

41st Australian Conference of Economists, Melbourne, 8-12 July 2012

Panel: Economic Challenges in Higher Education
11.30 am Monday 8 July

The problem of public good(s) in higher education

Simon Marginson

Abstract. This paper examines one of the difficult problems of social and economic theory, the identification and measurement of the public and common goods produced in higher education and university research. It reviews existing approaches to public goods in higher education in economics (particularly Samuelson and Ostrom) and social/political theory; and considers policy approaches to public/private goods and the corresponding readings of public/private split in education financing, including the report of the December 2011 Base Funding Review in Australia. None of these approaches provides a comprehensive approach to the public goods problem. The principal need is for new conceptualizations. The paper explores one possible approach to the problem, which uses a comparative method (e.g. notions of 'public' in English-speaking higher education systems are contrasted with the notions used in China and East Asia), and considers global public goods.

Bio. Simon Marginson is a Professor of Higher Education at the University of Melbourne, Australia, where he works at the Centre for the Study of Higher Education

Contact details.

work phone: + 613 (03) 83448060 home phone: + 613 (03) 93170303

mobile: + 61-(0)403058687

e-mail: s.marginson@unimelb.edu.au

publications: <http://www.cshe.unimelb.edu.au/people/marginson.html>

Centre for the Study of Higher Education
The University of Melbourne
715 Swanston Street
The University of Melbourne
Victoria 3010, AUSTRALIA

The problem of public good(s) in higher education

Introduction

Tertiary education institutions, especially large research universities, are major concentrations of social, economic, intellectual and communicative resources. They reach freely across populations and borders, sustain large networks and connect to government, the professions, industry, NGOs and community organizations, and the arts. The communal potentials of higher education are larger than are suggested by the model of university as self-serving firm current in policy discourse.

Policy does not fully acknowledge the possibilities of higher education. In social sciences and government the outcomes are mostly seen as either 'private' or 'public' (regardless of overlaps between these two social dimensions in practice). But the public side of the equation is under-developed. It must be said that notions of public goods are often unhelpful, couched in universal terms lacking empirical purchase, such as the 'civilizing mission' of universities. Because of difficulties in definition and measurement, or for ideological reasons, some analyses exclude all but the readily measurable economic benefits. This throws the whole focus onto private graduate earnings. Thus the central policy question pursued by government is: 'How can the university deliver private goods for graduates and industry more efficiently?' Since the late 1980s in Australia rhetorical emphasis on private goods has sustained continuing increases in the private cost of higher education. Tuition charges are now among the highest in the world (OECD, 2011). Though government on average still subsidizes over half the cost of teaching domestic students, there is no systematic focus on the productivity of higher education in producing public or social goods. There is no effort to comprehensively and precisely define public and common goods produced in higher education and university research, and to theorize their relationship with private goods. Practical policy on public goods is confined to a small number of areas of public purpose, linked to policies and programs in three areas: more equitable social opportunity via higher education, engagement with industry and local communities, and internationalization. Metrics are in widespread use only in the first of these areas.

New concepts are essential. There are various valuations of public and common goods in higher education, governed by differing disciplinary frameworks and policy assumptions. None produce wholly satisfactory results. The collective term 'public good' is used in political contexts but never precisely defined. Economics focuses on 'public goods', and 'club goods' or 'toll goods', and recognizes 'common-pool resources', all discussed below. (The plural term 'public goods' is also used in this paper, to acknowledge heterogeneity in the collective or social benefits of higher education). But economists vary according to where they position education on a private-to-public goods continuum. Notions of public goods also vary between national systems on a world scale, being shaped by different state traditions, and different notions of society and the mission of higher education. Another aspect, rarely considered by nation-bound economists and policy makers, is that of the global public goods (Kaul et al., 1999) created in higher education. Both private and public goods in higher education are created in two different but overlapping spatial dimensions (Marginson, 2006). The first is the national dimension, encompassing sub-national regions, including states/provinces and cities. Knowledge of public goods in higher education normally imagines institutions as operating solely as part

of a national system. The public goods are understood solely in national political terms. The second is the global dimension, including both world-wide relationships and pan-national regions such as the European Higher Education Area. Global public goods flow from one national system to another, such as science; or are associated with common systems between countries, such as the regulation of people mobility. These global public goods are under-recognized, and so under-funded and under-produced. No one nation takes responsibility for them. No global protocols regulate equity in their distribution.

The lack of definition, the gaps and conflicting ideas about public goods are not just issues for scholars. These conceptual weaknesses feed into conflicting and unstable policies on managing and funding public and private objectives in higher education. The ultimate policy question addressed by this paper is: 'How can higher education be opened up so as to generate more and better public goods?' This invokes a prior conceptual problem. What *are* the public and common goods produced in higher education? We need new answers to that question that can change the terms of discussion about public goods, bringing their more effective identification and enhancement onto the agenda. This paper reviews existing approaches to public goods in higher education and explores one possible new approach to the problem.

Public and private goods

When considering the outputs of higher education institutions, private goods might seem more straightforward than public goods. In popular discussion the private goods are often equated simply with graduate earnings. More sophisticated approaches focus on income differentials between graduates from higher education and from secondary school; and distinguish between the effects on income due to higher education, and effects due to other factors such as ability or social origin (e.g. Chapman & Lounkaew, 2011). There are also private non-market benefits such as health outcomes and better personal financial management, and non pecuniary private benefits like enhanced aesthetic sensibility (McMahon, 2009). Calculations of the value of these private goods are partly governed by the assumptions used.

In the case of public and common benefits, assumptions are again determining. A large and eclectic literature, drawing as noted on various social science disciplines, asserts that a range of different public goods are created in higher education. Statements are made concerning the contributions of higher education to collective productivity at work, health outcomes, social literacy, knowledge, culture, building local economies and communities, democracy and civic responsibility, and more equal opportunity; and the training of graduates in social leadership, tolerance and global understanding. As noted the practical interests of policy makers are more narrow, and systematic attempts to track public good outcomes have been largely confined to social equity (including the participation of under-represented groups), engagement with industry and local communities, and internationalization.

