Type of student	Universities of applied sciences	University colleges of applied sciences
Home	5,500 - 24,980	3,000 - 39,204
International	5,500 - 14,740	19,950 - 39,204

Source: ACCESS questionnaire

As can be seen from Table 2.22 above, the spread of annual tuition fees at professional higher education institutions is wide. However, unfortunately it is important to note that the Table does not make a distinction between public and private higher education institutions. As already mentioned, the vast majority of universities of applied sciences are public institutions, while university colleges of applied sciences are predominantly private. According to Bajo (2008), the average cost of study and tuition fees at public institutions are half the amount of those at private institutions providing programmes in the social sciences. The fees charged for undergraduate programmes are regulated by framework negotiations between Ministry of Science, Education and Sports and the Rectors' Council.

<sup>21</sup> Study in Sweden: <http://www.studyinsweden.se/How-To-Apply/Basic-information/Fees-and-costs/>

<sup>22</sup> Swedish National Agency for Higher Education website: [http://www.hsv.se/2\\_539a949110f3d5914ec800056285.html](http://www.hsv.se/2_539a949110f3d5914ec800056285.html)



The low end of the range of tuition fees at universities of applied sciences is equal to annual undergraduate fees in the social sciences and humanities at universities (HRK 5,000). The differences among academic disciplines are visible in Table 2.23 below.

**Table 2.23. Annual tuition fee range at universities of applied sciences and university colleges of applied sciences**

Tuition fees by field of study	Universities of applied sciences	University colleges of applied sciences
Natural sciences	7,000 - 9,250	/
Technical sciences	7,000 - 24,980	3,000 - 39,204
Biomedicine and health	/	3,750 - 10,500
Biotechnical sciences	6,700 - 7,370	/
Social sciences	5,500	4,500 - 39,204
Humanities	5,500 - 7,370	/
Interdisciplinary academic disciplines	/	19,950

Source: ACCESS questionnaire

Overall Table 2.23 shows that, similarly to the trends identified at universities, there is little regularity in annual amounts of tuition fees charged by professional higher education institutions across academic disciplines. In the field of technical sciences the widest spread was reported. Annual tuition fees range from HRK 3,000 to almost HRK 40,000 for an academic year. The Council reports that its constituent members use different criteria when determining tuition amounts, the main ones being: cost of resources, development costs, number of fee paying students and other expenses.

### Policy implications of data

The information in this section shows that, similarly to the situation at Croatian universities, there is little regularity with regard to tuition fees at professional higher education institutions in Croatia. In addition, social criteria are not systematically applied at public professional higher education institutions when tuition fees are charged.

### Increases in tuition fee amounts

In the academic year 1994/1995, the undergraduate tuition fee at universities in Croatia ranged between HRK 3,800 in the social sciences and humanities and HRK 6,300 in biomedical and natural sciences (annual data of Ministry of Science, Education and Sports on undergraduate tuition fees). Based on the data on tuition fee levels collected in this

study (see next section), in the period from 1994 to 2010 there has been an increase of around 46% in the amount of annual minimum tuition fees.

Data on increases in tuition fee amounts at specific universities in the last 5 years appears to give a more diverse picture as indicated in the Table below:

**Table 2.24. Tuition fee 2005-2009 trends for full-time students.**

University	Average increase in fee amount between 2005-2009
Juraj Dobrića University of Pula	No.
University of Dubrovnik	No.
University of Rijeka	No.
University of Split	Increase by 13.7%.
University of Zadar	Increase by 65%.
University of Zagreb	The average is 3.84% (though some faculties have increased the amount by 15%).

*Source: ACCESS questionnaire*

Universities in Pula, Rijeka and Dubrovnik report no increase in amounts of tuition fees charged during the last five year period. In contrast, the University of Zagreb reports an average increase of 3.84%, whereas the universities in Split and Zadar report more significant increases, with tuition fees at the University of Split increasing by 13.07% overall (the highest increases in the social sciences and humanities (27.27%) and the lowest in the arts and biomedicine and health (8.23%), while there has been a 13.42% decrease in the natural sciences). Tuition fees at the University of Zadar were reported to have increased by 10% in the humanities and a remarkable 65% for technical and social sciences. Since these percentages refer to a brief five year period, they represent significant increases.

### Policy implications of data

The information provided in this section reinforces the lack of regulation of the criteria for increasing tuition-fee levels.



### Exemptions from tuition fees

While all Croatian universities currently charge tuition fees, their senates are free to determine any additional criteria that might serve as a basis for the exemption from tuition fees. Such criteria are usually divided into those based on merit, and/or on need. Table 2.25 below presents information for Croatia's universities.

**Table 2.25. Criteria for exemption from tuition fees**

University	Merit criteria	Need criteria
Juraj Dobrila University of Pula	Yes. 10% of best performing students at each department are exempt from tuition.	No.
University of Dubrovnik	Yes. Students with a GPA of 4.5 and above are exempt from paying tuition fees.	Cases of students from disadvantaged backgrounds dealt with on an individual basis.
University of Rijeka	Yes. Successful completion of coursework (ECTS credits earned) is used as a criterion for exemption or reduction of fees.	Yes, but in combination with success at studies. Students who complete at least 80% ECTS and come from socially disadvantaged backgrounds are exempt from tuition.
University of Split	Yes. Successful completion of coursework (ECTS credits earned) is used a criterion for exemption or reduction of fees.	No.
University of Zadar	Yes. Students with high GPA (top 20%) are exempted from paying tuition fees.	Cases of students from disadvantaged backgrounds dealt with individually.
University of Zagreb	Yes.	Yes.

Source: ACCESS questionnaire

As can be seen from the table, most universities implement a system according to which payment status is related to study success. This trend is further strengthened with the newly proposed system of variable fees, according to which the accumulation of ECTS credits becomes the primary criteria of student success.



Criteria based on the social circumstances of the student or his/her family are not integral to tuition fee payment determination. The University of Rijeka does include a socially-based criterion, but in a system that is still predicated primarily on the concept of merit. The University of Zagreb reported exemption from fees based on social criteria, while the University of Dubrovnik reported that they addressed such cases on an individual basis.

Although none of the higher education institutions reported any systematic exemptions from tuition fees based on social circumstances, it should be noted that one state programme does provide fee exemptions for certain categories of students, based on the criterion of need, provided students comply with enrolment requirements. According to this state programme, students in the following categories have direct access to university without paying tuition fees: a disability of 60% or more, a disability that originated from Croatia's War of Independence, war veterans, students who lost parent(s) in the war, students whose parent(s) have 100% disability that originated from the war, and students whose parents are lost or imprisoned in the war. Persons falling within the mentioned categories have direct access to enrolment, without reference to their income levels or socioeconomic status, and there is no other national or institutional programme that takes into account income alone as the sole criterion for exemptions from tuition fees.

With respect to student financial aid at the university-level, based either on merit or social criteria, none of Croatia's universities report the existence of such programmes.

Regarding professional higher education institutions, the Council reports that in some member institutions some students are exempt from paying either full or partial tuition fees, however no further detail is provided on the precise criteria applied to grant exemption from tuition fees and whether any social characteristics are taken into account.

### Comparative perspective: exemptions from tuition fees

**Austria:** In Austria, students who fall into the category of fee-paying students due to a longer than prescribed time frame to complete their chosen programme of study, can still be exempt from paying fees if they are pregnant, have children in their care, have fallen ill, or for reasons of military service or work obligations. Such exemptions from fee-paying status represent instances where a student's social circumstances are taken into consideration.

**Sweden:** Social circumstances are also implicitly taken into account in Sweden where most students do not have to pay tuition fees.

**Hungary:** On the other hand, at Corvinus University only results of the enrolment procedure are taken into account when determining fee-paying status and not social circumstances.

### Policy implications of data

This section reinforces an earlier point in this study that tuition fees in Croatia are primarily merit-based. Indeed, social criteria such as work obligations, parenthood or low family income are not taken into consideration by higher education institutions when tuition fees are charged.



