

# THE MACROECONOMICS OF LOSS OF FULLTIME STUDENT STATUS, OR, THE FISCAL CONSEQUENCES OF PASSING OR NOT PASSING AN EXAM

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## *Abstract*

*This article is the first systematic attempt at an overview of the extent of fiscal and non-fiscal support to students in Croatia, taking University of Split as an example. In detail, the author analyses, classifies and presents eleven fiscal and eight non-fiscal subsidies to students. Because of the very high level of subsidy per student (per user), the author goes on to explain in detail the effect of the loss of the status of fulltime student on the fiscal system as a whole, and then the consequences of loss of status of fulltime student at the level of the marginal exam. The paper refers to the problem of the allocative inefficiency of the state in the funding of the tertiary-level institutions in Croatia and provides an up-to-date contribution for the discussion of the fiscal effects of subsidies, the quality of higher education and the total costs of the courses of students in Croatian higher education institutions.*

*Key words: student, subsidy, Bologna process, University of Split, excellence, strategy*

## **1 Introduction**

After the Indeks<sup>1</sup> action was carried out, many questions were raised in the Croatian public. Mostly these concerned the criminal or misdemeanour liability involved, the mo-

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rality of the sale of exam passes, the social position of university employees, university autonomy. A careful search of accounts and news in the media shows that only a slight amount of information was provided about the financial aspects of these dirty dealings, just a little information about the amounts that needed to be paid for undeservedly passing an exam or enrolling into a tertiary-level institution.

However, beyond the attention of the public at large, the question remains about the fiscal aspects of activities that came under the purview of Indeks. For this reason, if the problem was considered from the point of view of economics, only in one fiscal segment of the concept, the following questions might be raised.

- How much does the Budget of the Republic of Croatia (below: the Budget) earmark for the subsidising of one fulltime student?
- What are the fiscal savings to the Budget if a fulltime student loses the right to continue the course and by how much is the Budget injured if a fulltime student passes a course without deserving to?
- Does the Budget serve the ends of excellence in education, science and scholarship?
- To what extent do students make use of subsidies, and which subsidies are the most lavish?
- To what extent is there justification in the demands of students for, for example, the reduction of tuition fees or for cheaper lodging in student hostels?
- How much in total is earmarked in the Budget for subsidies to students of a public university?

The fundamental objective of this paper is to draw attention to the total extent of fiscal and non-fiscal support to students at Croatian colleges and universities.

Macroeconomics prefers a model approach in the determination of the magnitude and effects of fiscal aid on the effectiveness of public services in education. But unfortunately, there is no integrated model of the subsidising of students at Croatian universities. Hence all that remains is a selective approach and an application to a concrete situation in some university or faculty that is not essentially but nevertheless to some extent different from that of some other faculty or university. Although University of Split was chosen for the subject of the investigation the analysis shows that the results can be interpreted with respect to other Croatian tertiary-level institutions.

After the introductory part, in the second part of the paper, the concepts and methodological framework of the analysis are defined: course, studying, fulltime student, status of fulltime students and the benefits that derive therefrom. The third part first of all identifies and then sets out quantitatively all the kinds of aid to student. The central and fourth part of the paper contains the results that branch in two directions. First of all the consequences of the loss of status of fulltime student on the fiscal status as a whole and

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<sup>1</sup> Every now and then news appears in the public about the dishonourable activities of individuals at the universities. In 2008, for instance, news came from Serbia, Bosnia-Herzegovina and Italy. At this time, "Indeks", a criminal investigation into the activities of some teachers and students, was being carried out in Croatia. [Indeks means the student identity and grade record booklet that all students at tertiary-level institutions in Croatia have.]

then the consequence of the loss of status of student at the level of the “marginal” exam are ascertained. In this part the fiscal position of the teacher is identified as is the teacher’s role in the process or positive selection, in other words, of excellence.

## **2 On the status of student and the level of fiscal rights that derive from this status**

The Croatian Scientific Activity and Higher Education Law in Article 86 states that the status of student is acquired by enrolment at a university, polytechnic or college and is proved by an appropriate student identity paper. The law differentiates fulltime and part-time students. Fulltime students are those who study according to a curriculum based on a fulltime teaching load.

In order to retain the status of fulltime student (Article 88) the student is bound to respect the course regime and the general regulations of the institution and properly to carry out his or her tuition and other obligations at the institution of higher education.

The fiscal effects of being a fulltime student derive from the rights that the Law provides for fulltime students. In Article 86, the Law lays down that the costs of a fulltime course are partially or in whole, and in line with general regulations of the university, polytechnic or college, subsidised from the central government budget. Then, in Article 88, it says that fulltime students have rights to health insurance, to subsidised lodging and food and other rights in line with the law and with regulations based on the law. The level of these rights and the amount to which students have to participate financially are determined by corresponding regulations, in which the grades attained in the entrance exam or during the course can be used as a criterion for determining the level of the right.

An important impact on the fiscal effects is made by a provision that appears in all the regulations: a fulltime student who after repeating his or her examinations has not been able to enrol in the following year of the course can continue the course as a part-time student.

The law also regulates an important non-fiscal student revenue. Fulltime students have the right to be employed via the agency of legal entities the work of which is to ensure the integrity and necessary standard of the system of higher education (the student centres), in line with regulations passed by the minister.

On the basis of this short analysis of the Law, it can be said that the status of fulltime student brings students important fiscal and non-fiscal privileges, or in other words, produces expenditures in the Budget. Of course, the opposite is also true, the loss of status of every fulltime student would mean the some kuna savings for the same Budget.

## **3 Grants to cover the costs of studying of fulltime students**

Students at University of Split benefit from two kinds of grant. In the analysis, eleven fiscal and eight kinds of non-fiscal privileges are identified, and these directly or indirectly make the process of studying either easier or possible at all. But this is not perhaps the final number. The fiscal and non-fiscal consequences of these grants or this assistance that are considered in the sequel deserve attention.

### 3.1 Fiscal aid per user (student)

Current practice of aid to students, which to many of them is a sine qua non for obtaining a degree, recognises a broad range of fiscal subsidies that have their origins in some budget or other (local, county, central government). This network of assistance that is realised through budgetary institutions or via funds and state corporations is so interwoven that no single and unified record of student subsidies exists. It is hard to identify all the many items. An attempt to determine quantitative facts sometimes comes upon almost insuperable administrative barriers. But as a result of persistent endeavours, with hundreds of telephone calls, dozens of faxes and emails, live interviews, even with people whom one had to promise never to have talked with, information about eleven fiscal grants was received, more concerning which is to be found in the sequel.<sup>2</sup>

*Health insurance.* Most students are included, up to their 26<sup>th</sup> birthday, in their parents' health insurance. For this kind of insurance, the parent pays a contribution, while the health insurance of the child is free of charge. If there is not such basis, then the fulltime student can claim this right via the institution, and the costs will be borne by the Ministry of Science, Education and Sport (MSES). In academic year 2007/2008, 236 students were medically insured on this basis, among some where those from foreign countries studying in University of Split. If they lose the status of fulltime student and yet apply to the Croatian Institute for Health Insurance (CIHI), then the Ministry of Finance will cover their health insurance costs. If the monthly contribution for health insurance per fulltime student is 366.19 kuna, then the annual costs of subsidy per student is 12 months x 366.19 kuna or a total of 4,394.28 kuna.

