
Education Funding Methods in European States

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At European level, the allocation of a small amount of financial resources to education as a percentage of GDP associated with major economic difficulties affected the whole structure of the education expenditure: by type of expenditure, level of education and residence type.

State intervention in educational activity requires to be aware of the amount of public expenditure conducted by public bodies, both central and local authorities, to finance this activity. Funding education must provide incentives to ensure efficiency as it is important not only for being the base of a proper organization of the educational activity, but also because it can improve its content.

Keywords: *education, higher education, funding, public-privat partnership, government expenditure on education*

JEL Classification: *I21, I22, I23, I28, H41, H52*

Introduction

Education has always held and still holds an important role in the process of formation and training of individuals throughout their existence. We all know that education is important for our economic future. A modern society needs educated people.

Moreover, the available data and studies reveal that education and training are the main factors contributing to long-term economic development

as well as to the progress of societies. Also, investment in education and training creates the most important gains and an increase in labor education is a key factor of economic growth.

Among most of the world's states investment in education has not reached significant changes in the last decade until 2008 – before the economic collapse started.

During the crisis the governments of some states have taken urgent actions so as to prevent changing the financing measures in place, in order to ensure the continuous operation of the system and to protect the reforms implemented over the last decade [1].

Although total public expenditure on education remained stable at the European Union level between 2001 and 2008, showing a positive trend, total annual investment per student experienced a slight increase.

Education funding systems in European states

As the available data show [2], between 2001 and 2006, the total amount allocated to education, as a percentage of EU-27 GDP, remained constant, being around 5.1. Though, the medium rate points a few differences between states as these rates have shown significant changes during this period.

Between 2001 and 2006, the percentage of GDP allocated to education has increased significantly, by more than 20%, in countries like Hungary, Cyprus and Iceland. An increase above 10%, during the same period, was noted in states like the Netherlands, Czech Republic and United Kingdom, as shown in Fig.1.

According to statistics, “in 2006, the share of public expenditure on education registered a percentage higher than 5% of GDP in most European countries (more than half)” [2]. An increase in this proportion was observed in the Nordic countries and in Cyprus, where the rate has exceeded even 6%. In other European countries, public expenditure on education, as a percentage of GDP, was below 5%.

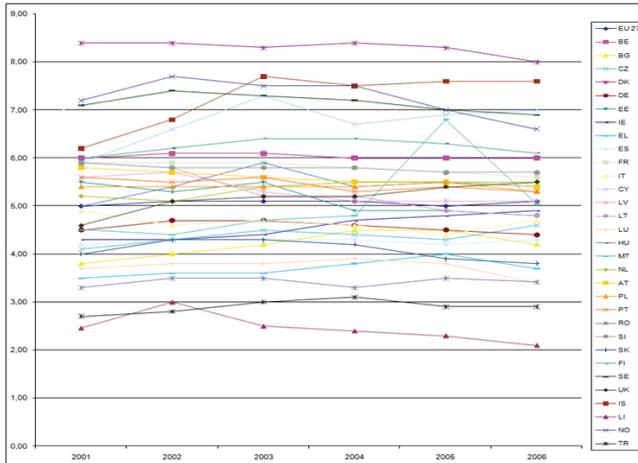


Figure 1: Total public expenditure on education as percentage of GDP, 2006, Source: processed by the author using data from Eurydice, Eurostat, EACEA, European Commission, Key data on Education in Europe 2009.

In these states, responsible for funding education is “the public sector, by assuming direct responsibility for current and capital expenditure of schools (direct public financing of educational institutions) or by providing support for pupils/students and their families (state grants and loans), as well as by subsidizing training activities in the private sector or in non-profit organizations (transfers to households and firms)” [2]. Direct public funding of educational institutions and transfers to both households and firms are also included in the total public expenditure on education.

In the period 2001-2006, the EU-27 public expenditure on education accounted for 11 percent of total public expenditure. But about three-quarters of European countries allocate more than 10% of the public education budget in 2006. However, some countries, such as Denmark, Cyprus, Lithuania, Iceland, Estonia, Ireland, and Norway, register or even exceed the threshold of 14%. In countries like Italy, Germany and Luxembourg, this percentage does not reach 10%, as shown in Fig.2. We must consider the fact that total public expenditure on education indicator does not take into account the number of pupils/students and does not provide information on the unit cost per pupil/student.