### Other student fees and financial contributions

In principle, apart from charging tuition fees, higher education institutions have the right to levy other types of financial contributions on students. For this reason Croatian higher education institutions were asked to report whether they charged other fees and, if so, what they amounted to. The data collected is presented in Table 2.26 below. All three types of fees are one-off fees.

**Table 2.26. Types of student financial contribution at university level and range of annual amount, in HRK.**

(Fees in HRK)	Enrolment fee	Entrance exam fee	Graduation fee
Juraj Dobrića University of Pula	280	/	500
University of Dubrovnik	250	/	300
University of Rijeka	330	220-330	200-1,000
University of Split	350	100-300	Variable.
University of Zadar	200	200	200
University of Zagreb	No data provided.	No data provided.	No data provided.

Source: ACCESS questionnaire

As can be seen from the table above, there are two types of levies which are charged at all universities: enrolment and graduation fees. While enrolment fees are similar at all universities (from HRK 200 to HRK 350), graduation fees vary more substantially, both within and among universities (from HRK 200 to HRK 1,000). Variation within universities means that, in the case of large decentralised universities such as the Universities of Split or Zagreb, certain constituent units charge a higher graduation fee than others. In addition, several universities charge a fee for the entrance examination at an amount similar to that of the enrolment fee (HRK 100 - HRK 330). The Universities of Dubrovnik and Pula do not charge entrance exam fees. All universities (the University of Zagreb did not provide information) report not charging any fees for taking exams.

#### Comparative perspective: student fees at the University of Maribor

The University of Maribor reports that their students pay an annual administrative fee of EUR 16 and an enrolment fee of EUR 18.60 for the first year, and EUR 12.70 for subsequent academic years. Having in mind that the standard of living in Slovenia is considerably higher than that in Croatia, the administrative fees levied on their students are comparatively lower.

In professional higher education institutions, as can be seen from Table 2.27 below, both universities of applied sciences and university colleges of applied sciences charge enrolment fees, entrance exam fees and graduation fees. In universities of applied sciences, the ranges are not so wide, even though the graduation fee does vary substantially, from HRK 100 to HRK 1,600. At university colleges of applied sciences, however, the ranges are significantly wide as both enrolment and graduation fees charged at some member institutions can reach as high as HRK 20,000. These administrative fees are significantly higher than the entire annual tuition fees at other higher education institutions, as was shown in other sections of this study. The Croatian Council of Universities and University Colleges of Applied Sciences did not provide additional details as to why the ranges are this wide, or what costs member institutions take into consideration when determining enrolment and graduation fees. However, the wide range is probably due to the fact that some university colleges of applied sciences are fully private institutions, where amounts of administrative fees are based on market criteria.

**Table 2.27. Types of student financial contribution at professional higher education level and range of annual amount, in HRK.**

	Universities of applied sciences	University colleges of applied sciences
Enrolment fee	200 - 300	280 - 20,000 (not explained)
Entrance exam fee	33 - 1,500	150 - 400
Graduation fee	100 - 1,600	250 - 20,000 (not explained)
Other		995 (not explained)

Source: ACCESS questionnaire

### Policy implications of data

This section shows that, apart from tuition fees, students at Croatian higher education institutions are expected to pay for other study-related fees which vary in amount across different higher education institutions. In other words, similarly to tuition fees, these financial contributions are not regulated.





# 04

## Financial planning and management at Croatian higher education institutions<sup>23</sup>

How a higher education institution creates its budgets, negotiates its funds, manages its finances, allocates them internally and reports on them is crucial for efficient and effective use of public funds. This section examines how public funds for higher education institutions are defined, how they are implemented, how tuition fee amounts are set, what financial data collection procedures there are and the organisation of financial services at universities.

### Negotiations on allocation of public funds

In Croatia, the state budget allocates funds for universities based on their operational plans and the structure of staff positions. The funds are transferred to the universities via the Ministry of Science, Education and Sports. These funds are meant to cover staff salaries, material expenses, basic segments of scientific, artistic and expert research, and research support services (libraries, IT departments, dormitories etc.), scholarships and loans, working and living conditions of employees and staff, and financial assistance for fees, development and investments.

When negotiating the lump-sum with the Ministry, most universities provide the following information: number of students, material expenses and number of staff. However, the data submitted to the Ministry and the negotiations practices are not identical for all universities. For example, the University of Dubrovnik does not include the number of students in these budget negotiations. Meanwhile, the University of Split also includes "past performances, financial statements and development plans" in their negotiations. Other than the above information, there are no public university reports that calculate the overall cost of study per student (the only such indicator offered might be the sum of staff and material expenses divided by the number of students).

Overall, as noted in the earlier report by Hunjak (2008), universities do not provide any indicator of successful performance of operations as a criterion for the allocation of public funds. This results in the overall public funding levels being dependent on the "historical" method of funding (based on the previous year's allocation), with only a slight increase to take into account GDP growth.

Regarding the allocation negotiations of professional higher education institutions, those institutions that receive funding from the state are required to provide, just as universities are, their number of students and staff, as well as their material expenses when preparing to negotiate their budget. Additionally, some member institutions of the Croatian Council of Universities and University Colleges of Applied Sciences calculate costs of study per student by taking into account staff salaries (and other related administrative costs) to student numbers: by dividing the sum of staff and material expenses divided by the number of students. As an illustration, this results in the following costs of study: HRK 19,280 and HRK 27,750 per student for technical science courses, and HRK 24,066 per student for social science courses. Of course, due to the limited data received on professional higher education institutions these figures are only illustrative and should not to be generalised to the collective body or the higher education system as a whole.

<sup>23</sup> Due to limited data collected through the Council of Universities and University Colleges of Applied Sciences, this section focuses primarily on universities, and not on professional higher education institutions.



### Comparative perspective: negotiating higher education institution budgets with the state

**Corvinus University:** Corvinus University in Budapest negotiates their budget with the state on a three-year basis (with provisions built in for the number of enrolled students), and the budgets of constituent faculties are already included at this stage, which makes up about 80% of the total university funding.

**University of Maribor:** The University of Maribor supplies the number of students annually (assuming the staff numbers stay fixed), and the relevant Ministry calculates the public funding based on a formula, with no negotiations between the state and the university.

**Mälardalen University:** Budgetary negotiations at Mälardalen University are a drawn out annual process based on three-year projections of student enrolment and development plans.

**University of Graz:** 4% of each faculty's annual budget at the University of Graz is tied to achieving strategic targets set in the previous years, with targets and related performance records available online.

To summarise, except for the Slovenian case, these budgetary negotiation processes are in stark contrast to Croatian universities and other higher education institutions where no programmatic negotiation of the budget for developmental goals is reported.

### Policy implications of data

The information provided in this section indicates that public funds are allocated to Croatian higher education institutions primarily according to the historical method.



### Implementation of lump-sum funding model

The so-called “lump sum” model for funding higher education institutions from the state means that the allocations for higher education institutions are transferred as a total annual amount for the operations the institution performs, and are then further distributed autonomously by the individual institutions’ budget. Some of these funds are earmarked for the “central university” budget for investments into developmental programmes and capital investments, but most of the funds are intended for constituent units of the university (faculties, departments, etc.) to cover teaching costs, with 67% of all expenditure going to staff salaries and short term contracts (Hunjak, 2008: 98/9).

At non-integrated universities, the effective implementation of lump-sum funding can be problematic. Although the agreed public funds are transferred to the universities as a lump sum, the legal status of the faculties prevents universities from managing these funds in any way other than distributing them according to the historical method - this reduces the possibility for strategic outreach into new fields and activities, as well as performance-related financial rewards.

As a part of this study, universities were asked to evaluate the success of the lump-sum funding model and the level of autonomy universities enjoy in managing these funds in Croatia. The responses of university representatives, summarised in the table below, suggest that a number of different opinions and experiences exist on this funding model and its implementation.