A threshold issue is the assumed relation between public and private goods. Some theorists and policy makers model the outcomes of higher education in zero sum terms. Particular outcomes are either public or private in character, or share each quality on a zero-sum basis. This method requires strict bordering of the public and private aspects, precise tools of measurement and the elimination of ambiguity. In practice the last is impossible to achieve. Despite this the zero-sum approach

continues to prevail in the English-speaking world. Others model the outcomes of higher education as either public, private or simultaneously public and private. A third method, grounded in methodological individualism (Lukes, 1973), is to model the 'public' goods simply as the sum of the aggregated private goods. Behind these models lie assumptions about the relations between the two dimension within a holistic production function and in social-historical contexts. It could be argued that certain public goods (e.g. open access knowledge, equal access tuition policies) enhance potential private goods (e.g. income differentials attributable to higher education). Likewise some private benefits, such as access to professions, may lead to the creation of more public goods, such as better community health. In the real world public and private benefits may be several, or joint; and function either as conditions of each other, or not. Social theory must attempt to capture all these possibilities.

Disciplinary frameworks for identifying public goods

Prior thinking about public goods in higher education has developed variously in economics, political and social theory, and in knowledge created in public policy.

Economics

In a classical treatment in economics Samuelson (1954) provides a schema for distinguishing public and private goods. Samuelson's public goods are defined not by ownership; i.e., whether produced by state or non state institutions; but by the social character of the goods. As summarized in her Nobel lecture by Elinor Ostrom:

Pure private goods are both excludable (individual A can be excluded from consuming private goods unless paid for) and rivalrous (whatever individual A consumes, no one else can consume). Public goods are both nonexcludable (impossible to keep those who have not paid for a good from consuming it) and nonrivalrous (whatever individual A consumes does not limit the consumption by others). (Ostrom, 2010, p. 642).

As Ostrom remarks, this division is consistent with the idea of an 'institutional world' that is divided between 'private property exchanges in a market setting and government-owned property organized by a public hierarchy' (p. 642). Private goods can be produced and distributed as individualized commodities in economic markets. Public goods and part-public goods are unproduced or under-produced in markets..

Samuelson's theory provides two insights into higher education in capitalist societies. First, he pinpoints goods that will not emerge from spontaneous market transactions but depend on governmental or philanthropic intervention. Whether such public goods are consumed individually (e.g. productivity spillovers from the education of one employee to the work of another) or jointly, they always require a policy-driven, administrative or donor process. Second, his schema can be used to explain the mixed character of the outcomes of higher education. Higher education institutions produce both public and private goods, regardless of ownership. For example state owned universities create not only common benefits such the spread of higher levels of scientific knowledge, but also private benefits, such as the income earning advantages conferred on graduates in finance. Conversely, exclusive private universities advance not only the economic earnings and social status of graduates,

but also contribute to lifting social literacy and cultural activity. At the same time, all else equal, publicly owned institutions are more open than are private institutions to democratic policy intervention and a common social agenda (Marginson, 2007).

Samuelson's schema also has limits. First, whether an outcome is 'public' or 'private' cannot simply be read from nature but depends partly on the policy-political choices and social arrangement—for example the more that policy fosters selective private schools or universities, the more that scarce private goods will be created. Second, Samuelson's idea is couched in generic terms like most economic theory but embodies the norms of one kind of society and polity, as Ostrom suggests. It applies best in liberal Anglo-American societies, including Australia, in which the role of government is limited, private/public and government/market are both treated as zero-sum so as to confine the potentials of the state, and production occurs in markets unless there is market failure. Third, Samuelson's dichotomy misses the role of goods that are excludable but not rivalrous, or rivalrous but non-excludable.

Buchanan (1965) discusses goods that are exclusive in form, but non-rivalrous for those inside the circle of privilege. He notes that groups of individuals can create private associations 'to provide themselves with nonrivalrous but small-scale goods and services that they could enjoy while excluding nonmembers from participation and consumption of benefits' (Ostrom, 2010, p. 644). Buchanan calls these goods 'club goods'. Access to club goods can be regulated by money payments or by special rules such as formal qualifications and other entry requirements. In some respects the academic profession functions like this, as does doctoral training and many other programs. Ostrom and colleagues advocate the term 'toll good', given that 'many goods that share these characteristics are provided by small scale public as well as private associations.' (p. 645). Ostrom suggests that rivalrous goods are more accurately titled 'subtractable goods.' She also adds a fourth type of good, 'common-pool resources.' These goods, which are significant in ecology, such as forests and waterways, 'share the attribute of subtractability with private goods and the difficulty of exclusion with public goods.' (pp. 644-645). This has less applicability in higher education, though it can be relevant to public communications infrastructure, where there is potential for overuse that subtracts from non-exclusive benefits; for example crowding of the Internet by commercialization or e-mail spam. In sum:

Stiglitz (1999) reflects on the public good nature of knowledge. When first created, new knowledge is confined to its creator and provides an exclusive first mover advantage. It can function as a private good. Intellectual property laws attempt to prolong that advantage. But once made accessible knowledge is an intrinsically public good: readily obtained and reproduced, and consumed by any number of people without being depleted, e.g. knowledge of a mathematical theorem, which sustains its use value indefinitely on the basis of free access. The public good nature of knowledge can be stymied by copyrights, as with journal publishing, but there is a large body of opinion that asserts the benefits of open access systems. For example the OECD (2008) argues that 'open science', free publishing of all research results, maximizes the scope and rate of innovation. The public good nature of knowledge explains why basic research and original scholarship are subject to market failure. In all countries, regardless of the public/private balance in the funding of university teaching, basic research is funded by governments or philanthropy.

Figure 1. Four types of goods, according to Elinor Ostrom

		Subtractability of use (rivalry)	
		HIGH	LOW
Difficulty of excluding beneficiaries	HIGH	<i>Common-pool resources:</i> groundwater, lakes, irrigation systems, fisheries, forests, etc.	<i>Public goods:</i> peace and security, national defense, knowledge , fire protection, weather forecasts, etc.
	LOW	<i>Private goods:</i> food, clothing, automobiles, etc., [scarce places in elite university programs]	<i>Toll goods:</i> theaters, private clubs, daycare centers, [some forms of private or graduate education]

Source: Adapted from Ostrom, 2010, p. 645. Items in square brackets added by author.