In most European countries, where there are “available data, the share of public expenditure in total public expenditure on education has

been a constant since 2001, but in countries like Bulgaria, Czech Republic, Ireland, Slovakia and Iceland, this experienced a significant increase. But there are countries such as France, Luxembourg, Portugal and the Baltic States, where expenditure on education as a percentage of total public expenditure decreased” [2].

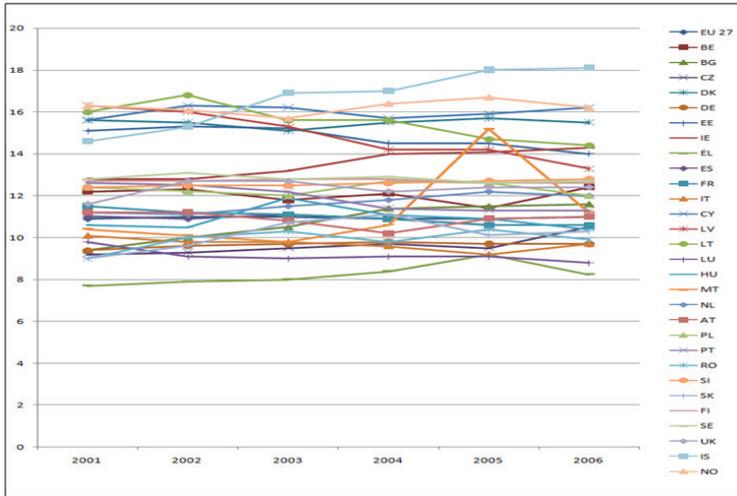


Figure 2: Public expenditure on education as percentage of total public expenditure, 2006, Source: processed by the author using data from Eurydice, Eurostat, EACEA, European Commission, Key data on Education in Europe 2009.

If we consider all levels of education, total public expenditure on education include “public sector direct funding for educational institutions and the transfers to households and firms” [2]. The value expressed as a percentage of public spending represents the share of the total budget, i.e. the budget allocated to all central, regional and local levels.

On educational levels, public expenditure on education differs from state to state as shown in Fig.3. A number of factors (economic, political, and demographic) must be taken into account. We also have to consider the necessary time allocated for reaching the next level of education as well as the participation rates for post-compulsory levels of education.

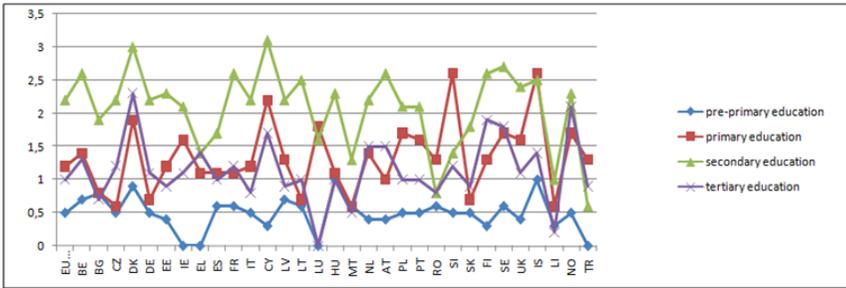


Figure 3: Total public expenditure on education, by educational level, as percentage of GDP, 2006, Source: processed by the author using data from Eurydice, Eurostat, EACEA, European Commission, Key data on Education in Europe 2009

Regarding higher education, the main source of funding in the Member States of the European Union is the public budget. Thus, regardless of the funding mechanisms used by the government of each of the Member States, the percentage of GDP allocated to public funding of higher education sector recorded, in 2008, an average of 1.2 [3].

According to the data available in Tabel 1., in the Nordic countries, the share of GDP allocated to financing the system of higher education reaches up to 2.1 to 2.2 (Norway, and Denmark), while in European countries such as Bulgaria, Czech Republic, Italy, Latvia, Lithuania, United Kingdom, Portugal, Slovakia and Hungary, the percentage of GDP is below the European average.

Table 1: Total public expenditure on higher education as a percentage of GDP, 2008

State	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU
	1.4	0.9	1.0	2.2	1.2	1.1	1.3	:	1.1	1.2	0.8	1.9	1.0	1.0	:
State	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	NO
	1.0	1.1	1.5	1.5	1.1	1.0	:	1.2	0.8	1.9	1.8	0.8	1.5	:	2.1

“:” Data not available, Source: Eurydice, Eurostat, EACEA, European Commission - Key Data on education in Europe 2012.

