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Higher Education Funding Issues: U.S. / UK Comparison

Orkodashvili, Mariam

Vanderbilt University

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Mariam Orkodashvili

Higher Education Funding Issues: U.S. / UK Comparison

Introduction

The aim of the paper is to compare and contrast higher education funding sources and systems in the U.S. and the UK and to summarize the main issues that rise in connection with the topic. These issues include: funding and quality assessment of universities; funding and equity of access to post-secondary education; marketization and privatization of universities; funding, autonomy and accountability of higher education institutions.

Methodology and data discussions

The methodology applied in the paper is a case study comparative analysis. The present research makes an attempt to compare and contrast the structural, organizational and funding mechanisms and policies, as well as the related issues, in higher education systems of the two countries, the U.S. and the UK. The case studies of these countries provide interesting points for discussion. In the process of comparing the two systems, the problems and challenges that the higher education system of each country is facing are more vividly revealed.

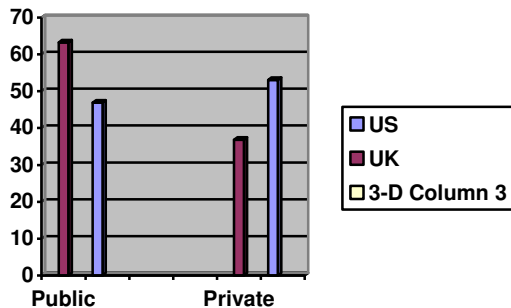
The paper uses the secondary data borrowed from different scholarly literature and database sources. The tables, graphs and other illustrative materials are also based on the secondary sources and databases of world statistics.

Chapter one: Public and private sources of funding

The comparison of private and public sources of higher education funding create a vivid picture of organizational peculiarities of higher education institutions in the U.S. and the UK. The analysis accounts for the differences in the fields of equity of access, quality assurance,

degree of independence and accountability of universities, and institutional expansion between these two countries.

The bar charts below (Bar chart 1) compare and contrast relative proportions of distribution of public and private sources of funds for educational institutions at a tertiary level in the U.S. and the UK, based on 1999-2000 data. The charts show tendencies of increasingly shifting funds from public to private sources with the U.S. leading in the sector of private funding and the UK following in its footsteps.



Bar chart 1: Relative proportions of distribution of public and private sources of funds for education at a tertiary level, 1999-2000. *Source:* World education indicators from www.uis.unesco.org

The first chapter will discuss different revenue sources of higher education institutions in the U.S. and the UK. At the end of the chapter total revenue sources of three universities – Vanderbilt University, Middle Tennessee State University and Cambridge University - will be compared by analyzing the pie charts depicting those sources.

1.1 State appropriations / State aid

The important distinction between the U.S. and the UK in terms of state appropriations to higher education lies in the diversity of the U.S. institutions versus uniform higher education institutions in the UK. The diversity in higher education institution types in the U.S. has a corresponding diversity in funding opportunities, whereas the UK universities fall under more or less the same budget distribution criteria.

The most widely-spread Governmental Grant schemes in the U.S are: 1. need-based grants: Pell Grants; California CalGrants; State Student Incentive Grants SSIG, etc. 2. Merit-based: Georgia HOPE (Helping Outstanding Pupils Educationally) Grants (Hoxby, 2004: 69); National SMART grants; etc. (Getz, 2007: 176).

Besides, ‘In 1993 the Helping Outstanding Pupils Educationally (HOPE) program began to use Georgia State Lottery funds to finance college scholarships for qualified state residents. Students with a high school grade-point average of 3.0 and above on a 4.0 scale (or an 80 on a 100-point scale) are eligible for a HOPE scholarship if they complete 16 units of academic work: four in English, four in math, three in social studies, three in science, and two in a foreign language. Once in college, students must maintain a grade-point average of B (3.0) or above to continue to receive support’ (Getz, 2007: 178).

Different policy options are discussed on how to implement the grant schemes efficiently in the U.S. For example, some scholars propose merging the grant schemes and simplifying the complex FAFSA application forms for the various grants (Dynarski, 2007). Informing the public – especially low-SES and minority groups - about the possibilities of different scholarship and grant options is also a widely discussed issue (Dynarski, 2007).

While the U.S. institutions have a diversity of funding options, the governmental grants in the UK are distributed on an equal competitive basis, where old and new, elite private and second-rate state institutions are placed under the equal conditions for obtaining governmental grants.¹

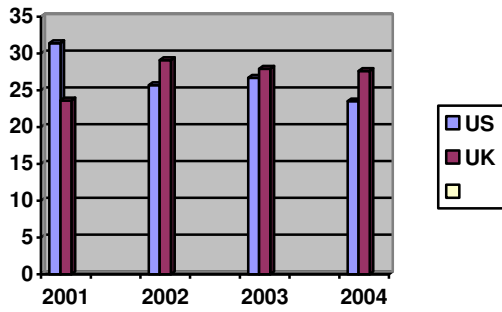
¹ UK government is often criticized for putting old and new universities under the same competitive conditions (Seville and Tooley, 1997).

However, it should be noted that in both countries the grants are portable and follow the student to the institution he/she chooses. This fact raises the competition among the universities for attracting these students and consequently, increasing their revenues.

In the UK, in the post-Robbins system, the universities received funds from University Grants Committee (UGC) on a quinquennial grant system. The number of students was important in determining the block grant amount. However, universities made independent decisions on internal distribution of these grants. Funding was determined on the basis of proposed budgets submitted by the institutions to the funding councils, but the funding councils implemented a strong competitive element for allocating this budget. The competition was based on student demand, price and quality.

Student fees were paid by local authorities and maintenance grants were also available, although means-tested for most of the period (Cheung and Egerton, 2007: 199-200). However, 'student grants declined in value in 1980s by 20%, and 'in 1988 funding of the universities was transferred to a new body, the Universities Funding Council, while funding for the polytechnics and colleges was administered by the Polytechnics and Colleges Funding Council. In 1992, three new funding councils were set up: the Higher Education Funding Councils for England, Scotland, and Wales. These provided core funding for the new university system, but as a proportion of overall funding, central government funding fell from over 70% in the late 1960s to just over 30% in the mid-1990s' (Halsey, 2000 in Cheung and Egerton, 2007).

The bar charts below (Bar chart 2) illustrate the changes in public expenditure per pupil as a % of GDP per capita in tertiary education in the U.S. and the UK during 2001-2004 years. We can trace the general tendency that the U.S. decreased public expenditure per pupil in tertiary education more than the UK where there was even increase in 2002.



Bar chart 2. Source: world education indicators from www.uis.unesco.org

Hence, the decline in state funding in both countries triggered the higher education institutions to shift their focus towards raising tuition fees and obtaining private revenue sources from research contracts, short courses, business initiatives, endowments, etc., the practices described in more detail in the following sections.

1.2 Tuition fees / pricing universities

The decline in state appropriations first and foremost triggered the universities to raise tuition fees. This was the alternative source of funding that was initiated by the U.S. higher education system, with Britain following in its footsteps.

According to the National Center for Education Statistics, in the U.S. “while revenues per FTE student increased, government appropriations per FTE student fell at all types of institutions;” and tuition fees increased steadily (Roherty, 1997: 11). This trend was quite consequential throughout the U.S. ‘In terms of actual dollars, tuition and fees for all higher education institutions nationally accounted for \$37.4 billion in revenues for 1990-91, whereas appropriations to institutions from state governments accounted for \$39.5 billion. In 1993-94, however, tuition and fees jumped to \$48.6 billion while revenues from state governments rose only to \$41.9 billion’ (Breneman and Finney, 1997: 41-42). Moreover, many of the funding practices at private institutions were also initiated by public universities. “Tuition discounting,” a term used to describe the practice of providing institutional aid to students who cannot pay the

full cost of tuition in private colleges and universities, is a practice now found in public institutions' (Breneman and Finney, 1997: 47).

