Hong Kong Universities Grants Committee

- International Funding Methodologies

Final Report

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1 Overview of Project and Final Report

1.1 The Project

The Hong Kong University Grants Committee (UGC) is conducting a review of its funding methodology. It wishes to test that its funding methodology is well suited to producing the best outcomes from Hong Kong's universities.

As the first stage of the review the UGC wishes to know "the facts and mechanisms of other funding methodology/systems, what instruments and tools are available, what kind of incentives are capable of bringing what sorts of outcome, as well as the reasons why some incentives do not work. This will involve an understanding of other funding systems being adopted by the funding authorities in other parts of the world." (paragraph 7 UGC Outline of Review).

This project is to provide an analysis of five university funding systems outside of Hong Kong to identify their major elements, identify the policy rationale of those elements, and assess their impact in achieving the intended or other outcomes. The specific countries analysed are Australia, New Zealand, England and Scotland from the United Kingdom, and the Netherlands.

1.2 The structure of the Report

The Final Report of the project brings together the five country summaries with an analysis of the impact and implications of the various funding measures used in the five countries.

Chapters two to seven summarise the current and future funding arrangements for each country in turn. The major changes announced by the Australian Government, which take full effect from 2012, are set out separately in Chapter three.

The focus is the allocation of Government funding to universities to match the summary of Hong Kong's funding arrangements provided by the UGC. In doing so we have taken account of some important further elements relevant to the distribution of Government funding in the countries we have analysed.

- We have considered the fees paid by students. In all cases undergraduate fees are controlled by Government and the revenue raised from them is taken into account in determining the total Government funding available.
- We have briefly outlined Government support for students' costs in meeting fees and living expenses. This form of support influences the extent of direct Government funding to the universities and in some cases affects the structure of that funding by supporting the charging of student fees.
- We have identified the extent of non-Government income for universities in each country. In particular, revenue from international student fees in four

of the countries studied provides a major teaching income source that influences the extent of Government funding.

- We have situated universities in the broader tertiary education systems of the country and where useful described the funding that applies to non-university institutions.

The Country reports follow the following broad structure:

- Main sources used;
- Administrative base, indicating the main bodies responsible for determining the allocation of Government funding;
- Institutional base, setting out the types of university and other higher education providers and the numbers of each;
- Major policy directions in the country, particularly information on recent reviews and Government budgets;
- Funding arrangements, which provides the main detail on funding;
- Tuition fees and student support, relating these to the funding arrangements;
- Other Government research funding, covering the research project funding available in each country; and
- Accountability, to comment briefly on requirements for use of funding.

Appendix one provides a short step by step guide to the setting of the recurrent Government funding a university will receive each year. Appendix two provides a tabular comparison of funding elements in each country.

The detail provided for each country is of the same level other than for the Netherlands where the finer points of weightings and funding rates are not always provided in the sources available. Nevertheless the structure of funding in the Netherlands and the basis on which it has been determined are sufficiently clear to allow effective comparison with the other countries analysed.

Chapters eight and nine of the Report provide a cross country analysis of significant funding elements and the use of performance based funding to identify common approaches, significant differences, and trends in funding policy development.

Finally, Appendix three provides a summary table of the number of students enrolled in each country.

The different countries analysed use various terminology for similar concepts. In this report we have used:

- "EFT" (equivalent full-time) to measure student enrolment in terms of a notional full-time enrolment;
- "tuition fee" or simply "fee" for the payments made by students contributing to the cost of their Government subsidised education.

1.3 Summary of international developments in the funding of higher education

The five countries studied share a common funding structure of:

- a base funding amount for teaching and general university operation, driven by student numbers and discipline, that provides the main element of Government funding to the university. This funding is supported in all countries but Scotland by substantial student fee payments;
- a general research element, typically based on an assessment of the relative research performance of the university or sections of it; and
- dedicated research funding allocated by Research Councils for projects or particular research programs based on assessment of individual proposals usually by peer review.

The first two elements are presented and structured in different ways in each country.

England provides a typical example. Within an agreed EFT profile, teaching funding is provided against four discipline groupings. To this base the Higher Education Funding Council for England adds significant funding to improve the enrolment and retention of students from parts of England whose residents are least likely to access university. This latter element is equal to about 8% of teaching funding and has been effective in changing enrolment profiles.

The United Kingdom has pioneered the qualitative assessment of research performance by academic staff through the Research Assessment Exercise (RAE). In England the RAE has been used to target general research funding to universities with highly performing researchers. The UK is now developing a Research Excellence Framework, which is likely to include more quantitative research measures.

Scotland's arrangements are similar to England, but with many more discipline funding groups. It has steadily created a different funding system over the past decade. The most notable difference is that Scottish students do not pay a tuition fee, rather the Scottish Government pays it for them.

From 2009-10 Scotland is introducing a new approach to higher education funding, grouping institutional funding under two headings – a General Fund for Universities and a Horizon Fund for Universities. The first is to provide basic operational funding for mainstream activities. The second is to provide incentive and start up funding targeting areas of concern or priority, with the particular areas chosen to change over time.

In its first year the change is primarily presentational, grouping current funding lines without changing their actual composition. The main change is to credit all research rated at the 1* level and above, in contrast to England which will fund

based on research with a 2* rating or above. In future years the process is intended to strengthen universities' contribution to Scotland's needs and priorities while giving each institution more freedom in how it does so. The balance between institutional driven outcomes and national needs is yet to play out.

From 2010 Australia will be in transition to new funding arrangements which will be fully in place from 2012. Australia's current teaching funding arrangements are similar to those of England. Its research funding element is based in long standing quantitative measures of research inputs and outputs.

The new arrangements will operate on a demand-driven basis, directing teaching funding according to student numbers and discipline group with no maximum, or minimum, number of funded students per institution or nationally. There will be two further funding streams, together worth an additional 6.5% of funding, targeted at raising access to university from under-represented areas and evidence of effective learning by students at each university.

The proposed Excellence in Research for Australia initiative (ERA) will seek to improve evidence of the quality of research rather than simply measure its extent. Initially it seemed that the UK REF and Australian ERA would adopt similar approaches but recent developments suggest that the assessment methods are likely to remain more qualitative in the UK and more quantitative in Australia.

New Zealand higher education funding is characterised by frequent change. It trialled a demand-driven funding system with an unlimited number of student places and no cap on fees, producing the desired result of an expansion of enrolments but raising some concerns about quality and the large student debts incurred. Its current funding system has swung back to a strongly controlled, centrally driven system, administered through individual institutional agreements, which constrains and directs student numbers and profile. Funding is in two main streams, a largely formulaic student based allocation, and institutional specific allocations which include research support driven primarily by a rating of each researcher's output. A change of Government in late 2008 has put these arrangements under scrutiny with indications of a return to a more open system, driven again by student preferences.

Finally the Netherlands provides some contrasting arrangements. Its base teaching and research funding streams retain significant historically based elements not tied to common inputs or outputs. Governments over time have announced intentions to remove the historical allocations, making all funding performance based, but this has yet to be carried through. The remainder of the teaching funding, 63%, is tied to a small payment for the commencement of students and a major payment for completion, which has been effective in improving completion rates.

Across the countries it is clear that national factors are the major drivers in the development of funding systems such that only a few general trends can be observed.

First is the consolidation of research funding into streams distinct from teaching and general operating funding and a tendency for these research funds to increase faster than funds for teaching. Much of the increase has been for project and program specific research rather than for use at universities' discretion. In nearly all cases research funding is tied to assessments of the relative value of research such that it is highly performance driven.

Second, teaching funding is becoming more subject to university performance. However, there are many different measures of performance such as:

- the number of students who enrol;
- enrolment of students from particular areas or social groups;
- students' completion of qualifications;
- measures of student learning; and
- contribution to national goals.

The particular combination of these creates quite different financial incentives for universities. The evidence suggests that these incentives create changes in university activity, generally in the direction intended by Government.

2 The Australian funding system

2.1 *Main sources*

Department of Employment, Education, and Workplace Relations, *Administrative Information for Providers: Student Support* and *Administrative Information for Providers: Commonwealth Grant Scheme,* Effective for 2009 funding year
http://www.dest.gov.au/sectors/higher_education/policy_issues_reviews/key_issues/AIP_2005/default.htm

Department of Employment, Education, and Workplace Relations, *Higher Education Report 2007,* 2008,
http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/HigherEducationReport2007.htm

Department of Employment, Education, and Workplace Relations, *Review of the Learning and Teaching Performance Fund*, September 2008,
http://www.dest.gov.au/sectors/higher_education/policy_issues_reviews/key_issues/learning_teaching/ltpf/default.htm

Department of Employment, Education, and Workplace Relations, *Transforming Australia's Higher Education System*, May 2009,
http://www.deewr.gov.au/HigherEducation/Pages/TransformingAustraliasHESystem.aspx

Department of Innovation, Industry, Science and Research, Research home page
http://www.innovation.gov.au/ScienceAndResearch/programs_funding/Pages/default.aspx

Department of Innovation, Industry, Science and Research, *Powering Ideas; An Innovation Agenda for the 21st Century,* May 2009
http://apo.org.au/research/powering-ideas-innovation-agenda-21st-century

2.2 *Administrative base*

The Australian higher education funding system is administered by the Department of Education, Employment and Workplace Relations (DEEWR) which advises and supports the Australian Government in determining higher education policy. There is no body between the universities and the Department responsible for funding allocations.

The Department of Innovation, Industry, Science and Research (DIISR) is responsible for research related programs. Research project grants are administered by the Australian Research Council and the National Health and Medical Research Council along with a number of smaller specialist Government bodies.

2.3 *Institutional base*

There are 37 universities and one other institution eligible for all Government higher education and research funding programs. A further two universities and one institution are eligible for research funding only. In addition the students of these institutions and numerous smaller providers, both non-profit and for-profit, are eligible for a Government loan to pay their fees. In some cases this last set of institutions can also receive direct Government teaching funding for specific, priority courses.

This analysis focuses on the funding arrangements for the universities.

2.4 *Major policy directions*

In 2008 the new Australian Government commissioned two major reviews, one of higher education (Bradley review) and one of the innovation system with an emphasis on research issues (Cutler review). Since our Preliminary Report was delivered the Government has announced its responses to both reviews in the May 2009 Australian Government budget.

The current Australian funding system is largely an outcome of major changes in the late 1980s and early 1990s intended to greatly expand participation, remove distinctions between universities and other higher education providers, and provide viable ongoing funding through adding student tuition fees to a slowly increasing Government funding base. The main elements were:

- integrating the then 18 universities with more than 80 Colleges and Technical Institutes to form initially 36 then 37 publicly funded universities;
- expanding access to ensure there were places available for the greatly increased number of school leavers as a result of the substantial increase in school completion rates by 1990;
- introducing tuition fees, described as a student contribution to the cost of a course, supported by an loan with rates of repayment linked to income levels ('income contingent loan');
- allowing development of research across all universities, significantly raising output from the established universities and establishing a research capability across the newer universities; and
- promoting fee paying international student income as a major means to boost university income and create a major export industry.

The change of Government in 1996 changed the focus but did not alter the fundamental structure of funding. The emphasis was put on restraining Government funding for teaching while increasing student fees and encouraging targeted growth in research output:

- Students' fees grew to equal about 40% of a university's standard operating and teaching grant making the Australian public system one of the more privately funded systems world-wide; and
- funding for research projects and related programs was steadily increased but was not matched by increases in universities' base research funding.

Over 2002 and 2003 a Government review led to significant additional investment in teaching for the first time since the mid 1990s. Its major structural change was to separate out the student fee from the calculation of the Government teaching grant allowing more flexibility in how the fee could be set (see section 2.5 below).

However, pressure continued to mount for more substantial change, leading to the 2008 Bradley and Cutler reviews under the new Government and the Government's response in the 2009 budget. These changes are significant but build on the current arrangements in many aspects. Hence we set out in the remainder of Chapter 2 below the detail of the funding arrangements for 2009 and then outline in Chapter 3 the new arrangements which will be progressively introduced over 2010 to 2012.

2.5 University funding arrangements

The broad structure of the Australian university funding system involves a major block grant for teaching and general operating purposes, supported by student tuition fees, research block grants, and competitive research funding for specific projects and other purposes. Universities also generate significant non-Government funding from domestic and international students paying the full cost of their courses and from business.

Australian Government funding in 2007 provided 41% of university revenue, with a further 14% from Government funded students' tuition fees. A further 22% is derived from student fees for non-subsidised students, including 15% from international students. The remaining 23% of revenue is from investments, consultancy and commercial research and various smaller sources.

Government funding arrangements for 2009 comprise:

- the Commonwealth Grant Scheme, based on student enrolments by discipline cluster, which provides the base teaching and operating funding;
- funding to encourage better learning and teaching outcomes;
- various smaller grants to support particular Government concerns such as equity and structural reform;

Table 2.1 2007 expenditure on higher education institutions from the Education Portfolio

Program and major elements		**A$m**		**%**
Commonwealth Grant Scheme			3,496	57.9%
	Base Commonwealth Grant Scheme	*3,453*		*57.2%*
	Enabling Loading	*13*		*0.2%*
	Regional Loading	*30*		*0.5%*
Capital Development Pool			111	1.8%
Collaboration and Structural Reform Fund			10	0.2%
Equity			50	0.8%
	Higher Education Disability Support Programme	*7*		*0.1%*
	Higher Education Equity Support Programme	*11*		*0.2%*
	Indigenous Support Programme	*32*		*0.5%*
Learning and Teaching Performance Fund			83	1.4%
National Institutes			177	2.9%
Research and research training			1,088	18.0%
	Institutional Grants Scheme	*302*		*5.0%*
	Research Infrastructure Block Grants	*204*		*3.4%*
	Commercialisation Training Scheme	*5*		*0.1%*
	Regional Protection Scheme	*3*		*0.1%*
	Research Training Scheme	*574*		*9.5%*
Superannuation Grants			111	1.8%
Workplace Productivity			76	1.3%
Better Universities Renewal Funding (one off grant)			500	8.3%
National Collaborative Research Infrastructure Strategy			121	2.0%
Scholarships			210	3.5%
	Commonwealth Accommodation Scholarships	*58*		*1.0%*
	Australian Postgraduate Awards	*95*		*1.6%*
	Commonwealth Education Costs Scholarships	*37*		*0.6%*
	Commonwealth Indigenous Staff Scholarships	*0*		*0.0%*
	International Postgraduate Research Scholarships	*19*		*0.3%*
Transition Funding			8	0.1%
Total Funding			**6,040**	**100.0%**

- research block grants for research support and infrastructure, research students, and the indirect costs of funded research projects;
- support for highly rated research projects and related programs from the Australian Research Council, the National Health and Medical Research Council, and a range of other Government agencies that fund research in specific fields; and
- funding for capital works, both major developments supported by the Education Investment Fund and smaller projects through the Capital Development Pool.

Universities charge Government supported students a fee. The maximum level of the fee is set by the Government and varies between disciplines. The income from these fees is additional to that received through the Commonwealth Grant Scheme (CGS) but the Government sets the CGS rates and the maximum fee rates together so that the total funding per student in each discipline is appropriate.

The following sections consider the current Government funding programs for universities in more detail.

Table 2.1 lists the funding provided for universities through the Education portfolio. This excludes targeted funding for research projects and programs from other agencies. The table relates to 2007, which is the most recent comprehensive available data. All dollar figures are Australian dollar amounts.

2.5.1 Commonwealth Grant Scheme

2.5.1.1 Calculating the Grant

The Commonwealth Grant Scheme (CGS) is based on seven clusters of disciplines with various loadings for special factors. The basis for funding is the individual subjects that comprise a course, each of which is allocated a specific EFT weight. The subjects for a course taken by a student may, and in many cases do, come from more than one funding cluster.

DEEWR and each university agree annually the distribution of funded EFT across the seven discipline clusters. This is commonly called the agreed institutional profile. The agreed profile defines where the funding should support postgraduate coursework students but does not otherwise distinguish on the basis of the level of the course.

The agreed profile is the core of an annual Funding Agreement between the Government and each university which sets out various, largely generic, funding conditions.

The CGS grant amount is the sum of (figures cited are for 2009):

- for each of seven funding clusters, the EFT allocated to that funding cluster multiplied by the funding amount for that cluster (see Table 2.2 below).

  The amounts for teacher education and nursing include an element to support the costs of teacher practicum ($746) and nursing clinical placement ($1,087);

- regional loading, to offset the costs of provision at mostly small, rural campuses.

  In 2005 and 2006 the loading was based on a complex formula relating the number of students enrolled at rural campuses of a university multiplied by a regional factor for each campus which increased the further the campus was from a State capital city. The formula has not been re-applied since. Rather each eligible university receives the same proportion of the loading funding as it received in 2006;

- enabling loading, which is intended to offset the loss of fee income from students in enabling courses who cannot be charged a tuition fee.

  Enabling courses are courses to up-skill a potential student whose study and other academic capacities are not quite ready for higher education. The loading is $2927 per enabling EFT, somewhat less than the lowest maximum undergraduate tuition fee of $4162;

- medical student loading of $1156 per medical student place.

  This payment was originally introduced to support the specific costs of universities operating clinical medical schools in hospitals. It is paid according to the number of students in the medical course; and

- transitional loading.

  This transitional loading compensates universities for the decision from 2009 to lower the tuition fee for mathematics, statistics and science subjects to encourage take up of such subjects. The lower fee only applies to students commencing a course from 2009. Continuing students in these fields continue to pay up to the previous tuition fee maximum. The loading is equal to the difference between the two fee maxima - $3250 per EFT.

At the end of the year the dollar value of the actual provision is compared with the dollar value of the planned provision to determine whether adjustments should be made to the following year's funding for over or under achievement.

- There is a 1% tolerance for under-achievement. The Government will recover funds equal to provision less than 99% up to a maximum of 4%. Hence a university cannot be funded for less than 96% of the agreed amount.
- Over achievement of up to 5% will be funded. Beyond 5% a university will retain the student fees but receive no Government funding. For 2010 and 2011 the upper provision will rise to 110% as a transition measure to the new arrangements which take full effect from 2012 (see section 3.2).

The Government also has the capacity through the Funding Agreement to set particular sub-targets at the discipline cluster level or even at more detailed levels such as enrolments in a particular course at a particular campus. There is considerable tension about whether, and how, such targets are set. Where the Government has made particular allocations to politically important areas, such as education or nursing, there is closer attention to the achievement of specific targets. In general however, universities are given substantial freedom to transfer student places within and across clusters to respond to student demand.