The public good nature of knowledge also affects teaching. The knowledge content of teaching is non subtractable and non excludable. MIT provides free access to its courseware on the Internet, without impairing the private value of an enrolled MIT degree, which provides more than knowledge. An MIT degree offers a range of private goods also: intensive teaching, social position and labour market benefits after graduation, and access to elite networks. The fact of these private goods enables MIT to charge high tuition fees. In contrast, universal education, whether provided to adults via free courseware on the Internet or provided to elementary school students in systems where all schools are of high quality, is a public good and cannot be provided on the basis of high tuition fees. In sum, teaching programs in education are both mixed and ambiguous. They can be predominantly public goods, club goods or predominantly private goods, depending on the social organization of education. The most important factor in determining whether the education can be produced as a market commodity is the degree of scarcity of places and credentials.

As noted, economists of education take divergent positions, governed by their assumptions about society and beliefs about whether higher education should be a market commodity. Neo-liberals tend to downplay the scope for public goods and favour markets and high tuition. Keynesians and endogenous growth theorists talk up public goods and favour public investment. Friedman (1962) argues that public goods in education are minor and can be taken as market spill-overs, i.e. financed by private investment. He does not see market failure as a problem. Some economists focus solely on private earnings benefits and simply ignore externalities because they are too difficult to measure. Advocates of public investment in higher education focus on the role of public goods in generating private goods, not vice versa as in Friedman. Romer (e.g. 1990) discusses technological innovation as a driver of economic growth. He sees innovations as partly sustained by investment in, and circulation of, knowledge as a public good. Others see 'social capital' networks and social values inculcated in higher education as public goods that create favourable conditions for

economic growth (OECD, 2001). There is an extensive literature on the social benefits that are said to flow from a more educated population.

McMahon (2009) provides a comprehensive survey of studies on the benefits of higher education, summarizing the results of previous studies of the non-pecuniary individual benefits, and the collective 'social benefits', the externalities. He finds that the value of the non-market goods exceeds that of market-derived goods:

- The extra private earnings benefits per graduate that derive from their higher education are estimated at USD \$31,174 per year;
- The private non-market benefits received per individual graduate, such as better health and longevity for graduate and children, better savings patterns, and so on, are estimated at an average of USD \$38,020 per year;
- The direct non-market social benefits of higher education per graduate—the externalities received by others, including future generations—are estimated at an average USD \$27,726 per year. These social benefits include more stable, cohesive and secure environments, more efficient labour markets, faster and wider diffusion of new knowledge, higher economic growth, viable social networks and civic institutions, greater cultural tolerance, and enhanced democracy (McMahon, 2009)

In addition, McMahon (2009) notes that the externalities of higher education also include the indirect social benefits. These are the contribution of the direct social benefits to value generated in private earnings and private non-market benefits. Once this indirect element is included, *externalities total over half the full benefits of higher education*. The proportion of all benefits of higher education that are externalities 'is the best guide to how far the trend toward privatization in the financing of higher education should go', states McMahon. The other basis for public funding is equity policy, the provision of a framework of more equitable social opportunity through higher education. In education policy, for neo-liberal governments as well as social democrats, social equity is an important public good in the form of a social externality. 'If control of higher education is to be relinquished to private markets, there needs to be analysis of the extent of market failure leading to distortions... If there is poor information available to the average citizen and politician about the value of the non-market private and social benefits of higher education, then poor investment decisions and policy decisions will result' (McMahon, 2009, p. 2).

Social and political theory

Other notions of 'public' in social science and social theory focus more directly on relational and political aspects. Some model higher education and research as part of the residual 'public good', in the sense of a boundless resource that all can utilize that is enjoyed as a commons (Mansbridge, 1998; Calhoun, 1998), not subject to scarcity, like a free library system or a low priced toll good such as public transport.

Other arguments, following Habermas (1989), position higher education as a 'public sphere' or as part of a larger public sphere (Calhoun, 1992; 2006). Habermas describes the public sphere as the field of discussion, debate and opinion in 18th century London, in salons, coffee shops, counting houses and semi-government agencies where people met and opinions were formed and communicated on the matters of the day. The public sphere was organizationally separate from the state, while also functioning as an ongoing source of criticism, reform ideas and strategic

options for the state: a space of freedom episodically connected to power (Habermas, 1989, p. 41 & 51). This is suggestive in relation to universities. Like Habermas's public sphere the university is a semi-independent site incubating criticisms and ideas for state renewal and policy—though it must be said that the state is not always listening. Research, expert information and education help the public to reach considered opinions (Calhoun 1992, p. 6, 14 & 29-30).

Also working with the public sphere idea, Pusser (2006) sees the university as a zone of reasoned argument and contending values. American higher education has been a medium for successive political and socio-cultural transformations, from 1960s civil rights to the 'anti-globalization' protests of the 1990s/2000s. Because of its advanced capacity to form self-altering agents (Castoriadis, 1987, p. 372) and engender critical intellectual reflexivities, and its ease of movement across traditional boundaries, at times, in both the 'East' and the 'West', higher education has incubated advanced democratic formations many times during the last 200 years. This suggests that one test of the public character of a higher education system is the extent to which it provides space for social, cultural and political criticism, and for challenge to established relations of power, and for the creation of new forms of public action. Habermas's public sphere also highlights the role of communication in constituting what is 'public'. This suggests that 'public' higher education is both inclusive and publicly engaged, and operates at the nexus between knowledge formation and communications. Universities are quintessentially 'public' in their communicative capacity. They were early adopters of the Internet all over the world, and are intensively engaged in simultaneous global and local/regional networks.

Policy knowledge and its gaps

In the Westminster governments of UK, Australia and New Zealand, assumptions about the nature and value of public and private goods in higher education tend to be shaped, and tend to be shaped by, the public/private balance in funding. In their statements about the public mission of higher education institutions, and the public/private balances, policy makers draw on an eclectic mix of both economics and normative political discourse. Nevertheless, given that the problem of public goods in higher education is both opaque and politicized, at a given time these official statements constitute the dominant, or at least most influential, truths.

In the 1950s-1980s in Australia and the UK national governments took responsibility for the modernization of higher education (e.g. Martin, 1964). Private goods in higher education, which were seen as subsumed in public goods funded by taxation, were rarely mentioned. With higher education participation running at 15 per cent of the age group or less, it was possible to imagine university education as a form of social leadership training that by definition benefited the whole society, including families that lacked the necessary financial resources or educational merit. In Australia in 1973-1987 free tuition in higher education was seen to maximize equal access, which then rivaled economic prosperity as the master public good.