It should be noted that tuition fees are much higher in private institutions than in public, and in four-year institutions, than in two-year colleges (Roksa et al., 2007). In addition, public institutions make distinction between the amounts of in-state and out-of-state tuition fees, where out-of-state fees are higher than in-state fees (Rizzo & Ehrenberg, 2004). 'Tuition at public colleges and universities varies widely. At the high end, Pennsylvania State University charged \$11,024 per year for in-state students in 2005-2006 (\$21,260 out-of-state). At the low end, the University of Idaho charged \$3,968 in-state (\$12,738 out-of-state) in the same year. Four-year schools charged an average tuition of \$5,491 in 2005-2006, which paid for nearly 30 percent of expenditures per student. Public two-year colleges averaged \$2,079, which paid for only 19 percent of expenditures per student. In this tier, among the highest tuitions was the Community College of Vermont, with annual rates of \$5,130 in-state (\$10,560 out-of-state) for 30 credit hours. At the low end was California, at \$780 for 30 credit hours for in-state students' (Getz, 2007: 133-134). Full in-state cost for state universities can amount up to about \$20,000 (\$30,000 out-of-state), two-year public colleges can charge \$10,000 on average.

As for the private sector, there is also a variety of prices. On average the elite private university charges full cost of about \$50,000. However, there are variations. For instance, tuition fees at Vanderbilt University amount up to \$34,414 p/a², at Harvard University tuition fees constitute \$44,350 p/a³. 'Georgetown University charged \$32,199 p/a in 2005-2006' (Getz, 2007: 137). In addition, there exist proprietary colleges. 'Tuition and fees for proprietaries depend on location and type of program. Strayer University in Washington, D.C., had annual tuition of

² Source: www.vanderbilt.edu

³ Source: www.harvard.edu

\$12,150 for ten courses in 2006. DeVry University (Philadelphia-Washington, D.C.) charged \$13,700 for annual tuition and fees in 2005-2006. The University of Phoenix charged \$18,360 in tuition for ten three-credit hour courses in its MBA program in Philadelphia in 2006-2007. The proprietary colleges appeal primarily to nontraditional students, and in this respect they fill a significant and growing niche in higher education. But they're no substitute for a high-quality full-time undergraduate program' (Getz, 2007: 142).

Furthermore, competitiveness and selectivity also seem to play a role in setting tuition fees in the U.S. institutions. 'Out-of-state tuition and fees averaged \$9,616 at noncompetitive public four-year colleges in 2004 but \$14,616 among very competitive public four-year colleges. Tuition and fees at private colleges averaged \$11,219 per year at noncompetitive four-year colleges but \$29,195 among the most competitive colleges. Public in-state tuition and fees averaged \$5,000 in 2004 and did not vary systematically with the selectivity of the institution. Choosing a college in the higher quality group, as measured by selectivity at least, usually comes at a higher sticker price for private and out-of-state public schools' (Getz, 2007: 146).

To create a general picture of the extent of tuition fee increase, it could be visualised in the wider economic context. 'In the period from 1980 to 1994, the cost of higher education outpaced the cost of automobiles by 500 percent, overall inflation by 400 percent, and even medical care by 70 percent. This trend cannot be made up by student aid, and certainly not by loans. Something else must change' (Roherty, 1997: 21). Naturally, the practice of diversifying funds comes to the forefront here.

An increasing proportion of funding in the UK comes from student tuition fees. However, the government there limits (introduces ceiling) the amount of fees that universities can charge. However, maximum is still 40% less the real cost. In 1988, the Labor government introduced

tuition fees, initially set at £ 1,000 for all institutions and rising by 2.5% per year (approximately the inflation rate) (Cheung and Egerton, 2007: 200). The introduction of tuition fees prompted competitiveness among the universities.

Today, although there is a limit set by the government, the UK universities make a distinction between the amounts of tuition fees for UK/EU and international students. For example, for the 2007-2008 academic year in the majority of the UK universities the tuition fees for the UK and EU students are about £ 3, 070 per annum (with slight variations from university to university). For international students tuition fees are significantly higher. Besides, there is a distinction between the disciplines as well. For humanities, social sciences, law and theology faculties tuition fees for overseas students range between £ 9,200 and £ 9,900 per annum, for engineering, computer science, management studies, biological sciences tuition fees are set at about £10,775 - £12,219 per annum, as for the medicine and veterinary science, they are the most expensive faculties for overseas students and vary from £22,570 to £27,300 per annum depending on the prestige and ranking of the individual program of study. In addition, the University of Oxford, for instance, sets different fee amount for the Channel Island students that is higher than the fee amount for the UK/EU students but is lower than the fee amount for overseas students, and ranges between £6,313- £10,138 p/a depending on the discipline. However, medicine amounts up to £22,707 p/a. Besides, the Universities of Oxford and Cambridge have special college fees for overseas and Channel Island students varying between £4,900 and £5,300 p/a at Oxford University and between £3,300 and £4,400 p/a at Cambridge University. College fees were mandatory for the UK and EU students earlier but they have been abolished recently and only overseas or the Channel Island students have to pay these fees. In addition, from 2006 at the majority of universities continuous students can take student loans and

defer re-payment of loans until after they have finished studies and are earning above £15,000 per year.

This tuition differentiation process gives incentive to universities to attract students from abroad by designing and offering courses applicable to them. Hence, the courses with “international”, “comparative”, “crosscultural”, “global” elements in them are becoming increasingly popular and bring significant revenues both to the U.S. and the UK universities.

1.3 Loans

The increase of tuition fees naturally made policymakers think of the ways of enabling students to finance their studies (Barr, 1989, 1991, 1993).

In the U.S., ‘Since the 1970s, the federal assistance shifted in two ways: increasing the reliance on loans, and broadening programs to include middle-class students’ (Roksa, et al., 2007: 171). Loans are one of the most effective means of financing studies, especially for low-SES students. Hence, different loan schemes offered the best possible alternative for governmental grants and scholarships, and increased the number of loan borrowers and loan amount. ‘From 1990 to 1996, total loan volume in the United States grew from \$15.8 billion to \$28.5 billion’ (Breneman and Finney, 1997: 48). And consequently, ‘the number of students borrowing unsubsidized loans increased 178 percent in 1995 over the prior year – from 751,000 to over two million borrowers’ (Roherty, 1997: 21). Stafford Loan Program is the most widely-spread program in the U.S. ‘Much of the growth in loans among higher income students can be attributed to the unsubsidized Stafford Loan program. Between 1998 and 2006 Stafford Loans had attractive interest rates, and more students borrowed more for college than ever before. Consequently, they graduated with more debt’ (Getz, 2007: 174-175).

Students from different income households borrow loans of different amounts depending on the type of institution that they attend. ‘Students from households with income below \$32,000 in 2003-2004 who attended public four-year colleges averaged \$12,900 per year in college expenditures, with 49 percent receiving loans that averaged \$4,800 per year. If they went to private four-year colleges, their college expenditures averaged \$23,800 per year, with 64 percent of them borrowing an average amount of \$6,400 per year. Students from households with income over \$92,000 who attended public four-year colleges averaged \$14,300 in annual expenses, with 35 percent of them borrowing an average of \$5,100 per year. Those in this bracket who attended private four-year colleges averaged \$30,000 in expenses, with 49 percent of them borrowing an average of \$6,800 per year’ (Getz, 2007: 169). Besides, students also have an option ‘to borrow the money through a combination of student and parental loans’ (Getz, 2007: 169).

In the UK income-contingent loan schemes were initiated in the 1960s (Seville and Tooley, 1997: 36). However, officially student loan system was introduced in 1990 /91 (Cheung and Egerton, 2007:200), and needs still further elaboration to make it as effective as possible. As mentioned earlier, from 2006 the loan system in the UK has been made flexible and lenient for students who can start re-paying them only after they have finished their studies and are earning more than £15,000 per year.