*Exemption from participation charges for specialist examinations and hospitalisation.* In 2007, 456 students were treated in the Clinical Hospital in Split. The outcome was 3,547 days of treatment, an average of 7.78 days per student. In total, fulltime students who are users of this service were exempted from participation charges in the sum of 175,896.00 kuna, or 385.74 per user.

Data concerning the number of students using the services of the specialist polyclinic and specialist diagnostic services are not recorded in the Clinical Hospital in Split. Since in Split there is no student out-patient department, fulltime students are dispersed among primary health care out-patient departments, which made the gathering of data (per referral note) almost impossible. For this reason the services of specialist polyclinics and diagnostic services are not covered in this analysis.

*Survivors' pensions.* It is impossible to determine the precise number of fulltime students who claim survivors' pensions. The Croatian Institute for Retirement Insurance (CIRI) does not track such information directly, although it is possible, it is said, to generate these data, but it would require additional computer operations that would cost a good deal. Since this paper was financed exclusively by the scientific drives of the author, only

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an estimate of the number of fulltime students who are claimants of survivors' pensions was made. Data from CIRI Statistical Reports and the Statistical Chronicle of the Croatian Bureau of Statistics were used; and the following variables were entered into the calculation of fulltime student claimants of survivors' pensions: the total number of pensions, the total number of survivors' pensions, the number of survivors' pensions in the Splitsko-dalmatinska County, the number of claimants of survivors' pensions up to the age of 24 and the percentage of fulltime students in the population of the Splitsko-dalmatinska County up to the age of 24. The result of this calculation, assuming a linear distribution of all the variables included, reveals that at University of Split there are 75 fulltime students who are claimants of survivors' pensions.

The average Croatian monthly survivor's pension comes to 1,745.65 kuna. In this paper, it is assumed that it is this amount that is obtained by the fulltime student claimant of a survivor's pension.

*Tuition fees.* The tuition fees system in Croatian universities differentiates fulltime students who have to pay to study and students who are funded by MSES grants. Such latter students are exempted from the payment of fees. The different faculties charge different levels of tuition fees. Weighting the tuition fees by the number of users in given faculties of the university we arrive at the amount of the fiscal subsidy. In academic year 2007/2008, the average annual tuition fee subsidy per student of the university in Split came to 6,855 (in 2005/2006 6,883 kuna and in 2006/2007 to 6,842 kuna).

*Students' hostel.* Although it is not the most lavish, the best known subsidy to students is the share of the central government budget in the costs of accommodation in a students' hostel. There are important differences in the amount of the subsidy from university to university, from one hostel to another within the same institution. In the three Split hostels there are 780 students. Depending on the quality of the accommodation the price per student comes monthly to 145 kuna (128 places), 165 kuna (430 places) and 235 kuna (222 places). The weighted average shows that one student pays 181.64 kuna p.m. for accommodation in a students' hostel. On top of this, a 105 kuna subsidy is paid from the central government budget to the Student Centre. Thus the annual subsidy per user comes for 10 months in the year  $x 105 \text{ kuna}$  to 1,050 kuna.

*Subsidised rental.* All fulltime students who do not manage to obtain accommodation in a students' hostel have the right to a monthly supplement for rental in private accommodation in the amount of 150 kuna. In the academic year 2007/2008 this subsidy was claimed by 978 fulltime students. The number of students in private accommodation is actually greater, but some landlords do not wish to enter into contracts with the students, who accordingly cannot make use of this form of subsidy. The annual subsidy per user, then, in 10 months of the year is  $150 \text{ kuna} \times 10 = 1,500 \text{ kuna}$ .

*Food.* According to the Regulations concerning grants to cover the costs of food for students (NN 51/02) there are five levels of the right to subsidy. The zero group contains part-time students who have no such right. Group one contains fulltime students domiciled in the county in which the university is located. The second group contains students from other counties, foreign students and students from the same county but from areas in which there are special conditions of geography and transportation. Group 2.5 includes students in a students' hostel. The third group, and the last, comprises top student athletes.

*Table 1 Costs of food for fulltime students of University of Split in the academic year 2007/2008*

<b>Right level</b>	<b>Daily price in kuna</b>	<b>Days of use</b>	<b>Price annually (in kuna)</b>	<b>Amount of student participation (26.35% of 4)</b>	<b>Annual subsidy per user (in kuna)</b>	<b>Number of users</b>
1	2	3	4	5	6	7
1	12.30	240	2,952	777.85	2,174.15	8,260
2	24.60	365	8,979	2,365.97	6,613.03	5,262
2.5	30.75	365	11,223	2,957.46	8,266.29	690
3	36.90	365	13,468	3,548.95	9,919.55	4

*Source: authors' calculation*

For a computation of the average annual subsidy from the Budget for food for full-time students we need the variable the number of users. Of the total number of fulltime students, 71% were able to claim subsidies. Thus in the academy year 2007/2008 the average annual subsidy per regular student (or user) came to 5,789.75 kuna.

*Ship transport.* For fulltime students who live on an island and study on the mainland, the shipping company Jadrolinija issues a season ticket with one-hundred percent subsidy. While picking up the tickets, the students pay a fee of 5 kuna. The regular price of a fare one way differs from island to island. If we assume that the students from Brač or Šolta travel every workday or 220 days a year, and all the others 40 days, then the average annual subsidy per user came to 6,063.40 kuna.

*Table 2 Subsidy of fulltime students of University of Split for ship transport in 2007 (in kuna)*

<b>Islands</b>	<b>One way ticket price</b>	<b>Number of journeys annually</b>	<b>Subsidy per user for return ticket (2x3)x2</b>	<b>Number of tickets issued</b>	<b>Annual subsidy for return ticket (4x5)</b>
1	2	3	4	5	6
Brač	27	220	11,880	265	3,148,200
Šolta	27	220	11,880	24	285,120
Hvar	38	40	3,040	205	623,200
Vis	45	40	3,600	60	216,000
Korčula	46	40	3,680	239	879,520
Lastovo	52	40	4,160	18	74,880
Total		600	6,043	811	5,226,920

*Source: authors' calculation*

*Bus season ticket.* Mass transit in Split is carried out by the firm Promet that, on the basis of a contract with budgetary institutions about subsidising the prices of bus transport, sells a monthly ticket to the students at a price of 61 instead of the market 115 kuna. The subsidised difference of 54 kuna is borne in various percentages (10.64%, 31.91% and 57.45%) by the University, Split municipal authority and the MSES. The annual subsidy per user for 10 months in a year at 54 kuna per student comes to 540 kuna.