In the turn to neo-liberalism which followed the collapse of Keynesian economic management in 1975, and began to take root in the form of new education policies a decade later, education was modeled as private investment in human capital in a competitive market (Marginson, 1997). Private goods were mathematized as zero-sum in relation to public goods. As noted, successive increases in tuition were justified by pointing to measured private earnings (Dawkins, 1988, Browne, 2010).

Recent US policy and public discussion has emphasized private goods. From 2012 on the UK has abolished public subsidies for teaching in England and Wales, except for disciplines based on science and mathematics, while radically increasing tuition. This implies there is no problem of market failure in the non science/maths disciplines—and presumably, that they are solely private goods with no externalities, radically at odds with the McMahon (2009) findings. This assumption will become self-fulfilling if institutions focus solely on private goods in future. It is too early to identify the outcomes of the UK reform but there is an obvious risk to the social benefits.

It must be said that in the present policy climate the continued funding of externalities is vulnerable. In recent policy statements in both UK and Australia, where public goods are discussed they are mostly defined by broad-brush references to citizenship, culture, social equity or social order, with little solid evidence or effort to develop metrics (Bradley, 2008; Lomax-Smith, 2011, vii). Or they are ignored as too difficult to compute: ‘Calculations of social rates of return ... do not include the intangible but no less real social benefits of higher education’ (Commonwealth of Australia 2010). In this policy setting the rationale for public funding is weak except in basic research (Cutler, 2008). Not just potential public goods but actual public goods tend to be under-recognized and under-funded, as McMahon suggests. Compared to the pre-1985 period, the compass of national policy objectives has shrunk, consistent with the neo-liberal idea of government as ‘keeper of the ring’. Institutions compete for students and resources, and for status which is the bottom line of universities’ own policies. Government focuses on financial accountability, quasi-market reform, the intensification of competition and performance cultures.

As noted there are exceptions to this generalization, in selected areas. These areas might constitute the core around which a more sophisticated public mission of higher education could be developed. Despite the dominance of neo-liberal modeling and the rise in private costs, in policy in Australia and many other countries there is a growing emphasis in relation to institutions’ community building and social outreach programs, international engagement, and contributions to innovation in industry (Gibbons, 1998; OECD, 2008). Burnheim (2010) analyzes the external engagements of three research-intensive universities: Queensland, WA and Monash. However, useful metrics for the impact on communities and industry have yet to be developed.

Social equity remains an important policy goal in most higher education systems (OECD, 2008), albeit with contested status, variously being seen to advance and facilitate the spread of productive capacity in the economy, social mobility and inclusion, and the exercise of democratic agency. Social equity is a keystone public good that conditions the distribution of other public (and private) goods. Public goods such as advanced social literacy and collective polity are maximized when education of good quality is accessed on a universal basis. Social equity goals are supported by indicators, such as the proportion of higher education students drawn from the bottom quartile, or the proportion of students from indigenous backgrounds compared to the indigenous share of the population (Bradley, 2008).

Internationalization programs in Australia, as in the UK, have predominantly focused on private goods and national export earnings and are self-financed by the institutions charging commercial tuition fees. However, there are subordinate policy focuses on building the global experience of local students, supported by government-commissioned indicator development (e.g. Arkoudis, Baik, Marginson & Cassidy, 2011); and on relationship building in Asia, which has downstream strategic and economic benefits of a public good kind. In some other national jurisdictions,

such as Japan, the principal objectives of internationalization programs, which are subsidized by government, are strategic, educational and cultural. The forthcoming report of the Henry review of 'Australia in the Asian Century' (which is expected some time in July but could be delayed) may provide an opportunity to elevate the importance of public goals in the internationalization of teaching and research.

The Base Funding Review

In December 2008 the report of the Australian government's Bradley committee argued that the nation should expand the public funding of higher education:

From the trends in funding levels for the sector over the last decade and the international comparative data, the panel has concluded there is a need to both adjust the level of base funding for higher education and ensure through indexation that the real value of this public contribution is maintained. For Australia to have a sustainable, internationally competitive higher education system, the combined total of funding from the two principal sources – Commonwealth base funding and student fees – must be sufficient for institutions to recruit and retain high-quality staff in the face of increasing global demand for academic staff and an ageing academic workforce. It must also be sufficient to provide and update facilities, services and materials to ensure quality learning experiences for students (Bradley, 2008, p. 152).

The review panel argued for 'progressive increases in the level of public funding for higher education to position Australia in the top group of OECD countries in terms of total funding' (p. 153). It proposed an immediate increase of 10 per cent in public contributions per domestic student place, and the fuller indexation of public funding to compensate institutions for cost increases. It also recommended:

That the Australian Government commission an independent triennial review of the base funding levels for learning and teaching in higher education to ensure that funding levels remain internationally competitive and appropriate for the sector (Bradley, 2008, p. 154).

The Bradley panel recognized that domestic teaching and research had become highly dependent on international student fees. The capped subsidies from government per domestic student place, together with the capped student contributions, together fell below the average cost of provision. International student revenues then constituted 15 per cent of the income of higher education institutions, and this reached 17.5 per cent in 2010 (DIISRTE, 2012). A study by Beaton-Wells and Thomson (2011) conducted two years after the Bradley report estimates that 'international students contributed more than \$5000 each on average in premiums above the likely average cost structures of universities', with international students at some institutions contributing in the order of \$10,000 each'; and that 'local students were subsidized in the order of \$1200 each across the system in 2009'. Table 1 compares undergraduate international student fees to the income for CSPs (Commonwealth supported places for domestic students), in the field of business studies, for all universities on the public schedule (Beaton-Wells & Thomson, 2011).