Debates have arisen about the loan re-payment schemes for different professions. Some people have argued that ‘the rich should not be punished’ by re-paying their study loans until retirement age. If they wished to cover their loan debts early, thanks to their high salaries, the loan repayment system, they argued, should be made more flexible to allow such individuals ‘to get rid’ of the study debts at an earlier age (Seville and Tooley, 1997). Therefore, the relationships between different loan schemes and career paths that the students follow can be

further investigated to elaborate most effective policy for offering options tailored to various needs of students. Besides, the difference in the amount of income between men and women is also contributing to the issue of how much should be invested in the education and, consequently, how much loan different individuals can borrow (Getz, 2007).

To summarize the issues connected with loans, it seems that government authorities in both countries are increasingly engaged, to a more or less degree, in the process of making the loan system as feasible and affordable for different income-groups as possible. They are trying to help the public realize that education debt is a good debt to have.

1.4 Endowments and donations

Much attention has been paid to the issue of private-fund raising, especially the endowments that the alumni donate to universities (Baade and Sundberg, 1996; Caboni, 2001; Clotfelter, 2003; Sutton Trust Report, 2003, etc.). One idea that might be created after researching the literature is that the crucial point for universities in fund-raising practices through endowments is the ability to keep intimate connections with alumni. Engendering and fostering the loyalty to university seems to be actually the determining factor in how much endowment the university is going to receive.

An important distinction to be made in connection with endowments is that while private elite research universities are the major recipients of alumni donations, the state two-year colleges, and especially community colleges rarely receive donations. The reasons could be different, such as quality, prestige, but the most obvious reason again seems to be the ability of private research universities to develop those close intimate ties with their alumni throughout their student years that work as incentives for alumni donations. In addition, Caboni (2001) makes a distinction between types of donors (alumni, private individuals, organizations, etc.) and

argues that for the majority of organizations donating to rich elite universities is a matter of prestige (Caboni, 2001).

Variations in institutions require different fund-raisers (Caboni, 2001: 11). Research institutions, doctoral granting institutions, comprehensive colleges, liberal arts colleges, community colleges – each requires a somewhat different approach to fund-raising issues due to the different contexts in which these higher education institutions operate. However, one noteworthy trend in this respect pertaining to any type of institution could be named as the operation of Matthew Effect, according to which, roughly speaking, ‘the rich get richer’. This implies that rich institutions attract more donors – the phenomenon could be named accumulative advantage.⁴

The history of fund-raising and donation giving to educational institutions could be traced back to ancient times: ‘the Greek philanthropist Cimon’s support of the Academy of Socrates and Plato and Alexander the Great enabling the opening of Aristotle’s Lyceum through his financial support’ (Caboni, 2001: 18-19). Thereafter, in Europe, ‘Wealthy individuals established endowments to support the universities of Paris, Oxford and Cambridge’ (Schachner, 1962 in Caboni, 2001). And consequently, ‘The idea of the chief faculty member raising funds for the institution was transferred to the early colonial colleges’ (Miller, 1991 in Caboni, 2001).

In the U.S., ‘The first president of Harvard College, Henry Dunster, counted generating resources as part of his duties’ (Cook, 1994 in Caboni, 2001). In 1821, Williams College established the first alumni association and in 1823, Brown University established the first alumni fund (Curti and Nash, 1965 in Caboni, 2001). However, Kelly (1998 in Caboni, 2001) points out that private, rather than public, institutions employed the first fundraisers. ‘In 1974,

⁴ Merton, R. K. (1968) offers detailed analysis of Matthew Effect in *Social theory and social structure*. New York: Free Press. Caboni (2001) further discusses Matthew Effect as the accumulative advantage for universities.

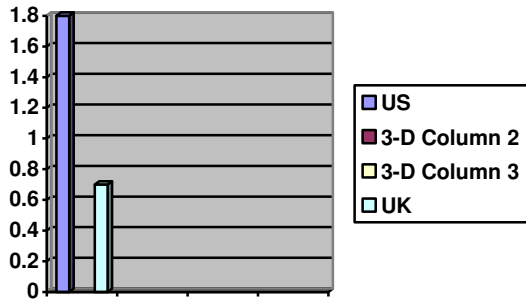
the AAC and the American College Public Relations Association merged to form the Council for the Advancement and Support of Education (CASE). This organization brought together the organizational functions of public relations, publications, fund raising and alumni relations under the umbrella of institutional advancement' (Richards and Sherratt, 1981 in Caboni, 2001: 20).

Today, of the total \$12.7 billion given to public and private colleges and universities in 1995, 20 top universities in the country accounted for approximately 23 percent of all giving. Fewer than 1,000 institutions receive 84 percent of all private contributions. Overall, private fund raising by colleges and universities experienced a 30 percent gain from 1990 to 1995 (Breneman and Finney, 1997: 37). This trend has appeared especially noticeable over the past 25 years. In 1999, as an instance, 'Harvard University completed a \$2.3 billion campaign, the largest in the history of higher education, with 12 other institutions having completed or in the process of conducting billion dollar capital campaigns' (Pulley, 1999 in Caboni, 2001:21).

Private fund-raising has developed to the extent that it has turned into one of the widely-spread professions. Caboni (2001) points to the professionalization tendencies within higher education fund raising process and offers three basic characteristics of a professional fundraiser: a basic body of abstract knowledge, the ideal of service to clients, and autonomy. Moreover, certain features of professional fundraisers have been identified, called 'Normative behaviors of fundraisers' by Caboni (2001). These features are: honesty, integrity, promise-keeping, fidelity / loyalty, fairness, caring for others, respect for others, responsible citizenship, pursuit of excellence, accountability, safeguarding the public trust and duty' (Caboni, 2001: 36).

However, unlike the USA, in the UK there has been relatively little emphasis placed upon obtaining donations through alumni. Giving to universities in the U.S. amounts to 1.8% of the GDP compared with 0.7% in the UK (Smithers and Ward, 2004) (bar chart below). In the UK,

education does not appear among the major categories for donations, but in America 8% of donations go to universities. Harvard, for example, has an endowment of £10bn compared to Oxford's £2bn (Smithers and Ward, 2004).



Bar chart 3: Endowments to universities as percentage of GDP
Source: Smithers and Ward, 2004

‘The taskforce, chaired by Bristol University's vice-chancellor, Eric Thomas, was set up after the publication of the higher education White Paper last January calling for exploration of incentives to encourage further donations. The report points out that only half the universities in the UK have endowments of more than £1m. It says the most meaningful comparisons for the UK are with publicly funded universities rather than the privately-owned Ivy League universities such as Harvard and Yale. Even the University of Florida, for example, raised \$150m every year from endowment income’ (Smithers and Ward, 2004).

To sum up, the most useful policy that governments can carry out to help universities generate incomes through endowments seems to be introducing tax regimes that would encourage private individuals or organizations to donate to universities. While the U.S. has a quite effective tax policy in this respect, the UK is still lagging behind.

1.5 Revenues from land development and real-estate investments

Deriving revenues from real-estate investments and land development has long traditions. The majority of universities own lands and buildings, and are thus able to engage in different revenue-generating activities. Private universities have their own acquired lands, whereas a number of public universities received the land from the state after the Morrill Act of 1862 and, hence, are called the land-grant universities, exemplifying an instance of state triggering a university to engage in private revenue-generating activities and having established the concept of ‘undifferentiated American’ (Bowman, 1962).

In the UK some universities even received lands from the monarchs back in the historical past, and as a consequence, became rich. Oxford and Cambridge Universities could serve as good examples of receiving huge portions of land from Henry VIII and his young son Edward VI who confiscated them from the Church: ‘I judge no land in England better bestowed than that which is given to our Universities, for by their maintenance our land will be well-governed when we be dead or rotten’ (Henry VIII in Perkin, 1991:179). ‘...And he founded great new colleges, Christchurch, Oxford, and Trinity, Cambridge, partly on the soils of the nearby monasteries’ (Perkin, 1991:179).