**Table 2.28. Lump-sum funding and the level of autonomy in lump-sum management.**

		Juraj Dobrila University of Pula	University of Dubrovnik	University of Rijeka	University of Split	University of Zadar
Evaluation of lump-sum success	successful					
	partly successful	•		•	•	•
	unsuccessful					
	other		•			
Evaluation of level of autonomy	autonomous			•		
	partly autonomous				•	•
	not autonomous	•	•			
	other					

Source: ACCESS questionnaire

Note: Information not provided by University of Zagreb.

Although most universities consider lump-sum funding as partly successful, their justifications for such an evaluation come from a range of different perspectives. On the one hand, the University of Dubrovnik abstained from qualifying lump-sum funding a success since it is not implemented at that institution.



On the other hand, the Universities of Zadar and Rijeka view the lump-sum model as only partially implemented, and are thus cautious in their evaluation of the success of this model. Finally, the Universities of Split and Pula indicate the conceptual, but not practical success of the lump-sum model.

Most of the arguments provided for why this system is not a complete success stems from the lack of autonomy in managing lump-sum allocations. Namely, the fact is that the lump-sum allocation carries with it specific instructions regarding the budgetary lines it is intended to contribute to (e.g. salaries, material expenses), whilst universities are mainly left on their own to manage the maintenance of equipment and procurement of outsourced services. Only the University of Rijeka qualified itself as fully autonomous in distributing their lump-sum allocation.

From the perspective of officials who completed this study's questionnaire, and with regard to the strengths and weaknesses of the internal allocation of funds, the University of Rijeka mentioned that the lump-sum system provides only a "theoretical" allocation of resources at the University level towards faculties. In practice, such an allocation is not possible due to the non-integrated nature of the University. The University of Pula noted a lack of institutional autonomy in spending funds, suggesting the state decides on ways of spending the allocated budget. A criticism of the internal allocation of funds made by the University of Zadar related to its unreliability as a result of not using the budgeting system of "full-costing".

### Comparative perspective: fund allocation

In the case of Mälardalen University and the University of Graz, through integrated financial management these institutions have greater freedom to redistribute funds in accordance to the needs and performance of individual constituent units than is the case in Croatia.

**Mälardalen University:** Mälardalen University receives all its funding from the state, except for donations. The funding it receives per student and subject area can be redistributed within the university in accordance with its own priorities and abilities. Thus, due to insufficient allocations from the state budget, humanities and social sciences are supplemented with additional funds that are sourced from other departments.

**University of Graz:** There are no national guidelines on how to distribute and account for lump-sum funds within individual universities in Austria, but the University of Graz is ultimately accountable to the state through the use of performance-based indicators that are agreed upon in three-year performance cycles.

**TU Dresden:** There is no lump-sum funding at Dresden University, no tuition fees, and allocations of funds are conditional only on the number of enrolled students.

**Corvinus University:** Corvinus University in Budapest is a publically-funded institution which according to Hungarian law has explicit limitations on the flexibility of resource allocation.

### Policy implications of data

The information provided in this section shows that the autonomy of Croatian universities in deciding how to allocate these funds is only partly successful.



### Procedure for setting maximum tuition fee amounts

Another aspect of financial management is how tuition fee levels are defined and regulated. In Croatia, the maximum amounts of tuition fees for full-time undergraduate programmes are not capped or closely regulated by the state, nor are the criteria for their application. However, decisions on both amounts and criteria are initially agreed upon in consultation between the universities in the Rectors' Council and the Ministry of Science, Education and Sports, and subsequently set by the university senates. University senates represent the central decision making body, which involves heads of all constituent units and which adopts rules pertaining to tuition fees. In their work university senates are guided by the conclusions and proposals put forward by the Rectors Council.

With respect to defining the criteria used in deciding on the amount of maximum tuition fees, universities most often single out the cost of resources for course provision: teaching staff time, library resources and administrative costs incurred. In addition, the University of Rijeka also takes into consideration whether a study programme is taking place in the main buildings of the university, or at a dislocated university unit. None of the universities mentioned student numbers or student workload as a relevant criterion for setting the maximum levels of tuition fees.

In practice, however, the national coordination process between the Ministry of Science, Education and Sports and the Rectors Council result in widely varying levels of fees at different higher education institutions. It is therefore not clear precisely how the recommended maximum amounts of tuition fees for undergraduate studies are calculated.

### Collection of financial data

As is evident throughout this report, which only confirms the findings of Hunjak (2008), financial reporting and data management across public university constituents is not standardised and is seldom analysed for "comparison of efficiency of funding and service provision at institutions of higher education within universities" (Hunjak, 2008). In some cases the university rectorates do not have complete information on own-income amounts and sources, nor on their utilisation across various constituent faculties and departments.

The University of Split reports collecting the greatest variety of financial data sources, while the Universities of Zadar and Pula are fully integrated universities where all accounting and reporting is conducted at the central level.

Hunjak (2008) reports that universities in Croatia collect some data on the financial aspects of their operations, but that it is incomplete and not unified across the individual institutions' constituents and across institutions on the whole. This data is seldom made available to the public, and no comparison is made on the financial efficiency and the level of fulfilment of the primary function. Expertise in financial data management and presentation is also a problem, as is the lack of recording systematic data across the sector. This is, according to Hunjak (2008), most clearly the case regarding the own income of institutions.

Hunjak (2008) is of the opinion that there is no interest in the systematic recording and reporting of university financial data. In that respect, no unified system of indicators of financial performance has been developed or applied across universities. However, in this study the University of Rijeka reports a forthcoming introduction of such a system across its faculties and departments. This is one of the prerequisites for better management and a more equitable distribution of available funds, as well as for the full implementation of the lump-sum funding model.

## Policy implications of data

This section indicated that there is a need for more systematic collection of financial data at Croatian higher education institutions.

## Organisation of financial services

Financial services at various institutions are organised in different ways, as reflected in the table below. The table indicates the offices responsible for financial services at the institution and subdivision levels. The table also indicates the number of staff in charge of financial activities, and the overall ratio compared to academic staff and student numbers.

The offices in the table include:

- **Accounting** (balance sheets, taxation, payment execution and State Treasury withdrawals)
- **Finance** (monthly and three-year financial planning, project and loan support and financial management, reporting to the state and auditors, and insurance)
- **Finance and Accounting** (combining the functions above including further education of financial staff and drafting universal financial management guidelines, and supervision of individual constituent institution offices)
- **Commercial Services** (acquisition plans, procurement and purchase).

It is interesting to compare the various offices across institutions and the staff available in light of Hunjak's (2008) assessment that higher education institutions in Croatia sometimes lack staff trained to analyse financial data and manage higher education institution finances.

## Comparative perspective: organisation of financial services

**Corvinus University:** Corvinus University in Budapest has a single Central Financial Office, which includes the Controlling Department and a Human Resource Department, with 121 employees (finance/admin staff ratio of about 0.10; finance staff/student ratio of 0.0068)<sup>24</sup>.

**Mälardalen University:** Mälardalen University has a single central office for budget and finance employing 8 people, with a further 1-2 financial administration staff at individual departments.

**TU Dresden:** There are 385 people employed at the central Financial Services Office at TU Dresden (finance staff/student ratio of about 0.0107).

**University of Graz:** All finances are handled centrally at the University of Graz, through offices of Resource Planning, and Accountancy and Control (finance staff/student ratio of 0.0015, with 40 people employed).

None of the partially-integrated Croatian universities have financial and budgetary services centralised to this extent, resulting in different accounting practices across constituent faculties.

<sup>24</sup>For the ratios and the rationale behind them see the following paragraph and table.



The following table aims to calculate tentative indices of different institutions' potential to implement better financial management and provide financial support information to students and executive officers. In that light, the ratios of financial to overall administrative staff and financial staff to number of students were provided. The calculated ratio indices are a tentative measure of comparative potential across universities for student financial management assistance, with no absolute value set as ideal.

**Table 2.29. Offices of financial management at university and faculty/department levels.**

	Juraj Dobrića University of Pula	University of Dubrovnik	University of Rijeka	University of Split	University of Zadar	University of Zagreb
Number of finance and accounting staff	7	8	51	~55	7	Data not provided.
Finance/admin staff ratio	0.10	0.09	0.12	0.11	0.07	Data not provided.
Finance staff/student ratio	0.0024	0.0039	0.0026	0.0024	0.0017	Data not provided.