2.5.1.2 The relative funding per student

The funding rates for the CGS cannot be considered independent of the tuition fee maxima. Initially the student fee was subtracted from the funding for a university such that the Government paid the difference between the required funding level and the actual amount of student fees. From 2005 the fee was separated out from the Government payment to become an independent revenue stream. Increases in student fees were then retained by the university as additional revenue. Full details of student fee arrangements are at section 2.6 below.

Taken together, the combination of the Government contribution through the CGS and the maximum student fee produces 12 different funding rates for Government funded students.

Table 2.2 below, sets out:

- the Government funding rate; and
- the relevant maximum student fee; and the revenue when the two are combined.

It does this first in Australian dollars and secondly showing the relativity to the lowest amount in each column. It shows that the revenue for a subject in the highest funded discipline group (e.g. medicine) was 2.8 times that for a subject in the lowest group (e.g. a humanities subject).

Table 2.2 Australia: Discipline funding amounts and relativities

Discipline groups	Government funding	Max Student Contribution	Total Revenue
	A$ (2009)		
Law, accounting, administration, economics, commerce	1,709	8,766	10,475
Humanities	4,743	5,201	9,944
Education, mathematics*, statistics*	8,389	4,162	12,551
Behavioural science, social studies	8,389	5,201	13,590
Computing, built environment, other health	8,389	7,412	15,801
Foreign languages, visual and performing arts	10,317	5,201	15,518
Clinical psychology, allied health	10,317	7,412	17,729
Nursing	11,517	4,162	15,679
Science*	14,664	4,162	18,826
Engineering, surveying	14,664	7,412	22,076
Agriculture	18,610	7,412	26,022
Dentistry, medicine, veterinary science	18,610	8,766	27,376
	Relativities		
Law, accounting, administration, economics, commerce	1.0	2.1	1.1
Humanities	2.8	1.2	1.0
Education, mathematics*, statistics*	4.9	1.0	1.3
Behavioural science, social studies	4.9	1.2	1.4
Computing, built environment, other health	4.9	1.8	1.6
Foreign languages, visual and performing arts	6.0	1.2	1.6
Clinical psychology, allied health	6.0	1.8	1.8
Nursing	6.7	1.0	1.6
Science*	8.6	1.0	1.9
Engineering, surveying	8.6	1.8	2.2
Agriculture	10.9	1.8	2.6
Dentistry, medicine, veterinary science	10.9	2.1	2.8

*Note: the Government also pays a loading of $3250 for students in Mathematics, statistics and science which offsets the reduced fee of $4162 for such students from 2009. In net terms this brings mathematics and statistics in line with computing, built environment, and other health and science in line with engineering and surveying.

2.5.1.3 Student Learning Entitlement

Australian students are technically limited in the extent of Government supported higher education they can receive to seven equivalent full time years. There is provision for renewal over a lifetime. This limit was introduced for new students in 2005. It is now set to be abolished from 2012, the first year in which it was likely to prevent a person from accessing a Government funded place.

2.5.2 Funding for learning and teaching performance

The Learning and Teaching Performance Fund was introduced from 2005, allocating $54 million in 2006 rising to $83 million from 2007 (1.4% of funding to institutions from the Education portfolio). The 2009 allocation is the last from the Fund with the funding redirected to the Government's Transforming Australia's Higher Education System package (see section 3.2.4).

Its intention was to enhance the focus on learning and teaching within universities by providing financial rewards to those universities judged to be performing at high levels on a range of indicators related to teaching and student outcomes. There was some argument at the time that the fund should target those with the weakest learning and teaching outcomes not those with the strongest. However the then Government was clear that the Fund was intended to create a general incentive to improve rather than to provide remedial funding to address specific areas of weakness.

The allocation is based on seven indicators from three main sources:

- institutional data provided to Government for funding purposes (Student progression, Student retention);
- voluntary returns from graduates indicating post-graduation employment and other outcomes (Graduate full-time employment; Graduate full-time further study); and
- voluntary returns from graduates completing a survey on their experience of their course and their perceptions of its teaching outcomes (Generic Skills; Good Teaching; Overall Satisfaction).

The allocation approach has developed in stages:

- the 2006 allocation was decided based on ranking each university's performance against each of the seven indicators. The rankings were then summed (a university with five top rankings, a second, and a third would have a score of ten) and the scores grouped into bands. The 14 universities in the top two bands received funding which was allocated based on EFT and weighted for the band;

- the 2007 and 2008 allocations were decided against each university's performance within four discipline groupings. The process for each discipline group was the same as for 2006. 30 universities received some funding in 2007 and 23 in 2008. The discipline groupings are:
    - Discipline Group 1: Science, Computing, Engineering, Architecture and Agriculture;
    - Discipline Group 2: Business, Law and Economics;
    - Discipline Group 3: Humanities, Arts and Education; and
    - Discipline Group 4: Health;
- 2009 saw the allocation split into two, the first component following the 2008 approach ('excellence' funding) and the second component based on improvement against the indicators by the four discipline groupings ('improvement' funding). 21 universities received excellence funding and 32 improvement funding, leaving five receiving no allocation.

The process for collating the performance indicators into a rank or ranks has caused much debate with general agreement that the approach is flawed and is not a robust means to measure teaching and learning performance. There are also significant problems with the reliability of the various data sets, especially the voluntary returns from graduates.

Nonetheless, the Fund was successful in enhancing the focus on teaching and learning within universities, as the previous Government intended. Every university is now committing more time and resources to learning and teaching to achieve improvements.

2.5.3 Equity grants

There are three equity grants allocated primarily by formula:

- the Higher Education Equity Support Program, which funds according to each university's proportion of the national enrolment of students from low Socio-economic (low SES) regions, with a double count for low SES students from rural and remote regions. It considers enrolment numbers as well as progress and retention of those students;
- the Indigenous Support Program which is allocated based on indigenous student enrolment, progress and retention; and
- the Higher Education Disability Support Program, which provides funding to support very high cost students with disabilities. Allocations are based on the previous year's expenditure on support for such students.

The total funds for these three programs are relatively small and are not intended to cover the full costs of supporting students from these equity groups. Future arrangements (see section 3.2.3) will significantly change this.

2.5.4 Other grants

The legislation permits the Government to create a range of other grant programs to meet identified priorities. The current programs are:

- Diversity and Structural Reform (previously Collaboration and Structural Reform), to support universities looking to change their approaches in significant ways, especially through stronger collaboration and links with industry or with other institutions whether universities or other education providers;
- support for National Institutes, primarily to support the major research schools of the Australian National University, with smaller amounts for the Maritime Institute (now part of the University of Tasmania) and the Batchelor Institute of Indigenous Tertiary Education;
- superannuation, an historic arrangement to meet past obligations to staff in some universities;
- support for professional experience for students of education degrees. This is additional to the teacher practicum element added to the CGS funding cluster for education;
- transitional costs relating to the increase in the tuition fee for commerce and business students from 2008. Students enrolled before this point cannot be charged the higher fee. Since the relevant CGS payment was lowered from 2008 to balance the increased fee, universities are compensated for the transitional loss of income; and
- the workforce productivity program, which funded internal workforce change projects. Once current projects are completed the program will cease.

2.5.5 Research block grants

The research block grant allocations have been a stable part of the university funding system, having undergone relatively little change since 2001. This will change through the Government's response to the Innovation review as set out in section 3.4.

There are three grants targeting different aspects of research, however universities have substantial discretion over the actual use of the funds:

- the Institutional Grant Scheme (IGS) to support general university research capacities, including the stimulation of new research fields. The IGS is distributed based on shares of external research income (60%), research student load (30%) and research publications (10%).

- research student load is weighted for high to low cost fields in a ratio of 2.35 to 1;
- income and publications are an average of the most recent two years' data, student data is the most recent year;
- publications are collected in four categories:
  - (a) Books;
  - (b) Book chapters;
  - (c) Journal articles;
  - (d) Conference papers,

  with books weighted by a factor of 5 and the other three categories weighted by a factor of 1;
- no institution can receive less than 95% of its allocation for the previous year. To the extent that the formula would lead to this outcome sufficient funding is taken from the institutions gaining funding in proportion to their allocation.

- the Research Training Scheme (RTS) is to support the training of graduate research students (PhD and Masters). It is distributed on a rolling four year allocation based on research student completions (50%), external research income (40%) and research publications (10%):
  - research student completions are weighted for high to low cost fields 2.35 to 1 and for doctorates to masters at 2 to 1;
  - all items are an average of the most recent two years' data;
  - publications are collected in four categories:
    - (a) Books;
    - (b) Book chapters;
    - (c) Journal articles;
    - (d) Conference papers,

    with books weighted by a factor of 5 and the other three categories weighted by a factor of 1;
  - the rolling four year allocation of funding is intended to match the standard period for a PhD completion. Each year 25% of funding is allocated based on the most recent two years' data. The remaining 75% is based on the 25% new allocation from each of the previous three years; and
  - no institution can receive less than 95% of its allocation for the previous year. To the extent that the formula would lead to this outcome sufficient funding is taken from the institutions gaining funding in proportion to their allocation.

- the Research Infrastructure Block Grant (RIBG), to support the indirect costs of research grants won from the research councils. It is allocated in proportion to the national competitive grant funds won by the university from the research councils.

In addition since 1999 the small Regional Protection Scheme has allocated $3 million among thirteen universities with rural campuses to reduce any loss across the IGS and RTS combined.

The amount of funding allocated to the RTS and IGS has not significantly increased while funding from the research councils has more than doubled over the past decade (see 2.7). The grants provided by the research councils only fund part of the direct costs of the projects. This approach assumes that the universities can meet the balance of the direct project costs plus the indirect costs from their block grants. This is a major source of complaint from universities which argue that their capacity to support funded research projects is inadequate. The universities also argue that they have little capacity left to develop new research interests which are yet to attract significant external funding.

The allocative formulae used for the block grants have a long history reaching back to the 1990s. A negative side effect of the long period of continuity is that universities are very skilled in maximising their outputs against those indicators. There has been some criticism that the funding encouraged growth in outputs at the expense of value or quality. For example the publications measure has helped drive a substantial rise in research publications, but at some expense of the average quality of the publications.

The previous Government wished to introduce a research quality framework (RQF) in response to these criticisms. The key to the framework was to be an assessment of first the quality of the research produced by researchers grouped by research fields and secondly the impact of that research. The development of the framework over 2005 to 2007 ultimately became too complex, costly and burdensome. The new Government in 2008 quickly announced that the RQF would not proceed but instead an 'Excellence in Research for Australia' (ERA) framework would be developed making better, more sophisticated use of the available data to strengthen the focus on the quality of research without the detailed assessment of large amounts of research output needed for the RQF.

2.5.6 Capital funding

The base recurrent grant to universities has long included an element notionally for capital maintenance and upgrading. This is still calculated by universities and DEEWR for their annual discussions about use of funds. In addition the Capital Development Pool has made available each year something around $100 million to support medium to major projects over the following two to three years. The precise amount has varied year to year depending on previous project commitments and Government allocations. These funds combined with university surpluses,

largely generated from student fees, particularly from international students, form the basis for capital investment across universities.

In 2007 the Government created the Higher Education Endowment Fund, which has since been renamed the Education Investment Fund and its remit has been extended to vocational education institutions and to research institutes. The Fund's initial endowment was $5 billion which has been since increased. The fund is to support major development projects to strengthen the infrastructure across Australian tertiary education.

In addition the Government allocated nearly $500 million through the Better Universities Renewal Fund in June 2008 and a similar amount in the Nation Building investment in December 2008, to support investment in renewal and upgrading of facilities. These payments combine fiscal stimulus in the broader economic context with a desire to reduce the backlog of outdated facilities and resources across universities and other education providers.

2.6 Tuition fees and income support

2.6.1 Tuition fees

Australia pioneered the introduction of student charges backed by income contingent loans. This means that income is raised from students, about 80% of it prospectively, while avoiding any upfront financial disincentive to individuals to enrol. The rate of repayment is set according to the individual's annual income. Repayment is not required during any periods when income falls below a specified threshold.

The fee for students in Government supported places has developed in two stages:

- until 1996 there was a standard charge per EFT paid by all students. From 1997 the charge was split into three levels based on the relative cost of the subject and the assessed future income potential of graduates of the course; and
- from 2005 universities were given the responsibility to set the fee from zero up to one of four maxima, depending on the discipline area. Increases in student charges were then retained by the university as additional revenue.

Table 2.2 above places the maximum charges alongside the relevant CGS funding amount to show the total income a university is likely to receive per student.

Students either pay the fee on enrolment or defer all or part of it, in which case the Government pays the university the deferred amount with the student repaying the Government through the tax system on an income contingent basis later in life.

Research students, Masters and PhDs, usually do not pay a fee.

In addition universities teach many courses not supported by Government funding. These are primarily at postgraduate coursework level. The fees for these courses are set by the university without any limits. Students taking these courses are also able to access an income contingent Government loan up to maximum life amount. The maximum avoids students incurring debt at a level they would be unlikely to repay.

International students generally pay full fees set by the university. These fees must be sufficient to recover the full average cost of providing the course to those students and be no less than the relevant minimum indicative course fee set by the Government (see table 2.3) unless the course is taught wholly offshore and students will not, at any stage, enter Australia. A capital component of the fee will not need to be taken into account where the necessary capital facilities are provided by a third party.

Generally international fees exceed the revenue a university would receive for a domestic student place from the Government and student. There has been debate about whether international fees generate a real surplus, with strong doubts that in the early years that they did so. The question is complex since in some courses international students are a marginal cost while in many others they represent such a significant proportion of the course that average costings are a better basis for analysis.

Table 2.3 Minimum indicative course fees for international students

COURSE CATEGORIES	Total without capital component	Total with capital component
Law, Economics, Business, Humanities, Maths/Statistics, Social Science, Education, Computing, Architecture, Design, Nursing, Arts, Science (non-lab-based)	$8,244	$9,835
Science (lab-based), Paramedical, Engineering, Pharmacy, Agriculture	$12,447	$14,707
Medicine, Dentistry, Veterinary Science	$17,211	$20,257

2.6.2 Income support

Income support for Australian students has two distinct elements:

- an income and asset tested grant for full-time students (known as 'Youth Allowance' for younger students and 'Austudy' for older students); and

- Commonwealth Scholarships:
    - Education Costs scholarships targeting undergraduate full-time students with the greatest financial need;
    - Accommodation scholarships, targeting undergraduate full-time students who need to move from rural and remote areas to access higher education; and
    - Postgraduate award scholarships for Australian and International research students.

  Scholarships are allocated to universities with each university responsible for assessing internal applicants. The allocations are based on:
    - the university's proportion of all low SES students or all rural and remote students for the undergraduate scholarships; and
    - research performance for the research scholarships.

Part-time students are not usually eligible for income support programs.

These arrangements are to be significantly upgraded from 2010 (see section 3.3).

2.7 Other Government research funding

Over the period from the late 1990s the previous Australian Government substantially increased funding for research projects and research programs supporting specific activity by universities. The major element of this was to double the grant funding available from the Australian Research Council and the National Health and Medical Research Council such that in combination the two now provide funding of over $1 billion a year.

In addition to these two major sources for research projects many other Government departments support research programs targeting their particular responsibilities.

2.8 Accountability

Accountability for Australian Government funds falls into two quite distinct groups. The Commonwealth Grant Scheme and research block grants, which provide the largest amount of funding, have only broad requirements for use of the funds, with reporting requirements focussed on student enrolment and progress and research income and publications.

In contrast many of the smaller programs seek evidence of expenditure on activity deemed relevant to the nature of the grant. These grants also include many for specific projects which usually have quite detailed acquittal requirements.

3 Transforming Australia's higher education system from 2012

The May 2009 budget sets out the Australian Government's planned changes to the funding and regulation of higher education and support for research and innovation.

The budget announcements flow on from the Review of Australian Higher Education (generally known as the Bradley report) released in December 2008 and the Innovation Review report of September 2008 (generally known as the Cutler report). The Government's formal response to each report is set out in *Transforming Australia's Higher Education System* and *Powering Ideas an Innovation Agenda for the 21st Century* respectively.

3.1 Overview of changes

The basis for the Australian Government's reforms is its argument that Australia requires a significant increase in the proportion of the working age population with vocational education and training (VET) and higher education (HE) qualifications to sustain a prosperous Australia in future decades.

The Government has set two targets to measure achievement of its higher education objectives:

- for 40% of people aged between 25 and 34 to hold a bachelor degree or above by 2025; and
- for 20% of university undergraduate students to be from low socio-economic (low SES) backgrounds by 2020.

These targets align with related Government targets to raise school completion rates and to increase attainment of vocational education and training qualifications. In combination, the various targets are intended to ensure that the Australian workforce of the future has substantially fewer people without post-school qualifications.

3.1.1 Changes to teaching and learning

To meet the higher education target there needs to be a major increase in the number of students at universities and other higher education providers. To encourage this to occur the Government's reforms focus on:

- a student driven funding system in which an eligible institution will be funded for all domestic students the institution chooses to enrol;
- a major new funding stream equal to 4% of base funding for teaching and learning:
  - part tied to the enrolment of students from low socio economic backgrounds; and
  - part tied to working with schools and school age students to raise aspirations for post school education and training and improve the preparation of students for tertiary education and training;
- a further new funding stream equal to 2.5% of base teaching and learning funding tied to the achievement of teaching and learning outcomes set university by university;
- annual indexation of Government grants and student contribution limits at a level more commensurate with increases in university cost drivers;
- a significantly enhanced quality and accreditation system that brings together the approval and (re)accreditation of higher education providers with a process for the external validation of the learning standards of each provider's courses. This system will be driven by a new Tertiary Education Quality and Standards Agency; and
- improvements to student income support that will improve access to support and increase the rates of payment for many students.

3.1.2 Changes to research and innovation

The Government wishes to strengthen Australia's research base, particularly in universities. It also intends to introduce a range of programs to support innovation by industry and to forge stronger linkages between researchers, industry and other users of research.

Major elements are:

- a strong focus on support for business involvement in innovation from funding initial research through to use of new ideas and techniques;
- investment in major research facilities and infrastructure;
- a substantial increase to funding for the indirect costs of national competitive grant projects, rising from 20 cents per dollar of competitive grant to 30 cents per dollar initially and with a long term goal of 50 cents per dollar;
- transforming the Institutional Grants Scheme into the Joint Research Engagement program, directing one of the few unfettered research funding streams towards engagement with industry; and
- improvements to support for research students.

3.1.3 Investing in university infrastructure

In order to provide economic stimulus during the economic downturn the Government has targeted major funding at improvements to university infrastructure. Adding to previous investments, it has committed a further $2.235 billion through the Education Investment Fund EIF:

- $934 million for the general second EIF round;
- $901 million for 'super science' projects; and
- $400 million for clean energy research.