Differences between countries continue beyond the proportion of GDP allocated to public funding of higher education. Thus, Member State governments allocate a sum of money corresponding to the percentage of GDP

allocated to higher education level using various funding mechanisms. In many countries, the main funding mechanisms are mostly the same, but they are applied differently. In Table 2., we have centralized the types of funding mechanisms used by EU governments to allocate public fund to higher education institutions.

Table 2: Financing mechanisms of higher education in the European Union

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	
Funding formula	X	X	X	X			X	X	R	X	X		X	X	:	
Negotiated budget with the funding authority based on an estimated budget submitted by the higher education institution					X	X		X				X				:
Budget allocated by the funding authority on the basis of historical costs				X							X					:
Budget allocated under a performance contract signed by the funding authority and the university, regarding the achievement of certain strategic objectives	X	X	X	X				X			X					:
Budget allocated under a contract signed with the funding authority, based on a predetermined number of students, by fields of study.		X				X							X	X		:
Provision of research funds through competition	X	X	X	X	X	X	X	X			X			X		:

	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	NO
Funding formula	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Negotiated budget with the funding authority based on an estimated budget submitted by the higher education institution		X										X			
Budget allocated by the funding authority on the basis of historical costs						X							X		X
Budget allocated under a performance contract signed by the funding authority and the university, regarding the achievement of certain strategic objectives				X			X		X	X			X		
Budget allocated under a contract signed with the funding authority, based on a predetermined number of students, by fields of study.															
Provision of research funds through competition	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

x- Applied financing mechanism R – established by the regional authority :
 Data not available, Source: Adapted and completed by the author after Eurydice,
 European Commission - Higher Education Governance in Europe, 2008,
 with information from Eurypedia – The European Encyclopedia on National
 Education Systems - available online at http://eacea.ec.europa.eu/education/eurydice/eurypedia_en.php

In Belgium, responsible for funding higher education are the three communities – German, French and Flemish. Since 2008, the Flemish community applies a new system of funding higher education [4]. Thus appeared the concept of sub-budgets allocated to universities. As a consequence, universities receive a fixed amount of money for funding the educational process, a variable amount of money according to the number of credit points obtained by the university only if the university achieves the

minimum number of credits established by the financing authority. If the universities do not accumulate at least the required number of credit points, the variable sum of money will not be granted. Universities also receive a variable amount of money for research within organized competitions. Private universities are not funded from the state budget. [5]

In Bulgaria, the amount of money allocated from the state budget to each university is based on the number of students enrolled in that university, by fields of study. There are also taken into account a few performance criteria such as the number of scientific publications and the evaluation of accreditation of study programs. While public universities are mostly financed from the state budget, private universities are not. [6]

In the Czech Republic, 70% of a university budget is financed from the state budget; other public financial resources from regional or local budgets are exceptional. [7]. The main funding mechanism is based on performance criteria. These include the number of students from the previous year and graduation rates. Starting with 2011, other performance criteria were added to adjust funding to the priority objectives of the national strategy. Private universities do not receive funding from the state budget unless they have a charity status, in which case the universities may receive state grants to develop their curricula.

In Denmark, the funding system of education by the central government is based on the taximeter principle. Under this system, the amount of money allocated to the university is correlated with the number of students that promote exams. Thus, the funding of the teaching activity is based on historical cost principle. These costs vary from one profile group to another. In addition to core funding, universities can supplement their income from research grants won through competition. There are no private institutions of higher education in Denmark. [8]

Responsible for funding universities in Germany is mainly the government of the land in whose jurisdiction is the university. Additional resources can come from the federal government's budget if there is a national interest. Funding mechanisms vary from one province to another. Private universities do not receive state financing. [9]

The main source of funding for higher education institutions in Estonia is the state budget. Public funding amount depends on the number of students, by field of study and level of study (bachelor, master and PhD). The amount of funding is subject to a process of negotiation between the authorities

involved. Unlike other funding schemes, in Estonian higher education private universities receive funds from the state budget. Though, the number of places funded from the state budget in private universities is low. In this case, funding is granted for areas where the state can not form qualified personnel. [10]

Since 2008, the government of Ireland has implemented a new funding model for higher education institutions based on a funding formula applicable to all categories of public institutions of higher education, thus giving up the negotiations between the involved parties. [11]

According to the Greek constitution, higher education is a guaranteed right for every citizen and does not require a fee payment. The main funding source is the state budget. Resource allocation to universities is based on a performance contract through which universities assume the achievement of the strategic objectives set in the multi-annual program submitted by the university to the financing authority. [12]