Source: ACCESS questionnaire

The above data shows an evenly split financial management potential with respect to the total number of administrative staff available, though there are slight differences favouring finance and accounting staff at the University of Rijeka, and showing a slight deficiency at the University of Zadar. If the ratio of finance and accounting staff to overall administrative staff was a measure of a university's potential to manage more complex financial planning and implementation, the University of Zadar could benefit from directing more administrative staff members towards financial management, while the University of Rijeka would be in the best starting position. There are caveats though in the overall level of integration of universities, where financial management staff may be unevenly distributed across faculties and departments. For example, data for the University of Split gives a rough estimate of finance and accounting staff - on average three per department across 16 departments, whereas in actuality this number varies from one to seven.

A further and more important indicator of financial management potential across universities, especially in light of the warning in Hunjak (2008) concerning the poor training of university staff for financial management, is the ratio of finance and accounting staff to total number of students.

In this respect the situation among universities differs to a great extent, with Dubrovnik University exhibiting the most favourable ratio (0.0039) and the University of Zadar, again, the most unfavourable ratio (0.0017). The other institutions do not differ greatly in this aspect, and are situated around the 0.0025 ratio mark, thus closer to the lower of the two extremes. Again, these aggregate figures hide the differences across faculties and departments, the first interface for student communication with universities.



All universities, except the University of Dubrovnik, report having internal procedures of financial control in place, yet no specific information is provided. The University of Dubrovnik reports that they are currently undergoing the process of establishing such procedures.

The situation with financial management between specific universities of applied sciences and university colleges of applied sciences is even scarcer and permits no conclusions with respect to the potential for financial management at individual institutions. However, the ratio at the system level, both for university colleges of applied sciences (0.0040) and universities of applied sciences (0.0039) enables comparisons to be made with the situation at universities. This shows that the ratio of financial staff available per student is higher (and therefore more advantageous) compared to that of universities. These institutions also report having internal procedures of financial control.

### **Policy implications of data**

This section has drawn attention to the financial management potential of higher education institutions in Croatia. The information provided suggests an evenly split financial management potential with respect to the total number of administrative staff available across the Croatian higher education institutions with some institutions being in a slightly more favourable position than others. Expertise in finance data management and transparent presentation of financial data has been identified as a challenge.





# Annexes

## A. References

Agencija za znanost i visoko obrazovanje [AZVO] (2010). Polazne osnove za mrežu visokih učilišta i studijskih programa u Republici Hrvatskoj. Available at: [http://azvo.hr/nvvo/images/stories/dokumenti/Polazne\\_osnove\\_za\\_mre%C5%BEu\\_visokih\\_u%C4%8Dili%C5%A1ta\\_i\\_studijskih\\_programa\\_u\\_RH.pdf](http://azvo.hr/nvvo/images/stories/dokumenti/Polazne_osnove_za_mre%C5%BEu_visokih_u%C4%8Dili%C5%A1ta_i_studijskih_programa_u_RH.pdf)

Austrian Bureau of Statistics (2008). Information available at: <http://www.statistik.at>

Babić, Z., Matković, T. & Šošić, V. (2006). Structural Changes in Tertiary Education and Impacts on the Labour Market. *Privredna kretanja i ekonomska politika*, 16(108), 28–65.

Babić, Z. (2005). Participation Rates and Investment in Education in Croatia. *Economic Trends and Economic Policy*, 101, 28–53.

Bajo, A. (2008). Financiranje visokih učilišta po sveučilištima i područjima znanosti, in: A. Bajo (ed.) *Financiranje visokih učilišta: Troškovi studija i školarine na hrvatskim visokim učilištima* (str.105-135), Zagreb: Institut za javne financije.

Bajo, A. (2008a). Financiranje visokih učilišta u Hrvatskoj. Available at: [http://www.ijf.hr/Pdf/bajo-znanost.ppt#348,3,Metode\\_istraživanja](http://www.ijf.hr/Pdf/bajo-znanost.ppt#348,3,Metode_istraživanja)

Beerens-Soo, M. & Vossensteyn, H. (2009). Higher education issues and trends from an international perspective. Report prepared for the Veerman Committee. Twente: CHEPS.

Bohonnek, A., Camilleri, A.F., Griga, D., Muhleck, K., Miklavić, K., Orr, D. (2010). Evolving diversity – An overview of equitable access to Higher Education in Europe. Available at: <http://www.equinet.info/>

Bologna progress report Austria (2008). Available at: [http://www.ond.vlaanderen.be/hogeronderwijs/bologna/links/National-reports-2009/National\\_Report\\_Austria\\_2009.pdf](http://www.ond.vlaanderen.be/hogeronderwijs/bologna/links/National-reports-2009/National_Report_Austria_2009.pdf)

Bologna progress report Croatia (2009). Available at: [http://www.ond.vlaanderen.be/hogeronderwijs/bologna/links/National-reports-2009/National\\_Report\\_Croatia\\_2009.pdf](http://www.ond.vlaanderen.be/hogeronderwijs/bologna/links/National-reports-2009/National_Report_Croatia_2009.pdf)

Bologna progress report Germany (2007–2009). Available at: [http://www.ond.vlaanderen.be/hogeronderwijs/bologna/links/National-reports-2009/National\\_Report\\_Germany\\_2009.pdf](http://www.ond.vlaanderen.be/hogeronderwijs/bologna/links/National-reports-2009/National_Report_Germany_2009.pdf)

Cvitan, M., Doolan, K., Farnell, T., Matković, T. (2011). Social and Economic Conditions of Student Life in Croatia: National EUROSTUDENT survey report for Croatia. Zagreb: Institute for the Development of Education.

Croatian Bureau of Statistics (2010). Education data. Available at: <http://www.dzs.hr/>

Croatian Bureau of Statistics (2011). Students 2009/2010 Academic Year – Statistical Report, Zagreb: Croatian Bureau of Statistics

Centre for Higher Education Policy Studies [CHEPS] (2010). Higher education investments: International comparison. Twente: CHEPS.

Centre for Higher Education Policy Studies [CHEPS] (2007). Higher education in Germany. Twente: CHEPS.

Dolenec, D. (2009). Modeli financiranja visokog obrazovanja: primjeri prakse u devet zemalja Europske unije. Zagreb: Institut za razvoj obrazovanja.

European University Association [EUA] (2008). Financially sustainable universities, Towards full costing in European universities. Brussels: EUA.

Eurostat (2010). Indicators on education finance and non-finance. Available at: [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Tertiary\\_education\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Tertiary_education_statistics)

Eurostat (2009). Key figures on Europe. Available at: [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-EI-08-001/EN/KS-EI-08-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-EI-08-001/EN/KS-EI-08-001-EN.PDF)

Eurostat (2007). Indicators on education finance and non-finance. Available at: [http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/main\\_tables](http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/main_tables)

Eurostudent Report for Germany (2005). Social and Economic Conditions of Student Life in Europe. Hannover: HIS.

Eurydice (2006/07). The Education System in Hungary. Brussels: European Commission.

Farnell, T. (2009) „Osigurava li besplatno obrazovanje jednak pristup obrazovanju?“, Available at <http://www.iro.hr/hr/javne-politike-visokog-obrazovanja/kolumna/besplatno-obrazovanje/>

Gašparović, F. (2007). Presentation: Capacity building for research in Croatia. Available at: [http://www.unist.hr/Portals/0/docs/University%20of%20sijek\\_FILIP%20GASPAROVIC.ppt](http://www.unist.hr/Portals/0/docs/University%20of%20sijek_FILIP%20GASPAROVIC.ppt)

Havelka, M. (2003). Visoko obrazovanje u Hrvatskoj i europskim zemljama - Prilog usklađivanju visokog obrazovanja u Hrvatskoj s europskim visokim obrazovanjem, Biblioteka "Zbornici" Knjiga 10. Zagreb: Institut društvenih znanosti "Ivo Pilar".