3.1.4 Timing of the policy changes and funding

Table 3.1, taken from *Transforming Australia,* sets out the timeline for introduction of the major changes across 2010 to 2014. Table 3.2 is a Government summary of the costs (or savings) of the major elements of the reform package across higher education and innovation and research.

The various new programs are structured to come together from 2012 when the major change to student driven funding is fully implemented. In the initial years the bulk of the funding is for the infrastructure projects, with the recurrent funding modest prior to 2012. This fits with the Government's broader economic goals of stimulating economic activity through major infrastructure projects and holding back ongoing funding increases until the predicted return of national GDP growth. It also ensures that the major financial benefits for universities come together with the major policy changes rather than in advance.

Table 3.1

Phasing of budget initiatives

PACKAGE ELEMENTS	2010	2011	2012	2013	2014 and beyond
	Transition period		New student centred funding system		
Student entitlement funding	Transition to student centred funding model		Student centred funding model		
Increased indexation		Conditional funding (equivalent to improved indexation on T&L grants)	Increased indexation of teaching and learning and research HESA grants		
Performance funding			New performance funding of 2.5% of current teaching and learning grants		
Quality and regulatory framework	Tertiary Education Quality and Standards Agency				
Funding to support low SES participation	2% of T&L funding in 2010	3% of T&L funding in 2011	4% T&L funding from 2012 onwards		
Student income support	Improved targeting of income support New student scholarships Australian Postgraduate Awards stipend increase				
	Independence age reduced to 24 years	Independence age reduced to 23 years	Independence age reduced to 22 years		
		Personal Income Threshold increased to $400 per fortnight			
			Income support for all Masters by Coursework programs		
Structural adjustment funding	Structural Adjustment Funding				
Higher Education Loan Program	Higher Education Loan Program reforms: Reduction in HELP repayments for nursing and teaching; increase to student contribution for nursing and teaching; removal of OS-HELP loan fee				
Education Investment Fund	Rounds 1, 2 & 3 and Sustainability Round				
Research initiatives	Sustainable Research Excellence (incremental increase to 2013)				
	Joint Research Engagement				
		Collaborative Research Networks			

Table 3.2

Summary of measures

	2009-10 ($m)	2010-11 ($m)	2011-12 ($m)	2012-13 ($m)	Total ($m)
Education, Employment and Workplace Relations					
Demand-driven funding for higher education	36.4	74.3	116.8	263.1	490.6
National quality and regulatory agency for higher education — establishment	10.0	14.3	15.3	21.2	60.8
Funding for institutional performance targets	0.0	0.0	68.7	137.7	206.4
Conditional funding and revised indexation arrangements	0.0	58.3	172.7	294.9	525.9
Structural Adjustment Fund	50.5	70.7	56.0	25.0	202.1
EIF Round 2^*	227.2	247.6	78.2	19.5	612.5
Support to increase participation of students from low socio-economic status backgrounds	29.4	85.8	144.7	176.9	436.9
Increase in the maximum annual student contribution amount for education and nursing	3.1	6.5	10.3	13.0	32.9
HELP repayment reduction for education and nursing graduates	0.8	4.2	27.0	50.6	82.6
Remove the loan fee on OS HELP loans	1.8	4.7	5.2	5.8	17.5
Student income support	78.7	-62.6	-46.7	22.6	-8.1
Learning and Teaching Performance Fund — redirect funding	-38.1	-77.1	-95.0	-113.3	-323.6
Workplace Productivity program	-0.9	-15.7	-30.4	-31.0	-78.0
Australian Universities Quality Agency — redirection of funding	0.0	-1.3	-1.3	-1.3	-3.9
Redirect funds to establish the Structural Adjustment Fund	-19.9	-28.4	-15.9	0.0	-64.2
Higher Education Equity Support program — redirect funding	-6.0	-12.2	-12.4	-12.7	-43.3
Education Total	**373.0**	**369.1**	**493.2**	**872.0**	**2147.1**
Innovation, Industry, Science and Research					
Excellence in Research for Australia	14.2	9.8	5.7	6.1	35.8
Sustainable Research Excellence in Universities	30.5	120.5	160.5	200.5	512.0
Joint Research Engagement program	0.0	0.0	0.0	0.0	0.0
Postgraduate research — student support	5.5	12.3	13.5	20.4	51.7
Collaborative research networks	0.0	10.0	21.0	21.0	52.0
Conditional funding and revised indexation arrangements	0.0	0.0	12.7	38.9	51.6
EIF Round 2^	159.6	79.2	82.8	0.0	321.6
Super Science initiative ^*	208.0	258.0	237.0	170.0	901.0
Super Science running costs	0.4	0.4	2.6	2.6	6.0
Anglo-Australian Observatory — new governance arrangements	4.1	10.4	10.5	11.4	36.5
Anglo-Australian Observatory — offsetting savings	0.0	-5.1	-5.3	-5.2	-15.6
European Molecular Biology Laboratory partner facility	2.0	2.0	2.0	2.0	8.0
Replacement of Australia's Marine National Facility	6.8	5.7	7.3	9.8	29.6
Australian Space Science program	6.4	12.9	14.1	15.1	48.6
Super Science Fellowships	2.6	7.3	9.8	7.5	27.2
National Enabling Technologies Strategy	11.3	9.0	9.0	8.8	38.2
Questacon — continuation of the National Science Outreach program	1.9	1.9	1.9	1.9	7.6
Commonwealth Commercialisation Institute	20.6	38.5	58.9	78.1	196.1
Research and Development Tax Credit — transitional measure	120.0	-55.0	0.0	0.0	65.0
Research and Development Tax Credit — Innovation and ATO departmental costs	5.1	8.9	12.3	11.9	38.2
Support for Industry Service Organisations program	3.7	3.7	3.7	3.7	14.7
Innovation Total	**602.7**	**530.4**	**660.0**	**604.5**	**2425.8**
EIF future rounds^**	0.0	350.0	250.0	125.0	750.0
Clean Energy Initiative^	100.0	100.0	100.0	100.0	400.0
Total	**1075.7**	**1349.5**	**1503.2**	**1701.5**	**5722.9**

A positive sign indicates a reduction in the fiscal balance.

^ Funding is provided from the Education Investment Fund

* Includes funding in 2008-09

** Includes funding in 2013-14

Base university teaching and learning funding (the current Commonwealth Grant's Scheme and some smaller programs) will increase:

- in 2010 by 2%;
- in 2011 by 3%; and
- from 2012 by between 4% and 6.5%, depending on individual universities' learning and teaching performance.

These increases are offset by abolition of the Learning and Teaching Performance Fund, the Workplace Productivity Program and removal of the main equity funding program which together are worth nearly half the additional funding.

3.2 The student demand driven funding system

The Government will introduce a student demand driven funding system in which an institution will be funded for all Australian students it enrols. The intention is that all Australians wishing to enrol at university who have the necessary attributes or qualifications for entry should be able to find a place. However, it is important to note that each university retains control over whom it chooses to admit.

The new arrangements will apply only to the universities that currently receive public funding and to Batchelor Institute of Indigenous Tertiary Education in the Northern Territory. It will not apply to all accredited courses in all recognised HE providers, as recommended by the Bradley Review.

The change will be introduced in two stages. In 2010 and 2011 a university can be funded up to 110% of its initial allocation under the current funding arrangements. From 2012 the full student demand driven system will begin.

The Government's student demand driven funding system resembles proposals for voucher funding systems which have been made over the past decade. The Government argues its plan is quite distinct from those voucher system proposals for two reasons:

- student charges remain controlled where a student accesses an entitlement to a Government funded place, that is the fees are capped for most students; and
- the funding each student will bring to a university will vary according to the subjects in which the student enrols, particular characteristics of the student themselves, and potentially the characteristics of the university. There is an entitlement to funding, not a fixed dollar amount or 'voucher' for each student.

3.2.1 Funding a student driven system

The structure of the funding to support the new system will be of great importance to how it works in practice. At this stage the Government has indicated the broad funding amounts and major categories but has not set many of the finer details.

The Bradley Report argued that current funding levels are not sufficient to support the education and training outcomes expected from universities and that an increase in funding per student is required to reduce the high student-staff ratios. It argued for two major changes to the base funding quantum:

1. a 10% increase in funding for teaching and learning; and

2. a more substantial annual indexation factor that would retain much of the real value of funding year to year.

It then argued that the current structure of funding was not sufficient to support and encourage each university to enrol a wide group of students and provide them with needed support in completing their degree. It proposed two new, substantial funding elements which would be taken from the overall 10% increase:

3. funding to encourage enrolment of students from low SES and other under-represented groups; and

4. additional funding for achieving agreed teaching and learning outcomes, to underpin the quality of provision.

The report also argued for the review of other important elements of the current funding system. These include:

- the relative levels of funding and student contributions (fees) across disciplines;

- the regional loading to support provision of higher education for students in regional areas; and

- funding for Indigenous student support programs.

The Government has endorsed the thrust of these proposals but limited the overall increase in teaching and learning funding to 6.5%, rather than 10%. Approximately 50% of this increase is offset by the removal of three programs – the Learning and Teaching Performance Fund, the Workplace Productivity Program and the Higher Education Equity Support Program.

3.2.2 Improving the annual funding index

Universities have argued that the form of annual indexation has been inadequate since the late 1990s. The decision to change the approach to indexation represents a potentially major gain for universities that will increase in value year to year.

The current index comprises two components, a non-salary element (25% of the index based on inflation – the consumer price index or CPI) and a notional salary-related element (75% of the index based on movements in the minimum wages across the economy). The new index will retain the CPI based factor (25%) and replace the notional salary-related element of the index (75%) by a factor based on annual movement in professional and related salaries, discounted by 10% deduction to provide an incentive for universities to continue to pursue productivity gains.

3.2.3 Encouraging low SES students

The Bradley report argued that merely expanding access will not address the under representation of students from low socio-economic backgrounds. The Government has taken up the Bradley proposal for a two pronged approach to redressing the imbalance.

From 2012 funding equal to 4% of teaching and learning funding will be allocated in two ways:

- 75% as a loading for the enrolment of low SES students; and
- 25% as funding for universities to work with schools and school students to improve school outcomes and raise aspirations for post school education and training.

The loading will create an incentive for enrolment of a broader range of students and will help offset the cost of additional services that may be required. While the amount of the loading has not been explicitly identified, it appears from the budget details to be in the order of $1,000 per low SES student across the sector.

The encouragement to universities to engage with students at lower levels of schooling endeavours to address the factors that lead to lower levels of school achievement and application for university entrance from students from low SES areas.

3.2.4 Teaching and learning performance element

The Government will allocate up to a further 2.5% of base teaching and learning funding to each university based on performance against targets set individually for each university. This element will replace the current Learning and Teaching Performance Fund which ceases from 2010.

The indicators to be used for this purpose are likely to focus on a mix of general student outcomes and the achievement of specific equity groups such as Indigenous students and those from low SES backgrounds. The performance targets for each indicator will be agreed for each university. This will avoid much of the argument that bedevilled the Learning and Teaching Performance Fund about the comparability of the indicators from university to university.

3.2.5 Reviewing the crucial detail: discipline funding amounts, student contributions, regional loading and Indigenous support funding

The Government has endorsed the Bradley Report's proposals for a series of subsequent reviews of specific issues. These reviews will take place over the coming one to two years with final details not required until 2011 in advance of the major changes from 2012.

- Bradley recommended, and the Government has agreed to, a review of the relative levels of funding across the discipline clusters.

- Unless substantial new funding is made available, changes in the funding rates for different disciplines could result in significant gains and losses across the system.

  The budget's sole change to the funding clusters and student contributions was to increase student contributions for education and nursing units, reducing the number of student contribution bands to three from four. Nursing and education units had been protected from the general 25% increase that applied from 2005. However, the Government has extended the approach of providing rebates on HECS-HELP debts for graduates of certain disciplines if they practice in their field. Hence while education and nursing units can now cost an extra $1200 a year graduates will receive a rebate of $1536 a year for up to five years if they work as teachers and nurses. In effect nursing and education graduates could gain back about 1.5 years worth of student contributions if they work in their field for five years.

- The regional loading supports universities with regionally based campuses through a complex formula reflecting regional students studying at regional campuses and the relative distance from a major metropolitan area. Bradley argued that it was poorly allocated.

  The Government has not increased the funds for the regional loading but will review the basis for allocation.

- Bradley argued the need for more action to support the education of Indigenous students and encourage higher levels of enrolment. The Government has not announced any changes but is continuing with its reviews. It is likely that more funding will be made available for Indigenous programs, potentially tied to outcomes for access and completion.

3.3 Student income support

The Government will improve access to support payments for low income students and will extend eligibility to students of Masters degrees.

The Government has not changed the rate of Youth Allowance but has considerably extended the undergraduate scholarships program. The scholarships will change from a university allocated payment into one administered by the Government as part of general income support. All students eligible for income support will gain a Student Start-Up scholarship of $2254 a year, paid in two halves at the beginning of each semester; and eligible students who have to live away from home will receive a Relocation Scholarship of $4000 in their first year and $1000 thereafter.

The changes have a considerable cost to the Government which it has offset by a change that will make it harder for students from more wealthy backgrounds to access income support by becoming financially independent of their parents.

3.4 Research and innovation

Powering Ideas, the Government's response to the Cutler Report, covers the breadth of the innovation system. Research in universities is seen as a major part of the innovation system but one that needs to be more effectively linked to industry.

3.4.1 Research Infrastructure Block Grants

The Research Infrastructure Block Grants (RIBG) will be increased from its current level of about 20 cents for every competitive grant dollar, initially to 30 cents per dollar from 2011, and then to 50 cents per dollar from 2014. This represents a major gain for those universities strong in winning ARC and NHMRC grants, and those parts within universities with such grants. It will reduce the pressure to use other university resources to sustain research projects, potentially freeing up such funds for other uses.

The mechanism for distributing RIBG will also change. Approximately 50% of the RIBG will continue to be allocated in proportion to competitive grant income. The other 50% will be allocated according to:

- activity based costing that will demonstrate the actual level of indirect costs for a university; and
- the meeting of performance targets.

The impact will be that all universities will receive better support for the competitive research grants they win but with potentially more of the gain going to those which can demonstrate the full indirect costs of their research.

3.4.2 From Institutional Grant Scheme to Joint Research Engagement

The Institutional Grant Scheme (IGS) will be renamed the Joint Research Engagement (JRE) Program, targeted at universities' engagement with industry.

To support the focus on engagement the basis for allocating the JRE will be different from that now used for the IGS. 60% of the IGS formula is currently based on university research income, including income from national competitive grants. The JRE formula will exclude income from those competitive grants. It will therefore focus on research income from other sources – essentially research income from public and private industry sources.

3.4.3 The research training scheme and research students

There were no changes to the Research Training Scheme (RTS) in the budget. Additional funding has been allocated to enhance the level of scholarships that provide income support for the research students whom universities fund through the RTS. The stipend for research students holding a Government postgraduate award will increase by approximately 10% to $22,500 in 2010 keeping it above standard measures of the poverty line.

3.4.4 Excellence in research for Australia (ERA)

The Government has allocated $36 million over the coming four years to complete its ERA project. ERA replaced development of the previous Government's much debated Research Quality Framework. ERA is intended to provide better quantitative and qualitative measures of research quality and output to assist in future targeting of Government research funding. The RTS allocation, in particular, is seen as likely to change once the ERA is developed.

3.4.5 Collaborative research network

There will be funding from 2011 of $21 million a year for the Collaborative research network. This is intended to support smaller and regional universities lead a collaborative research project with other universities, focussed on a particular area of strength of the smaller university. The program appears to be a step towards the development of a 'hubs and spokes' model to link researchers in common areas, particularly smaller groups of researchers or single researchers, to larger research units.

3.4.6 Super Science Initiative

The Super Science Initiative combines major investment in research infrastructure (see 3.5 below) and 100 super science early career fellowships across three target areas. The fellowships will be worth up to $72,500 a year for three years.

3.5 *Investing in infrastructure*

The Government announced further investment in university infrastructure in the budget covering both the second formal round of the Education Investment Fund and research focussed allocations under the Super Science package and Clean Energy Initiative.

Table 3.3 below sets out the extent of major infrastructure so far committed and planned from the EIF and related sources There are three major elements:

- the second round of the Education Investment Fund which will invest $332 million in eight research focused projects;
- the Super Science Initiative, which will invest $901 million targeting three main areas:
    - space science and astronomy;
    - marine and climate science; and
    - future industries research – biotechnology and nanotechnology; and
- the Clean Energy Initiative to invest $200 million in carbon capture and storage and $200 million in solar energy developments.

The extent of funding is in part driven by the Government's wish to use public funding to maintain economic activity. It also reflects the Government's view that university and research institutions' teaching and research infrastructure has not kept pace with international developments.

Table 3.3: Summary of education and research infrastructure funding ($m)

	2007-08	2008-09	2009-20	2010-11	2011-12	2012-13	Total
Existing funding							
2008-09 Budget (a)	500	-	-	-	-	-	500
2008 NBP (b)	-	-	1000	-	-	-	1000
EIF Round 1	-	38	195	175	149	23	580
Sub total	**500**	**38**	**1,195**	**175**	**149**	**23**	**2,080**
New Funding							
EIF Round 2	-	40	387	327	161	20	934
EIF Super Science	-	28	208	258	237	170	901
CEI Research	-	-	100	100	100	100	400
EIF Future Rounds	-	-	-	350	250	125	750
Sub total		**68**	**695**	**1,035**	**748**	**415**	**2,960**
TOTAL	**500**	**106**	**1,890**	**1,210**	**897**	**438**	**5,040**

Australian Government *Universities, Innovation and Education Revolution,* May 2009, p14

(a) Better Universities Renewal Fund
(b) 2008 Nation Building Package
(c) Includes $25 million in 2013-14

3.6 Government compacts with universities

The Australian Labor Party took to the 2007 election a commitment to introduce university by university 'compacts'. The intention is to produce a form of accountability focussed on the outcomes achieved by universities and less on close monitoring of particular activities.

The budget statements indicate that compacts will be the formal basis for articulating each university's objectives for higher education and research and the Government funding it will receive to support the objectives, along with relevant performance requirements.

Discussions will be held over the rest of 2009 on the framework for the development of compacts.

3.7 Supporting universities prepare for the future

This Budget provides $402 million over four years to support significant structural change across the higher education sector as universities prepare for the policy changes to come into full effect from 2012.