Regardless of the origin of acquisition, land possession by universities has always been perceived not only as an income-generating source, but also as a means of sustaining independence and self-governance. Nowadays, universities have hugely expanded and diversified their activities towards investing in buildings and lands, as they possess the collateral for entering into negotiations with businesses and banks. A number of universities have been utilizing their private property for various commercial and business entrepreneurship aims.

1.6 Revenue from research contracts and business initiatives

Furstenbach (1993) extensively talks about the third stream of income and the money that can be earned through contracts and other money-generating business initiatives.

The income-generating activities of the U.S. universities involve: short-term courses, contract research for industry, consultancy services, travel and study programs that are offering better and convenient conditions for study on luxury trips and are becoming increasingly expensive. 'There are several ways that institutions might do business differently, but there appear to be three major strategies: decentralization of operations from the state, privatization of service operations, and use of private business practices' (Phillips, Morell, Chronister, 1996).

Further expansion of business practices by universities is the increasing involvement of corporations in academic life. This trend has been popular not only among private but public institutions as well, and even among community colleges. For instance, in the increasing demand for corporate social responsibility from businesses, one part of companies' responses to increasing social pressure could be involvement in community colleges or other institutions facing difficulties, sending volunteer employees to partake in curriculum design, teacher training and IT development. In the case of Microsoft initiative, they increased the labor market chances of community college graduates who would otherwise be unable to either continue further education or find a job.

In the UK various research councils fund projects that academics at universities undertake. Sometimes research councils announce particular initiatives and priorities to which an amount of funding is earmarked; but, in addition, there is scope for institutions to submit proposals in areas of their choice. There is also substantial research funding from private foundations, government departments, and industry. These are generally much more applied and policy driven. Project

proposals may be drawn up by the funding body and put out to tender to selected institutions (Willmott, 2003).

Furthermore, in the UK private businesses also started funding courses tailored to their needs, especially in further-education colleges. As Cheung and Egerton (2007: 197) point, ‘It was expected that most higher education in further education colleges would be funded by employers through the Industrial Training Boards. These courses were advanced vocational training rather than degree – level courses and were mainly part-time, so the issue of student maintenance did not arise.’

1.7 Revenue from copyright and patents

Revenue-generation through copyright and patents has become one of the major non-traditional sources of income for the universities both in the U.S. and the UK throughout the past centuries, especially after it became clear that inventing something and selling to private companies or other organizations would bring considerable amount of money.

One might think that this practice is especially characteristic of the private research universities that continuously engage in research and produce innovative ideas or products. However, ‘more than 100 colleges and universities report income from patents. Ten of the top twenty institutions in licensing income are public universities’ (Phillips, Morell, Chronister, 1996).

It could be assumed that this copyright practice might trigger not only income-generation, but also enhanced quality of research at universities and increased competition for exclusive rights on different innovations.

1.8 The comparison of major revenue sources on the examples of three universities

The pie charts below illustrate the examples of major revenue sources of three universities. The three examples are: private U.S. university -Vanderbilt University; state U.S. university - Middle Tennessee State University; UK university - Cambridge University. Each university has a different distribution of its main revenue sources. It should be noted that the pie charts show those revenue sources that are most significant for each university, and hence, have the highest income share⁵.

1) It is easily noticeable how actively Vanderbilt University is involved in private fund generating activities. Its major revenue comes from endowments, investments, health care services and private property management.

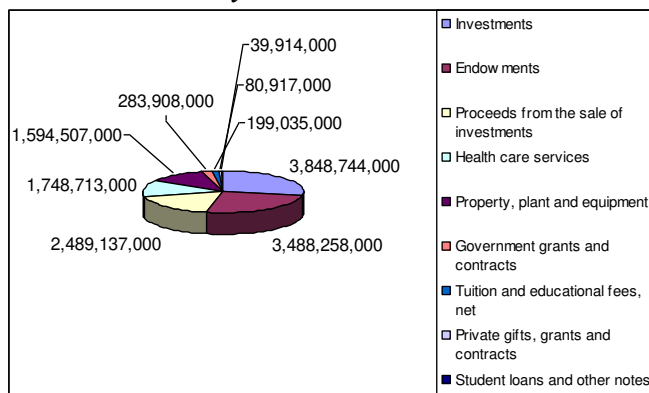
Vanderbilt University, Major Revenue Sources, US Dollars, 2007

Investments	3,848,744,000
Endowments	3,488,258,000
Proceeds from the sale of investments	2,489,137,000
Health care services	1,748,713,000
Property, plant and equipment	1,594,507,000
Government grants and contracts	283,908,000
Tuition and educational fees, net	199,035,000
Private gifts, grants and contracts	80,917,000
Student loans and other notes receivable	39,914,000

Table 1

Source: www.vanderbilt.edu

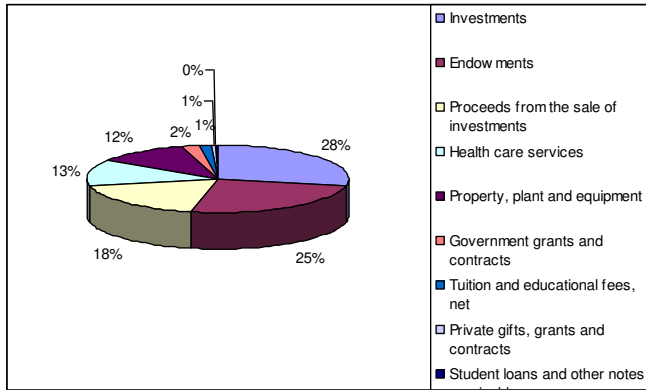
Vanderbilt University



Pie chart 1 Vanderbilt University Main Revenue Sources, US Dollars. Source: www.vanderbilt.edu

⁵ Those numbers and percentages that were relatively insignificant were overshadowed on the pie charts by the numbers of those revenue sources that were higher and more significant.

Vanderbilt University



Pie chart 2 Vanderbilt University Main Revenue Sources, Percentages
 Source: www.vanderbilt.edu

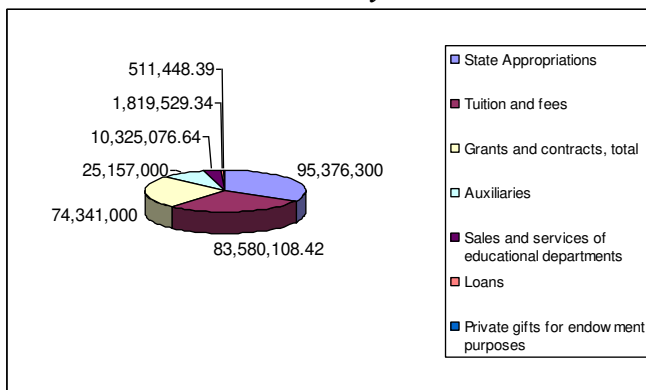
2) As for Middle Tennessee State University, its major revenue comes from state appropriations, tuition fees and total grants and contracts (operating and non-operating). The tendency towards private income-generation is apparent. Sales and services of educational departments and private gifts for endowment purposes (although still insignificant) are clear indicators of this tendency.