Hunjak, T. (2008). Financiranje visokih učilišta, in: A. Bajo (ed.) Financiranje visokih učilišta: Troškovi studija i školarine na hrvatskim visokim učilištima (str.91-104), Zagreb: Institut za javne financije.

Jongbloed, B. (2010). Funding higher education: a view across Europe. Brussels: ESMU.



Kaulisch, M. & Huisman, H. (2007). Higher Education in Germany, country report. Twente: CHEPS.

Kottmann, A. (2008). Higher Education in Austria, country report. Twente: CHEPS.

Matković, T. (2009). Pregled statističkih pokazatelja participacije, prolaznosti i režima plaćanja studija u Republici Hrvatskoj 1991.-2007. Revija za socijalnu politiku, 16, 2, 239-250.

Ministry of Science, Education and Sports, Republic of Croatia [MSES] (2005). Education Sector Development Plan Report available at: <http://public.mzos.hr/Default.aspx?sec=3135>

Ministry of Science, Education and Sports of the Republic of Croatia [MSES], annual data on levels of tuition fees for undergraduate studies; available upon request

Ministry of Science, Education and Sports of the Republic of Croatia [MSES] (2011). Student enrolment. Available at (in Croatian): <http://public.mzos.hr/Default.aspx?art=6934&sec=3305>

Ministry of Science, Education and Sports of the Republic of Croatia [MSES] (2010). Public announcement on 'Graduate studies remain free of tuition fees', September 13, 2010, announcement available at (in Croatian): <http://public.mzos.hr/Default.aspx?art=10170>

Ministry of Science, Education and Sports of the Republic of Croatia [MSES] (2009.a). Higher Education. Retrieved 5 September 2011 from web site of the Ministry of Science, Education and Sports: <http://public.mzos.hr/Default.aspx?art=5863&sec=2510>

Ministry of Science, Education and Sports of the Republic of Croatia [MSES] (2007). Overview of Achievements 2004 - 2007. Zagreb: Ministry of Science, Education and Sports.

Ministry of Science, Education and Sports of the Republic of Croatia [MSES] (2007). OECD Thematic Review of Tertiary Education Country Background Report for Croatia. Zagreb: Ministry of Science, Education and Sports.

Organisation for Economic Cooperation and Development [OECD] (2010). Education at a Glance. Indicators. Available at: [http://www.oecd.org/document/52/0,3343,en\\_2649\\_39263238\\_45897844\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/52/0,3343,en_2649_39263238_45897844_1_1_1_1,00.html)

Organisation for Economic Cooperation and Development [OECD] (2009). Education at a Glance. Indicators. Available at: [http://www.oecd.org/document/24/0,3343,en\\_2649\\_39263238\\_43586328\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/24/0,3343,en_2649_39263238_43586328_1_1_1_1,00.html)

Organisation for Economic Cooperation and Development [OECD] (2008). Reviews of Tertiary Education: Croatia. Paris: OECD.

Puzić, S. Doolan, K., Dolenc, D. (2006). Socijalna dimenzija "Bolonjskog procesa" i (ne)jednakost šansi visokog obrazovanja: neka hrvatska iskustva. Sociologija sela, 44, 172-173 (2-3): 221-243.

Shavit, Y., Arum, R., Gamoran, A. (eds) (2007). Stratification in Higher Education: A Comparative Study. Stanford: Stanford University Press

Slovenia.si, webportal with information on Slovenia including studying, available at: <http://www.slovenia.si/en/study/tuition/>

Statistical Office of the Republic of Slovenia (2010). Rapid reports. Education. Available at: [http://www.stat.si/eng/tema\\_demografsko\\_izobrazevanje.asp](http://www.stat.si/eng/tema_demografsko_izobrazevanje.asp)

Statistical Office of the Republic of Slovenia (2009). Rapid reports. Education. Available at: <http://www.stat.si/doc/statinf/09-SI-271-0901.pdf>

Study in Sweden website, 'Fees and Costs', available at <http://www.studyinsweden.se/How-To-Apply/Basic-information/Fees-and-costs/>

Swedish Student Portal Study in Sweden: 'Basic information on Fees and Costs', available at <http://www.studyinsweden.se/How-To-Apply/Basic-information/Fees-and-costs/>

Swedish National Agency for Higher Education [SNAHE] (2009). Information on the composition of foreign students in Sweden. Available at <http://www.hsv.se/highereducationinsweden/studyingatheis.4.28afa2dc11bdc557480002471.html>

UNESCO/Global University Network for Innovation (2006). Higher Education in the World 2006: The financing of universities. Palgrave Macmillan.

University of Split (2010). Senate Decision (in Croatian: Odluka Senata od 19. svibnja 2010.), Available at the university website: [www.unist.hr](http://www.unist.hr)

Vukasović, M. (ed.) (2009). Financing Higher Education in South-eastern Europe: Albania, Croatia, Montenegro, Serbia, Slovenia. Centre for Education Policy: Belgrade.

## B. Higher education institutions in Croatia - fact files

This annex provides basic information about higher education institutions in Croatia, including an overview of their faculties or departments, number of students and staff, as well as an overview of income trends over the past five years. Data is provided in detail for the universities of Dubrovnik, Pula, Rijeka, Split, Zadar and Zagreb, while a summary overview of professional higher education institutions is provided through information on the Croatian Council of Universities and University Colleges of Applied Sciences.

### 1. Council of Universities and University Colleges of Applied Sciences

The Act on Higher Education Institutions from 1993 established a dual higher education system in Croatia, divided into academic and professional tracks. Currently around 21% of all students in Croatia study at professional higher education institutions - 15% at universities of applied sciences, and 6% at university colleges of applied sciences. In numbers, during the academic year 2009/2010 a total of 22,034 students studied at universities of applied sciences and 9,027 at university colleges of applied sciences (Croatian Bureau of Statistics 2010). Some of these institutions are publicly funded, mainly through the founding body, which can be either, or combination of, national, regional or local level government.

Regarding their legal status, the Act on Science and Higher Education stipulates that universities of applied sciences and university colleges of applied sciences are governed by governing boards. The majority of seats in the governing board are occupied by the founding institution, which in the case of public universities of applied sciences and public university colleges of applied sciences is either the national, regional or local government (Article 49). This in turn means that this sub-sector of higher education institutions does not enjoy full autonomy which is granted to universities by the same Act. Furthermore, the difference between universities of applied sciences and university colleges of applied sciences is that universities of applied sciences must have at least three study programmes covering at least three different academic disciplines, while university colleges of applied sciences can be founded with programmes in fewer than three academic disciplines.

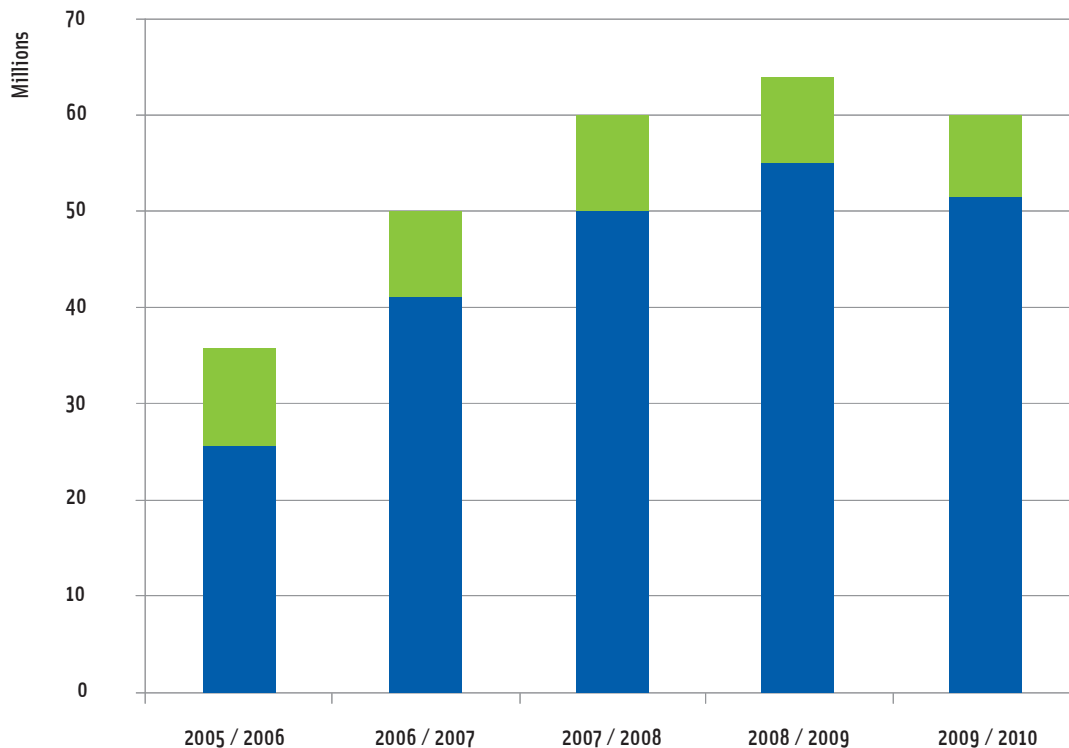
Professional higher education institutions are members of the Council of Universities and University Colleges of Applied Sciences. A recent report from AZVO (2010) reports that there are currently 15 universities of applied sciences and 30 university colleges of applied sciences educating students in Croatia.