Table 1. Undergraduate international student fees in Business Studies compared to funding for domestic student places, all universities, 2010

University	Tuition charge for undergraduate international students in business studies	Ratio between fee for international student fee and funding of domestic students (\$10,386)
	AUD \$s	
Monash U	28,300	2.735
U Melbourne	27,100	2.609
U Queensland	26,650	2.566
U Sydney	26,160	2.519
U New South Wales	25,920	2.496
Australian National U	24,768	2.385
U Western Australia	24,600	2.369
U Adelaide	24,150	2.325
Macquarie U	21,672	2.087
Curtin U	21,400	2.060
U Technology, Sydney	20,640	1.987
Queensland U Technology	20,500	1.974
U Wollongong	19,200	1.849
Deakin U	19,080	1.837
Murdoch U	19,000	1.829
U Western Sydney	18,960	1.826
U South Australia	18,880	1.818
RMIT U	18,720	1.802
La Trobe U	18,691	1.800
Victoria U	17,280	1.664
Swinburne U	17,000	1.637
Flinders U	16,800	1.618
U Southern Queensland	16,400	1.579
U Sunshine Coast	16,400	1.579
U Newcastle	16,150	1.555
Griffith U	16,128	1.553
Australian Catholic U	15,720	1.514
James Cook U	15,600	1.502
U Canberra	15,435	1.486
Central Queensland U	14,805	1.425
U Tasmania	14,700	1.415
U Ballarat	14,600	1.406
Charles Darwin U	14,176	1.365
Southern Cross U	13,800	1.329
U New England	13,500	1.300
U Notredame	13,400	1.290
Charles Sturt U	12,992	1.251
<i>system average</i>	<i>18,889</i>	<i>1.820</i>

Source: Beaton-Wells & Thompson, 2011

Part of the premium also goes to research, student and administrative services, buildings and facilities. This makes activities dependent on an international student market liable to commercial fluctuations, as the Bradley review noted. In its May 2009 response to the Bradley report's points about the inadequacy and instability of public funding the government did not increase funding by the suggested 10 per cent, but it created a review of Base Funding, chaired by Jane Lomax-Smith, to inquire into and recommend appropriate levels of public funding and student contributions. The Base Funding Review (Lomax-Smith, 2011) reported in December 2011.

Unlike the UK Browne (2010) report the Base Funding Review panel sees public funding as essential to both 'the quality of course delivery' and the 'wider role in society' of higher education institutions (Lomax-Smith, 2011, p. 2). Public funding, states the report, 'strengthens universities' institutional autonomy and academic freedom', enabling 'activities such as leading public debate, enhancing civic and cultural life and pursuing the systematic expansion of knowledge' (p. 2). It promotes equity in participation (pp. 115-129), labour productivity, regional development, and more equal economic outcomes (p. 3). Public goods include 'a more rapid rate of technological change, lower crime rates and a more robust civil society' (p. 102).

The Review report found that the combined funding rate for domestic student places—the total of the government subsidy and the student contribution—was clearly below the actual average cost of provision in business studies, health sciences and the visual and performing arts, and probably below the average cost of provision in law and the humanities. These areas take in a majority of student enrolments.

The Review was charged with establishing a coherent basis for fixing public and private contributions and this task obliged it to estimate the value of the public goods created in higher education and research. Here the report struggles. It commissioned a paper on the topic by Chapman and Lounkaew (2011) that has not been publicly released. Chapman and Lounkaew used graduate taxation contributions as a proxy for the public benefits of higher education, isolating that part of graduate earnings reckoned to be determined by higher education rather than other factors such as ability and the screening function of higher education. The proportion attributable to higher education was reckoned to be 25 to 40 per cent. The effect of the screening function was estimated at 10 per cent 'based on existing literature' (Lomax-Smith, 2011, p. 137). However, these estimates are tentative; and the use of taxation volumes as a proxy for the social benefits of higher education is highly problematic. Taxation is determined by private earnings, not by the downstream effects of the graduate's higher education for individuals other than the graduate who paid for it. It was reckoned too difficult to provide a comprehensive estimate of externalities. The report notes that higher education creates both public and private non-pecuniary benefits, but while 'there have been numerous attempts to quantify these benefits... it is not possible to be precise'. The Review is less confident than McMahon (2009). As a result, it continues the long line of policy statements that underplay public goods. The Review report acknowledges this. 'Because of the extent of unquantifiable benefits (e.g. contribution of higher education to civil society) ... these figures are likely to underestimate the true value of higher education' (Lomax-Smith, 2011, p. 103).

As a result of these difficulties and lacunae the report's proposal for a uniform 60/40 split in the public/private ratio of funding, across all disciplines, lacks a coherent policy basis (Lomax-Smith, 2011, pp. 109-111). The Review panel notes that private earnings vary by discipline, but sees this factor as compensated by the income contingent repayment of tuition loans, on the grounds that high-income

earners receive less in the form of implicit public subsidies. The argument goes like this. Tuition debt is adjusted on the basis of inflation, below the level of commercial interest rates, creating a public subsidy received by those who still have money owing. Low-income earners repay more slowly and therefore receive a higher subsidy. However, the claim that net benefits are equal by discipline was not supported by detailed figures, by discipline, concerning loans subsidies and graduate earnings. The report also asserted without evidence that the externalities created in higher education are universal by discipline: ‘There is no evidence that the value of public benefits differs in a systematic way across disciplines of study’ (p. 108). This seems implausible. It is more likely externalities contain both a generic element and a discipline-specific element, and therefore vary by discipline. (They also vary within disciplines, and the shape of that variation is unlikely to be the same in every case). Further, the statement about uniform externalities is contradicted by the Base Funding Review’s reliance on graduate taxation as the basis for estimating externalities. Graduate earnings, and thus taxation, vary markedly by discipline.

In the outcome, despite its best intentions, the Review lacks a robust explanation of collective public goods and for its chosen private/public funding split. This underlines the need for conceptual advance. One means of doing so is to broaden the inquiry beyond single national jurisdictions.

Global inquiry into public goods

In higher education policy in the English-speaking world, there seems to be little prospect of a decisive forward move on the conception, practice and measurement of public goods, while the debate is framed as it is—while private/public are treated as zero-sum and public goods are largely marginalized or diffuse. Little thought can be given to renovating the mission of higher education in terms of a more fecund understanding of public goods, and creating a more potent relationship between public goods and funding that delivers enhanced public benefits. In this setting, present public funding is under-utilized and little effort is made to concentrate the energies of university personnel in public goods production, except in the few areas where active policy goals are pursued: equity, engagement and internationalization.

When the national-level conversation is frozen, one way to generate new thinking and change the agenda is to move to the comparative and global dimension. Global university ranking since 2003 has created distortions, but it has demonstrated the growing weight of global perspectives and activities in higher education (Hazelkorn, 2011). Comparative and global analysis can be used to identify and classify the different definitions and practices of national public goods in higher education, as used in a range of national systems, distinguish the common approaches to public goods from the nation-context bound approaches, and also inquire into the global public goods constituted in cross-border flows and systems.