In Spain, the regional governments are responsible for funding higher education institutions. Each regional community establishes its own funding mechanism. [13]

In France, the private universities can receive state subsidy only if they are recognized by the ministry. [14]

In Italy, the main source of funding for higher education institutions is the state budget. The historical costs, i.e. the amounts received in the previous year, are the basis of the calculation of budgetary allocation for each university. [15]

In Cyprus, financing higher education institutions is the responsibility of the government, the main source of financing being the state budget. Universities receive public funds based on negotiations between the university and the funding authorities. Students enrolled in private universities receive scholarships from the state budget. [16]

In Latvia, the funding mechanism is based on a predetermined number of students in each field of study. Private universities can receive state subsidies for the training of specialists. [17]

In Lithuania, the funding follows the student whether he chooses to attend a state university or a private university. The state budget funds a predefined study places by fields of study. [18]

In Hungary, the state budget subsidy finances both public and private universities on the basis of a funding formula. [19]

In the Netherlands, the funding mechanism for higher education is based on a

formula considering performance indicators. [20]

In Austria, public universities are funded mainly from the state budget. Between 85-90% of the funds of a university comes from the state budget. Since 2002, funding is granted on a multi-annual budget based on a funding formula (20%) and under contracts concluded between the university and the financing authority which stipulate the achievement of certain performance criteria. [21]

In Poland, universities receive financial resources from the state budget. The students enrolled in private universities may receive funds from the state budget. [22]

In the United Kingdom, public funds are distributed to the universities on the basis of a contract concluded between the university and the funding authority. The contract requires the efficient use of the received public funds. [23]

Besides public sector, funding source is the private funding. Private expenditures include tuition fees (and other payments) which are mainly made by households, enterprises and non-profit organizations.

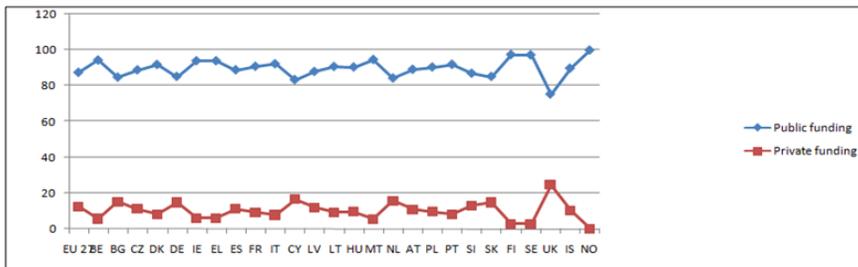
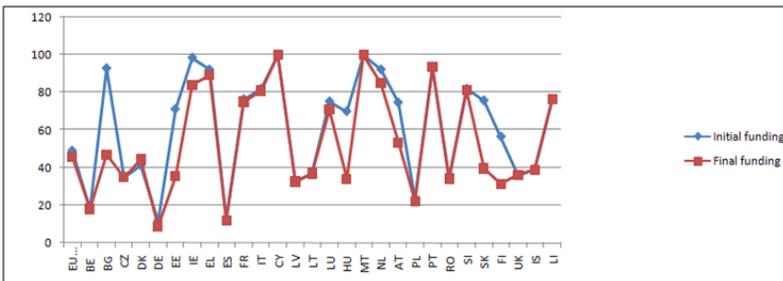


Figure 4: Proportions of educational expenditure from public and private sources, 2006, Source: processed by the author using data from Eurydice, Eurostat, EACEA, European Commission, Key data on Education in Europe 2009

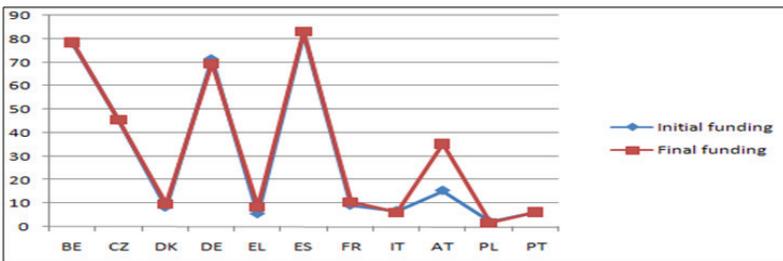
However, the share of private funds used to cover the costs of education differs significantly from country to country. Moreover, private funding represents more than 15% of the expenditure for education in Cyprus, the Netherlands, Bulgaria and the UK. It is also possible that a similar situation is registered in other countries, as statistics show no data available for this funding source.