The Council submitted questionnaires for this survey to its member institutions, and reported findings for the 17 members that returned data. Since the member institutions which reported data for the purpose of this research report number 10,471 students in total, the data provided in the study includes approximately a third of the total population of students in professional higher education institutions and approximately 40% of member institutions. Hence it is not conclusively representative of the entire population of either institutions or students of professional higher education.

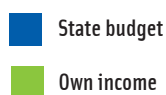
## 2. University of Dubrovnik

The University of Dubrovnik is a fully integrated university founded in 2003. It contains the following departments: Department of Aquaculture, Department of Electrical Engineering and Computing, Department of Economy and Business Economy, Maritime Department, Department of Mass Communication, Department of Art and Restoration and a professional study Nursing programme. It had a total of 2,064 students in 2008/09, without any change in the size of the student body over the last five years. The total number of full-time academic staff is 155 (student staff ratio of 1:13), supported by 87 administrative staff.

### Income over last 5 years (HRK)



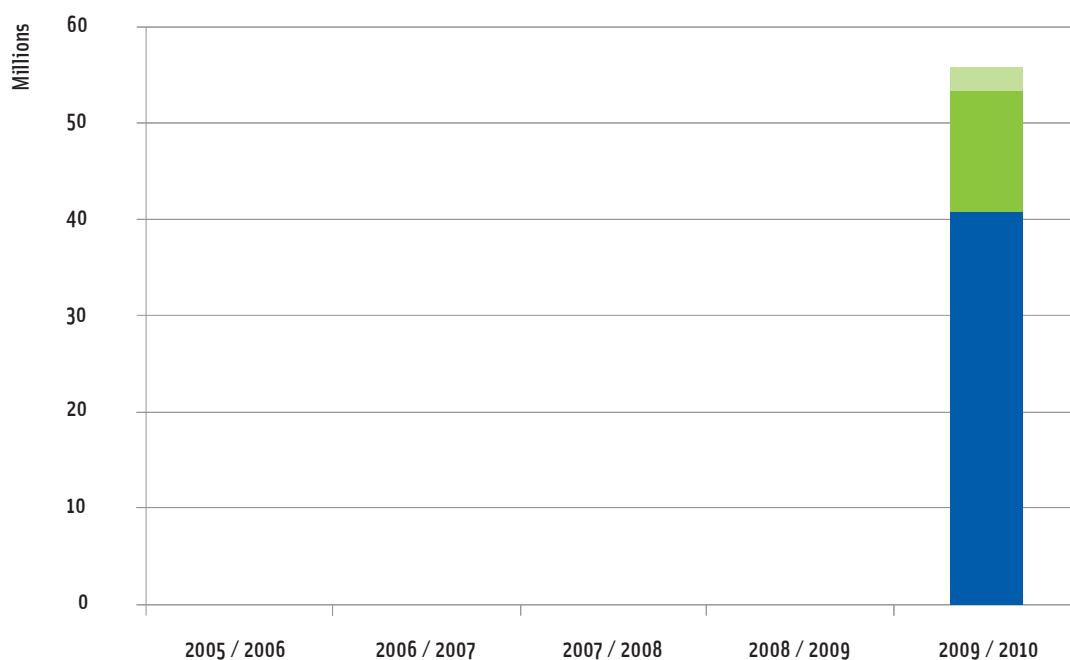
Source: ACCESS questionnaire



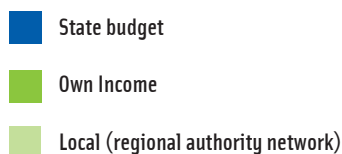
### 3. Juraj Dobrila University of Pula

The University of Pula is an integrated university founded in 2006. It contains the following departments: Department of Economics and Tourism "Dr. Mijo Mirković", Department for Humanities, Department of Pre-school and Primary School Teaching, Music Department, Department for Italian Language, University Undergraduate Interdisciplinary Study Programme of Culture and Tourism and a University Undergraduate Interdisciplinary Study Programme in Marine Science. The total number of students in 2009/10 was 3,245, which was a 21% increase compared to five years ago. The total number of full-time academic staff is 160 (1:14 staff-student ratio), supported by 73 administrative staff.

#### Income over last 5 years (HRK)



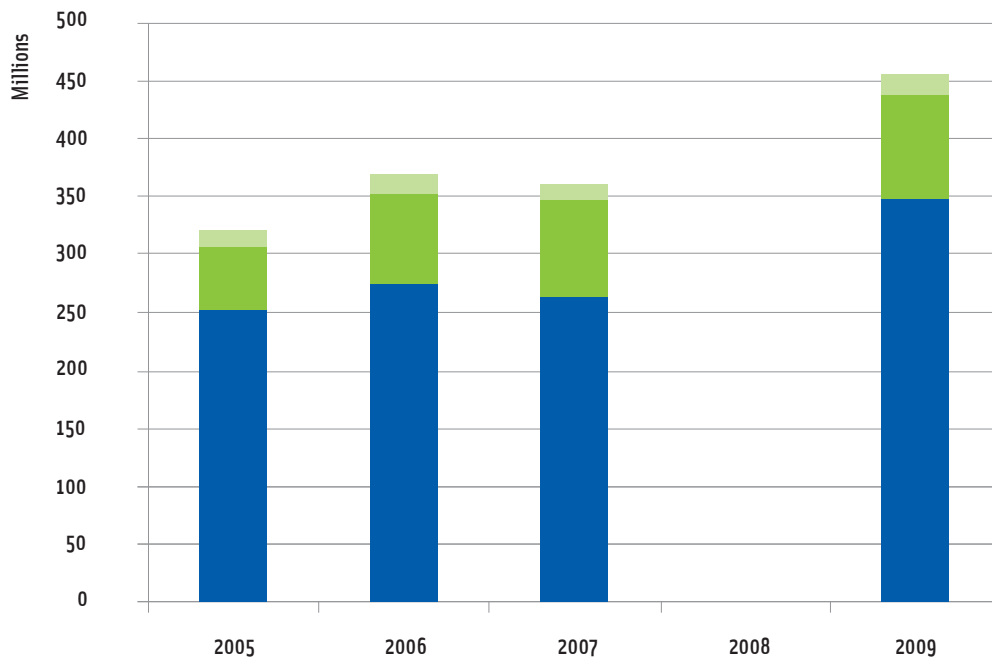
Source: ACCESS questionnaire



#### 4. University of Rijeka

The University of Rijeka was founded in 1973. It consists of 10 faculties (Academy of Applied Arts, Faculty of Economics, Faculty of Tourism and Hospitality Management, Faculty of Humanities and Social Sciences, Faculty of Civil Engineering, Faculty of Medicine, Faculty of Maritime Studies, Faculty of Law, Faculty of Engineering and Faculty of Teacher Education) and four departments (University Department of Biotechnology, University Department of Physics, University Department of Informatics, University Department of Mathematics). It had 19,213 students in 2009/10, an increase of 6% over five years. There are 798 full-time academic staff (staff-student ratio of 1:17), supported by 412 administrative staff.