It must be said that the methods of traditional comparative education are inadequate to these research tasks. The command of nation-states over policy continues to sustain nation-bound approaches in research. What is needed is a more global and multi-level approach that envisions worldwide higher education as a unified field of heterogeneous organizations, national systems and cross-border agencies, including all relations between the component parts whether inside, between or across nations. This approach combines global, national and local dimensions of action (Marginson & Rhoades, 2002; King, Marginson & Naidoo, 2011)

while paying due regard to pan-national regions (Dale & Robertson, 2009) and scales of subject-relations (Jones, 2008). It also enables research to engage with concepts and values from higher education traditions other than the Anglo-American, such as the French, German, Nordic, Latin American, Japanese and Chinese (Marginson, 2012).

National public goods beyond the Anglo-American systems

Across the world there is marked variation in private/public funding balances in higher education (for fuller data see OECD, 2011; Lomax-Smith, 2011, pp. 18-22). In two thirds of the OECD, government-dependent institutions charge local students less than USD \$1500 per year. In the five Nordic countries, the Czech Republic and Turkey, public students pay no fees. Tuition fees in the English-speaking systems are relatively high; and in Japan and Korea private funding outweighs public funding by three to one, with China likely to be on the same path (Marginson, 2012). What is less understood is that there is also marked variation across the world in policy notions of public goods and the significance of private earnings. Behind this lie differences in notions of the social role and character of higher education, the scope and responsibilities of government and family, and relations between family, state, professions, employers and higher education.

Adam Smith's limited liberal state prevails in English-speaking political cultures, to a lesser extent in Western Europe, and where the colonial legacy is strong. In East and Southeast Asia a more comprehensive idea of the state prevails. A feature of the Sinic tradition in East Asia is that government and politics are dominant in relation to economy and civil society (Gernet, 1996). In the United States higher education is positioned largely in civil society, while in East Asia and parts of Europe and Latin America public higher education is primarily positioned in the state. In East Asia private higher education is also closely regulated as a state mandate. In Latin America the classical form of university, manifest in very large conglomerate institutions such as the national university of Mexico (UNAM) and the University of Buenos Aires, locates the university as an embodiment of the nation and as both a critic and a servant of the state. State policy agendas and responsibilities also vary markedly. While in East Asia comprehensive state responsibility is associated with high levels of household funding, stratified systems and large private sectors; in Nordic countries, where higher education is equally seen as ultimately a public and political matter, the state provides equitable access to universal high quality public services, tuition is free and the private sector plays a negligible role, though it must be said that the Nordic model is under growing pressure from finance capital (Valimaa, 2005).

In other words, the meanings and manifestations of private goods and public goods in higher education vary according to national and regional cultures. At the same time there are also common elements across nations in university/government relations and in the mission, character and practices of institutions. For example university research takes a predominantly public form everywhere, and readily lends itself to common global systems. Research-intensive universities are engaged in global knowledge circuits, ranked in common and networked with each other. They are convergent on the global scale, while still being joined to national practices. Social equity policies and engagement policies appear as parallel in many countries.

Recent work investigates the specific dynamics of the higher education and science systems in East Asia and Singapore (Marginson, 2011; Marginson, 2012).

These systems effectively combine the heritage of the comprehensive Sinic state, the strong Confucian educational tradition in the family and the tradition of social sorting via universal examinations, with Westernization. Contemporary Post-Confucian states have demonstrated a marked capacity to concentrate policy on the achievement of specific objectives, utilizing selective policy borrowing and global engagement to catch-up to and surpass the levels of educational participation and volume of scientific output prevailing in Europe. As noted, in some respects the Post-Confucian configuration of public/private financing, and public/private responsibility, diverges from those of Europe and the English-speaking world. For example, in China notions of social responsibility are more holistic (Hayhoe, et al., 2011; Zha 2011a), and notions of the individual are more inclusive of the social Other. In universities, the Confucian heritage valorizes a distinctive kind of scholar in whom responsibility and autonomy are combined (Yang, 2009; Hayhoe, 2011). At the same time, the debate endemic in English-speaking systems, between on one hand higher education for instrumental private economic purposes, or national economic growth, and on the other hand higher education for moral formation and social enrichment, plays out also in East Asia (e.g. Bai, 2010; Xiong, 2011). The next step in the inquiry is to conduct a comparative study that will situate the variations in higher education, in the concepts and practices of 'public', 'private', 'community', 'common' and 'social', in relation to the diversity of political cultures, state practices and education cultures. Such a comparative study would need to consider variations in the English-speaking world between the American and Westminster systems; strands of European practice such as the German, French and Nordic; the Post-Confucian systems, where there are again regional variations; South Asia; Latin America; etc.

Table 2 distinguishes between the dynamics of higher education in three cases: the United States' system, the Westminster systems and the Post-Confucian systems. This analytical approach could be expanded across the full range of existing systems.

The comparative inquiry in turn provides the basis for developing a generic typology for public goods capable of both interpreting the differences in national systems, and isolating public goods common across systems. If this could achieve a generic language about public goods that is both site-sensitive and more inclusive of major systems and traditions (see also Zha, 2011b), this will constitute a conceptual advance, enabling the first coherent approach to public goods at global level.

Global public goods

Higher education is subject to partial and growing global convergence in the flows of ideas, knowledge, messages, academic personnel, students, money, and policy and organizational systems. There is increasing policy converge or parallelism, including the organizational systems and techniques of the New Public Management, which have been widely adopted—albeit also nuanced to local political and educational cultures—across the university world (Held et al., 1999; King et al., 2011). Much activity in higher education spills freely across national borders. This cross-border activity can be understood within the analytical framework of global private goods and global public goods (Marginson, 2007; Marginson & van der Wende, 2009).

The concept of global public goods has recently entered the policy discourse of several nations including Singapore, South Korea and the United States (Sharma, 2011). Global public goods are 'goods that have a significant element of non-rivalry and/or non-excludability and are made broadly available across populations on a

global scale. They affect more than one group of countries' (Kaul et al., 1999, pp. 2-3). Existing global public goods are produced by nation states, or alternately, by institutions in the unregulated global space (King et al., 2011). Globalization has enlarged the scope for free 'public' exchange (Peters et al., 2009), despite recurring efforts by governments, firms and universities to close the global space in their own interests (Marginson, 2010). Global public goods in higher education are many, especially in relation to knowledge, ranging from capacity building in emerging systems (Green et al., 2010) to the inadvertent fostering of cosmopolitanism in education export markets (Marginson, 2007). In research these goods include not only inter-university collaboration on common problems such as epidemic disease and climate change, but all scholarly knowledge flowing between national systems.