4 The New Zealand funding system

4.1 Main sources

New Zealand Tertiary Education Commission, *Briefing to the Incoming Minister,* November 2008
http://www.tec.govt.nz/templates/StandardSummary.aspx?id=1199

New Zealand Tertiary Education Commission, *Investment Guidance Supplement: Key funding decisions,* May 2007
http://www.tec.govt.nz/templates/standard.aspx?id=1848

New Zealand Tertiary Education Commission, "Funding Mechanism: Student Achievement Component and Tertiary Education Organisation Component"
http://www.tec.govt.nz/templates/standard.aspx?id=2694

New Zealand Tertiary Education Commission, "Funding Mechanism: Performance-Based Research Fund"
http://www.tec.govt.nz/templates/standard.aspx?id=2694http://www.tec.govt.nz/templates/standard.aspx?id=2694

L Goedegebuure, P Santiago, L Fitznor, B Stensaker and M van der Steen, *New Zealand*, OECD Reviews of Tertiary Education, 2008
http://www.oecd.org/dataoecd/11/52/38012419.pdf

New Zealand Vice-Chancellors' Committee, *Briefing for the Incoming Government*, November 2008 http://www.nzvcc.ac.New Zealand/node/362

4.2 Administrative base

The New Zealand funding system is administered by the Tertiary Education Council (TEC), distributing the funding allocated by the Government consistent with Government policies. Additional funding for research projects is provided by the Foundation for Research, Science and Technology and the Health Research Council.

4.3 Institutional base

New Zealand funding policy operates at the level of tertiary education comprising six specific sectors. Each sector is clearly defined but with considerable interaction between the sectors, both intended and actual. The sectors are:

- Universities, with a focus on the provision of higher education and research (8 institutions);
- Institutes of Technology and Polytechnics (ITPs), with a focus on more vocational skills including at degree level with only targeted research activity (20 institutions);
- Wananga, institutes targeting Maori students, embracing aspects of Maori culture and knowledge systems (3 institutions);
- Industry Training Organisations, which provide training from an industry base, mostly at certificate level;
- Private Training Organisations, competing primarily at the certificate and sub-degree level (376 organisations); and
- Adult and Community Education Providers, supporting those on the margins of education and training (290 organisations).

4.4 Major policy directions

New Zealand has had a rapidly developing tertiary education policy which is characterised by a willingness to introduce new concepts from across the spectrum of potential approaches and learn from the outcomes. The driving force has remained consistent – a concern to ensure an educated workforce and populace able to maintain the economic viability of a small country in the South Pacific.

There have been three major stages:

- in the 1990s New Zealand steadily created an open market across higher education, initially through permitting universities and other providers to set the student fee at a market level with a moving cap on Government funded places which allowed institutions to grow (or shrink) with demand. This culminated in 1999 with the removal of caps on funded places altogether such that the Government would fund at a standard rate any New Zealand student at any approved educational provider. Fees were set by the provider. This approach was largely successful in its intent to increase significantly the participation rate in higher education;
- from 2000, in response to the extensive debt accumulated by many students, the market system was modified through tying Government funding to a requirement that an institution hold its student fees at the then levels. Subsequently, the Government re-introduced upper limits to fees and set restrictions on the annual fee increase; and

- from 2007, a reversal to a tightly planned system where each institution enters a contract with the TEC for delivery and funding. The agreement sets the desired number of places by discipline or course consistent with an analysis of student, industry and Government needs. The drivers for the changed approach included concerns about the quality of education from the uncapped number of funded places and a more targeted approach to raising education participation levels.

The New Zealand Government changed in late 2008. It has flagged that it will release a major statement in the second half of 2009. In a speech in April 2009 the Minister, Ms Anne Tolley, indicated that she wished to reduce the extent of "central planning" to allow students and the economy to drive provision[1]. Her statement suggests a reversal from the tight institution by institution agreements back towards previous arrangements.

However, the Government's first budget in May 2009 was largely driven by the global financial crisis and made no significant structural changes. The Government has tightened expenditure for learning and teaching, pulling back from forward commitments of the previous Government and funding little or no growth in places. It has committed to further investment in research through maintenance of the planned growth in Performance Based Research Funding and increases to research project funding pools. The major funding decision with long term implications is to leave open whether the Government will increase funding levels in line with costs after 2010.

In the following sections we set out the funding arrangements for 2009 with a focus on universities, comment on the issues that arose under the previous arrangements, and indicate the main areas of funding reductions and increases from the May 2009 New Zealand budget.

4.5 University funding arrangements

The basis for funding is an institution by institution University Investment Plan which details the outcomes the university expects to deliver and the funding which the TEC commits to support achievement of those outcomes. The plan is intended to reflect the needs identified from discussions with employers, communities and other parties. The approach involves a strong institution by institution assessment which is then reflected in the structure of funding which combines formulaic allocations with institution specific funding elements.

[1] Speech New Zealand Tertiary Education Summit 29 April 2009

There are two main TEC distributed Government funding elements:

- the Student Achievement Component (SAC), based on the number of students, the discipline, and the type of qualification. This includes provision for student fees as additional revenue; and
- the Tertiary Education Organisation Component (TEO) which supports non student based activity, especially research, but also factors specific to the institution. It has two main elements:
    - the Performance Based Research Fund, allocated according to relative research outputs; and
    - the Base Investment, which relates to institution specific needs, such as costs of regional presence and engagement.

Funding is split 70:30 between the SAC and TEO for each sector as a whole but the division varies across institutions within a sector.

Universities access two other significant sources of TEC funding:

- Capital investment fund; and
- Centres of research excellence.

Table 4.1 below shows the distribution of TEC funding for all sectors. All dollar figures are New Zealand dollar amounts.

The other major source of Government funding for universities is research funding allocated by the Foundation for Research, Science and Technology the New Zealand Health Research Council, and the Marsden Fund administered by the Royal Society of New Zealand.

New Zealand universities also earn considerable non-Government revenue from international students and the provision of research, consultancy and expert services. These sources, together with student fees, comprise over 60% of university revenue. This is a contrast to the ITPs which receive about 60% of revenue from Government sources.

Table 4.1 Main elements of TEC Funding 2009

Funding component		**NZ$M**		**%**
Student Achievement Component			1,533	55%
Tertiary Education Organisation Component			624	22%
	Performance Based Research	*236*		*8%*
	Base investment	*310*		*11%*
	4 other elements	*78*		*3%*
Industry training			166	6%
Other			485	17%
Total			2,808	100%

4.5.1 The Student Achievement Component

The SAC is based on the agreed distribution of equivalent full-time (EFT) students for the upcoming university year. Each EFT is allocated to a particular funding grouping based on:

- the allocation of 42 discipline groups across 16 funding bands;
- the level of course (non degree; undergraduate and graduate; postgraduate coursework; high degree research; and international research).

The Attachment at 4.9 sets out the different funding bands, the university funding rates by level of courses for 2009, and the relative weighting for each funding band. It also sets out the maximum fee for undergraduate courses and the total revenue available to universities for undergraduate courses. This table is quite extensive and has been placed at the end of the New Zealand Chapter.

The number of students allocated to high costs courses is capped nationally. In other areas institutions are able to argue for levels based on assessment of demand and need.

Universities can enrol students at all course levels. The funding for universities is set higher than for the other sectors which are more restricted in the course levels and discipline groups they may offer. This is a contrast to the previous arrangements where funding rates were the same across all types of institutions for a course at the same level. In creating the SAC-TEO split more funds were taken from the previous discipline funding rates for the non-university providers, to create the TEO component.

New Zealand funds many international research doctorate students and permits universities to charge domestic student rates to these students.

At the end of the year, funding due for the actual delivery of places is compared with the funding for the agreed distribution. There is a three percent tolerance band. Institutions earning less than 97% of the agreed amount have funding recovered equal to the shortfall under 97%. To maintain the quality of provision, over-enrolment beyond 3% is not encouraged and is taken into account in negotiating future investment plans. Institutions would retain the student fees paid for students enrolled over the planned levels.

The 2009 New Zealand budget announced that no additional student places would be funded in 2010 or future years ensuring that there will be little growth in places provided.

4.5.2 The TEO

For universities and other higher education institutions the TEO is comprised of a Core Component and a Strategic Directions Component.

The Core Component comprises:

- a base payment. Currently this is derived from SAC funding multiplied by 11.57% for universities (a higher factor is used for ITPs and Wananga). This formula is being phased out to derive the base payment more directly from institution specific needs from 2011. This will address issues of different student groups, regional needs and the nature of the course provision of the university.

  This element is intended to be greater for ITPs and Wanangas than the universities. Hence more funds have been removed from the SAC stream to finance the higher level base payments;
- an equity loading for enrolled Maori and Pacific Island students ($320 per bachelor student rising to $444.44 per post graduate student) and for students with a disability ($28.60 per SAC funded EFT);
- Performance Based Research Funding (see below); and
- Priorities for focus, which supports universities to carry through internal change projects agreed as part of the Investment Plan. This will cease from 2011.

The Strategic Directions Component comprises:

- funds to support change, focused at altering the teaching profile of an institution to move out of some areas and to develop new areas; and
- project funds for supporting innovation.

4.5.2.1 Details of the Performance Based Research Funding (PBRF)

The PRBF was introduced over 2004 to 2007. It replaced a previous system of topping up the funding to universities for undergraduate and postgraduates students. The PRBF is intended to direct research funding more clearly towards better research rather than spreading it in proportion to enrolments. The vast majority of funding goes to the universities but a number of other higher education providers also participate.

The PBRF allocates funding based on:

- a peer reviewed assessment of the research contribution of each academic staff member (60%);
- postgraduate research student completions (25%); and
- external research income (15%).

The peer review of research quality involves rating all academic staff in each university every six years. The university provisionally allocates a quality rating to each staff member which is then reviewed and finalised by an external TEC review panel. Over time the TEC wishes to rely increasingly on the university level assessment of quality, reducing the role of its panel. There are four ratings with provision for the lower two levels to indicate that the staff member is new to research and hence the rating is not necessarily reflective of their potential.

The funding is derived by determining for each university its total score by multiplying the weighted quality rating for each staff member, the EFT for the staff member, and the cost factor for the discipline. The quality weighting and cost factors are set out below in Table 4.2.

Table 4.2 PBRF Weightings for Quality and for Subject Areas

Quality Rating	**Score**
Category A	5
Category B	3
Category C or C(NE)	1
Category R or R(NE)	0

Subject areas	**Cost weight**
Arts, Social Sciences, Business, Accountancy, Law, Teaching	1
Science, Computing, Nursing, Music, Fine Arts	2
Engineering, Agriculture, Architecture, Audiology, Veterinary Science, Medicine, Dentistry, Specialist Large Animal Science	2.5

Funding for research degree completions is allocated in proportion to the number of completions, weighted to reflect the volume of research in the programme and the relative cost of the subject. An equity weighting of 2 is added to completions of postgraduate research degrees by Maori and Pacific Islander students.

Funding for external research funding is allocated in proportion to such revenue earned by each university.

The funding generated by research degree completions and external research income is allocated on the basis of a rolling average of the preceding three years, with a weighting of 50% for performance in the previous year, 35% for performance in the year before that, and 15% for the furthest year out.

4.5.3 The Capital Investment Fund

The new New Zealand Government will not proceed with the Tertiary Education Capital Investment Fund announced in the 2008 New Zealand Budget. The Fund was to comprise $112m, $95m of which was new capital investment funding for all publicly owned tertiary education institutions over three years (2008-2010). The intent was to shift capital investment decisions from a largely case-by-case approach to an annual cycle that considers proposals in light of the needs of the entire sector.

4.6 Tuition fees and income support

4.6.1.1 Student fees

Access to SAC funding permits an institution to levy student fees. For each funding band a maximum fee is set for students of bachelor degrees and lower awards. For 2009 four actual maxima are in use, rising in correlation to the likely cost of teaching. These are set out in the Attachment at section 4.9. Institutions that are not charging the maximum rates are restricted to increasing the fee year to year by no more than 5%.

Some universities have fees, set when there were no caps, above the maxima. These fees cannot increase until, over time, the annual rise in the caps brings the fees within the permitted levels. By contrast the ITPs and Wanangas charge less than the maxima for many of their courses.

Postgraduate fees are not limited but are subject to an annual fee increase limit of $444.44.

Students can access a loan to pay the fee. The loan is repayable on an income contingent basis, with no interest charged while the person remains resident in New Zealand.

4.6.1.2 Income support

New Zealand students can access a combination of:

- a Student Allowance which is income tested on the individual and in many cases the family;
- a loan of:
    - up to $1000 per course for course related expenses such as text books; and
    - up to $155 a week during term weeks and short breaks of up to three weeks. Receipt of Student Allowance lowers the loan amount available such that the combination of both cannot exceed $155 a week.

The loan is repayable on an income contingent basis, with no interest charged while the person remains resident in New Zealand.

4.7 Other Government research funding

In addition to the PRBF allocation the TEC oversees funding for Centres of Research Excellence which are located in universities but which bring together relevant researchers across the system to promote the particular speciality of the Centre. The Centres receive $31.4 million a year.

The New Zealand Government through its Ministry of Research Science and Technology supports a range of research and innovation across New Zealand, investing over $650 million a year divided between three main investment agents:

- The Foundation for Research, Science and Technology (approximately $535 million);
- The Health Research Council of New Zealand ($63 million); and
- The Marsden Fund administered by the Royal Society of New Zealand ($38 million).

These funds are primarily allocated for specific research projects or support to specific scholars or programs targeting Government priorities. The 2009 budget announced real increases for both the Health Research Council and the Marsden Fund.

4.8 Accountability arrangements

The New Zealand funding descriptions are notable for their interest in defining the use of particular allocations of funds and some prescriptive rules preventing use of any Government funds on particular activities. This contrasts with the argument in other jurisdictions (UK; Netherlands; to some degree Australia) that funding allocations are a means to distribute funding in a fair and reasonable way but that detailed use of funding is an institutional decision.

The New Zealand approach reflects the strong drive to ensure the outcomes achieved are precisely those desired for national outcomes, and a response to the rapid growth of higher education in the previous funding systems with evidence of poor standards of provision especially by private providers.

The new Government has articulated a desire to reduce complexity in accountability which may see a change of approach.

4.9 Attachment: Funding rates and weights for universities

The table shows for each of the 16 funding bands applicable to universities:

- the funding available for each course level, and, for undergraduate courses, the maximum fee and the combined revenue; and
- the relative weighting for each course level, and, for undergraduate courses, the maximum fee and the combined revenue.

The funding varies by the level of the course:

- Course levels 1-2 covers all undergraduate courses (including graduate certificates and diplomas) as well as sub degree awards;
- Course level 3 covers Post-graduate course work (including PG Certificates and Diplomas);
- Course level 4 covers domestic, New Zealand research students; and
- Course level 5 covers international research students.

Part I: Funding and Revenue by discipline group

Discipline and Classification		**1-2**	**3**	**4**	**5**	**Maximum Fee u/g course**	**Combined revenue for u/g courses**
A	Arts [#03], Social Sciences [#03], General [#5.2], Vocational Training for Industry [#22.1]	$5,171	$6,527	$6,903	$2,871	$3,925	$9,096
B	Architecture (non-degree) [#02], Computer Science [#06], Fine Arts, Design [#12], Music and Performing Arts [#16], Health-related Professions #17], Vocational Training for Industry [#22.1], Medical Imaging [#25], Occupational Therapy [#28], Physiotherapy [#29], Clinical Psychology [#34]	$7,912	$10,060	$10,816	$5,263	$4,529	$12,441

C	Architecture (degree) [#02], Engineering, Technology [#11], Health Sciences [#13], Vocational Training for Industry [#22.1], Midwifery [#27], Speech Language Therapy [#32], Medical Laboratory Science [#33], Audiology [#35]	$9,512	$12,091	$13,013	$6,286	$5,236	$14,748
G	Dentistry (postgraduate only) [#7], Medicine (postgraduate only) [#15], Veterinary Science [#23]	$17,739	$22,056	$22,056	$5,716	$10,067	$27,806
H	Specialist Large Animal Science [#39]	$14,843	$18,719	$19,642	$4,421	$5,236	$20,079
I	Teaching [#19, #20]	$7,368	$9,252	$9,628	$2,871	$3,925	$11,293
J	Business, Accountancy [#04], Law [#14], Vocational Training for Industry [#22.1]	$5,171	$6,527	$6,903	$2,871	$4,228	$9,399
L	Agriculture and Horticulture (non degree) [#01], Osteopathy, Acupuncture [#3.1], Science [#18], Vocational Training for Industry [#22.1], Nursing [#24]	$8,892	$11,211	$11,965	$5,863	$4,529	$13,421
M	Agriculture and Horticulture (degree) [#01], Optometry [#13.1] , Dental Therapy [#17.3]	$11,324	$14,220	$15,142	$7,389	$5,236	$16,560
N	Pharmacy [#31], Dietetics [#36]	$10,347	$13,017			$5,236	$15,583
O	Medical Radiation Therapy [#30]	$15,314				$5,236	$20,550
P	Trades 2 [#22], Vocational Training for Industry [#22.1]	$8,548				$4,529	$13,077
Q	Veterinary Science (years 3–5) [#23.3]	$23,209				$10,067	$33,276
R	Dentistry (undergraduate excluding intermediate – years 2-5) [#07]	$43,592				$10,067	$53,659
T	Medicine undergraduate (years 2-3) [#15]	$30,477				$10,067	$40,544
U	Medicine undergraduate (years 4–6) [#37]	$35,945				$10,067	$46,012

Part II: Funding and Revenue relativity by discipline group

		1-2	3	4	5	Maximum Fee u/g course	Combined revenue for u/g courses
A	Arts [#03], Social Sciences [#03], General [#5.2], Vocational Training for Industry [#22.1]	1.0	1.0	1.0	1.0	1.0	1.0
B	Architecture (non-degree) [#02], Computer Science [#06], Fine Arts, Design [#12], Music and Performing Arts [#16], Health-related Professions #17], Vocational Training for Industry [#22.1], Medical Imaging [#25], Occupational Therapy [#28], Physiotherapy [#29], Clinical Psychology [#34]	1.5	1.5	1.6	1.8	1.2	1.4
C	Architecture (degree) [#02], Engineering, Technology [#11], Health Sciences [#13], Vocational Training for Industry [#22.1], Midwifery [#27], Speech Language Therapy [#32], Medical Laboratory Science [#33], Audiology [#35]	1.8	1.9	1.9	2.2	1.3	1.6
G	Dentistry (postgraduate only) [#7], Medicine (postgraduate only) [#15], Veterinary Science [#23]	3.4	3.4	3.2	2.0	2.6	3.1
H	Specialist Large Animal Science [#39]	2.9	2.9	2.8	1.5	1.3	2.2
I	Teaching [#19, #20]	1.4	1.4	1.4	1.0	1.0	1.2
J	Business, Accountancy [#04], Law [#14], Vocational Training for Industry [#22.1]	1.0	1.0	1.0	1.0	1.1	1.0
L	Agriculture and Horticulture (non degree) [#01], Osteopathy, Acupuncture [#3.1], Science [#18], Vocational Training for Industry [#22.1], Nursing [#24]	1.7	1.7	1.7	2.0	1.2	1.5

M	Agriculture and Horticulture (degree) [#01], Optometry [#13.1] , Dental Therapy [#17.3]	2.2	2.2	2.2	2.6	1.3	1.8
N	Pharmacy [#31], Dietetics [#36]	2.0	2.0			1.3	1.7
O	Medical Radiation Therapy [#30]	3.0				1.3	2.3
P	Trades 2 [#22], Vocational Training for Industry [#22.1]	1.7				1.2	1.4
Q	Veterinary Science (years 3–5) [#23.3]	4.5				2.6	3.7
R	Dentistry (undergraduate excluding intermediate – years 2-5) [#07]	8.4				2.6	5.9
T	Medicine undergraduate (years 2-3) [#15]	5.9				2.6	4.5
U	Medicine undergraduate (years 4–6) [#37]	7.0				2.6	5.1

5 The English funding system

5.1 Main sources

Higher Education Funding Council of England, *Funding Higher Education in England: How HEFCE allocates its funds*, Sept 2008, http://www.hefce.ac.uk/Pubs/hefce/2008/08_33/

Higher Education Funding Council of England, *Recurrent grants for 2009-10*, March 2009, http://www.hefce.ac.uk/pubs/hefce/2009/09_08/

RAE 2008: the outcome, December 2008 http://www.rae.ac.uk/pubs/2008/01/

Higher Education Funding Council of England, *Capital Investment Fund*, January 2008/04 http://www.hefce.ac.uk/pubs/hefce/2008/08_04/

Student Finance England, *How to get financial help as a student*, February 2009 http://www.direct.gov.uk/en/EducationAndLearning/UniversityAndHigherEducation/StudentFinance/DG_171624

5.2 Administrative base

The English funding system is primarily administered by the Higher Education Funding Council of England, distributing the funding allocated by the Government based on advice from the relevant Department of State. The previous Department for Innovation, Universities, and Skills was amalgamated in June 2009 with the Department for Business, Enterprise and Regulatory Reform to form a new Department for Business, Innovation and Skills.