Middle Tennessee State University, Major Revenue Sources, US Dollars, 2006-2007

State Appropriations	95,376,300.00
Tuition and fees	83,580,108.42
Grants and contracts, total	74,341,000.00
Auxiliaries	25,157,000.00
Sales and services of educational departments	10,325,076.64
Loans	1,819,529.34
Private gifts for endowment purposes	511,448.39

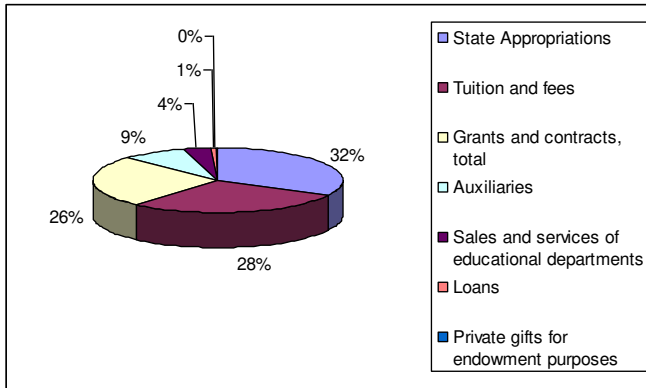
Table 2
 Source: www.mtsu.edu

Middle Tennessee State University



Pie chart 3 Middle Tennessee State University Main Revenue Sources, US Dollars. Source: www.mtsu.edu

Middle Tennessee State University



Pie chart 4 Middle Tennessee State University Main Revenue Sources, Percentages
 Source: www.mtsu.edu

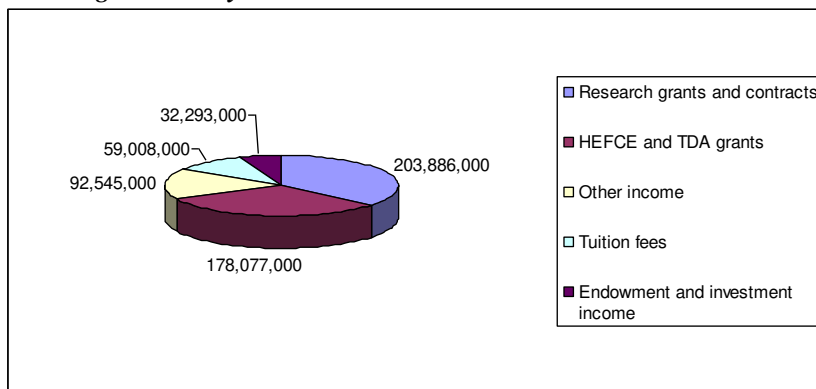
3) Cambridge University has significant funds from grants and contracts. However, a special note should be made of the relatively small portion of its income from endowments and investments. Also noteworthy are its less diversified sources of revenue.

Cambridge University, Major Revenue Sources, UK Pounds, 2006-2007

Research grants and contracts	203,886,000
HEFCE and TDA grants	178,077,000
Other income	92,545,000
Tuition fees	59,008,000
Endowment and investment income	32,293,000

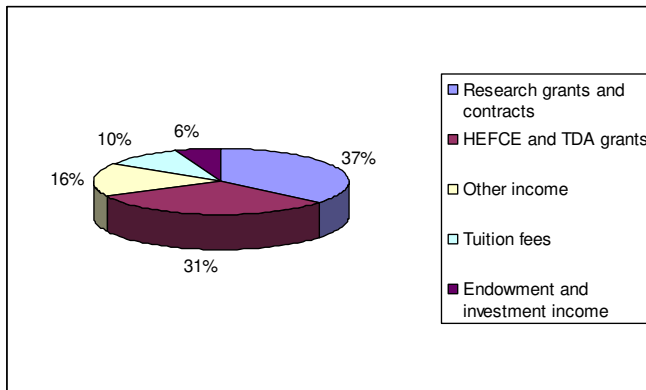
Table 3. Source: www.cam.ac.uk

Cambridge University



Pie chart 5 Cambridge University Main Revenue Sources, UK Pounds
 Source: www.cam.ac.uk

Cambridge University



Pie chart 6 Cambridge University Main Revenue Sources, Percentages

Source: www.cam.ac.uk

To sum up, private income generation, and generally, funding diversification, appears to be most developed at elite U.S. private universities.

Chapter two: Higher education funding and external influencing factors

The aim of the second chapter is to provide a short outline of the sociopolitical and economic contexts which influenced the shaping of higher education funding systems in the U.S. and the UK. While diversification and a wide open market economy have been the dominant funding trends in the U.S., the insight into the UK sociopolitical developments of the 1980s and 1990s clearly reveals the importance of the Thatcher reforms in radically altering the development of the UK's higher education system.

2.1 U. S. socioeconomic background and higher education funding: Market Economy

It is impossible to isolate higher education funding policy from the interplay of economic developments, social contexts and political forces. One can identify a number of factors that contributed to the diversity of higher education funding in the U.S.

To begin with, scholars talk about the 'rapidly increasing tuition and falling government support for financial aid following the Reagan reforms in the early 1980s' (Lucas, 1996 in Roksa, 2007: 169). Afterwards, 'Beginning with the Budget Enforcement Act in 1990, "the [Republican] revolution"' defined the 1990s with its early emphasis in the 1992 presidential race on the macro

issues of budget discipline and health care reform. These themes united the two major political parties in the same way that “safe communities,” “family values,” and a “contract with America” came to define the pivotal elections in 1994’ (Roherty, 1997: 4).

Hence, governmental priorities in terms of budget allocation changed significantly. ‘From 1990 to 1992, Medicaid began crushing state budgets with annual increases of 20.6 percent, 28.0 percent, and 29.5 percent...Medicaid’s share of state spending nearly doubled from 10.2 to 19.2 percent of state budgets from 1987 to 1995. In 1990, Medicaid spending first displaced higher education as the second largest state spending category, second only to elementary and secondary education’ (Roherty, 1997: 4-5). As a result of redirecting the priorities in funding, higher education funding system had to be modified to keep pace with the ongoing developments. ‘Three major changes in state and federal higher education finance have included: a shift of responsibility away from public and governmental sources to students, families, and institutions; a shift from grants to loans as the predominant form of students financial assistance; and an increasing reliance on allocated tuition fees as a source of student financial assistance for students in private and public colleges and universities. These changes have occurred incrementally over the past decade and a half, but have accelerated in the 1990s’ (Callan and Finney, 1997: xi).

There are two ever reverberating arguments coming from government officials in defense of their shifting of priorities from higher education to other spheres. The first one concerns universities’ ability of self-sustainability. Moreover, ‘University administrators have accounts available to them from private gifts and other sources that mock the rules others must abide by’ (Roherty, 1997: 15-16).

The second argument set forth by the authorities is the fact that ‘it has become very hard outside the academy to understand its [higher education’s] “mission.” In a competitive environment, a clear sense of purpose is a prerequisite to funding. ‘It is incumbent on those in higher education to discern and communicate its real motive and the multiple businesses that necessarily underlie it’ (Roherty, 1997: 16). Moreover, ‘Allan Bloom described the *real motive* of education to be the search for a good life, and his defense of liberal education was a direct attack on the relativism he so strongly opposed in higher education’ (Bloom in Roherty, 1997: 16).

The U.S. higher education system is also characterized by a diversity of higher education institution types. ‘The size of the U.S. higher education system is accompanied by a remarkable variation among institutions. Students graduating from high school can enter postsecondary vocational schools, two-year institutions, or four-year colleges and universities. They can choose between private or public versions of those institutions, and they can attend more or less prestigious colleges and universities’ (Roksa, et al., 2007: 166).

Furthermore, the diversified higher education system has produced even more diversity in the amount of funding that different types of institutions receive or raise. The overall picture is that private institutions charge much higher fees than public institutions. ‘The tuition also generally increases with prestige: tuition and fees at a typical Ivy League institution in 1990 and were approximately seven times the cost of in-state tuition and fees at an average public university. Moreover, college expenses have escalated over time, especially at private four-year institutions’ (Roksa, et al., 2007: 170).

2.2 UK sociopolitical changes and higher education management / funding: Thatcherism

The British higher education system has undergone certain transformations against shifting political and economic backgrounds. ‘The British higher education system had undergone two phases of major reforms. First came the postwar expansion, followed by another period of rapid expansion in the late 1980s and early 1990s. Postwar policy – makers set about expanding and reforming a system that had recruited about 3% of the age group for full-time higher education: about 1.7% to universities and 1.3% to teacher training and higher education in further education colleges (Halsey 1988 in Cheung and Egerton, 2007: 196).