At the same time, global public goods are not 'one thing'. Each nation (and institution) has its own global project and a distinctive idea of global public goods. In that sense there are many different—and partly overlapping—global public goods. The dominant ideas of global public goods are skewed towards the stronger higher education nations (Naidoo, 2010). For example use of English as a global language and the standardization of science as a single system are global public goods to the extent they help all institutions to communicate and share a common information system; but the diversity of knowledge is another (and often contrary) global public good. In nations with academic cultures in, say, Spanish, globalization generates both public goods and 'public bads'. The 'bads' are minimized when there is broad two-way flows between national and global domains (Marginson & Ordorika, 2011). The key is to identify, monitor and broaden the ground that is genuinely common.

Global public good raise new questions about regulation and financing. What governance mechanisms should be created to identify, regulate and finance global public goods in higher education and knowledge? (Kaul, et al. 2003). When research in one country generates benefits elsewhere, should the cost of that research be shared? Negative global externalities ('global public bads') such as brain drain suggest cross-border compensation. However, in the absence of a global state or regulatory framework, global public goods are little acknowledged. The outcome is less than optimal configurations of those goods, including their underproduction. As with national public goods, if we are to lift the common contributions of higher education and research at global level, we must make the necessary conceptual advances, and on the basis of new concepts, develop the metrics that will enable us to advance empirically as well.

Table 2. Comparison of Post-Confucian and English language country systems

	Post-Confucian systems (East Asia & Singapore)	United States' system	Westminster systems (UK, Australia, NZ)
Character of nation-state	Comprehensive, central, delegates to provinces. Politics in command of economy and civil society. State draws best graduates	Limited, division of powers, separate from civil society and economy. Anti-statism common. Federal	Limited, division of powers, separate from civil society and economy. Some anti-statism. Unitary
Educational culture	Confucian commitment to self-cultivation via learning. Education as filial duty and producer of status via exam competition (and producer of global competitiveness)	Twentieth century meritocratic and competitive ideology. Education common road to wealth/status, within advancing prosperity	Post 1945 ideology of state guaranteed equal opportunity through education as path to wealth and status, open to all in society
State role in higher education	Big. State supervises, shapes, drives and selectively funds institutions. Over time increased delegation to part-controlled presidents	Smaller, from distance. Fosters market ranking via research, student loans. Then steps back. Autonomous presidents	From distance. Policy, regulation, funding supervise market, shape activity. Autonomous vice-chancellors
Financing of higher education	State financed infrastructure, part of tuition (especially early in model), scholarships, merit aid. Household funds much tuition and private tutoring, even poor families	State funds some infrastructure, tuition subsidies, student loans. Households vary from high tuition to low, poor families state dependent	Less state financed infrastructure now. Tuition loans, some aid. Growing household investment but less than East Asia. Austerity
Dynamics of research	Part household funding of tuition, ideology of WCU, university hierarchy: together enable rapid state investment in research at scale. Applied is dominant. State intervention.	Research heavily funded by federal government unburdened by tuition. Industry and philanthropic money. Basic science plus commercial IP.	Research funded (more in UK) by government, also finances tuition. Less philanthropy than US. Basic science, applied growth, dreams of IP
Hierarchy and social selection	Steep university hierarchy. 'One-chance' universal competition with selection into prestige institutions. WCUs are fast track for life	Steep institutional hierarchy mediated by SAAT scores. Some part second chances, mainly public sector. Top WCUs are fast track for life	Competition for place in university hierarchy mediated by school results with some part second chances. WCUs provide strong start
Fostering of World-Class Universities	Part of tradition, universal target of family aspirations. Support for building of WCUs by funding and regulation. Emerging global agenda	Entrenched hierarchy of Ivy League and flagship state universities, via research grants, tuition hikes, philanthropy. Source of global pride	Ambivalence in national temperament and government policy on status of top institutions. Private and public funding hit ceilings

References

- Arkoudis, S., Baik, C., Marginson, S. & Cassidy, E. (2011). *Internationalising the student experience in Australian tertiary education: Developing criteria and indicators*. Report prepared for Australian Education International, Department of Industry, Innovation, Science, Research and Tertiary Education. Canberra: Australian government.
http://www.cshe.unimelb.edu.au/research/internationalisation/docs/Janu_2012AEI_indicators.pdf
- Bai L. (2010). Human capital or humane talent? *Frontiers of Education in China*, 5 (1), 104-129.
- Beaton-Wells, M. & Thompson, E. (2011). *The Economic Role of international Students Fees in Australian Universities*. PowerPoint presentation. Melbourne: University of Melbourne.
- Bradley, D. (2008). *Review of Australian Higher Education: Final report*. Canberra: Commonwealth of Australia.
- Browne, J. (2010). *Securing a Sustainable Future for Higher Education in England*. Report for UK government, October.
- Buchanan, J. (1965). An economic theory of clubs. *Economica*, 32 (125), pp. 1-14.
- Burnheim, C. (2010). *Field and Capital in Universities' External Relations*. Doctoral thesis. Melbourne: University of Melbourne.
- Calhoun, C. (1992). Introduction. In C. Calhoun (ed.) *Habermas and the Public Sphere*, 1-48. The MIT Press: Cambridge.
- Calhoun, C. (1998). The public good as a social and cultural project. In W. Powell & E. Clemens (eds.) *Private Action and the Public Good*, 20-35. New Haven: Yale University Press.
- Calhoun, C. (2006). The university and the public good. *Thesis Eleven*, 84 (1), pp. 7-43.
- Castoriadis, C. (1987). *The Imaginary Institution of Society*. Transl. K. Blamey. Cambridge: Polity.
- Chapman, B. & Lounkaew, K. (2011). *Higher Education Base Funding Review: The value of externalities for Australian higher education*.
- Commonwealth of Australia (2010). *The Higher Education Base Funding Review: Background paper*. Canberra: Australian government.
- Cutler, T. (2008). *Venturous Australia: Building strength in innovation*. Report. Canberra: Commonwealth of Australia.