In the 2007/2008 academic year, this concession was used on average by 2,680 students per month.

*Intercity rail transport.* Fulltime students also enjoy privileges in inter-city passenger transport by train. Journeys of fulltime students in University of Split are almost entirely concerned with the Split to Zagreb and back journey. It will happen that on Friday more than a hundred students travel to Zagreb and on Sunday return to their place of study. In 2007, a total of 5,436 students travelled with single tickets. These data relate only to ten months in a year, since the concession is not applicable during July and August. A one way ticket is 174 kuna, of which the student pays 90 kuna, and the remaining 84 kuna is the sum of the privilege. For a return ticket, the subsidy is thus 168 kuna.

*Scholarships.* This is an item that, without embarking on substantial expenses, we were not able to follow up entirely. In terms of sourcing, scholarships, whether they are one-off payments or payments in monthly instalments, make up part of the student standard of living from fiscal or non-fiscal sources. They are given by private economic agents and/or by budgetary units, and are always based on the status of fulltime student or on wealth. There is no single complete register of scholarship holders (or prize winners), which makes serious analysis difficult. It is not uncommon for students to receive several scholarships or prizes at the same time which, we believe, would be questioned if the givers had up-to-date information. But there are considerable resources involved, finding their way into the pockets of fulltime students from all levels of budgets, as shown by the news (*Slobodna Dalmacija*, October 10, 2008) that in 2008/2009 the Split municipal authority would earmark 1,100,000 kuna for scholarships and prizes for fulltime students of Split and other universities (if they are domiciled in Split). Similarly, Imotski municipal authority (*Slobodna Dalmacija*, November 20, 2008) gives all its own students 300 kuna a month.<sup>3</sup> Since the domiciles (registered residences) of the users and the location of the university at which they study are not always the same, for a complete analysis a national level of observation is required.

The only authoritative source of information about this form of subsidy consists of the state scholarships given by the MSES. Pursuant to Article 9 of the Regulations concerning the apportionment of state scholarships to fulltime students of undergraduate courses and compensation for part of the costs of tuition fees for students in post-graduate courses (NN 151/02), according to the criteria and decisions of the universities, state scholarships are given as follows:

A – to particularly gifted fulltime students of university and professional courses,

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<sup>3</sup> These expenditures in local budgets are in the framework of expenditure group 37 – Compensations to citizens and households. As well as scholarships there are also various welfare compensations, which makes an analysis of scholarships unfeasible.

- B – fulltime students of courses and professions in which there is a shortage,
- C – fulltime students of university and professional courses who have bound themselves to take employment after graduation in areas of special national concern or on the islands and
- E – fulltime students of university and professional courses who have little wealth.

In the academic year 2007/2008, in the whole of Croatia, a total of 2,374 state scholarships were allotted. Of this number, for fulltime undergraduate students of University of Split, 200 A type scholarships were given, 24 B type, 10 C type and 97 E type.

The monthly amount of a state scholarship for students who studied in the town of their permanent residence came to 500 kuna per student, for students in a hostel 700 kuna, and for students living in lodgings 800 kuna. The estimated average monthly amount of a state scholarship for users who were students of University of Split was 600 kuna.

*Table 3 State scholarships for students of University of Split in the academic year 2007/2008 (in kuna)*

<b>Category</b>	<b>Number of scholarships</b>	<b>Amount of scholarship per month</b>	<b>Amount of scholarship annually</b>	<b>Total subsidy</b>
A	200	600	7,200	1,440,000
B	24	600	7,200	172,800
C	10	600	7,200	72,000
E	97	600	7,200	698,400
total	331	600	7,200	2,383,200

*Source: authors' calculation*

Now it remains to sum up the above information and to compute the annual amount of subsidies that their beneficiaries, regular students of University of Split, were able to claim in academic 2007/2008 and that are funded from the central government budget (apart from the minimum amount for city bus tickets that come from the budget of the municipal authority in Split).

Transport, food, tuition fees, accommodation, state scholarships constitute a numerically diminishing series of services used by fulltime students of University of Split. However, food and tuition fees make up 82% of the overall volume of fiscal subsidies to students. Through various kinds of grants, the 10,108 fulltime students in the academic year appeared 22,816 times as claimants and received a total of 83 million kuna of grants the mainstay of which was the central government budget.

#### *Total volume of fiscal grants at University of Split*

According to all the analytical parameters that are commonly used for this purpose, University of Split is the second biggest institution of the kind in Croatia. It is much



smaller than that in Zagreb, and a little larger than other regional universities. In European terms it is of average size. In academic 2007/2008 there were 13,116 students<sup>4</sup>, 10,104 of them fulltime students.

*Table 4 Fiscal subsidies enjoyed by fulltime students of University of Split in academic 2007/2008*

Fiscal subsidy of a fulltime student	Annual amount per fulltime user	Number of fulltime student users of subsidies		Volume of fiscal subsidies made use of	
			%	kn	%
health insurance	4,394.28	236	1.03	1,037,050.08	1.25
participation in treatment	385.74	456	2.00	175,897.44	0.21
survivor pension	21,055.80	75	0.33	1,579,185.00	1.90
tuition fees	6,855.08	3,852	16.88	26,405,768.16	31.80
hostel	1,050.00	780	3.42	819,000.00	0.99
rental subsidy	1,500.00	978	4.29	1,467,000.00	1.77
food	5,789.75	7,181	31.47	41,576,194.75	50.07
ship transport	6,063.40	811	3.55	5,226,920.00	6.30
bus pass	540.00	2,680	11.75	1,447,200.00	1.74
rail transport	168.00	5,436	23.83	913,248.00	1.10
state scholarships	7,200.00	331	1.45	2,383,200.00	2.87
total	55,002.05	22,816	100	83,030,663.43	100

*Source: Questionnaire and author's computation*

*Table 5 Fulltime students of University of Split – undergraduate and postgraduate courses from years 1 to 6<sup>a</sup>*

Academic year	MSES grant	Personal payment	Total
2003/2004	4,468	2,418	6,886
2004/2005	4,712	2,835	7,547
2005/2006	5,451	3,166	8,617
2006/2007	6,069	3,354	9,423
2007/2008	6,250	3,852	10,104

<sup>a</sup>Data about number of students in this and other tables of this paper were obtained from the departments of Split University.

*Source: authors' calculation*

<sup>4</sup> To this number we have to add the 653 students in master's and doctoral courses, and the 8,559 students in undergraduate professional courses.