#### Income over last 5 years (HRK)<sup>25</sup>



Source: ACCESS questionnaire

- State budget
- Own Income
- Other sources (county, city, donations, international assistance, financial capital income)

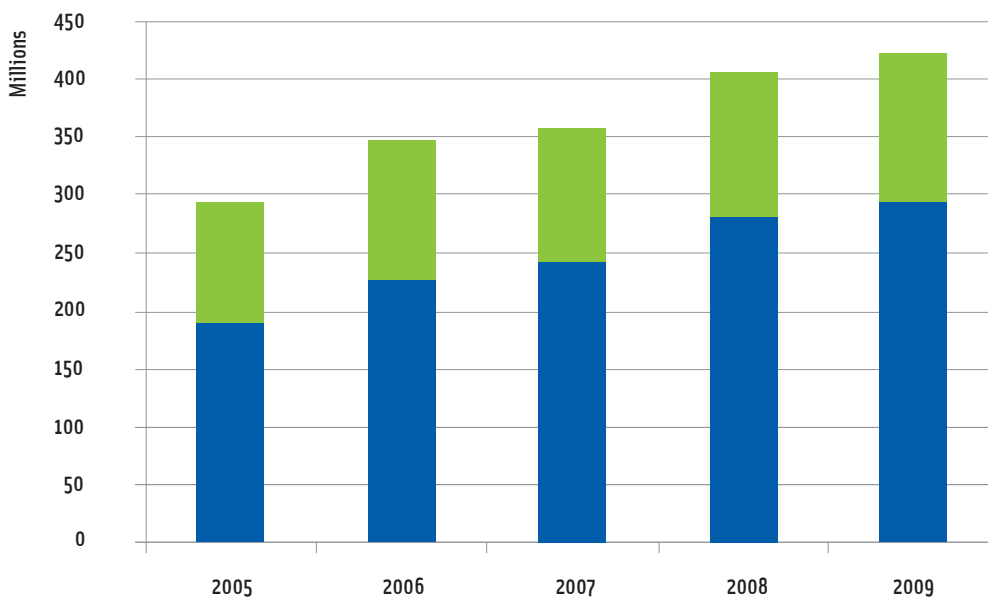
<sup>25</sup> Data for 2008 is not presented on the graph as it includes an unspecified amount for the campus development investment and thus significantly skews the trends. The campus development funds have been specified for the year 2009 and have thus been excluded from the graphic presentation here.



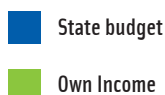
## 5. University of Split

The University of Split was officially established in 1974. It has expanded during the course of the past 30 years and now consists of ten faculties (Faculty of Catholic Theology, Faculty of Chemistry and Technology, Faculty of Civil Engineering and Architecture, Faculty of Economics, Faculty of Electrical Engineering, Mechanical Engineering and Naval Construction, Faculty of Kinesiology, Faculty of Law, Faculty of Medicine, Faculty of Natural Sciences, Mathematics and Education, Faculty of Philosophy and a Maritime Faculty), one Academy of Arts, two University Colleges and two University Departments, as well as several institutes and research units. In 2009/10 it had 23,350 students, an increase of 9.1% over five years. The total number of full-time academic staff is 1.091 (staff-student ratio 1:15), with 513 administrative staff.

### Income over last 5 years - excluding loan funds (HRK)



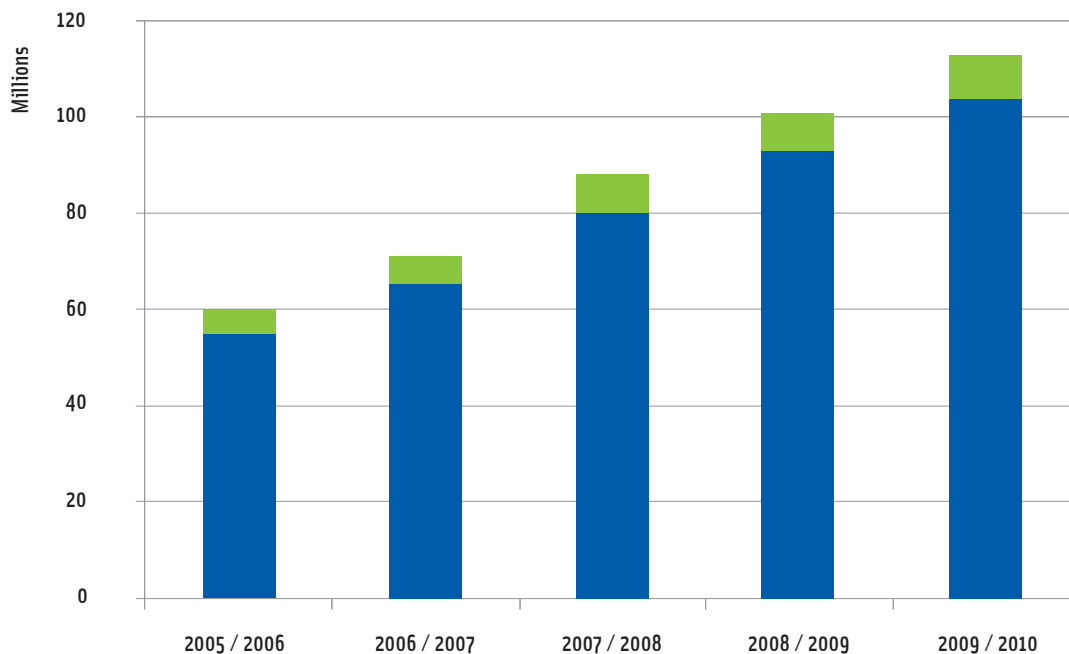
Source: ACCESS questionnaire



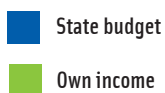
## 6. University of Zadar

The University of Zadar was established in 2003 as an entirely integrated university, containing 21 departments: Archaeology, English Language and Literature, Philosophy, French Language and Literature, Geography, Information and Communication Sciences, Classical Philology, Croatian and Slavonic Studies, German Language and Literature, Pedagogy, History, Psychology, Sociology, Italian Language and Literature, Department of Teachers and Preschool Educators, Ethnology and Socio-cultural Anthropology, Librarianship, Maritime Affairs and Traffic, Economics and Agriculture and Mediterranean Aquaculture. It had 5,179 students in 2009/2010, an increase of 18% over five years. The total number of academic staff is 358 (staff-student ratio 1: 11), with a further 107.5 full-time administrative staff.