Dale, R. & Robertson, S. (eds.) (2009). *Globalization and Europeanization in Education*. Oxford: Symposium Books.

Dawkins, J. (1988). *Higher Education: A policy statement*. Canberra: Australian Government Publishing Service.

Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE). Canberra: Australian government.
<http://www.deewr.gov.au/HigherEducation/Publications/HEStatistics/Publications/Pages/Home.aspx>

Friedman, M. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.

Gernet, J. (1996). *A History of Chinese Civilization*. 2nd edition. Cambridge: Cambridge University Press.

Gibbons, M. (1998). *Higher Education Relevance in the 21st Century*. UNESCO conference, 5-9 October. Washington: World Bank.

Green, M., van der Water, J. & Koch, K. (2010). *International Partnerships*. Washington: American Council on Education.

Habermas, J. (1989), *The Structural Transformation of the Public Sphere*. Transl. by T. Burger. Cambridge: The MIT Press.

Hazelkorn, E. (2011). *Rankings and the Reshaping of Higher Education: The battle for world-class excellence*. Houndmills UK: Palgrave Macmillan.

Hayhoe, R. (2011). Introduction and acknowledgements. In Hayhoe et al (2011), 1-18.

Hayhoe, R., Li J., Lin, J. & Zha, Q. (2011). *Portraits of 21st Century Chinese Universities*. Hong Kong: Springer/CERC, U Hong Kong

Held, D., McLew, A., Goldblatt, D. & Perraton, J. (1999). *Global Transformations*. Stanford: Stanford University Press.

Jones, G. (2008). Can provincial universities be global institutions? *Higher Education Policy*, 21, 457-468.

Kaul, I., Grunberg, I., & Stern, M. (eds.) (1999). *Global Public Goods*. New York: Oxford University Press.

Kaul, I., Conceicao, P., Goulven, K. & Mendoza, R. (2003). *Providing Global Public Goods*. New York: Oxford University Press

King, R., Marginson, S. & Naidoo, R. (eds.) (2011). *Handbook on Globalization and Higher Education*. Cheltenham: Edward Elgar.

- Lomax-Smith, J. (2011). *Higher Education Base Funding Review. Final Report*. Canberra: Commonwealth of Australia.
- Lukes, S. (1973). *Individualism*. Oxford: Basil Blackford.
- Mansbridge, J. (1998). On the contested nature of the public good. In W. Powell & E. Clemens (eds.), *op cit*, 3-19.
- Marginson, S. (1997). *Markets in Education*. Sydney: Allen and Unwin.
- Marginson, S. (2006). Dynamics of national and global competition in higher education. *Higher Education*, 52, 1-39.
- Marginson, S. (2007). The public/private division in higher education: A global revision, *Higher Education*, 53, 307-333.
- Marginson, S. (2010). University. In Murphy, P., Peters, M. & Marginson, S., *Imagination*, 167-223. New York: Peter Lang.
- Marginson, S. (2011). Higher Education in East Asia and Singapore: Rise of the Confucian Model. *Higher Education*, 61 (5), 587-611
- Marginson, S. (2012). Emerging higher education in the Post-Confucian systems. In Daniel Araya (Ed.) *Higher Education in the Global Age: Education Policy and Emerging Societies* [in production]
- Marginson, S. & Ordorika, I. (2011). 'El central volumen de la fuerza' Global hegemony in higher education and research. In D. Rhoten and C. Calhoun, *Knowledge Matters: The public mission of the research university*, pp. 67-129. New York: Columbia University Press
- Marginson, S. & Rhoades, G. (2002). Beyond national states, markets, and systems of higher education, *Higher Education*, 43, 281-309.
- Marginson, S. & van der Wende, M. (2009). The new global landscape of nations and institutions. In OECD, *Higher Education to 2030, Volume 2: Globalization*, 17-62. Paris: OECD.
- Martin, L. (1964). *Tertiary Education in Australia*. Report, 3 vols. Canberra: Australian Government Printer.
- McMahon, W. (2009). *Higher Learning Greater Good*. Baltimore: The Johns Hopkins University Press.
- Naidoo, R. (2010). Global learning in a neoliberal age: Implications for development. In E. Unterhalter & V. Carpentier (eds.), *Global Inequalities and Higher Education: Whose interests are we serving?*, 66-90. London: Palgrave Macmillan.

- OECD (2001). *The Well-being of Nations: The role of human and social capital*. Paris: OECD.
- OECD (2008). *Tertiary Education for the Knowledge Society: OECD Thematic Review of Tertiary Education*. Paris: OECD.
- OECD (2011). *Education at a Glance, 2011*. Paris: OECD.
- Ostrom, E. (2010). Beyond markets and states: Polycentric governance of complex economic systems. *American Economic Review*, 100, pp. 641-672.
- Peters, M., Murphy, P. & Marginson, S. (2009). *Creativity and the Global Knowledge Economy*. Peter Lang, New York.
- Pusser, B. (2006). Reconsidering higher education and the public good. In W. Tierney (ed.), *Governance and the Public Good*, 11-28. Albany: SUNY Press.
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98, 71-102.
- Samuelson, P. (1954). The pure theory of public expenditure. *Review of Economics and Statistics*, 36 (4), 387-9.
- Sharma (2011). Higher education is a 'global public good'. *University World News*, 180, 17 July.
- Stiglitz, J. (1999). Knowledge as a global public good. In I. Kaul, I. Grunberg & M. Stern (Eds.), *Global Public Goods: International cooperation in the 21st century*, 308-325. Oxford University Press: New York.
- Valimaa, J. (2005). Globalization in the concept of Nordic Higher Education. In A. Arimoto, F. Huang & K. Yokoyama (eds.) *Globalization and Higher Education*. Hiroshima University: Research Institute for Higher Education.
- Xiong J. (2011). Understanding higher vocational education in China: Vocationalism vs Confucianism. *Frontiers of Education in China*, 6 (4), 495-520.
- Yang, R. (2009). Enter the dragon? In Smart, J., *Higher Education: Handbook of theory and research*, 427-461. Dordrecht: Springer.
- Zha, Q. (2011a). Is there an emerging Chinese model of the university? In Hayhoe et al, *op cit*, 451-471.
- Zha, Q. (2011b). China's move to mass higher education in a comparative perspective. *Compare*, 41 (6), 751-768.