*Table 6 The theoretically possible and the really used scope of fiscal subsidies of fulltime students of University of Split in academic 2007-2008 (in kuna)*

<b>Fulltime student fiscal subsidy</b>	<b>Annual amount per student user</b>	<b>Number of fulltime student users</b>	<b>Number of fulltime students with right to a subsidy</b>	<b>Used volume of fiscal subsidies</b>	<b>Theoretical maximum volume of fiscal subsidies</b>	<b>(5:6) x 100</b>
1	2	3	4	5	6	7
health insurance	4,394.28	236	236	1,037,050.08	1,037,050.08	100
treatment participation	385.74	456	456	175,897.44	175,897.44	100
survivor instance	21,055.80	75	75	1,579,185.00	1,579,185.00	100
tuition fees	6,855.08	3,852	4,308	26,405,768.16	29,531,684.64	89.42
student hostel	1,050.00	780	780	819,000.00	819,000.00	100
subsidised rentals	1,500.00	978	978	1,467,000.00	1,467,000.00	100
food	5,789.75	7,181	10,104	41,576,194.75	58,499,634.00	71.07
ship transport	6,063.40	811	811	5,226,920.00	5,226,920.00	100
bus pass	540.00	2,680	10,104	1,447,200.00	5,456,160.00	26.52
rail transport	168.00	5,436	10,104	913,248.00	1,697,472.00	53.80
state scholarships	7,200.00	331	331	2,383,200.00	2,383,200.00	100
total	55,002.05	22,816	38,287	83,030,663.43	105,423,323.16	78.76

*Questionnaire and author's calculation*

Among the fulltime students, 7,181 were enrolled in undergraduate and 2,923 were fulltime students of the fourth (and in the Medical Faculty of the fifth and sixth) year of the course that was left over from the pre-Bologna time.

In the academic year observed, 2007/2008, fulltime students of the university enjoyed a total of 83 million kuna worth of fiscal subsidies. These are considerable resources, but they should be understood above all as a contribution of the central government budget to the increase in the number of fulltime students and the success of tertiary-level education in Croatia. If one knows here that the fulltime student subsidy-beneficiary consumed on average three kinds of fiscal subsidy, then it can be concluded that there is a desirable spread of support.

In fact it is astounding that there is no organised and interconnected system of subsidies at university and ministry. The existing system of granting scholarships is split up and functions autonomously, while individual parts of the system are governed and regulated by a large number of unconnected and non-networked institutions. Because of the asymmetry of information, institutions do not have a common database about students (the users), which students use extremely well (at the level of about 80% of the theoretical maximum). But the students are not organised as a force capable of fighting for and winning a maximised grants system. Simply, a mass of individual student benefits has been interwoven into the subsidy space that has somewhat unwillingly been opened up by institutions financed from the central government budget. And it works. To the joy and benefit of fulltime students.

On the basis of data from Table 6, one needs to bring out the information about the degree to which fiscal subsidies that in the observed academic year were available to students were actually used.

From the seventh column of the table it can be seen that the subsidies were not used in their entirety. Thus seven subsidies were used entirely and four only partially. These partially and not used fiscal subsidies deserve greater attention.

Subsidy of the diet is the most important kind of subsidy in terms of number of users and in terms of total financial scope. Taking into account all the elements of the calculation, fulltime students of the university had 58.5 million kuna worth of subsidies for food at their disposal. For various reasons (dietary, the food regime, occasional absences and other circumstances) 29% of total subsidies in food were not used. According to information from Split Student Centre and the MSES, this percentage of use was at the level of the multi-year average, and can be considered satisfactory.

The subsidised monthly pass for urban mass transport was only about 26% used, and has the lowest use-percentage. Students are increasingly using their own cars as a means of transport, as anyone can see who happens to pass by the university campus. If to this one adds the fulltime students who have in recent periods been seeking and finding private accommodation within walking distance of the campus, one arrives at this nevertheless surprisingly low degree to which the privilege is used. When significant accommodation facilities for the students are built alongside the campus, it is possible that this percentage will be reduced still further.

Railway concessions are not at the daily level. They are on the whole the result of non-university activities and as such are not part of the subsidies that cannot be done without. However, if one considers that more than half of the fulltime students made use of this subsidy then the use level as compared with the theoretical maximum is entirely satisfactory.

Subsidised tuition fees deserve special comment. In academic 2007/2008 at University of Split, 3,852 fulltime students made use of the privilege of not having to pay fees. If this number is compared with the number of grants made to students of the first year in the last four academic years (and then the fifth and sixth years for medicine), which comes to 4,308, there are 456 students that have lost the privilege. The current model on which the MSES has not very sensibly insisted for years,<sup>5</sup> determines a quota for students who have tuition grants during the enrolment in the first year, with the proviso that these students "ad nominem" make use of this privilege, enjoy this privilege irrespective of their results during the course. The students can lose the right to a tuition grant only if they do not manage to transfer to the next year. Most of the faculties stick tightly to this habit for it (a) shifts the responsibility to a higher level (the universities and the ministries) and (b) increases their revenue. For every student that flunks the year moves from the grant system (of the budget) to the payment system (to the faculty). The basic reason for this manipulation, which is also a justification for the faculties, is the fact that the MSES provides just the same amount of funding to the tertiary-level institution irrespective of how many stu-

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<sup>5</sup> Earlier it justified this by the complication of the procedure, but today the explanation is that these issues are in the competence of the universities.

dents there are in the grants system (all of them or none of them). This means that these 456 students who were fulltime cost the MSES nothing in tuition fees. The situation is just the same even when the students lose the status of being fulltime, because for the ministry the fiscal outcome is zero.<sup>6</sup> With this kind of remarkable practice, more than 3.1 million kuna (456 x 6.855,08) migrated from the student pockets to the faculty budgets.<sup>7</sup>

The scale of fiscal subsidies to fulltime students can be comprehended better if we compare them with the amount of the budgetary revenue of the component parts (i.e. the faculties) of University of Split. In the year under observation, 2007, all the faculties of University of Split<sup>8</sup> obtained more than 207 million kuna from the central government budget. On the basis of data from Table 7 it can be seen that the fiscal subsidies made to fulltime students that were used account for two fifths or 40% of the budgetary revenues of all the faculties of the university.

But if one took for the comparison the information about how much the central government budget is prepared to subsidise fulltime students, the percentage of subsidy in the budgetary resources of the components of University of Split would rise to over 50%.

#### *The volume of fiscal grants in the undergraduate courses of University of Split*

There are two reasons why the undergraduate course is treated in this paper as a separate group. The first lies in the fact that the conditions of study for undergraduates are considerable different (more stringent) than for fulltime pre-Bologna students. The second is the time of the analysis. Quite recently in our universities, course members of the first generation to have studied according to the rules of the Bologna process completed their dissertations. At the end of the course they became first degree holders and a great percentage of them got into the second cycle of the united system, the master's course.<sup>9</sup> In fact the possibility of analysing a "pure" generation does not allow an analyst of the tertiary-level scene to stay on the sidelines.