English universities also compete for UK wide funding from the Research Councils.

5.3 Institutional base

The English university system is broadly based. HEFCE provides general funding to 72 universities and 57 other Higher Education Institutions with a further 124 Further Education Colleges also funded to provide specific higher education awards.

5.4 Major policy directions

The current shape of the English university system was set in the early 1990s with the creation of many new universities from former polytechnics and colleges. A mass university system was established catering for a wide range of students and with quite distinct institutions. There was a significant increase in student numbers over the 1990s. Government funding per student declined steadily despite initial

increases in total Government funding. From the mid 1990s total funding began to decline, putting considerable pressure on the capacity of the Universities to maintain education and research outcomes.

The current Labour Government was elected in 1997. It has pursued the following themes through major changes announced in 1998 and 2004, with potentially a further set to be announced in mid 2009:

- further growth in total places through Government overseen allocations to individual institutions. In 2004 the Government set a target for 2010 of 50% of all 18-year-olds to start a higher education course by the time they are 30, up from an estimated 41%;
- balancing the social mix of students both overall and those attending the leading research universities where the imbalance is most pronounced;
- continued expansion of research output and enhancement of the quality of research;
- improved linkages between universities and industry, ensuring students have access to courses that offer extensive work based skills and that university research supports industry and business needs;
- significant improvements in the perceived quality of teaching by ensuring a good balance between teaching and research in assessing the contribution of staff and of an institution.

This Chapter sets out the funding arrangements for 2008-09 and flags changes announced for the 2009-10 academic year. The most significant change is use of the 2008 Research Assessment Exercise outcomes, the details of which are outlined in section 5.10.

5.5 The 2009 English budget

The world financial crisis has led the English Government to limit funding increases previously planned. The extent of additional student places has been wound back to 10,000 fully funded places in 2009-10 from 15,000 with a further 10,000 in 2010-11. This is a potential problem for some institutions which have over enrolled on the assumption that in time the allocation of places would catch up.

The 2009 budget has set savings in higher education of £180 million in 2010-11, which are to be found outside of science and research allocations (which are protected by a "ring fence"). This saving is a reduction in expenditure growth not an absolute reduction in funding. HEFCE estimates that funding will still grow by 1.7% between 2009-10 and 2010-11. The focus is intended to be on bodies not directly engaged in teaching and research.

5.6 *University funding arrangements*

The broad structure of the English university funding system involves a major block grant supported by payments by English students, competitive research funding, and significant non-Government funding from business and international students.

The block grant is provided for universities to use as they think best to achieve their aims consistent with supporting Government policy directions. Table 5.1 sets out the major funding elements for 2008-09.

Table 5.1 Major elements of HEFCE Funding (2008-09)

HEFCE Budget for institutions		**2008-09**		
		£ Million		%
Teaching of which:			4,632	62%
	Base	*4,001*		*54%*
	Other elements	*631*		*8%*
Research of which:			1,460	20%
	Mainstream QR	*920*		*12%*
	Other elements	*540*		*7%*
Capital and special funding			1,239	17%
Business and community engagement			120	2%
Very high cost and vulnerable science			25	0%
Total HEFCE			**7,476**	**100%**

5.6.1 The teaching component

The teaching component is based on the intent that universities receive similar but not necessarily identical resources for similar activities. Hence each year HEFCE calculates the "Standard resource" for each institution, based on the characteristics of the students it plans to enrol, and compares this with the "assumed resource" for the institution, which is based on the previous year's funding indexed with adjustments for any additional places. If the assumed resource is between 95% and 105% of the standard resource the institution will be the funding at that level for the coming year. If the assumed resource is outside the +-5% range adjustments are made to the planned mix of students and/or to the funding allocated.

Table 5.2 below, sets out the teaching funding (2008-09) for the base grant and the various specific teaching funding elements we describe in the following sections.

Table 5.2 Major elements of teaching funding

Teaching grant elements	£M	%
Base funding	4,001	86%
Widening participation	364	8%
Foundation degrees	24	1%
Part time	43	1%
Accelerated and intensive	69	1%
Old and historic	41	1%
Institution specific	59	1%
Non exempt students in strategic vulnerable subjects	31	1%
Total	**4,632**	**100%**

5.6.1.1 Eligible students

To be eligible for a funded place a student cannot be studying for a degree in an equivalent or lower qualification to one they already hold. Hence a student enrolled in a second bachelor's degree would not be funded. The intent of the policy is to focus Government funding at those gaining first time degrees or advancing previous attainment. There are exceptions to the requirement most notably for undergraduate medicine, dentistry, social work, nursing, veterinary science and all levels of teacher training.

Total Government funding was not reduced due to the policy but re-allocated to other funding elements. To cover the transitional impact of students changing status there is £144 million in 2008-09.

5.6.1.2 Calculating the Standard resource

Each student is weighted for the discipline of study (four groups based on likely cost), the proportion of a full-time load, and the location of the institution. The analysis is done by level of study – foundation degree, bachelor degree, postgraduate degree. No distinction is made in the overall resource by the level of study but it affects the calculation of assumed fee income.

The locational weighting is 1.08 for inner London and 1.05 for outer London (1.0 elsewhere).

The available funds, as allocated by the Government, are divided by the total weighted students for the whole sector to determine the base funding per weighted student EFT. In 2008-09 this is £3964.

The Standard Resource for an institution is its weighted EFT multiplied by the base funding per weighted EFT.

Table 5.3 sets out the discipline funding clusters, the standard weights, as well as the likely revenue for each cluster taking account of the maximum undergraduate fee.

Table 5.3 Discipline funding clusters, 2008-09 funding and revenue

	Discipline Group	**HEFCE Weight (A)**	**Funding, with assumed fee (B)**	**Assumed Under-graduate fee (C)**	**Maximum fee (D)**	**Likely Revenue (B+D-C)**	**Weight with full fee included**
A	The clinical stages of medicine and dentistry courses and veterinary science	4	£15,856	£1,255	£3,145	£17,746	3.0
B	Laboratory-based subjects (science, pre-clinical stages of medicine and dentistry, engineering and technology)	1.7	£6,739	£1,255	£3,145	£8,629	1.5
C	Subjects with a studio, laboratory or fieldwork element	1.3	£5,153	£1,255	£3,145	£7,043	1.2
D	All other subjects	1	£3,964	£1,255	£3,145	£5,854	1.0

5.6.1.3 Calculating the Assumed resource

The Assumed Resource is: Previous year's grant plus assumed student fee income plus adjustments. The assumed student fee is limited to the original fee of £1000 as indexed, not the actual fees the institution will charge – see subsection 5.7.

Adjustments are made for:

- annual price increases;
- penalties for not achieving previous year targets, based on actual completed student enrolments. ;
- additional student places.

From 2009-10 assessment of the previous year's enrolment will count students who successfully completed part of their study but not all.

5.6.2 Teaching related incentives: targeted allocations

In addition to the funds for teaching derived from delivery of the student places allocated to the university, there are a number of smaller incentive funds to encourage particular outcomes of importance to the UK Government. From 2008-09 funding for these outcomes was removed from the Teaching component outlined above to become separate funding streams. Under the previous arrangements if the additional amounts did not push the university beyond the 5% tolerance limit no additional funding was received by the university. The change ensures an allocation of funds to each university.

5.6.2.1 Enrolment of students from disadvantaged areas

This payment of £97 million is based on the home location of newly enrolled students who complete the first year of study. From 2009-10 there will be an additional £30 million for this allocation.

The calculation is done separately for three groups of these students. Home locations are ranked into quintiles for:

- youth participation in higher education (for full-time students under 21);
- adult higher education attainment for full-time mature students 21 plus; and
- adult higher education attainment for all part-time students.

The quintiles are weighted as 2 for the least advantaged quintile, 1 for the second least, and 0 for the others. The weighted student number is divided by total new students to produce an institutional weight which is applied to the total EFT for the group (full-time young, full-time mature, part-time). This is then weighted for London (inner and outer as for the main teaching grant). This is then multiplied by the funding per weighted FTE of £143.34 (in 2008-09) for full-time students and £1,382 for part-time students.

Hence the institution is not funded directly per disadvantaged student. Rather the University receives more, or less, additional funding based on the extent of such students in its overall enrolment. This applies to the next two elements as well.

5.6.2.2 Improving retention

A similar approach is applied to retention of first year students to allocate £253 million. The calculation is based on those that complete the first year.

- Full time students are grouped into six risk categories based on entry qualifications and age. A weighting factor is applied based on sector average risk of non completion. This is then weighted for London (inner and outer as for the main teaching grant). The factor is then applied to the total full-time EFT and multiplied by the full-time funding rate of £377.
- Part-time students are all considered at risk of low retention and are funded at a standard rate of £535 per EFT.

From 2009-10 this element will be transformed into a Teaching Enhancement and Student Success allocation which will add funding streams tied to institutional learning and teaching strategies and for research-informed teaching.

5.6.2.3 Access for students with disabilities

Universities are ranked into quartiles for their enrolment of students in receipt of the Disabled Students' Allowance. Total FTE for the university is then multiplied by the quartile (e.g. by 4 for universities with the greatest proportion of such students), London weighting (inner and outer as for the main teaching grant) and then by the funding rate of £5.78 per EFT. Universities must receive at least £10,000. Total funding is £13.2 million.

5.6.2.4 Foundation degrees

£24 million is distributed in proportion to each university's share of students undertaking foundation degrees. The funding is to offset the additional costs associated with foundation degrees, in particular working with industry and employers.

5.6.2.5 Part-time undergraduates

£43 million is distributed in proportion to each university's share of part-time students. The funding is to offset the additional costs per EFT in the administration of part-time students.

5.6.2.6 Accelerated and intensive provision

£69 million is distributed in proportion to each university's share of EFT associated with courses taught over a longer than standard teaching year (45 or more weeks), other than medical and related courses where the costs is already built into the standard resource.

5.6.2.7 Fixed allocations

There are three allocations no longer dependent on student numbers but driven by previous allocations:

- £41 million for old and historic buildings;
- £59 million for institution specific issues such as for very small institutions; and
- £31 million for students in subjects deemed strategically important and vulnerable who are not eligible for funding due to the exclusion of students studying an equivalent or lower award.

5.6.2.8 Very high cost and vulnerable science

£25 million a year is allocated to support very high cost science subjects, which are strategically important to the economy and society but vulnerable because of relatively low student demand. The funding supports: chemistry; physics; chemical engineering; and mineral, metallurgy and materials engineering. This funding was initially for the three years 2007-08 to 2009-10 but is now ongoing.

5.6.3 The Research component

Table 5.4 sets out the main elements of HEFCE research funding for 2008-09. HEFCE uses the outcomes of the 2001 Research Assessment Exercise (RAE) to distribute much of the quantum allocated to research. In the 2001 RAE, each institution was awarded a rating, on a scale of 1 to 5* (five star), for the quality of its research in each unit of assessment in which it was active. The outcomes of the 2008 RAE will be used from 2009-10 as outlined in section 5.10.

Table 5.4 Main HEFCE research funding elements (2008-09)

Research grant elements	**£M**	**%**
Mainstream QR	920	63%
Research degree supervision	199	14%
Charity support	185	13%
Business research	62	4%
London weighting	29	2%
'Best 5* Departments	25	2%
Supplementary QR funding	12	1%
Research libraries	6	0%
Capability funding	22	2%
Total	**1,460**	**100%**

5.6.3.1 Mainstream Quality Related Research

There are two stages to the allocation of mainstream QR funds:

- Stage 1: determining the amount provided for each subject
- Stage 2: distributing the subject totals between institutions.

Stage 1 Determining the amount provided for each subject

Mainstream QR funds are divided between 68 subject areas (units of assessment). Each subject is assigned one of three cost weights, which reflect the relative costs of research in those subjects. These are multiplied by the volume of research in each subject to work out the total funding for that subject.

Table 5.5 Cost weighting by subject areas

A	High-cost laboratory and clinical subjects	1.6
B	Intermediate cost subjects	1.3
C	Others	1.0

HEFCE measures the volume of research in each unit of assessment using three separate components for departments rated 4 or above in the RAE weighted as follows:

- **research-active academic staff –** 1 x number of FTE research-active academic staff selected for assessment in the RAE
- **research assistants –** 0.067 x number of FTE research assistants
- **research fellows –** 0.06 x number of FTE research fellows.

The number of research-active academic staff is the most important measure of volume: it accounts for 94 per cent of the total. Research-active staff numbers are fixed between RAEs. HEFCE updates other volume measures annually.

Stage 2 Distribution of the subject totals between institutions

The 68 subject totals (for each unit of assessment) are distributed to institutions in proportion to the volume of research multiplied by the quality of research in the subject for each institution. The volume of research for each institution in each subject is measured in the same way as in Stage 1 above. The quality of research is assessed in the RAE. The table below shows how the 2001 RAE ratings are weighted. As a result, funding of research is highly selective.

Table 5.6 Funding weights in QR model by 2001 RAE rating

3a, 3b, 2, 1	0
4	1
5	3.180
5*	4.036

5.6.3.2 Research degree program supervision fund

This Fund brings together funding for research degree programs (RDPs). The funds for RDPs are allocated in proportion to cost-weighted and London-weighted home and EU postgraduate research student numbers in years 1 to 3 of full-time study or years 1 to 6 of part-time study, in departments rated 4 or above.

5.6.3.3 Charity support element

The charity support element is allocated on the basis of research income awarded to institutions from charitable bodies which fund competitively allocated research. the allocation targets departments rated 4 and above, or rated 3b or 3a and receiving a grant from the Research Capability Fund (see 5.6.3.7). Allocations are not weighted to reflect RAE ratings above these thresholds, but do incorporate London weighting.

5.6.3.4 Business research element

The business research element supports universities to undertake research with business and industry. Allocation is based on the amount of research income institutions receive from UK industry, commerce and public corporations.

5.6.3.5 Best 5* Departments

To provide additional resources to the very best of the 5* departments, additional funds are allocated for departments that achieved a 5* rating in both the 1996 and 2001 RAEs and those that achieved a rating of 5* for the first time in 2001, while maintaining or increasing the number of research-active staff submitted since the 1996 RAE. The allocation is in proportion to London-weighted mainstream QR funding for the departments concerned. The Best 5* allocation ends after 2008-09.

5.6.3.6 Other elements of QR funding

Additional QR funding is provided to recognise the extra costs of research in London. These allocations equal 12 per cent (for inner London) or 8 per cent (for outer London) of the total of mainstream QR funding. London weighting is also incorporated separately in the funding for the 'best 5*' departments, the QR charity support fund and the RDP supervision fund.

For 2008-09 HEFCE has allocated supplementary funds to avoid implementing short-term cuts in research funding since these could prove to be unnecessary in the light of the next RAE. Supplementary funds ensure that each institution's recurrent QR grant is maintained in real terms compared with the equivalent figure for 2007-08 with a tolerance of £100,000.

HEFCE provides supplementary funding for five libraries designated as National Research Libraries.

5.6.3.7 Research Capability Fund

The Research Capability Fund supports research in emerging subject areas where the research base is currently not as strong as in more established subjects. Seven units of assessment which had low proportions of staff in departments rated 4, 5 or 5* in the 2001 RAE, and had relatively high proportions of QR funding in 2002-03 attributable to 3b or 3a rated departments are eligible:

- nursing and midwifery
- other studies and professions allied to medicine
- social work
- art and design
- communication, cultural and media studies
- drama, dance, and performing arts
- sports-related subjects.

Capability funding is distributed pro rata to the number of research active academic staff in RAE submissions rated 3b or 3a, weighted according to the cost weight for the unit of assessment. 2008-09 is the last year for the fund.

5.6.4 Support for business and community

England is in the fourth round of funds allocated to support closer connections between universities and business and communities which could make use of university knowledge and expertise. Earlier rounds featured a mix of specific project funding and an attempt to develop a formula.

The fourth round to cover 2008-09 through to 2010-11 is comprised of:

- 40% based on FTE staff numbers as a support to basic capacity to engage;
- 60% based on performance, assessed through the extent of income from business and non commercial sources, with a double weighting for income from small to medium enterprises; but with
- a minimum grant of the greater of £100,000 or 80% of the 2007-08 allocation and a maximum grant of the lesser of 150% of 2007-08 funding and £1.9 million in 2010-11.

5.6.5 Capital Investment Fund

HEFCE is completing a process of moving capital funding away from competitive bidding for particular projects to supporting each institution to pursue its own priorities with reasonable access to funding through formulaic allocations. The block grant includes provision for basic maintenance and renewal of facilities and infrastructure including provision for depreciation to generate reserves for capital expenditure.