In addition, The Robbins Committee Report of 1963 seems to have played a significant role in higher education expansion that bore consequences in funding as well. It ‘established the case that entrance to university should be open to all who could benefit from it, and its acceptance accelerated postwar expansion. Before the Robins Report, there were 31 British universities, 10 colleges of advanced technology, 150 teacher training colleges, and sizeable numbers of further education colleges that offered advanced vocational training (Halsey, 1988 in Cheung and Egerton, 2007: 196). Thereafter, during the Post-Robins period, ‘seven new universities were founded in England... One new university was founded in Scotland, and another formed from the merger of technical institutes. All of these had autonomous governance and came under the generous funding regime of the University Grants Committee, a body that mediated between the universities and central government. The labor government of the time responded to the clear deficit in technical training in the United Kingdom and also set up 30 polytechnics intended to provide advanced vocational education and respond to local labor market and industrial research needs’ (Cheung and Egerton, 2007: 196).

The UK higher education of the 1970s and 1980s can be characterized as a binary system where universities and polytechnics co-existed. However, the Thatcher Government started merging the two⁶, pushed them towards the free-market economy and encouraged private-funding practices. Binary system changed into unitary. Teacher training colleges were incorporated into polytechnics, and afterwards, polytechnics merged with universities. This policy increased the vocationalisation of institutions and opened up a wider access of certain previously disadvantaged groups to the higher education. ‘She [Thatcher] felt that universities needed drastic reform to bring them to modern standards of productivity and efficiency’ (Reitan, 2003: 105). The general themes of this government may be summarized in the slogans “market,” “value for money,” “economy, efficiency, and effectiveness,” “privatization,” and “diminishing government budgets.” Moreover, Boards of Trustees were becoming increasingly popular for efficient and diversified decision-making processes. ‘It was Margaret Thatcher who inaugurated the new era of academic financial autonomy’ (Kealey, 2005: 160).

A special mention should be made of Thatcher’s consultant in education sector, Quentin Thompson, who in addition to playing an important role in higher education system reforms, stressed that the key was the incentive to diversify funding sources and not whether there would be public or private institution (Thompson, 1998). It should be noted that the UK was the first European country to have introduced student fees and loans.

The Thatcherian inheritance to higher education can be summarized as being restructured so as to have become open to market-forces and having increased competition among universities for obtaining money. It has followed in the footsteps of the U.S. higher education, for no university can be competitive unless it has other sources of money, other than from state. Each

⁶ In fact, polytechnics were finally incorporated as universities in 1992. The process was initiated by the Thatcher government, thus, transforming binary system into unitary.

and every university must acquire its own money from other sources to be viable and survive in the 21st century.

Chapter three: Issues connected with higher education funding

Diversified funding mechanisms in higher education have bilateral relationships with the issues of equity of access, quality assurance, autonomy and accountability of universities. This implies that each exerts an equal and simultaneous influence on the other. Hence, the chapter below tries to bring these issues together.

3.1 Higher education funding and equity of access issues

The issue of equity has produced numerous controversial discussions among scholars, educators, policymakers and government officials. ‘When discussing the equity of participation in higher education, the research has appeared gratuitous in nature, for it has continued to offer recommendations on a problem which has been solved by no nation, rich or poor, capitalist or socialist’ (Heyneman, 1995: 560). However, the issue still remains on the agenda of any higher education policy discussion.

The scholarly literature claims that the diversified system of higher education with its diversified revenue sources like the one in the U.S., offers wider opportunities for higher education than that of the binary or unitary system characteristic of the UK education system (Arum et al, 2007: 21).

Scholars argue that the number of higher education students in the UK increased during the binary period, ‘...with full-time student numbers reaching 457, 000 in 1970/71 and 717, 900 in 1990/91 (Halsey, 2000 in Cheung and Egerton, 2007: 198). The higher education Age Participation Index (API) grew from 7.2 in 1962 to 13.7 in 1984 and 23 in 1992. (UK DES 1987 in Cheung and Egerton, 2007: 198).

In addition, higher education has gradually become less elitist and more open to wider masses. 'There are now 169 higher education institutions in Britain, of which 67 offer mainly further education courses. The population of full-time students in higher education reached 1,131,000 in 1997/1998 in addition to 506, 600 part-time students....By 2001 the API in Britain was 34' (Cheung and Egerton, 2007: 198). However, the UK education system still retains elitist features and the equity of access issue continues to pose serious challenges for policymakers.

In the U.S. the expansion of admission to postsecondary institutions 'can be described as stratified: characterized by increasing enrollments in lower-status institutions (nonselective four-year institutions and community colleges), and by the solidification of institutional hierarchies' (Roksa, et al., 2007: 165-166). Therefore, one might assume that the problem that has risen in regards to the equity of access is that while the overall number of students has increased over the last decades, the increase has been actually achieved at the expense of public institutions, and especially community colleges. This fact has diverted the students from high-profile elite institutions and subsequent professional development. Hence, there have been debates in scholarly literature whether the expansion of higher education is 'diversion' or 'inclusion', the former meaning '*diverting* working class from elite opportunities by channeling it to lower status positions' (Brint and Karabel, 1989), and the latter claiming that 'even lower-tier postsecondary schooling represents enhanced opportunity, so that the important effect of expansion may be one of *inclusion*' (Dougherty, 1994 in Arum et al., 2007: 2).

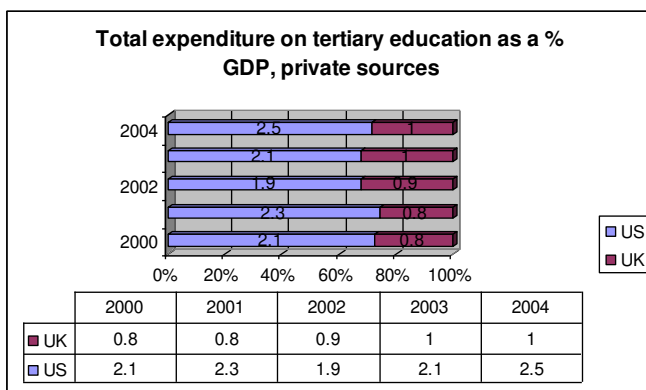
The MMI (Maximally Maintained Inequality) has also offered the idea of saturation, meaning that after all the elite classes have access to education, the access will open for lower-classes as well (Raftery and Hout, 1993). But the MMI has been criticized as offering to increase

quantity against quality, depriving the low income masses of entering high-quality institutions (Lucas, 2001 in Arum, et al., 2007).

However, the level of privatization, the diversity of private funding sources also seems to turn the general assumption into opposite direction. ‘Systems with higher privatization are associated with more lenience in entry requirements and with differentiation in structures. Therefore, more private financing is associated with higher levels of expansion and higher levels of social equity. Privatization expands access and reduces inequality. The control of expansion is associated with a monopoly of state financing, and hence with greater inequality of access’ (Heyneman, 2007).

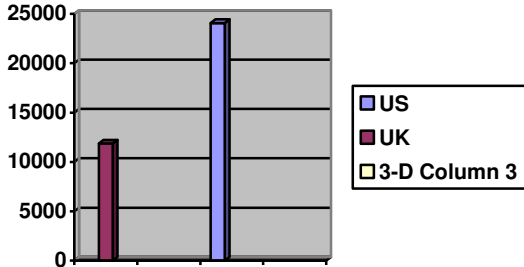
To prove the above statement about the positive relationship between the higher education expenditure and enrollment rates, first the data on expenditures from private and total sources will be compared in both countries and then the expenditure numbers will be related to enrollment rates.

The bar charts below (Bar chart 4) illustrate total expenditure on higher education in the U.S. and the UK from private sources as a % GDP during 2000-2004. The higher percentages in the U.S. are apparent.