Gradually, as the Bologna years are passing by, the percentage of fulltime students in the undergraduate course in the total number of fulltime students of University of Split is rising, and in the academic year of 2007/2008 rose to almost 70%.

It is in fact the ratio of the number of fulltime undergraduate and all fulltime students at the university that is used for a calculation of the number of undergraduate users of fis-

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<sup>6</sup> At the risk of lawsuits, some faculties (like the Economics Faculty in Split) install a more just model that each year revalues the list of students and includes those with the best grades in the subsidy quote from which students with poor grades have dropped out. This model is not favoured at most of the faculties, since from the first to the final year of the course they keep the same number of students in the subsidy quota, and reduce the number of those who pay themselves, thus reducing the potential income of the tertiary-level institutions.

<sup>7</sup> It is important to remark that the policy of subsidising tuition fees is just part of the total tuition fee policy that includes numerous more important variables such as: economic strength of the society (in terms of GDP) and its possible redistribution, the existence of a social development strategy according to which the needs for education are identified, for concrete vocations that not only lead to exemption from payment of fees but also additional scholarships being granted to students with the strategy of desirable occupations. Every other kind of approach is merely an interim or ad hoc solution that is adopted from one student protest to another. But this is a topic that deserves separate investigation.

<sup>8</sup> That is, not including the university president's office, where capital investments are entered, university library, students' centres in Split and in Šibenik and the students' union.

<sup>9</sup> For more details see: Filipić (2008).

*Table 7 Fiscal subsidies to fulltime students and budgetary revenues of components of University of Split for 2007 (in kuna)*

<b>The components</b>	<b>Revenue from the MSES</b>
Natural Science, Mathematics and Kinesiology Faculty	26,024,155
Faculty of Economics	17,475,466
Law Faculty	13,280,440
Electrical and Mechanical Engineering and Naval Architecture Faculty	38,553,134
Civil Engineering and Architecture Faculty	18,297,169
Chemical Engineering Faculty	16,853,152
Medical Faculty	21,177,100
Art Academy	17,148,878
Catholic Theology Faculty	6,340,920
Faculty of Philosophy	19,473,111
Maritime Faculty	12,712,451
University of Split – budgetary revenue of the component parts	207,335,976
Student budgetary subsidies used	83,030,663
As proportion of budgetary revenues of components	40%
Potential student budgetary subsidies	105,423,323
As proportion of budgetary revenue of the component parts	51%

*Source: University of Split – Report on revenue and expenditure, receipts and expenses. Form PR-RAS and the calculations of the author.*

*Table 8 Percentage of undergraduates in the number of total fulltime students in University of Split*

<b>Academic year</b>	<b>Undergraduates</b>	<b>Total fulltime students</b>	<b>(2:3)x100</b>
1	2	3	4
2005/2006	2,956	8,617	34.30
2006/2007	5,022	9,423	53.30
2007/2008	7,015	10,104	69.43

*Source: authors' calculation*

cal subsidies. In all these kinds of subsidy, the normal distribution for exceptions from fees is set up, for which as weighting the existing structure and the number of fulltime undergraduates at the faculties is used. In this manner the annual average tuition fee (subsidy) for students of the undergraduate courses at University of Split is somewhat lower than that for students of the university as a whole. For in 2007/2008 the average annual tuition fees for students of the undergraduate courses came to 6,412 per student (in academic 2005/2006 it was 6,130 and in academic 2006/2007 it was 6,181 kuna). All of these calculations are shown in Table 9.

*Table 9 Fiscal subsidies in the undergraduate course of University of Split (in kuna)*

<b>Full time student fiscal subsidies</b>	<b>Annual amount per fulltime student user</b>	<b>Number of fulltime students benefiting from subsidies</b>	<b>Number of fulltime students with the right to a subsidy</b>	<b>Volume of fiscal subsidy used</b>	<b>Theoretical maximum volume of fiscal subsidies</b>	<b>(4:5) x 100</b>
1	2	3	4	5	6	7
health insurance	4,394.28	164	164	720,023.87	720,023.87	100
treatment participation	385.74	317	317	122,125.59	122,125.59	100
survivor insurance	21,055.80	52	52	1,096,428.10	1,096,428.10	100
tuition fees	6,412.15	2,735	3,058	17,537,230.25	19,608,354.70	89
hostel	1,050.00	542	542	568,631.70	568,631.70	100
rental subsidy	1,500.00	679	679	1,018,538.10	1,018,538.10	100
food	5,789.75	4,986	7,015	28,866,352.01	40,616,295.89	71
ship transport	6,063.40	563	563	3,414,276.40	3,414,276.40	100
bus pass	540.00	1,861	7,015	1,004,790.96	3,788,211.89	27
rail transport	168.00	3,774	7,015	634,068.09	1,178,554.81	54
state scholarships	7,200.00	230	230	1,654,655.76	1,654,655.76	100
<i>total</i>	54,559.12	15,903	26,650	56,637,120.83	73,786,096.81	77

*Source: Questionnaire and author's computation*

Now we are in the position to be able to sum up the analysis of fiscal subsidies of fulltime students, reducing the indicators to a single student. The indicators per student are given in Table 10.

*Table 10 Fiscal subsidies per average user and per average fulltime student of University of Split in the academic year of 2007/2008 (in kuna)*

<b>Indicators</b>	<b>Undergraduate students</b>	<b>All fulltime students</b>
total fiscal subsidies used	56,637,120.83	83,030,663.43
fiscal subsidies per average user	13,529.81	13,789.77
fiscal subsidies per average user expressed as monthly minimal wages in Croatia	7.25	7.39
fiscal subsidies per average fulltime student	8,073.72	8,217.60
total potential fiscal subsidies	73,786,096.81	105,423,323.16
potential total fiscal subsidies per fulltime student	10,518.33	10,433.82

*Source: authors' calculation*

In academic 2007/2008 the average fulltime undergraduate student used the sum of 13,530 kuna of the total amount of fiscal subsidies. A similar average student, at all courses of University of Split, from the first to the sixth year of studies, made use of subsidies in the amount of 13,790 kuna. If the average minimal wage in Croatia is 1,755 kuna then the average amount of fiscal subsidies per student came to 7.25 or 7.39 minimum net monthly salaries.

There are two crucial conclusions. Firstly, fulltime undergraduate students use a smaller amount of subsidies than the average of all fulltime students. The reasons are to be found in the greater number of obligatory fulltime student activities, as well as in relative inexperience and inability to cope. Secondly, the amounts of the subsidies are quite substantial. In a situation in which there are not sufficient jobs in the labour market, such amounts might lead individuals of a speculative inclination to enrol in a university course in order to be able (as well as other potential benefits) to ensure a significant positive difference between revenue and costs. However dubious it might seem, this proposition is additionally backed up when we add non-fiscal to fiscal subsidies. Non-fiscal subsidies are the subject of the analysis in the sequel.