From 2008-09 various capital funding schemes have been brought together in the Capital Investment Fund with two elements, one for teaching infrastructure, the other for research infrastructure. Once a university satisfies the capital investment framework they are free to use the funds allocated as they think best; those yet to meet the framework must submit more detailed program and project information.

Funding from the 2008-09 HEFCE allocation is £1.2 billion. The actual allocations made are for use over a three year period, hence the detailed figures below are for a greater amount.

The Learning and Teaching Capital element is to:

- contribute to the long-term financial sustainability of an institution's learning and teaching and supporting physical infrastructure, and its activities;
- contribute to addressing the remaining past under-investment in an institution's infrastructure for learning and teaching;
- promote collaborative partnerships between institutions and industry; and

- promote high quality learning and teaching capability in areas of national strategic priority, including through e-learning.

£1086 million was allocated for Learning and Teaching Capital for 2008 to 2011. £996 was allocated pro rata to the sum of:

- final 2007-08 mainstream standard teaching resource
- 2007-08 widening participation allocations
- 2007-08 Training and Development Agency for Schools resource for initial teacher training
- 2007-08 clinical consultants' pay allocations
- 2007-08 resource for non-mainstream teaching allocations.

The remaining £90 million targets science and engineering laboratories based on pro rata teaching funding for price group B (the sciences).

The Research Capital Investment element is to:

- contribute to the long-term financial sustainability of an institution's research activities and the physical infrastructure that supports them;
- promote collaborative partnerships between institutions, industry, charities, government and National Health Service trusts; and
- promote high quality research capability in areas of national strategic priority, as set out in the Government's 10-year investment framework for science and innovation.

It has three sources, with total funding for the 2008 to 2011 allocation of £1.3 billion:

- science budget £425 million
- science budget transitional £114 million
- HEFCE £737 million

The Science Budget element is distributed in proportion to their three year average research income from Research Councils UK.

The Science Budget transitional element is allocated in proportion to the difference between the Science Budget portion of their previous allocation and the Science Budget portion of the current round.

The HEFCE element is distributed in proportion to the sum of 2007-08 HEFCE quality-related research funding and 2005-06 research income from UK-based charities, UK central government bodies/local authorities, health and hospital authorities, UK industry, commerce and public corporations, and EU sources (both EU government bodies and other EU sources).

5.7 Tuition fees and income support

5.7.1 Student fees

In 1998 the UK Government introduced a full-time student fee of £1000. This was amended from the 2006-07 student year to be a variable charge set by each university from £0 to £3000. The maximum is indexed each year. In practice almost every university sets the charge at the maximum. Fees for part-time students are set by the institution with no formal limits. In practice they tend to be in proportion to the full-time fee. Fees for postgraduate courses are mostly not controlled and are assumed to be higher than undergraduate fees.

In calculating the teaching grant HEFCE deducts assumed fee income of

- £1255 or £1250 per undergraduate EFT (full and part-time) and regulated postgraduate EFT and
- £3964 for non regulated postgraduate EFT.

Hence institutions retain the additional fee they charge above these assumed levels and would reduce their income if they chose to charge less than the assumed fee.

5.7.2 Student income support

To support students in paying their fee and meet living costs there is a complex range of grants and loans available to full-time English students:

- a loan to cover the fee;
- an income tested grant for living costs; and
- a loan for living costs.

Where a student takes out a loan it is repaid on an income contingent basis post graduation.

For part-time students studying at least 50% of an EFT there is an income tested grant that pays approximately 50% of the fee (assuming pro rata to full-time fees) plus a small, income tested, course costs grant.

5.8 Other Government research funding

There are seven Research Councils which cover the spectrum of research fields. The Councils support leading research projects, including funding many research students. They operate for the whole UK hence the funding is not specifically for English universities although they receive the vast majority.

Funding for the Councils reached £3.3 billion in 2007-08. This was a major increase on previous funding levels designed to strengthen support for research. It increased the proportion of funding allocated to research projects relative to that provided to institutions by HEFCE based on the RAE.

The research charities, of which the Wellcome Trust is the largest and most renowned, provide a further major source of research funding to universities.

5.9 Accountability

HEFCE primarily argues that internal use of funds is a university by university decision. This includes the funding provided to support the additional likely costs of students from disadvantaged backgrounds. In terms of capital funding universities are expected to be able to demonstrate that the allocation from the science budget has been equalled by investment in research driven resources.

5.10 RAE 2008 and Research Excellence Framework

5.10.1 RAE 2008

The RAE 2008 ratings of research quality have been presented in a significantly different form than those from earlier assessments. The 2001 RAE allocated each discipline group submitted by a university a single composite score from one of seven ratings. For 2008, each discipline area submitted has been given a quality profile detailing the proportion of each submission judged by the panels to have met each of the quality levels defined in Table 5.7. Work that fell below national quality or was not recognised as research was unclassified. This provides a more nuanced assessment of research in each field for each university.

HEFCE has drawn out the following summary points about the overall outcome:

- 54% of the research is either 'world-leading' (17% in 4*) or 'internationally excellent' (37% in 3*);
- 1,258 of the 2,363 submissions (53% of total) had at least 50% of their activity rated in the two highest grades. These submissions were found in 118 institutions;

- All the submissions from 16 institutions had at least 50% of their activity assessed as 3* or 4*;
- 84% of all submissions were judged to contain at least 5% world-leading quality research;
- 150 of the 159 higher education institutions (HEIs) that took part in RAE2008 demonstrated at least 5% world-leading quality research in one or more of their submissions; and
- 49 HEIs have at least some world-leading quality research in all of their submissions.

The results of the 2008 RAE will be used to underpin research allocations from 2009-10 until 2013-14. For funding purposes, recognition is given to ratings of 2* or higher in England (for Scotland see section 6.9.2).

To determine the amount of funding allocated to each discipline, and then to allocate the available funding among universities, the calculation multiplies the proportion of the research allocated to each rating by the funding weighting. For example if, in a discipline with a staffing volume of twenty in a university, 25% of research is rated at 3* and 75% at 2*, then its score is (25%*20*3)+(75%*15*1). Under the previous arrangements a single rating (likely of 2 in this case) would be applied to the staffing volume of 20.

Table 5.7 2008 RAE ratings: descriptors and English funding weighting

2008 Rating	Description	Funding Weighting: England
4*	Quality that is world-leading in terms of originality, significance and rigour.	7
3*	Quality that is internationally excellent in terms of originality, significance and rigour but which nonetheless falls short of the highest standards of excellence.	3
2*	Quality that is recognised internationally in terms of originality, significance and rigour.	1
1*	Quality that is recognised nationally in terms of originality, significance and rigour.	0
Unclassified	Quality that falls below the standard of nationally recognised work. Or work which does not meet the published definition of research for the purposes of this assessment.	-

There are some other minor changes.

- The calculation of the volume of research will be based on research-active academic staff only, with research assistants and fellows no longer included (see 5.6.3.1).
- the Best 5* and Research Capability Funds tied to the previous ratings cease (see 5.6.3.5 and 5.6.3.7).

It is notable that the funding weightings are wider than for the RAE 2001, ranging from 1 to 8 compared with 1 to 4.036 previously. This balances the impact of the more detailed profile which permits a wider array of Departments to qualify and for small elements of high class research to be identified. Overall the Quality Research allocation is more widely distributed than in past years, with the number of universities earning 75% of the funding for 2009-10 increased from 22 to 26[2].

5.10.2 Research Excellence Framework

HEFCE is working to develop new arrangements for the assessment and funding of research, the Research Excellence Framework (REF). The full outline of the REF is due to be announced early in 2010, as the basis for an assessment in 2013 and application to funding in 2014-15.

Current commentary tends to portray the REF as a development of the RAE, emphasising its evolutionary nature. Some voices argue for a greater distinction from the RAE approach to rely much more extensively on metrics, arguing that this would be simpler.

On information available so far the REF is likely to use three main points of assessment:

- quality of research output, which largely reflects the objective of the RAE, but to include quantitative information such as bibliometrics to assist the analysis;
- the research environment such as research income and research students, which was used in 2008 to minor effect; and
- social and economic impact of research, which gives rise to the same debate Australia had when impact was to be part of the now abandoned Research Quality Framework.

[2] *THE* (Times Higher Education, 14 May 2009 "Structural Adjustments"

6 The Scottish funding system

6.1 *Main sources*

Joint Future Thinking Taskforce on Universities, *Taking forward New Horizons: responding to the challenges of the 21st century* Final Report, November 2008
http://www.scotland.gov.uk/Resource/Doc/82254/0069168.pdf

Scottish Funding Council, *Main grants in support of teaching and research for higher education institutions for academic year 2008-09*, March 2008 ,
www.sfc.ac.uk/information/info_circulars/sfc/2008/circulars_2008.html

Scottish Funding Council, *General Fund in support of teaching and research for higher education institutions for academic year 2009-10*, March 2009
http://www.sfc.ac.uk/information/info_circulars/sfc/2009/sfc1409/sfc14a2009_general_fund.html

Scottish Funding Council, *Horizon Fund for higher education institutions for academic year 2009-10*, March 2009
http://www.sfc.ac.uk/information/info_circulars/sfc/2009/sfc1409/sfc14b2009_horizon_fund.html

Scottish Funding Council, *Circular SFC/20/2008: Capital funding for higher education institutions 2008-11*,
http://www.sfc.ac.uk/information/info_circulars/sfc/2008/circulars_2008.html

Student Awards Agency for Scotland, *Student Support Information Guide 2008-09*,
www.saas.gov.uk

6.2 *Administrative base*

The Scottish funding system is primarily administered by the Scottish Funding Council (SFC), distributing the funding allocated by the Scottish national Government. Scottish universities also compete for UK wide funding from the Research Councils.

6.3 *Institutional base*

The Scottish university system is broadly based encompassing 15 universities and four other Higher Education Institutions with some Further Education Colleges also funded to provide specific higher education awards.

6.4 *Major policy directions*

The Scottish university sector developed through the late 20th century in step with developments in England as set out in the previous Chapter. The devolution of most policy responsibilities to the Scottish parliament from the United Kingdom (and English) parliament in 1999 included responsibility for higher education. However, major research funding through the research Councils remains a UK wide program.

The devolution of responsibilities to each of the UK's national parliaments has led to divergence in funding arrangements reflecting local issues and concerns.

The major difference is in relation to student fees. The Scottish parliament did not support the student fee arrangements in place in England at devolution nor has it supported introduction of the current English arrangements. Initially the Scots introduced a form of graduate tax in 2001 which was then rescinded in 2007. Scottish students remain liable for a fee but can apply for the fee to be paid for them by the Government (see 6.6 below).

The second major area of particular Scottish interest has been to strengthen the role of the Scottish universities and other higher education providers in supporting local economic development, associated with an especially strong focus on equity of access to higher education, noting that Scotland is, on average, one of the poorer regions of the UK.

Prior to 2009-10 this emphasis had not led to major changes in funding. Following a Government driven Joint Future Thinking Taskforce, which reported in November 2008, the Scottish Funding Council has moved to implement the Taskforce's proposed new arrangements. The broad structure is to be put in place from 2009-10, but the more consequential changes to be developed for implementation in later years.

This Chapter sets out the funding arrangements for 2008-09 and flags changes announced for the 2009-10 academic year, with the outcomes of the Taskforce then outlined in section 6.7 including use of the 2008 Research Assessment Exercise outcomes.

6.5 *University funding arrangements*

The Scottish Funding Council's (SFC) major funding allocations are set out in Table 6.1 below.

Table 6.1 Main elements of SFC funding (2008-09)

Higher Education Institutions Budget	**2008-09**		
	(£m)	**(£m)**	**%**
Teaching		892	74.2%
• SFC main grant	*662*		*55.1%*
• SFC other teaching	*28*		*2.3%*
• Tuition	*202*		*16.8%*
Research and Knowledge transfer		279	23.2%
Improvement		27	2.2%
Infrastructure		2	0.2%
Other		2	0.2%
Total Recurrent		**1202**	100.0%
Capital		87	

6.5.1 Teaching funding

The main allocation of teaching funding follows the common pattern of allocating students to a discipline based funding group (13 in Scotland). Each institution's base grant equals the number of planned EFT multiplied by the funding for the discipline group split between undergraduate and postgraduate. This produces 25 funding and accountability points (one group, Preclinical, does not have postgraduate enrolments). The SFC Grant equals the intended funding minus the assumed tuition fees paid by the students. This consumes £662 million.

The discipline groups, the funding weights and 2008-09 funding levels are at Table 6.2.

The SFC monitors delivery against different levels of tolerance according to the subject group.

- Controlled subject groups cover clinical subjects, education and conservatoire music. These places are precisely allocated to ensure desired graduate numbers. Universities must deliver within 3% of the target or face recovery of funds and adjustment of target.
- Non controlled subject areas are grouped into four:
    - undergraduate priority areas (sciences and cognate areas);
    - undergraduate non-priority areas;
    - postgraduate priority areas (sciences and cognate areas); and

- postgraduate non-priority areas.

The universities are expected to delivery at least 98.5% of the target for each of the four groups or be subject to claw back of funding. If the University over-delivers by more than 10% it is subject to a penalty equal to the assumed student fee income over the threshold. In effect there would be no additional income for those students.

To this base grant are added payments for:

- part-time students (£8 million) and part-time student fee waiver (£2.5 million). The allocation reflects the number of such students enrolled in each university. The fee waiver partly deals with the anomaly that the Government pays full-time students' fees but not part-time students' fees;

Table 6.2 Scotland: Units of teaching resource, 2008-09

Funding Group		Funding per EFT (£)		Relative weight		
		UG	PG	UG	PG	Status of places allocated to group
1	Clinical and Veterinary Practice	15,840	15,360	3.9	3.7	Controlled
2	Conservatoire Music	13,730	13,620	3.4	3.3	Controlled
3	Engineering and Technology	8,425	8,515	2.1	2.1	Non-controlled, priority
4	Science	8,050	8,090	2.0	2.0	Non-controlled, priority
5	Computing and Information Science	7,340	7,750	1.8	1.9	Non-controlled, priority
6	Pre-clinical	8,000	-	2.0	-	Controlled
7	Creative Arts and Hospitality	7,225	7,345	1.8	1.8	Non-controlled, non-priority
8	Education	7,420	7,085	1.8	1.7	Controlled
9	Other Health and Welfare	6,830	7,100	1.7	1.7	Nursing and Midwifery controlled; Others non-controlled, non-priority
10	Built Environment	6,415	6,435	1.6	1.6	Non-controlled, non-priority
11	Mathematics, Statistics and OR	5,425	5,485	1.3	1.3	Non-controlled, priority
12	Humanities, Languages and Business	4,920	4,980	1.2	1.2	Non-controlled, non-priority
13	Social Sciences	4,070	4,105	1.0	1.0	Non-controlled, non-priority

- widening access and retention (£10 million). These funds are allocated based on the relative deprivation of the home locations of each university's students. This creates some incentive to enrol students from areas less likely to produce university students and recognises the potential extra resource requirements to do so effectively;
- disabled students (£3 million). These funds are allocated in proportion to all students, subject to a base amount. There is thus no direct incentive to enrol students with a disability. However the right of such students to enrol is assumed such that the allocation recognises a general level of enrolment across the universities.

In addition small specialist institutions receive a supplementary grant to ensure sustainability for which £2 million is allocated.

6.5.2 Research funding

Table 6.3 sets out the main elements of research funding with the allocation for 2008-09.

Table 6.3 SFC research grants

Main research grants	**2008-09 (£m)**	
Quality research	198	71.0%
Research Development Foundation	3	1.1%
Strategic research development	24	8.6%
Research postgraduate	28	10.0%
Knowledge transfer	22	7.9%
Other	4	1.4%
Total	**279**	100.0%

The research funding is primarily allocated for assessed research quality based on the 2001 research assessment exercise (RAE). The Scottish system parallels the English but the actual funding amounts for each discipline are different. Most of the funding is initially allocated to each discipline cluster based on the number of staff, the relative costs of the discipline, and the relative quality of research as determined by the RAE. The remainder (£14 million in 2008-09) is allocated to each discipline according to the proportion of grant funds earned by each discipline from UK Charities which are a major source of research project funding.

Funds are then allocated to universities based on the number of staff in the discipline and their quality relative to staff in other institutions as shown by the RAE.

The weightings for the seven RAE ratings (including a special uplift 3a category for Departments not rated in the RAE before 2001) for 2008-09 are set out below.

Table 6.4 RAE ratings and weighting

RAE Rating	Weighting
1	0
2	0
3b	0
3a	0
^3a	1.00
4	1.53
5	3.28
5*	3.94

The cost factors used are:

- high-cost, laboratory-based subjects, given a weighting of 1.6;
- intermediate-cost, broadly-based subjects, given a weighting of 1.2; and
- low-cost, non-laboratory-based subjects, given a weighting of 1.0.

The other research elements are used to strengthen and support the research system more broadly:

- the strategic research development grant is used to support the development of research capability in areas of importance for Scotland, including encouragement of research pooling whereby the resources of the various Scottish universities are made available to all staff across the Scottish universities. This is particularly important for the newer universities but involves staff from all institutions. Funding is allocated for particular projects;
- research postgraduate funds are allocated based on relative enrolments, recognising that the cost of many research students are bound into larger research projects. A proportion of the funds is allocated to research studentships which are to be matched by the university;
- the Research Development Foundation targets institutions with less than 10% of total teaching and research income which is from research. The Foundation focuses on those areas within the university with weak RAE outcomes. Its intention is to encourage development of research capacity. It is allocated in proportion to external research revenue generated by Departments not funded through the main research quality allocation;
- the knowledge transfer element is to encourage better application of the research outcomes from Scottish university research covering both commercial and cultural activities. £21 million is allocated based on relevant income weighted as set out below.

A further £0.5 million is allocated to support cultural engagement allocated in proportion to the main education and research quality grants.

Table 6.5 Knowledge transfer activities and weighting

Activity	Weighting
Outreach	5.0
Enterprise schemes	4.0
Consultancy	3.5
Continuing professional development	2.5
Industry and UK central government bodies, local authorities, health and hospital authorities external research	2.25
Licensing	1.5
Venturing	1.0

6.5.3 Improvement and Infrastructure funding

These funds are used for sector development purposes, such as the development of web networks for sharing information, supporting mergers and other major institutional changes, and developing learning and teaching infrastructure. Hence institutions can access some of these funds for specific purposes depending on the annual priorities.

6.5.4 Capital funding

Capital funding combines a SFC allocation with funding from the UK wide science capital funding previously outlined for England.