At European level – as shown in Fig.4., funding for the education sector is made mostly form public funds. If we consider all levels of education,

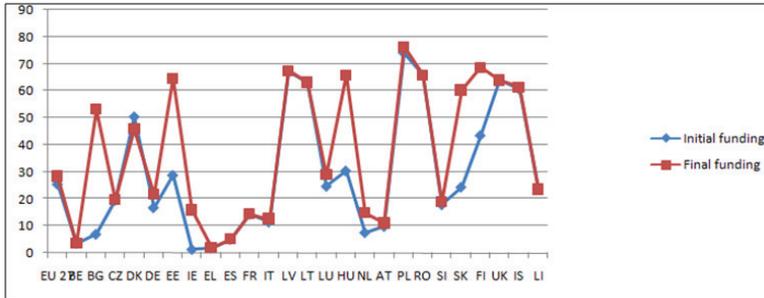
at least 75% of education expenditure are covered from public funds. Almost all states use for education funding financial resources provided by the central or the local government [2]. But there are countries, as shown in Fig.5., where financial resources management (above 70%) offers a high degree of centralization as in Ireland, Greece, France, Italy, Cyprus, Malta, Netherlands, Portugal, and Slovenia. In Liechtenstein, most of the resources used are provided by the central authority. Moreover, in “only 4 countries, the main funders of education are at the regional level, namely: Belgium, Germany, Spain and, to a lesser extent, the Czech Republic, countries where more than 70% of the funds allocated to education (45.5% in the Czech Republic) are collected and spent at regional level. The regional institutions in three of these countries (Communities of Belgium, the Autonomus Communities of Spain and the Land in Germany) represent the highest level of authority in education” [2].



Central



Regional level



Local level

Figure 5: Sources of public funding of education by administrative level, before and after transfers, 2006, Source: processed by the author using data from Eurydice, Eurostat, EACEA, European Commission, Key data on Education in Europe 2009

“Education funding should provide incentives to ensure efficiency that is important not only because underlies a good organization of educational activity, but also because it can improve its content” [24]. Education expenses were influenced, after 2000, by the educational policies and thus appeared new tendencies in financing education.

However, an important aspect being in the attention of all participants in the financing process of education is related to “the increase of financial resources as a result of GDP growth” [25]. This increase must be supported by public authorities in partnership with other stakeholders such as traders, social partners and individuals.

Public-privat partnership – education funding method

Development of public-private partnership is a trend that is getting amplitude and currently occurs only in secondary and tertiary education. It is important to involve all those useful individuals in order to attract partners. In particular, the government and social partners should explore the possibility of establishing different types of partnerships (public-private) to mobilize additional human and financial resources.

“Developing public-private partnership requires cooperation between institutions specialized in research and development, universities and

enterprises, especially in specific areas of advanced technologies” [26].

Working with partners is known as a critical factor for motivation, openness and quality of the educational system in the view of ongoing education and training throughout life. Partnerships, by requiring private financial contributions, can encourage more responsible behavior of students, families and educational staff and increase the efficiency of using overall spending.

Companies could, for example, be asked to finance or co-finance schools, equipment and scholarships, introducing new educational cycles in accordance with the requirements of the labor market, school departments or university departments, research units, training courses to guide pupils and students to those areas suffering from qualified personnel crisis. Moreover, education providers will be directly involved in dialogue with employers and in this way they can propose creative curricula to be constantly adapted to the needs of employers. There can also be “identified methods through which local authorities can get involved to support a process of continuous adaptation to labor market demands”. [27]

In the author’s opinion [28], “fiscal policy measures should be taken in order to determine the economic agents to provide financial resources to fund educational performance”.

However, the government should seek support from various participants and influence action for massive and sustained investment from companies and individuals, in order to encourage public-private partnerships in the education sector. For maximum efficiency, coordinated action between ministries is required.

Conclusions

Funding education becomes a complex process as the global financial resources face decrease. The methods of funding education have not undergone great changes over time, but the world’s countries, including European states seek solutions to diversify the funding sources of education. One education funding method tends to get amplitude by developing public-private partnerships. But this requires cooperation between institutions specialized in research and development, universities and undertakings. Moreover, state authorities should support massive investment in education as education must be a priority of each nation and the effects of this investment can be noted on long term.

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