### **3.2 Non-fiscal privileges**

As already stated, the Law regulates the right to the employment of fulltime students via legal agents the activity of which is to ensure the integrity and necessary standard of living in the system of tertiary education. These are called student services, and are a part of activities of the student centres. However, this does not exhaust the list of student privileges that do not derive from some budget or other. Some of these privileges have an important direct material effect on the standard of living of the students, while others give fulltime students corresponding rights that they would not have without such a status. This research has identified eight non-fiscal privileges that directly or indirectly make it easier or possible at all for fulltime students to study.

*Student Service* is an agent in the employment of fulltime students. This agency work is done pursuant to the Regulations (NN 16/96 and 125/97). Members of Student Service carry out jobs according to the tariff of the Student Service. The range of prices per hour ranges from 18 to 30 kuna net. Onto this net amount are calculated 17.82% costs (12% manipulative costs, 5.291% contributions for retirement insurance and 0.529% contributions for health insurance). In 2007, 6,321 fulltime students worked via Student Service and earned a net total of 71.5 million kuna, or an average of 11,313 kuna per user.

*Intercity bus transport* is another important source of student privileges. Some carriers on some lines give fulltime students a discount of 20 to 40% (an average of 32% for lines with a discount) off the commercial price of the fare. Carriers bear this discount from their own income, and no one compensates them for it. They treat it as an instrument of commercial competition. They give the discount ten months a year, and not in July and August. At University of Split over 90% of bus tickets are sold to fulltime students for carriage on the coastal lines to Dubrovnik, Šibenik and Zadar. Bus tickets to Zagreb are not subsidised.

With this concession, in 2007 28,788 bus tickets were bought, 20,430 tickets for fulltime students of the undergraduate school, or 2.85 tickets per fulltime student, or 2.91 tickets for all undergraduates.

The average price of a ticket bought by fulltime students came to 71.51 kuna. Of this, 54 kuna were paid by the students, while the remaining of 17.51 kuna was the student discount. The revenue of the carriers at the level of all fulltime students in 2007 came to 1.6 million kuna, with the proviso that an additional 500 million were donated to the fulltime students. For students of the undergraduate course, the numbers were 1.1 million kuna and 350,000 kuna respectively.<sup>10</sup>

*Alimentation* is received by a certain number of students pursuant to their fulltime student status. Unfortunately there is no publicly accessible information about the number of students who receive such alimentation or about the amounts.

*Accident insurance for students* can be partially treated as a fiscal but on the whole it is a non-fiscal item. When the enrol in the university year, students pay what is called “enrolment fee” that in some faculties includes an annual student insurance premium amounting to 30 kuna.

*Scholarships not deriving from the budget.* These scholarships are given by private corporate entities from the country and other agents from abroad, and are always based on the status of fulltime student. The criterion for the award of a scholarship is on the whole the grade average. As already pointed out, there is no register of recipients of scholarships and prizes, which makes serious analysis impossible. There are cases in which a single student will receive several prizes or scholarships at the same time, about which the scholarship or prize awarders have no relevant information.

There are also potentially important privileges that do not have any direct material effect on the standard of living of fulltime students. These are:

- additional points on the ranking list for accommodation in the student hostel for students who are not only children,
- tax relief and tax refunds that the parents can make use of if they have children who are fulltime students,
- the possibility that a bank account for fulltime students can be opened.

### ***3.3 Total fiscal subsidies and non-fiscal privileges of fulltime students***

To obtain an insight into the total volume of student grants to fulltime students in University of Split, to fiscal one should add non-fiscal privileges. Thus the total grants made

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<sup>10</sup> Supplementing these facts about journeys of fulltime students of Split University with discount fares in inter-city lines with those about journeys with discount fares on the railway from the previous chapter, we can conclude that Split university students travel frequently, both far and near. Irrespective of whether these are departures home, or taking part in social activities, these are journeys that they undertake outside their regular obligations that derive from their statuses as fulltime students in the university location (which are, in the Bologna system, not very small). It can be seen that journeys by bus and rail are complementary, for bus carriers give discounts on all lines except those to Zagreb, and rail discounts are almost one hundred percent for journeys to Zagreb. Summing the two lots of journeys together, we come to interesting figures. In 2007 the average Split University student travelled 3.39 times by train and bus, with discount fares, paying on average 60 kuna and receiving thus 38 kuna concession. One more note: Croatia Airlines gives students no discount in air carriage.



to all fulltime students in academic 2007/2008 came to 155 million kuna. Total grants to fulltime undergraduate students were 108 million kuna, and total grants per average full-time student in the undergraduate school were 15,359 kuna.

*Table 11 Subsidies and privileges to fulltime students of University of Split in the academic year 2007/2008 (in kuna)*

<b>Subsidies and concessions to fulltime students</b>	<b>Subsidies – fulltime undergraduate students</b>	<b>Subsidies – all fulltime students in University of Split</b>
1	2	3
fiscal subsidies	56,637,120.83	83,030,663.43
non-fiscal subsidies	51,108,288.00	72,013,933.20
<i>total</i>	107,745,408.83	155,044,596.63
fiscal in total (%)	52.57	53.55
total fiscal and non-fiscal subsidies used by a fulltime student	15,359.29	15,344.87
total fiscal and non-fiscal subsidies used per average user	25,738.86	25,749.87
total fiscal and non-fiscal subsidies per average user expressed in number of minimal net monthly wages in Croatia	13.79	13.80

*Source: authors' calculation*

Fulltime students of University of Split who made good use of the fiscal subsidies offered them, and in addition took employment through the student service up to the permitted maximum and occasionally interrupted their student activities with weekend trips to Zagreb, in 2007/2008 obtained an average 13.8 minimal Croatian monthly wages.

Such high subsidies per average fulltime student at the level of the average user of the subsidy take on dimensions that many employed people in the country might quite like to have.

If the total amount of subsidies and grants are compared with the total budgetary resources that the eleven faculties of University of Split<sup>11</sup> obtain for the annual funding of their ordinary activities, at the end one more surprising and intriguing item is arrived at. The budgetary subsidies and non-fiscal aid given to fulltime students of 155 million kuna reached the level of practically 75% or three quarters of all the revenue of the university obtained from the central government budget in the amount of 207 million kuna (without revenue for the financing of capital investment).

<sup>11</sup> Today there are twelve, for in the meantime the Kinesiological Faculty has been formed by hiving the kinesiology course from the Science and Mathematics Faculty.