### Income over last 5 years (HRK)



Source: ACCESS questionnaire

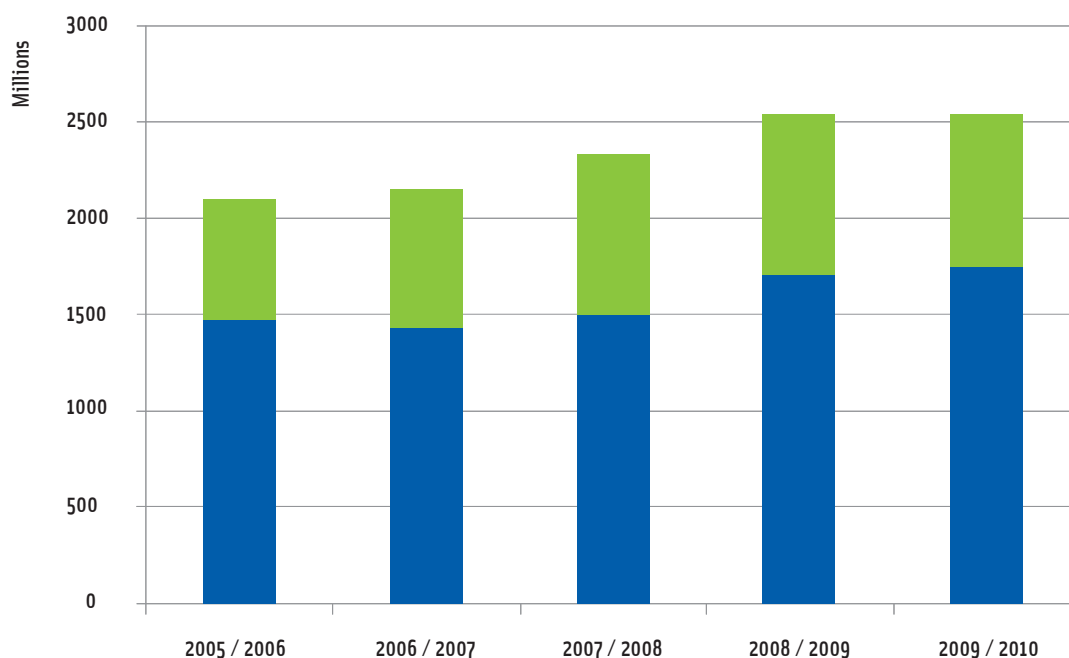


## 7. University of Zagreb

Zagreb is the oldest and largest of Croatian universities, with difficult issues of integration. It is comprised of 29 faculties (Catholic Faculty of Theology, Faculty of Agriculture, Faculty of Architecture, Faculty of Chemical Engineering and Technology, Faculty of Civil Engineering, Faculty of Education and Rehabilitation Sciences, Faculty of Electrical Engineering and Computing, Faculty of Food Technology and Biotechnology, Faculty of Forestry, Faculty of Geodesy, Faculty of Geotechnical Engineering, Faculty of Graphic Arts, Faculty of Kinesiology, Faculty of Law, Faculty of Mechanical Engineering and Naval Architecture, Faculty of Metallurgy, Faculty of Mining, Geology and Petroleum Engineering, Faculty of Organisation and Informatics, Faculty of Pharmacy and Biochemistry, Faculty of Philosophy, Faculty of Political Science, Faculty of Science, Faculty of Textile Technology, Faculty of Transport and Traffic Engineering, Faculty of Veterinary Medicine, Graduate School of Economics and Business, Medical School, School of Dental Medicine and a Faculty of Teacher Education), three academies (Academy of Dramatic Art, Academy of Fine Arts and an Academy of Music) and a Centre for Croatian Studies.

The university's webpage (<http://www.unizg.hr/homepage/>) states it has over 50,000 students on full-time undergraduate and graduate courses, with an unspecified number of part-time students. It also contributes to over 50% of the total research output of Croatia as a whole.

### Income over last 5 years (HRK)



Source: ACCESS questionnaire



## C. Glossary of terms

Although most of the terms used are in accordance with national and international literature on the subject, and most terms will be known by stakeholders in the field of higher education, the following comments and definitions of terms used may be of assistance for reading the report:

**Higher education funding:** the term will refer exclusively to the funding of costs relating to the activity of teaching at higher education institutions, and not to the funding directed at higher education institutions for research, capital investments, etc., nor to the funding directed at students through grants, subsidies and other forms of financial support. Any referral to the latter categories of funding for higher education institutions will be made explicit.

Additionally, although in some literature (e.g. Vukasović et al, 2009) a distinction is made between the terms “funding” for higher education (which relates only to public funds) and higher education “financing” (which relates to all other sources of income of higher education), in this report “funding” will refer to both public and private sources of income.

**Universities:** throughout the report, the term will always refer to public universities, unless specifically mentioned otherwise.

**Professional higher education:** in binary higher education systems, this term refers to the part of system that provides study programmes that are more vocationally- oriented, compared to more theoretically-based, academic study programmes provided at traditional research universities. The term “professional higher education” is used in this report, in line with the use of the term by the sector’s umbrella organisation in Europe, EURASHE (European Association of Institutions in Higher Education), instead of the terms “vocational higher education” or “non-university higher education”, which are sometimes used internationally.

**Universities of applied sciences and university colleges of applied sciences:** these terms will be used to describe the two types of professional higher education institutions that exist in Croatia. It should be noted, though, that the English translation for the Croatian terms for these institutions is not agreed among stakeholders in Croatia. The former (veleučilišta) is translated by the Ministry as “polytechnics”, whereas the latter (visoke škole) is translated as “colleges of applied science”, whereas the Council of Universities and University Colleges of Applied Sciences uses the terms used in this report.

**Incremental or historical funding:** incremental funding refers to a funding system whereby previous allocations to higher education institutions play a leading role (hence “historical” allocations or “historical funding”), and whereby certain adjustments are made based on increases in students, staff, etc.

**Lump-sum funding and line-item funding:** Lump-sum funding refers to the method of allocating of funds from the state to higher education institutions in a way which allows them to freely allocate the funds within their institution according to their priorities. This differs from line-item funding, which refers to public funding that requires higher education institutions to conform to pre-arranged budgets, without the flexibility to reallocate funds internally.

**Own income and third-party income:** in this report, own income refers to all income received by higher education institutions other than public funds – this includes income from tuition fees, administrative charges, development projects, services, donations, etc. Third-party income, on the other hand, is a sub-category within “own income”, but refers to all funding that is neither public funding nor income derived from students through tuition fees or administrative charges.



## D. About the ACCESS project

This study was implemented in the scope of the international project Towards Equitable and Transparent Access to Higher Education in Croatia - ACCESS, which is funded by the European Commission through the TEMPUS programme.

### Basic information about the project

Title: Towards Equitable and Transparent Access to Higher Education in Croatia - ACCESS

Number of project: 158745-TEMPUS-1-2009-1-DE- TEMPUS-SMGR

Project grant holder: Technische Universität Dresden, Germany

National coordinator: Institute for the Development of Education, Croatia

Duration of project: 15.01.2010. - 15.01.2013.

Project web site: [www.iro.hr/access](http://www.iro.hr/access)

### Project summary

**Overall objective:** Contribute to ensuring equitable and transparent access to higher education (HE) in Croatia by removing financial obstacles, improving data availability and building capacity for action.

#### Specific objectives:

- Collect data on social status of students in Croatia to evaluate the effectiveness and of higher education funding and student financial support policies and assess the capacity to enhance them
- Establish a policy framework to enhance the social dimension and transparency of the higher education funding and student support system in Croatia, which can be translated into amendments of laws and regulations
- Establish a national coordination group to implement and monitor measures for equitable and transparent access to higher education

**Expected results:** A concrete proposal for a new higher education funding and student financial support system in Croatia, which will rely on the principles of evidence-based policy making, which can be translated into concrete amendments of laws and regulations and whose implementation can be monitored by a National Coordination Group.

### Project consortium

#### Croatian partners:

- Agency for Science and Higher Education
- Association for Higher Education Development "Universitas"
- Croatian Council of Universities and University colleges of Applied sciences
- Croatian Student Council
- Institute for Social Research, Centre for Educational Research and Development

- Institute for the Development of Education
- Institute of Public Finance
- Juraj Dobrila University of Pula
- Ministry of Science, Education and Sports (Croatia)
- University of Dubrovnik
- University of Rijeka
- University of Split
- University of Zadar
- University of Zagreb
- University of Zagreb

#### **International partners**

- Centre for Higher Education Policy Studies (the Netherlands)
- Corvinus University Budapest (Hungary)
- CSN - Swedish National Board of Student Aid (Sweden)
- International School For Social and Business Studies (Slovenia)
- Karl-Franzens University Graz (Austria)
- Malardalen University (Sweden)
- Ministry of Higher Education, Science and Technology (Slovenia)
- TU Dresden (Germany)



Institute for the Development of Education  
Preradovićeva 33  
HR - 10000 Zagreb  
t: +385 1 4555 151 / +385 1 4817 195  
f: +385 1 4555 150  
e-mail: iro@iro.hr  
www.iro.hr

ISBN 978-953-95614-7-3



9 789539 561473