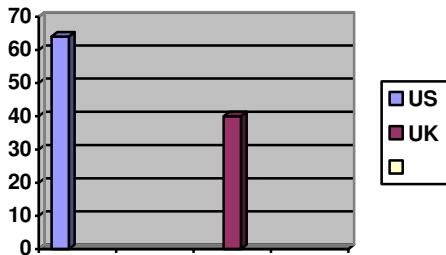


Bar chart 4. Source: www.uis.unesco.org

Bar charts 5 and 6 illustrate overall expenditures on all tertiary education in the U.S. and the UK, revealing the general trend of the U.S. having higher expenditures than the UK.



Bar chart 5: Annual expenditure on educational institutions per student in US dollars (based on FTE), all tertiary education, 2002 *Source:* world education indicators from www.uis.unesco.org



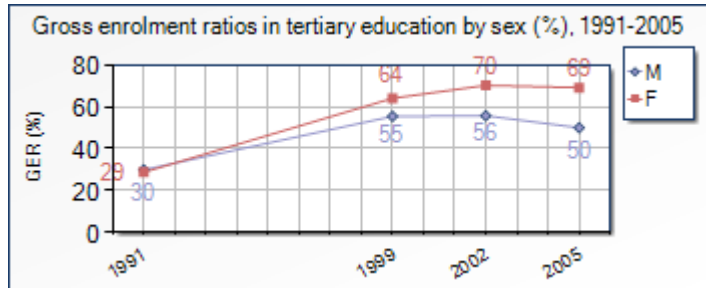
Bar chart 6 Annual expenditure on educational institutions per student relative to GDP per capita, All tertiary education, 2002 *Source:* world education indicators from www.uis.unesco.org

We can also observe the difference in enrollment ratios by gender in the UK and the US during 1991-2005 years. Although the trend in both countries is towards increase, the US numbers are much higher.

Tertiary enrolment UK

59% of the population of tertiary age are in tertiary education

Tertiary		1991	1999	2002	2005	2005 Regional average
GER(%)	MF	29	60	63	59	70
	M	30	55	56	50	60
	F	29	64	70	69	80

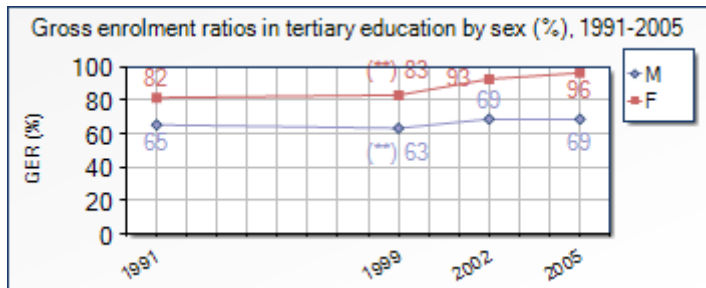


Graph 1: Tertiary enrollment ratios in the UK
Source: www.uis.unesco.org

Tertiary enrolment US

82% of the population of tertiary age are in tertiary education

Tertiary		1991	1999	2002	2005	2005 Regional average
GER(%)	MF	73	73	80	82	70
	M	65	(**) 63	69	69	60
	F	82	(**) 83	93	96	80



Graph 2: Tertiary enrollment ratios in the US **Source:** www.uis.unesco.org

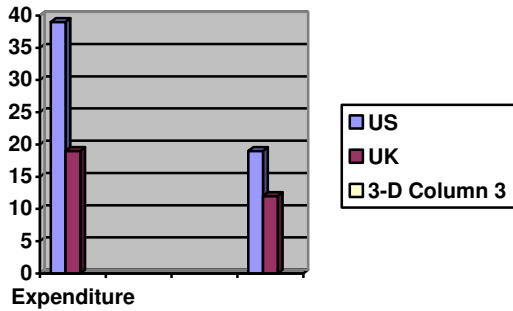
Table 4 below illustrates gross enrollment rates in the U.S. and UK higher education institutions in 1999.

1999 Gross enrollment rate U.S	71.62
1999 Gross enrollment rate UK	57.84

Table 4. Gross enrollment rates, U.S. / UK, 1999
Source: www.unesco.org/education

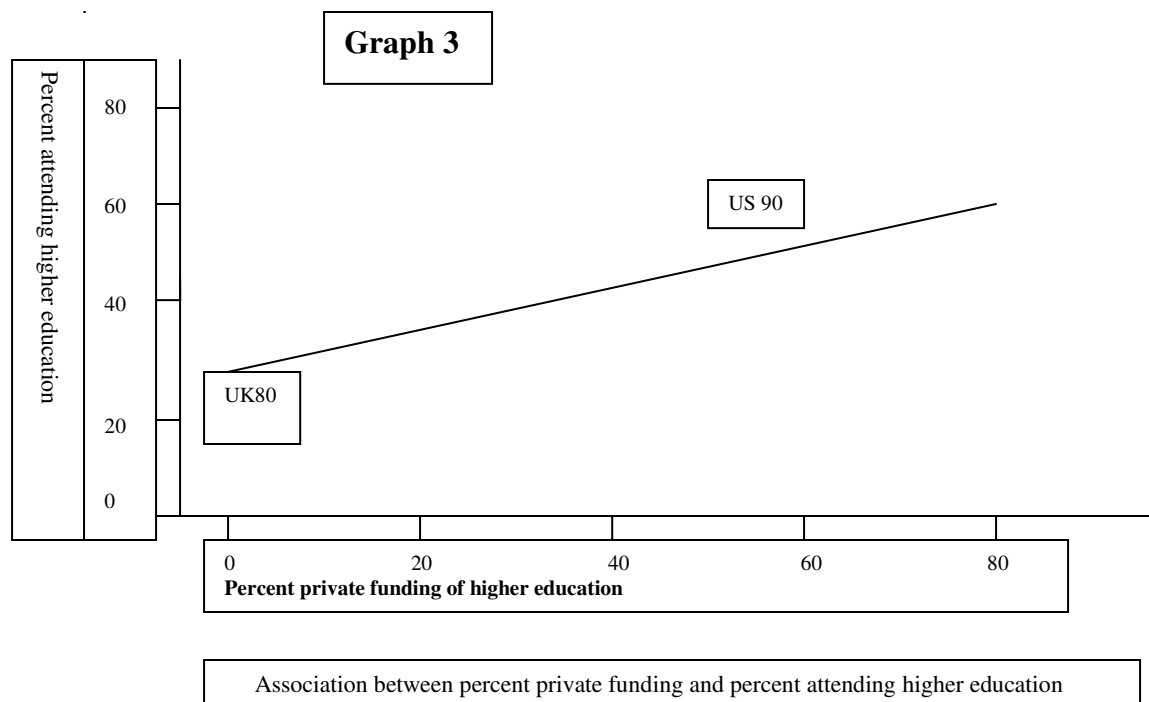
Now we can relate expenditure and enrollment numbers to each other. The bar charts below (Bar chart 7) show the proportion of students enrolled relative to the expenditure on tertiary

education institutions, once again proving the fact that higher expenditures increase access to tertiary education.



Bar chart 7 Proportion of expenditure on education institutions, all tertiary level, 2002-2003
Proportion of students enrolled, based on FTEs, 2002-2003
Source: world education indicators from www.uis.unesco.org

Graph 3 below displays the relation between market structure and the size of the higher education sector. ‘There is a strong positive association between these variables ($R^2 = 0.44$). This finding suggests that where higher education is largely funded by private sources, it expands through the adoption of lenient eligibility criteria’ (Arum, et al., 2007). Although the original graph displays more countries, for the convenience of illustration, only the U.S. and the UK have been used in the graph presented here.



Graph 3. *Source:* adapted from Arum, et al. 2007

Table 5 below examines the relation between private funding and mode of institutional differentiation (classified as unified, binary, or diversified). Here again, for the sake of convenience, only the U.S. and the UK have been removed from the original source (Arum, et al., 2007).