## **4 The fiscal consequences of loss of the status of fulltime student**

### ***4.1 Rules of the game of loss of fulltime student status***

Article 89 of the Scientific Activity and Higher Education Law regulates the cessation of the status of student. A person loses the status of student when they complete the course, withdraw from the school, when they are expelled from the course according to a procedure and on conditions laid down by the statutes or some other general regulation of the higher education institution, if they do not complete the course in the period laid down by the statutes or some other regulation of the higher education institution, and for other reasons laid down by the statutes or other general regulation of the higher education institution.

A great deal of all this is regulated in some detail by the statutes or general regulations of the institution of higher education. For example, the statutes of the Faculty of Economics in Split, in Article 65, in addition to the provisions of the Law, says that fulltime students who have not obtained the ECTS points that he enrolled for in the current shall in the next academic year enrol for the subjects that were not passed and as many subjects of the higher year in line with the curriculum to a total of 60 ECTS points. It also says that a student can enrol for repeated subjects only once. If the student does not pass these subjects by the time of enrolment in the next year, the student will lose the right to study at the undergraduate or professional course in the faculty.

The cessation of student status is particularly defined in Article 69 of the statutes. As well as the provisions stated in the Law, the status of student will cease when the student does not enrol in the following academic year in any status, does not pass a test the eighth time, does not complete the course in a period that is twice as long as the prescribed duration of the course.

Put in a simplified manner, *the student will lose the status of fulltime student if: (a) he or she does not pass re-enrolled subjects on time for enrolment in the next academic year or (b) tries and fails eight times to pass a particular examination.*

### ***4.2 Consequences of loss of fulltime student status to the fiscal system***

The fiscal consequences of loss of fulltime student status are best seen from concrete numbers. Of the total number of enrolled fulltime students of the university in the first three years of the course according to the principles of Bologna, 2,031 students lost fulltime status (almost 25%, or one out of four). In three years of the course two and a half times more students lost the fulltime status than completed the undergraduate course in the regulation time or enrolled in the fourth year of the course according to the Bologna process. However, the intention of this paper is not to deal with the really interesting tendencies of the Bologna tertiary-level system, for there are other sources concerning it. But for the sake of illustration it is worth mentioning some basic indicators of academic performance within the context of the Bologna process at the university.

*Table 12 Bologna Process at University of Split in figures*

	<b>Name of indicator</b>	<b>Number of students</b>
1	fulltime students enrolled in all three first years of the undergraduate course (2005/6, 2006/7, 2007/8, 2005/2006, 2006/2007, 2007/2008).	8,239
2	lost status of fulltime students in all three years of the undergraduate course	2,031
3	degree taken - Bachelor	556
4	integrated course – transfer to fourth year	206
5	remaining in the system of fulltime undergraduate course	5,446
6	lost fulltime status of total enrolled (2/1)*100	24.65
7	remaining in system of fulltime undergraduate course (5/1)*100	66.10
8	fulltime students enrolled in first year of course in Academic 2005/2006	2,956
9	finished undergraduate course of enrolled in the fourth year of the course in the regulation period (3+4)/8*100	25.78

<sup>a</sup> *Fulltime students of the undergraduate courses in the first three years of the Bologna process (academic years 2005/2006, 2006/2007, 2007/2008)*

*Source: Filipić (2008)*

Let us return to fiscal topics. The inner logic of the budget leads us to an ordered sequence of fiscal transactions. In the allocation of budgetary resources, each year the MSES gets a certain amount from the central government budget. When it plans for these resources, the MSES has no way of knowing how many students are going to lose the status of fulltime student. Accordingly, from the Budget, the MSES obtains resources for all the fulltime students who are in the system at the moment the budget is being planned. When students lose their fulltime status, unspent resources accumulate in the budget of the MSES. The student centres, for example, cease to invoice the MSES for subsidies for the food of students who have lost fulltime status, because they do not figure as users of the food service. The faculties no longer seek MSES reimbursement for resources for the social security of students who have lost fulltime status, for they themselves have ceased to pay these resources into some fund. And so on, from the first to the last student subsidy. If all the students who lose their fulltime status are average users of budgetary subsidies, then during the analysed three years of the undergraduate course this comes to 2,031 x 13,529.81 or 27,479,044.19 kuna of budgetary resources that have been “saved”.

However, in budgetary reality, these 27.5 million kuna have not been saved nor have they accumulated in some separate account. The reason lies in the approach to calculating the budget. The described model is based on a static approach, and ideal budgetary year in the course of which and at the end of which each item is spent in its entirety for the planned purpose. A dynamic approach, so to call it, (a), right at the planning phase reduces the amount of the subsidy because it starts off from the spending of the previous period, and if something is overlooked and there is a surplus of resources as a result of saving on those who have lost fulltime status then there is always (b) the rebalancing of the budget so that the saved resources can be diverted to some other purpose.

When a student does lose the fulltime status the student thus loses the right to all the subsidies analysed in the previous pages. The budget is then an instrument of positive selection: it ceases to finance the subsidies of students who have shown at the exams insufficient knowledge. However, to be completely in key with the needs of excellence the saved resources should be diverted to new students, some of whom will get better results than those who have lost their student status, or to current students, thus improving their standard of living.

The difficulty here is that this first, the cessation of the financing of subsidies, really does work, while the second, the feedback, the purposeful redirecting of the resources, does not exist today. If it did, one might, for example, with the saved resources of three years, in each academic year exempt an additional 1,284 students from the payment of tuition fees, or apportion an addition 3,688 state scholarships in three years – at University of Split alone. Or, one more speculation, these resources might be used as the initial investment into a fund for loans to students, which does not yet exist.

However, since we already have the data, instead of speculations, let us make an exact calculation. We have two scenarios at our disposal: (a) a quantitative and (b) a qualitative. As for the latter, which would mean that the budgetary savings would serve for the raising of the standard of the subsidy system to students in the system at the time, there is no need to discuss it at length, because it is not implemented. The proof here is that in the three year Bologna period, no per-student subsidy has been raised. The system of fiscal subsidies of regular students in the qualitative scenario did not subserve excellence.

By contrast, the quantitative scenario of enlarging subsidies has been carried out: enrolment quotas have been increased and new tertiary-level institutions have been founded.<sup>12</sup> For example, the number of fulltime students who study at University of Split without the payment of tuition fees was increased during that period by 1,018. But we might wonder what the resources are from which this scenario is financed. According to the yearly statements of the minister of science at the time the budget is adopted one might conclude that the quantitative scenario is financed from an ever greater absolute budget of the MSES and an increasing relative enlargement of the share of this ministry in the total central government budget. Unfortunately, where the fiscal subsidies to fulltime students of University of Split are concerned, this is not the case.