- The SFC funding is allocated in proportion to an institution's share of the SFC's recurrent allocation.
- The Science Budget element is distributed in proportion to their three year average research income from Research Councils UK.
- The Science Budget transitional element is allocated in proportion to the difference between the Science Budget portion of their previous allocation and the Science Budget portion of the current round.

Estimates of total capital investment by the Scottish auditor and other sources indicate that the need for capital funds is significantly greater than the Government funds available. Universities are expected to develop priorities for use of funds consistent with institutional needs and Scottish Government priorities for learning and teaching infrastructure, collaboration, and for improving efficiencies.

6.6 Tuition fees and income support

6.6.1 Tuition fees

Full time undergraduate students are liable to pay an annual fee of £1,775 (£2,825 for medicine). Scottish and EU students are entitled to apply to the Student Awards Agency of Scotland to have their fees paid. This approach is a response to the different approaches to tuition fees in each country within the United Kingdom. If there were no fee then English, Welsh and Irish students enrolling in Scotland would also not be charged while Scottish students enrolling elsewhere in the UK would pay the local fee.

Fees for part-time students are not controlled. In calculating the Grant the part-time fee is assumed to be pro rata to the previous full-time fee of £1255.

Postgraduate fees are also not controlled. For funding purposes they are assumed to be £3315.

6.6.2 Income support

To support their living costs full-time Scottish students can access:

- an income tested loan, with income contingent repayment, using the same scheme as in England; and
- a bursary for very low income households which replaces part of the potential loan amount available.

6.7 Other Government research funding

The Scottish universities compete for the same funds as other UK universities – see 5.8 above. They earned £134 million in 2005-06, which was then 12.5% of total funding.

6.8 Accountability

The Scottish Funding Council primarily argues that internal use of funds is a university by university decision. Formally it requires teaching funding to be used for teaching and research funding for research. It also monitors the use of funds provided for studentships to ensure each university allocates those funds.

6.9 New Horizons

Over 2008 the Scottish Government commissioned the Joint Future Thinking Taskforce, comprising members from the Scottish Government, the Scottish Funding Council and Universities Scotland, to produce a proposal for the future of universities in Scotland. Its final report, *New Horizons,* was released in November 2008 along with a response from the Scottish Funding Council which set out initial implementation proposals.

New Horizons takes a very high level perspective focussed at how universities can contribute to the future development of Scotland. Its proposals for changes to funding arrangements come down to:

- grouping of all funding into two funds – a General Fund for Universities (GFU) and a Horizon Fund for Universities (HFU), with the first to provide basic operational funding for mainstream activity and the latter to provide incentive and start up funding targeting areas of concern or priority;
- a lighter touch for regulation focusing on key outcomes against Scottish Government national development targets, with universities gaining further freedoms to decide internal use of funds; and
- a Tripartite Advisory Group, of universities, Government and SFC which would in part replace the SFC's role as the formal provider of advice to the Government on higher education matters.

The SFC in its initial response and subsequently in its funding announcements for the 2009-10 academic year sets out how it plans to introduce the *New Horizon* changes. Initially the two fund structure is used but few detailed changes are made to the basis for allocating funds. These are to be developed for subsequent years.

6.9.1 The two funds

The SFC has taken up the proposal for the two broad funds. Funds are split between the two 89% to 11% including the allocation of additional funds for higher education committed in 2007 by the Scottish Government. The allocations are shown in Table 6.6. Funds for student tuition fees are allocated separately (£200 million in 2008-09).

Table 6.6 Allocation of Funding 2009-10: General Fund and Horizon Fund

	General Fund			**Horizon fund**			**All SFC funding**		
	Recurrent	*Capital*	*Total*	*Recurrent*	*Capital*	*Total*	*Recurrent*	*Capital*	*Total*
£M	£902	£80	**£982**	£112	£15	**£126**	£1,014	£95	**£1,108**
%	*89%*	*85%*	***89%***	*11%*	*15%*	***11%***	*100%*	*100%*	***100%***

6.9.2 The General Fund for Universities

The General Fund for Universities (GFU) provides the overarching Fund for the main teaching and research allocations.

6.9.2.1 GFU funds for teaching

The long term ambition is that the teaching funding allocation would reduce from 25 subgroups to perhaps four, with universities to have a single student target (possibly retaining specific targets or limits for medicine and teacher education). This is to be subject for further development. For 2009-10 only one funding group, conservatoire music, has been removed. Otherwise the calculation remains as for 2008-09 as set out in section 6.5.1.

The additional elements of funding for part-time students, access and retention and disabled students are moved to the Horizon Fund.

6.9.2.2 GFU funds for research

There are more significant changes to the allocation of research funding. The main Quality research element and the Research Development Foundation are brought together into a Research Excellence Grant and distributed based on the outcomes of the 2008 RAE. It is the availability of the 2008 assessment that appears to have driven the changes more than the creation of the GFU.

As described in section 5.10.1 the 2008 RAE provided quality profiles for each submission. The SFC has decided, in a significant change from previous Scottish and continued English practice, to allocate funding for all rated research including 1*. It argues that the 1* rating indicates research of high quality, albeit not at the much higher level required for the 3* or 4* rating. To retain the focus on rewarding international quality research the weightings are much higher for the 3* and 4* ratings. This is achieved by using a gradient based on the cube of the rating (1,2,3, or 4) divided by 8 to make a rating of 2 the base level of 1.

The cost factor remains as for the previous arrangements until the outcome of a UK wide cost review is complete.

Table 6.7 2008 RAE ratings and Scottish funding weighting

2008 RAE Rating	2009-10 weighting	
1*	0.125	($1^3/8$)
2*	1	($2^3/8$)
3*	3.375	($3^3/8$)
4*	8	($4^3/8$)

The SFC has also changed the volume measure to give greater weight to research assistants, research students, and research income each of which carries a weight of 0.15 (against a research active academic weighting of 1). This also contrasts with the English decision to limit the volume measure to research-active academics.

The research postgraduate funding arrangements remain as for 2008-09.

Most of the knowledge transfer grant is allocated through the Horizon Fund. A base payment of £70,000 per institution remains within the GFU.

The SFC, and the Scottish universities, are participants in the development of the Research Excellence Framework (REF) in England without being committed to adopt it or to use it in the same way as it will be applied in England. Hence the potential for further divergence between England and Scotland in this area of university funding is strong.

6.9.3 The Horizon Fund for Universities

The Horizon Fund for Universities (HFU) is to be a "catalyst for change". For 2009-10 it primarily brings under one head various current programs as outlined in section 6.5:

- employability and skills interventions: to support interaction with employers and work based skill development. It supports the part-time student funding element;
- access and progression, continuing the previous widening access and participation schemes and the funding for students with disabilities;
- world class research: to continue the strategic research development grant, support for overseas research students, and research support libraries;
- knowledge transfer and innovation: to continue the previous program while the funding metrics are reviewed;
- differentiation, diversity and specialisms: support for particular strengths of an institution and to ensure continuation of small but important courses, as well as some sector wide facilities and collections;
- sector wide capacity, with a focus on quality enhancement. The funding is primarily for sector-wide bodies such as the Quality Assurance Agency and for projects of the SFC; and
- collaboration, to support mergers and related activity among universities and other providers.

Existing funding commitments will be honoured consuming part of the HFU in its initial years. Over time the Fund will be support new priorities with previous foci built into the General Fund or discarded.

7 The Netherlands funding system

7.1 Main sources

P Boezerooy, E de Weert, *Higher Education in the Netherlands,* CHEPS, September 2007

S Marginson, T Weko, N Channon, T Luukkonen, J Oberg, *Netherlands,* OECD Reviews of Tertiary Education, 2008, http://www.oecd.org/dataoecd/24/31/38469224.pdf

J Jonge, J Berger, *OECD Thematic Review of Tertiary Education: The Netherlands*, August, 2006, http://www.oecd.org/dataoecd/39/18/37411491.pdf [background report for the Marginson *et al* study]

Netherlands Advisory Council for Science and Technology, *Paying for an asset: funding university research*, March 2005, http://www.awt.nl/?id=386

Ministry of Education, Culture and Science, *Key Figures 2003- 2007 Education Culture and Science*,

Ministry of Education, Culture and Science *The Education System in the Netherlands 2007*, November 2007 http://www.minocw.nl/documenten/en_2006_2007.pdf

Ministry of Education, Culture and Science, *Key Figures 2003- 2007 Education Culture and Science*, http://www.minocw.nl/documenten/Key_Figures_PDF.pdf

7.2 Administrative base

The Netherlands funding system is primarily administered by the Department of Education, Culture and Science. Funding for highly rated research projects is provided by the Netherlands Organisation for Scientific Research and the Royal Academy of Sciences.

7.3 Institutional base

The Netherlands higher education system is made up of two distinct types of institutions:

- 13 research-intensive universities (abbreviated in Dutch as WOs, labeled as 'universities' in this summary) with about 200,000 students (2006); and
- 42 universities of professional education, the hogescholen (HBOs), with only limited, but growing, research capacity, which have about 350,000 students (2006).

In addition there are various research centres associated with the universities and a number of private providers of bachelor degrees whose students are eligible for the same student grants and loans as students of the funded institutions.

The universities offer programs across the full range of disciplines and levels; the HBOs offer Government funded bachelor degrees and fee paying masters by coursework degrees. The relationship between the two has become more complex with the HBOs pushing for a larger role and more extensive involvement in research. The original descriptor of the HBOs as closely aligned to local and regional level needs was substantially lost when many were amalgamated into larger institutions. In the Netherlands industry and professional needs also tend to be country wide rather than specific to local or regional areas.

7.4 Major policy directions

The main issues for higher education development in the Netherlands echo those in many European countries. Public investment has been reasonably high with extensive support for individual living costs. As enrolments have grown in the move from elite to mass participation in higher education there have been challenges in relation to maintaining levels of investment, willingness of students to pay fees, and the need to deal with slow progress to graduation.

The Netherlands introduced a new approach to funding in 1987 which moved from funding particular lines of expenditure with close monitoring by the central funding body to providing a block grant which each institution is to use for its purposes as it thinks best. The block funding has elements for education and research, the latter not available to the HBOs.

Over the past decade the Netherlands have introduced the Bologna requirements for a bachelor-masters-doctoral progression in place of the previous long masters and then doctorate arrangements. This process has been well accepted within the Netherlands and effectively implemented.

7.5 Students and access to higher education

The Netherlands operates on the basis of streaming students after the first year of secondary schooling into three groups. The most academically competent enter a pathway targeting entry to university with some students choosing an HBO; the middle group are on track towards an HBO degree, with some achieving entry to university following a further year's study; and the third group are directed towards a trades or technical certificate following school. Over time the first two streams have grown, reaching 44% in 2006.

Notionally, once a student completes their schooling they are eligible to receive a place at university, HBO or technical training provider depending on the stream of schooling they completed. The Government has the capacity to limit enrolments in a discipline if it considers that the total number of graduates will far exceed

expected need for such graduates. Universities have some powers to limit the numbers enrolling in a course if it would put pressure on the quality of the education provided. This largely works in practice with demand for places able to be met and a very high proportion of those eligible for university or HBO going on (about 90%).

There have been debates about whether universities should be permitted to be more selective in whom they admit. However initial trials by the University of Leiden did not show a difference in first year performance between those commencing students deemed most academically able and the other students admitted.

The historical focus on pathways from school is also reflected in the assumption that students will graduate by the time they are thirty, with little allowance for older students. However, to meet the Government's very long term target that by 2050 50% of the labour force aged 25-44 will have a degree, it is likely that the capacity of the system to work with older students will need to be enhanced. Achievement of the target will it require many who initially follow a trades and technical pathway to then gain higher education qualifications.

In 2006 the Netherlands Government proposed to alter the funding arrangements to direct a set amount of funding via each student, allowing funding to move with the student. Part of the rationale was to respond to a fraud scandal where various institutions (mostly HBOs) were shown to have mis-claimed students. The student driven approach would reduce such options by requiring the student to validate the allocation of the money attached to him or her. While superficially similar to the fairly open access already in place the proposal would have both undermined the remaining historical allocations in the funding model and removed the outcomes based elements of funding tied to graduations. A change of Government saw this proposal lapse.

A subsequent Government statement of late 2007 affirmed a focus on associating funding with the quality of learning with a particular focus on reducing drop-out rates.

7.6 University funding arrangements

The Netherlands funding system for universities is comprised of a Government block grant with an education and a research component, student tuition fees, Government supported research grants, and externally funded research and additional education provision. The system is described as a Performance Based funding model.

An estimate of the major funding streams is set out in Table 7.1, drawn from the Netherlands statistical publication *Key figures 2003-2007,* which provides the overall levels of funding, and related data in the descriptive sources which breakdown the funding into component parts by proportion (%) more than actual amounts. The various sources provide similar but not fully consistent information.

Table 7.1 Major elements of Netherlands funding for higher education

	Universities		HBOs	
	€		€	
Block Grant			1774	67%
Teaching (1st stream)	1975	39%		
Research (1st stream)	1339	27%		
Tuition	502	10%	450	17%
Research Grants (2nd stream)	803	16%		
External funding				
Teaching (3rd stream)	100	2%	106	4%
Research (3rd stream)	301	6%	53	2%
Other			265	10%
Total	5020	100%	2647	100%

7.6.1 Education funding

Students up until age 30 are eligible for funding for the length of the bachelor degree plus two years, and, at universities, for a masters program.

7.6.1.1 University education funding

Education funding for the universities is made up of three items:

- 37% from a base institutional grant which roughly reflects size and history;
- 50% based on completions. Each completion is weighted for bachelor (2) or Masters (1) and by discipline reflecting the length of the course and the likely cost of provision; and
- 13% based on first year students. There are two funding levels to reflect cost differences.

Completions and commencing student numbers are based on a two year rolling average to smooth out changes.

The discipline groups and weighting are set out below in Table 7.2.

Table 7.2 Disciplines and funding weights

(i) Commencing students

Disciplines	Weight
Arts, humanities, law, social sciences, languages	Low
Science engineering, agriculture, medicine, dentistry, veterinary science	High

(ii) Student completions

Disciplines	Weight
Humanities and social science	1
Engineering and sciences	1.5
Medicine, dentistry, veterinary sciences	3

There is also a small funding element for facilities for veterinary sciences and dentistry.

The approach is structured to encourage the universities to ensure students complete their degrees, addressing the large number of students who previously were taking many years to complete. It is distinctive from the Anglo countries which remain tied to funding enrolled students. The policy has had some success with completion rates. However the data are complicated by the changes to a bachelor-masters progression as driven by the Bologna agreement. Access to a bachelor graduation point provides an earlier exit point which in itself enhances the potential for completion.

7.6.1.2 HBO education funding

The HBO funding is equal to:

- the number of students (full-time and part-time counted equally) multiplied by
- the funding weight (1 for courses with strong practical elements and 0.8 for the more social science courses) multiplied by
- the dynamic demand factor. The factor is
    - 1 where average completions are at the benchmark of 4.5 years and average drop outs are at the benchmark of 1.5 years;
    - less than one if the average periods are longer than the benchmark;
    - more than one if the average periods are less than the benchmark.

7.6.2 Research funding

Research funding for universities comes in three streams:

- part of the a block grant from the Ministry (about 50% of research income);
- funding for specific projects from the Netherlands Organisation for Scientific Research (NWO) and other bodies such as the Royal Academy of Sciences (20%);
- funding for specific projects from other Government departments and external sources including the EU (30%).

7.6.2.1 The research block grant

The research allocation from the Ministry is comprised of five elements:

- a base allocation (15% of the stream), derived from the number of bachelor and masters completions. This is intended to reflect the approximate size of the university and assumes a link between the education and research roles of the university;
- strategic considerations allocation, which is the largest element. It is based on historical allocations which have not varied significantly for some decades. The title of this element reflects an intention to redistribute the funds based on the performance assessment of university research output which has never been carried through;
- funding for PhD completions, weighted two for science based completions, weighted one for other disciplines;
- funding to encourage the establishment of research schools allocated in proportion to each university's funding from the first three categories; and
- funding for excellent research schools. This goes to six natural sciences research schools. Rather than extend the scheme further, additional funding was allocated to the NWO to distribute.

7.6.2.2 The relationship among the three research streams

The second and third streams tend to fund the direct costs of research only and often require matching funding from the university, notionally coming from the first stream. First stream funding has reduced from about 60% of university research funding to about 50%. This has caused considerable debate about loss of flexibility and control for universities to direct research due to the amount required to support projects funded in the second and third streams.

The universities complain that their flexibility to use the first stream to support their internal priorities is at risk. In contrast the Government has tended to move funding towards the second stream to strengthen a focus on research with short to medium term outcomes.

7.6.2.3 Research in the HBOs

The HBOs are largely not eligible for research funding but now receive some additional funding for a small number of staff with research duties and are beginning to gain access to research grants. The intended focus for the HBOs is the development of professional practice and knowledge transfer, roles consistent with their defined function. In traditional typologies of research the HBO are intended to focus on knowledge application. A key question is how to encourage such activity within HBOs without undermining the distinction between the HBOs and the universities. The alternative policy approach, adopted for example in Australia and the UK, is to allow the distinction to lapse.

7.6.3 Capital funding

In the mid 1990s the Netherlands built into the block grant the funding previously provided for capital needs. At the same time all building and lands used by the universities and HBOs was confirmed in their ownership, giving institutions control over the future use of their assets. There now appears to be no separate, specific funding support for capital redevelopment and development. Rather the universities and HBOs need to fund this from their recurrent resources.

7.7 Tuition fees and income support

Full time students to age 30 are required to pay a fee - €1519 in 2006. The fee for older students and part-time students is set by the institution. Masters students at HBOs are charged a full fee and no Government funding is provided for those places. In addition there is a small stream of international students and some industry funded students which provide additional income for university and particularly HBOs.

Students in the Netherlands have access to significant Government grants and loans to support the costs of studying:

- a base grant paid to all students (with a time limit to encourage progress);
- a supplementary grant for those from poorer backgrounds; and
- loans.

The grants become repayable (a loan) if the student does not complete at least 50% of their first year or the whole degree within ten years.

Dutch students can access the grants and loans for any approved higher education provider including the small private providers in the Netherlands and higher education institutions elsewhere in the European Union.

The repayment of loans is partly income contingent with any remaining amount unpaid expiring after 25 years.

8 Funding methodologies – a cross-country analysis

In this Chapter we provide a cross-country analysis of significant funding developments to identify common approaches, significant differences, and trends in funding policy development.

The Summary Table at Appendix two compares major elements of the funding arrangements in each of Australia, New Zealand, England, Scotland and the Netherlands. The following discussion highlights their implications.