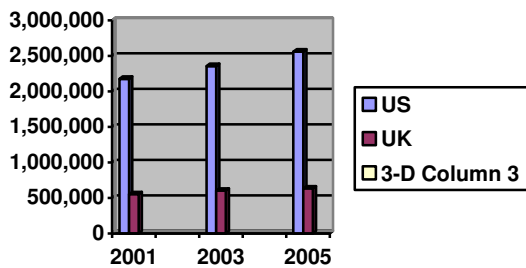
Table 5 Private sector funding and mode of differentiation in higher education

Tertiary education reliance on private-sector funding			
Mode of differentiation	Low	Moderate	High
Unified			
Binary	Britain ⁷		
Diversified			United States

Table 5. Funding and mode of differentiation
Source: adapted from Arum, et al. 2007

⁷ Britain has moved from binary to unitary system after merging polytechnics with universities.

It should be noted that effective funding policies seem to affect not only the enrollment statistics, but graduation / attainment rates as well. Numerous retention and early intervention procedures, as well as remedial courses, facilitated by the diversified funding mechanisms in the U.S., affect the success and achievement in tertiary education. The bar charts below (Bar chart 8) show the total number of tertiary education graduates in all programs in the U.S. and the UK through 2001-2005 years. The significant difference between the countries is evident.



Bar chart 8 Total graduates in all programs. Tertiary education.
Source: world education indicators from www.uis.unesco.org

Bar chart 9 clearly shows the tendency of the UK trying to catch up with the U.S. in the percentage of tertiary graduates.



Bar chart 9 Percentage of tertiary graduates.
Source: world education indicators from www.uis.unesco.org

3.2 Marketization, quality assessment, autonomy and accountability of higher education

The literature reviewed and analyzed has consistently shown the close link between the marketization processes active in higher education system and the quality assessment practices that governmental or private bodies utilize for accrediting postsecondary institutions. This link, in turn, affects the degree of autonomy that the institutions can enjoy in funding and internal organization decision-making and the degree of their accountability towards public or private sectors for their study programs and syllabi.

Quality assessment is connected with the income-generating process of a university in a way that links it with accreditation processes and, consequently, with student numbers who can pay state loans. ‘Quality issues are commanding increasing interest...However, ...few have tried to compare the returns to an improvement in educational ‘quality’ to an improvement in educational ‘quantity’, though that question is a natural one to ask. Nor is an aggregate figure on the returns to ‘quality’ of much interest on its own, when the real issue is what kind of quality, in what amount, and with what corollary investments and institutional requirements?’ (Heyneman, 1995: 567).

The important distinction to be made between the U.S. and UK higher education systems regarding the quality assessment and accreditation processes is that while the process of accreditation in U.S. universities mainly involves continuous self-improvement and responsiveness to market forces, the UK system (and generally European) tries to set uniform standards, or a level, that all universities need to strive to attain.

The diversity of higher education institutions in the U.S., the growth of the market-driven education system and the increase in customer-demand makes continuous quality-enhancement practices inseparable parts of higher education institutions. While two-year community colleges

strive towards the improvement of vocational programs to attract more students, private research universities compete for high-quality research grants. This makes the quality assessment exercise in the U.S. a dynamic and flexible process.

In the UK the quality assessment of higher education institutions is closely connected with the reports of RAE (Research Assessment Exercise). 'The new assessment regime involves quality assessment of the teaching of individual university departments and assessment of the research output of individual departments via the Research Assessment Exercise (RAE), both of which produce fairly detailed scores and rankings. Both exercises have implications for the funding of universities, in particular, success in the RAE substantially affects the funding awarded to departments, and therefore, affects unity of resources' (Cheung and Egerton, 2007: 199; Willmott, 2003). However, one issue that arises is the consideration of output measure as opposed to input measure. While the input in higher education considers the qualifications and professionalism of the faculty, the output measures the numbers of graduates produced each year and related logistics. This fact is argued to cause 'creaming' of selection or 'cherry-picking' of easy-to-teach students that will have higher chances of successful graduation but will at the same time decrease the general access to higher education (Bailey and Morest, 2006: 25). Furthermore, in the UK 'while the policy rhetoric is in favor of diversity, in practice quality assurance has brought about a decrease in diversity with departments adopting conservative strategies in order to conform to the perceived Quality Assurance Agency requirements' (Fulton, 1996 in Cheung and Egerton, 2007: 199).

The issue connected with quality assessment is naturally the degree of accountability of higher education institutions towards public funding bodies and other involved institutions. In the UK, the abolition of binary system of higher education has brought about 'a combination of

centralization and decentralization’, which means that ‘While ex-polytechnics have become legally autonomous, the universities as a whole have become more accountable to the state’ (Cheung and Egerton, 2007: 199). On the other hand, each and every university in the U.S. is accountable to the private or public body, whichever is financing it, and to the students, as customers.

The most reasonable solution for universities in terms of independence is again the wide diversification of funding that should be obtained from different sources. This way, universities will not be dependent on any single public or private organization and will be able to retain the balance between autonomy in decision-making and accountability to funding bodies. However, it should be noted that the ever-increasing market-driven supply-demand processes in both countries will nevertheless make the higher education institutions accountable to consumers and funding bodies.

Conclusion

Several essential conclusions can be inferred from the overall discussions of the issues connected with funding system of higher education.

1. There is a general tendency of higher education funding being shifted from public to private sectors in both countries. State appropriations are being decreased and universities are being encouraged to raise tuition fees as a means of directing attention towards private fund-raising practices and engaging in business entrepreneurship.
2. In the U.S. different types of institutions receive different portions of public funding and are engaged in private income-generating practices to various extents.

3. The diversity of education institutions naturally causes differences in quality assessment practices, in equity of access issues and engenders different degrees of university autonomy and accountability.
4. The funding policies and practices of the U.S. higher education system are considered to be the most efficient in the world because of the extent of diversity, flexibility and openness by which these policies and practices are implemented in the American higher education sector.
5. The present UK higher education system, and consequently its funding mechanisms, can be characterized as the Thatcherian inheritance. UK universities are highly indebted to the Thatcher government for much of the present-day efficiency and progress in the higher education domain.
6. The binary system – university and polytechnic – in the pre-Thatcher period was turned into a unitary system after being merged under the Thatcher reforms.
7. Before Thatcher, all universities had historical funding; after Thatcher, universities had to have a strategic plan. Universities with carefully planned budget would get more money. Money followed good management. This reform caused the leveling of universities, as all universities were put under the same conditions and had to compete equally for obtaining the funds. Today, research money is allocated by discipline within each university in accordance with RAE. The universities are graded on subject.
8. Equity of access issue appeared to be a complex problem connected with higher education funding systems in both countries. It turned out to be difficult to diagnose, and even more complex to overcome and solve because many different policy, socioeconomic and historical factors are at play.

9. Various accreditation bodies are engaged in quality assessment procedures of U.S. universities. However, the market economy and competition for attracting customers – students – is the greatest trigger and measure of higher institution quality in this country.
10. The issue closely related to the quality assessment is that of the accountability and autonomy of higher education institutions. The best solution in this respect for the universities seems to be the wide diversification of revenue sources, so that they do not become dependent on any single public or private funding body and retain the balanced independence and autonomy of decision-making. However, the market-driven supply-demand policy that is widely spread in the U.S. and is gaining grounds in the UK makes the higher education institutions more accountable to the consumers and funding bodies owing to the ever-increasing competition.

Considering all the above statements and higher education funding mechanisms, the problem could be summarized as finding money for the sphere with limited resources. Besides, the binary relationship between education system and influencing socioeconomic factors is one more sphere of scholarly interest related with higher education funding practices. This issue continues to dominate the discussions among educators, policymakers, government authorities and the wider public.

Finally, it should be noted that each issue addressed in the present paper can be further expanded and analyzed to the extent that any one of them could produce an independent research work. However, the present paper has set as its goal to merely raise these issues and coherently bring them together to create a wider picture of the higher education funding system. It also tries to show how difficult it is to solve any single problem, due to its complex nature. It has been the aim of the paper to show how interrelated the issues discussed in it are, and to argue that policy changes in any one of them would inevitably cause changes, and often unintended consequences, in the whole educational system.

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