The calculation, although apparently complicated, is in fact simple. The savings in the budget, as we have seen, came to 27.5 million kuna. In the three years analysed, an additional 2,557 regular students enrolled, and they used an extra 20.6 million kuna. Among them there were 1,017 of those who did not pay tuition fees, which reduces this amount by almost 7 million kuna. If we reduce these new 2,557 fulltime students by the percentage of those who have lost the status of fulltime students, we reduced the quantitative scenario by an additional 5.1 million kuna. The bottom line of this calculation is that at University of Split, of the 27.5 million savings, the sum of 8.6 million kuna was recycled into the subsidy system. The remaining amount was lost somewhere, reallocated, bypassing the

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<sup>12</sup> It is known that some students who lose the status of full time student at the university enrol in professional or vocational courses which are also in the system of fiscal subsidies. However, the number of fulltime students at professional courses in Split University in the analysed period reduced by 714, which means that they did not increase fiscal subsidies in the quantitative scenario.

planning of the budget. The system of the fiscal subsidies given to fulltime students was not in the service of excellence according to the quantitative scenario either.

Perhaps it would be overambitious to require that all fiscal subsidies be treated as an autonomous system and that as well as to the social aspect it should also be oriented towards excellence. However, if just a small step were made, if records of fiscal subsidies were made at the level of the system, many of the demands that would ultimately lead to the regularisation of this issue would be articulated, and probably to the development of an entire system of student support, including loans. Only then would the preconditions be made for this segment of the fiscal system, like others that satisfy strict accounting rules, to be able to give unambiguous answers to the questions: who, where, when and how much.

#### ***4.3 Consequences of loss of fulltime student status at the level of the marginal examination***

In student perception, loss of fulltime status is always linked with the last failed exam, which, had they passed, they would not have got into the undesirable non-fulltime status. This approach has its own theoretical grounding. The concept of utility has intrigued economists for more than two centuries. After many refinements, the theory of utility has concentrated on investigating marginal utility, according to which it is not general utility that is the criterion, but that last, determined by the concrete circumstances. Thus we can call this last exam the marginal exam. It is important to understand that irrespective of the amount of test material, the number of credits, in the case of loss of fulltime status, all exams are equally important, that is, a fulltime student can lose the status of fulltime student because of failure in any one of the exams. Thus any exam can be the marginal exam. This fact makes the teachers of the universities equal in their rights and responsibilities with respect to the problem of loss of student statuses, that is, looked at through the eyes of the students, it makes them all potential executioners of regular student status.

Accordingly, all teachers, for they are the immediate assessors of the right to student status, are there for the purpose of creative positive selection, i.e. excellence. In contrast to the budget, which figures in the same purpose, the assessment of the teacher is in part or in totality personal and as a whole does not have just the one aspect of fiscal complication in it. That complication that, in the event of loss of fulltime status, in future the given student will have to bear all the costs of studying on his or her own. For, as is well known, no one has yet met that teacher who sees a saving to the budget in the loss of fulltime status. But if in the case of any exam, including the marginal exam, the teachers think only of the fiscal liability (the student), this does not mean that at the same time there is not a fiscal asset (the state). Accounting teaches us, and the budget is in its entirety founded on booking, that everything that is entered on one side has to go out on the other. If these two items do not cancel each other out, then the tax and some other inspectors will have their hands full.

The situation of passing exams is a theoretical example of game as conflict situation. There are two players, each with their own strategies, making moves towards an ultimate outcome. In game theory there are games with a zero and games with a non-zero

sum of gains and losses. When a student knows the answer to a problem he or she is set, then all are winners, teacher and student. Society is another winner. And the budget. Not only will the individual be made more qualified and creative and productive by his or her knowledge, but he or she will finish the course faster, and from the position of budgetary expenditure will be transformed into budgetary revenue. This precisely is the purpose of student budgetary subsidies. This is just the same as the (economic) purpose of any subsidy given by the government. It invests a kuna today to get back a bit more tomorrow. In the case of a student not succeeding in the exam, if all the players are reasonable, it is clear that all lose. Teacher and student. The implacable logic of double-entry accounting says that in this case the same went into the budget, and less came out. It seems that the budget won. Short-term. But over the long term, it too will lose. It will have no one from whom to collect its taxes and contributions.

The whole of the analysis in this paper was made from the example of the fulltime students in University of Split. It is known that at University of Split there have been no such phenomena as were discovered in the Index action. Let us thus suppose, for the purpose of the scientific method, that at University of Split there was just one individual (a teacher, but not exclusively) who for some reason (putting a grade in the student's grade booklet without there having been an exam, lowering the criteria after some "intervention", entering a grade in the booklet "on credit", the entry of a grade into the booklet without the teacher knowing anything about it and so on) entered an undeserved marginal grade into just one student grade booklet. From the aspect of game theory, we are no longer in the non-zero but in the zero sum game. It assumes that in the result of the game one player has won just as much as the other has lost. With the proviso that now, instead of the first player, there is a coalition, and the second player is the budget. On the whole, instead of the loss of status of fulltime student, this now sole hypothetical student, now a member of a coalition, is able to go on making use of fiscal and non-fiscal subsidies. The calculations above show the budgetary amounts in kuna that in this case the second member of the coalition (the teacher, but not necessarily) has shifted by his signature to the account of the student. In other words he would have inflicted injury on the central government budget of the Republic of Croatia. Over the short term. And because the teacher is instrumental in letting in to the labour market a person who is not well enough qualified in terms of knowledge and skills, probably over the long term as well.

If we analysed this example in the long term context, we would see that "donated" exams have additional material consequences. In the situation either-or, when the donated exam determines about the acquisition of a degree, and the possession of a degree is in many jobs a condition for being able to be there at all, the whole monetary difference between secondary and tertiary-level qualifications over the whole working lifetime comes into the category of loss or gain, depending on from whose position we are looking.

All of this is hypothetical of course. No one at the university thinks in this way. But in every well managed state there are people who are paid to think just in this way. And it is the business of the scientist and analyst, among other things, to draw attention to such possibilities.

## 5 Conclusion

It is beyond question that in Croatia student subsidies are, with respect to the level of income achieved, numerous, and in their financial volume considerable. They make it possible for many students to study. They come to such sums that many would exchange for their own incomes. However, they are directed only to the maintenance or the occasional enlargement of the number of higher educated fellow citizens. They do not generate two important purposes: (a) they do not direct students towards professions appropriate to the modern structure of the economic and society as a whole, but interpret the needs of society in terms of the structure and capacities of higher education and (b) they do not stimulate excellence but only mediocrity. The non-existence of a system of subsidies in the sense of and in the way that modern system theory requires, failure to use the budget to stimulate student excellence, the reallocation of subsidies and their use for some other purposes are just some of the findings that show that in this segment of fiscal expenditure a positive advance is possible.

At the end, in the final part of the paper that deals with the consequence of the loss of fulltime student status at the micro level, the fiscal position of the teacher and his or her role in the process of positive selection, i.e. of excellence, has been clearly identified.

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