8.1 The changing nature of the "university"

All of the countries analysed had in the 1980s a small to medium number of universities, which reflected the late 20th century conception of a university as an institution focussed on educating the most academically capable students combined with a strong research base. Over the 1990s this pattern changed in Australia, England and Scotland where a large number of other institutions offering degrees were given university status. In these countries access to university greatly widened and the notion of a university as an educational institution for only the most academically capable students was challenged.

New Zealand and the Netherlands have largely retained their original set of universities but have significantly increased enrolments. In the Netherlands a hard line is maintained distinguishing the universities from the HBOs. In New Zealand the polytechnics are able to offer bachelor degrees in competition with the universities but with a clear focus on immediate vocational outcomes.

The approach to universities as mass educators or selective educators has implications for the funding provided and the structure of that funding. The mass systems tend to have lower per head levels of funding and more funding mechanisms intended to ensure effective access to university by less advantaged social and racial groups.

8.2 Response to the global financial crisis

The financial and economic downturn which has affected most countries across the world since 2008 has forced Governments to consider their capacity to support education and research at previously planned levels. The Governments in the countries studied for this report have responded in differing ways.

In Australia and Scotland reviews were underway with the expectation of significant changes in support for higher education and the way in which that support was provided. Both countries have decided to pursue the directions recommended by their respective review processes – the Bradley *Review of Higher*

Education and the Cutler review of innovation policy in Australia; and the *New Horizons* report in Scotland. In both countries the changes encompass education and research.

In Australia the changes announced and much of the supporting increase in Government funding do not take full effect until 2012 such that it minimises immediate demand on Government finances but puts in place long term changes. In Scotland the Government had sketched out in 2007 the increases in funding. It has re-committed to the increase and begun from 2009-10 to reshape its approach to how those funds will support Scottish universities strengthen employment and industry.

In England there are more mixed messages. The Government's stated aims continue to emphasise the importance of higher education and research to maintaining a leading innovative economy. However, as part of Government wide expenditure restraint it has reduced some of the planned growth in higher education and set an overall efficiency reduction to be achieved across the sector which has raised concerns that the base unit of funding could be reduced. In doing so the Government has protected, 'ring fenced', major parts of research funding in the sciences, arguing that these are the core areas most crucial to the future. Resolution of these tensions may come through the Government's planned statement on higher education and research due in the British Autumn.

New Zealand has followed a path similar to that of England but with a stronger focus on expenditure restraint. Its changes are complicated by the change of Government with the new Government indicating that previous commitments for expanded funding were not budgeted for. While England has moderated planned growth in student numbers New Zealand will fund no additional students in coming years. However, like England it is continuing to invest in research funding.

There is no information available indicating changes in the Netherlands in response to the global financial problems.

8.3 The growing distinctiveness of research funding and policy

8.3.1 Creating specific research funding streams

A common feature across all countries is the emergence of research as a separately funded and discrete activity that absorbs a growing proportion of the total Government funding and overall revenue of universities. This development has typically involved the following three aspects.

First, a generalist block funding payment loosely based on historical payments and student numbers is divided into two streams one of which is explicitly for research.

The non-research element remains the larger but has an ambivalent role. In four countries this funding element is explicitly named to be for teaching or students. In Australia the Commonwealth Grant Scheme retains a broader role but is commonly assumed to be primarily teaching funding. The Australian terminology reflects that the non-research element provides a general funding block to support the operation of the institution. Hence the funding supports activities that encompass the ongoing maintenance of all aspects of the university, including some research support through staff salaries and most multi-purpose facilities.

In many of the countries the division of the block grant seems to have been driven by the integration of institutions of quite different levels of research intensity into one funding scheme. To ensure that research capacity is maintained without substantially increasing funding in general, the research block stream is split off so that it can be targeted at high quality research activity.

Second, funding allocated by research councils for specific projects, usually based on peer assessment of proposals, has grown much faster than the block funding amounts (both research block payments and block funding in total). The increase to research council allocations allows Governments to see more clearly how the additional funds are used.

Third, research funding is becoming integrated with broader concepts of innovation and its impact in improving economic outcomes. New programs have been created to encourage interaction between universities and business, industry and other potential users of research. In Australia the research aspects of universities are now the responsibility of an innovation and industry ministry distinct from the education portfolio. In England both elements have been joined with industry policy into one Department. In response to the economic downturn of 2008 the countries have tended to shield science and industry focused funding for research from any cutbacks.

8.3.2 The funding structure

The common funding structure across all five countries involves:

- a base funding amount for teaching and general university operation, driven by student numbers and discipline, that provides the main element of Government funding to the university. This funding is supported in all countries but Scotland by substantial student fee payments;
- a general research element, typically based on an assessment of the relative research performance of the university or sections of it; and
- dedicated research funding allocated by Research Councils for projects or particular research programs based on assessment of individual proposals usually by peer review, with growing support for research associated with industry and community needs.

The relative distribution across these three varies. Australia, England and Scotland are similar in allocating three to four times as much funding to teaching as to the general research element. New Zealand retains a much higher proportion for the base teaching funding stream, possibly reflecting the quite recent creation of its PBRF. By contrast, in the Netherlands the base teaching element is in a rough ratio of 3:2 to research. In part this reflects that much of the base degree education in the Netherlands is done by the HBOs.

The ratio of block research funding to research project funding also varies. Australia has a near equal balance of the two, but with the research council proportion having grown between 2000-01 to 2009-10 from 34% to 55%. Australia is thus heading in the direction of the UK and New Zealand where research project funding is near double the base research funding amount. The Netherlands is at the other extreme with the block funds two times the Government funded research project grants, but with the block funding proportion reducing.

8.3.3 Research and teaching: does one subsidise the other?

Through separating research funding from teaching and/or general funding questions arise about whether one or other activity is under-funded compared to the other such that universities cross-subsidise either teaching from research or research from teaching. The UGC has asked whether this is the case for Australia.

No simple answer is possible. The large research universities strongly argue that research council grants requires significant indirect expenditure from the universities which they could not meet from RIBG or other research funding streams. To a lesser degree they, and other universities, also argue that it is hard to charge industry full cost of research for commissioned projects when the Government's agencies do not fund in that way. The less research intensive universities face a different challenge. Recognising the importance of research to their profile they wish to increase research outputs and hence endeavour to support potential research niches and strengths where possible. Hence in Australia there is a reasonable case that most universities have needed to use their general revenue to sustain major research projects and the development of research capacity. Those revenues include use of the main Commonwealth Grant Scheme but also include the surplus from international student fees.

The Australian Government's plan to increase RIBG funding to 50% of research council grants and allocate roughly half based on actual indirect costs does much to address universities' concerns. In aiming at 50% the Government was using evidence from the UK about the appropriate level.

A subsidy from research to teaching is less likely. Most institutions track closely the basis on which research funding is won and look to use those funds to strengthen research outputs. However, such funding supports staff to deepen their knowledge which should be reflected in their teaching. Rather than a financial subsidy this is more an example of how teaching and research remain connected.

Evidence from PhillipsKPA's work with individual universities confirms that it is generally the case that positive returns from teaching activities, along with returns generated from commercial and other fee for service activities, subsidise losses incurred from research activities.

Impacts on Profitability

	Teaching	Research	Commercial/Other
Positive Impacts	Higher proportion of fee paying students Large scale programs Less laboratory intensive	Less competitive grant funded Activities with built-in return Less Laboratory intensive	Contract /Fee for Service Activities with built-in return Activities not requiring university subsidy
Negative Impacts	Smaller proportion of fee paying students Small course enrolments More laboratory intensive	More Competitive grant funded Activities without built-in return More laboratory intensive	Activities without built-in return Activity requiring university subsidy
Subsidy Flows			

The degree of financial impacts of teaching and research activities will vary depending on their nature, specific cost profiles and pricing. Previous work undertaken at one institution indicated teaching activities overall generated positive returns of around 20%, whereas research activities overall generated losses of around 40%. The profitability of teaching varied in this case with the concentration of international fee paying students across the institution, with returns being greater from international students compared with Commonwealth funded places. In general returns from undergraduate programs tended to be greater than from postgraduate programs, due to smaller enrolments in the latter.

Outcomes in relation to research activity can vary greatly, depending on the type of activity and the diversity of funding sources. Operating costs tend be higher in laboratory based areas, due to the costs of providing, supporting and maintaining the laboratories and related infrastructure. The mix of research funding sources is also important.

8.3.4 Research concentration

The focus of Governments on support for high quality research projects, university engagement with industry, and high quality researchers has created a debate about the extent of research concentration. The block grant systems in most countries have tended to strengthen research concentration over time, more than they have served to underpin the breadth of research capacity.

The response of the English and Scottish funding bodies to the 2008 RAE points to potentially different directions. Table 9.1 sets out the funding weighting each has given to the RAE ratings along with the New Zealand ratings. While only moderately different from England the Scottish decision to count 1* ratings for funding sends a message of support for breadth of research that out-weighs its actual funding impact.

Table 9.1 Research quality ratings and funding weightings

	England	**Scotland**		**New Zealand**	
Rating	Weighting			*Rating*	Weighting
*4**	7	8		*A*	5
*3**	3	3.375		*B*	3
*2**	1	1		*C*	1
*1**	0	0.125		*R*	0
Not rated	-	-			

8.4 Students: how many?

Each of the countries studied wishes to increase the proportion of its population with higher education qualifications. Some have set particular targets:

- the UK wishes to have 50% of 18 year olds commence a degree before they are 30 by 2010, a commitment being pursued in both England and Scotland (the target will not be met but the level of achievement has risen);
- Australia has set a target for 40% of those aged from 25 to 34 to have a degree or above by 2025; and
- the Netherlands is supportive of EU wide aspirations to raise participation levels and has a long term goal for 50% of the labour force aged between 25 and 44 to have a bachelor degree by 2050.

To achieve higher levels of participation four countries currently follow a pattern of a central Government body allocating places to each institution and funding for those places. New Zealand has tried and backed away from a student entitlement approach where the Government would fund any student which an institution enrols. New Zealand's experience was that it successfully expanded enrolments but

raised questions about the quality of provision such that it returned to a more controlled system. Australia has now decided to take up a similar approach from 2012 through funding universities for all enrolments.

The Netherlands has an implied entitlement for school leavers to access a suitable level of post school education or training which, backed by funding partly based on commencing student numbers, appears to provide sufficient places.

8.5 The basis for calculating teaching funding

The standard base for calculating funding is the course which a student is studying. For New Zealand, England and Scotland the large majority of funding is tied to enrolments, expressed as a full-time equivalents, per course. For the Netherlands funding is tied to student commencements and student graduation by course and avoids a full-time equivalent calculation.

Australia is distinct by funding for each subject of study rather than the course such that an individual student may bring funding from multiple funding bands. While seemingly more complex this approach reflects the multiple ways in which students complete courses and removes any need for the funding system to determine rules about part-time rather than full-time students.

8.5.1 Discipline funding relativities

Each system allocates teaching funding at varying rates for different disciplines. The relativity between the discipline funding rates shows some consistency across countries with the highest funding rate being about 3 times the least in Australia, England, Scotland and the Netherlands. The position is similar in New Zealand but it has three high cost but small groups for medicine and dentistry which have weightings of more than 4. The order of the distribution of disciplines is also similar working up from social science, humanities, through sciences, the science based professions, to clinical courses.

The systems are quite diverse in the number of funding bands used (including standard student charges where variable):

Netherlands	3
England	4
Australia	12 (to become 10)
Scotland	13 (intent to reduce substantially)
New Zealand	16

The difference appears based in history, with no clear evidence to demonstrate that any one model is more effective than the others.

8.5.2 Distinguishing pre-clinical medicine for funding purposes

A particular question has been raised by the UGC about distinguishing between clinical and pre-clinical stages in medicine for funding purposes. This is done in England and Scotland with the first two years of the course usually considered pre-clinical. NZ distinguishes different years in the medical degree, with the first year funded as science and differential rates for the 2nd to 3rdth and 4thth to 6th years. Neither Australia nor the Netherlands do so, funding all medicine at the highest rate.

Comparisons are difficult due to the range of potential contributors to medical education, in particular how teaching hospitals are funded. In Australia there was until recently a separate, additional line of funding for teaching hospitals. That line of funding has now been absorbed into a higher per student funding rate for medicine. It is important to recall that in the Australian case funding is by the unit studied by the student not the overall degree. To the extent that medical students take more general science units as part of the early stages of their degree, the funding (and student charge) would be at the relevant science rate.

The changing design of some medical courses has brought clinical experiences into the early part of degree programs making a pre-clinical distinction less useful. To the extent that funding should generally not drive course design a clinical/pre-clinical distinction could interfere with the appropriate academic development of medical education.

The question goes to the approximate nature of the funding schemes. In Australia, and likely other countries, it is expected that the cost of first year courses will be less per student than for later year courses, mostly driven by larger class sizes in earlier years. Universities use the quantum of funding received to support the whole course.

8.6 Student payments

The countries analysed present quite different approaches to the question of tuition fees.

Over the decade from the late 1980s each country introduced a student fee based on the argument that students should make a contribution to the cost of their education due to the extensive personal benefit each would accrue from a degree. The Netherlands retains a single charge per student along these lines. Australia modified this approach from 1997-2004 to set three fees according to the discipline of each unit.

England and Australia now have a system whereby the university sets the charge from zero up to a capped amount (one cap in England; four in Australia, three from 2010). Almost all universities in both countries charge the maximum in all cases such that no real price competition has emerged. This has led some commentators to

argue that the maximum levels should be set much higher or should be removed altogether.

New Zealand initially allowed universities to set the fee at any level but later moved to set a cap on the fee and to control annual fee increases. The changes were in response to concerns about the amount of debt students were accruing (from loans taken out to pay the fee).

Once responsibility for higher education devolved to the Scottish Parliament it acted to remove student fees. To do this, and avoid English students enrolling in Scotland for free, it left the fee in place and created a body to pay the fee for Scottish students. There is no evidence of change in cross country enrolment England to Scotland or vice versa due to the different fee regimes, supporting the general evidence that students work with fee arrangements to achieve the education outcomes they require.

Overall the charging of students has not led to a market based purchase of higher education by students, other than for some periods in New Zealand. Rather student charges have been a question of two factors:

- reducing the pressure on Government revenue through sharing the costs of higher education with the major users; and
- equity between students and non-students through reducing the subsidy the latter make to the former. As the proportion of the population enrolling grows this rationale loses some of its force.

The Australian Government intends to remove the limits on the number of student places it will fund, but will continue to cap student charges. It is thus establishing the opportunity for students to choose among universities based on students' individual assessment of the value of the courses offered, but not on price. The change does however, leave the way open for future Governments to alter the rules for student charges.

8.7 Access for disadvantaged groups

This is major issue in Australia, England, Scotland and New Zealand. Each system devotes much energy and some resources to ways to balance the mix of students with a focus on addressing economic disadvantage (and Indigenous disadvantage in Australia and New Zealand). The Netherlands is now also introducing measures focused at enrolment by migrant groups which have lower levels of higher education attainment.

8.8 Capital funding

Each system has a means of providing usually minor amounts towards general infrastructure and facilities development and renewal. These programs are intended to be additional to investment from the base teaching grant. Australia and the Netherlands explicitly rolled significant capital funding into the base grant during the 1990s to give each institution full control over the use of these funds. Other programs for supporting infrastructure have tended to target major science and research needs rather than the general facilities of the institution.

In all countries there is a strong view that the base arrangements have led to under investment in university infrastructure and facilities, a result of institutions not devoting sufficient resources to this element of expenditure and an overall under provision of funding. Both England and Scotland have looked to increase the capital funding allocation and make it more predictable for each institution allowing for better longer term planning. Australia has recently introduced a major capital works fund to support major (re)developments. The funding is allocated on a competitive, project by project basis. However, for fiscal reasons, the new New Zealand Government has cancelled a proposed infrastructure program,

8.9 Role of non-Government funding

In each of Australia, England, Scotland and New Zealand a significant part of revenue comes from three non-Government revenue sources: international student fees, business driven research and consultancy, and domestic student fees for non-Government funded postgraduate courses. The Netherlands is seeking to expand its international student enrolments and also has considerable business and related investment in its universities.

The ability to enrol substantial numbers of full fee paying students provides a major means for universities to maintain courses and staff by generating extra revenue and creating economies of scale. Fees from international and postgraduate students effectively provide a cross subsidy to support the education of Government funded students. Similarly, in some cases fully costed research undertaken for industry helps sustain research staff and the growth of positions which are research only. These income streams thus reduce the pressure on Government funding to provide in full the resources required for university teaching and research.

9 The extent of performance-based funding

A particular focus of the project brief is the extent to which funding systems in the countries analysed use performance-based funding to drive outcomes. This Chapter first summarises use of such arrangements country by country then considers the impact of performance funding elements.

Performance-based funding is a means for Governments to influence how universities operate and the priorities they set without becoming closely involved in the operation of universities or tracking of expenditure. It is thus linked to the common position of the funding bodies that the majority of funds are provided as a block for institutions to use as they think best. This is the approach in Australia, England, Scotland and Netherlands. New Zealand has strongest set of specific requirements specifying the purposes for which funds may and may not be used.

9.1 Australia

Current funding arrangements combine a largely input driven Commonwealth Grant Scheme allocation with some significant programs focussed on assessments of performance – the Learning and Teaching Performance Fund, the research block grant programs, and the research project funding streams. The value of each of the assessments is subject to question but the intent of rewarding the performance of the institution in teaching and research is clear.

The new direction set down by the Government will significantly increase the performance based elements of the Australian funding arrangements. Once fully in place from 2012, Australia's universities will be subject to three significant performance pressures:

- demand driven base teaching and learning funding requires universities to attract students in competition with other institutions or risk losing their funding base;
- an additional funding element tied to enrolment of students from poorer backgrounds. This requires universities to reach out to people who currently have limited aspirations for university or consider it beyond their capacity; and
- a second new funding element directly tied to each university's performance against institution specific learning and teaching targets.

Research funding will continue to be fully performance-based and principally targeted at high performance researchers. There will continue to be a mix of competitive project grants allocated primarily through peer review, and formula based block grants allocated according to a range of performance criteria. The precise mechanism will be determined as the Government's Excellence in Research for Australia initiative develops.

9.2 New Zealand

Performance based funding in New Zealand is concentrated in research funding allocations which are based on assessments of the quality of previous work and on peer review of the potential for particular projects.

The position for teaching and learning is fluid. The existing policy for University Investment Plans is an attempt to strengthen the connection between largely formulaic allocations, based on the main cost drivers of students by discipline, and the outcomes to be achieved. Each university is required to agree in advance the particular outcomes to be achieved, creating a formal means for review of performance.

The new Government has flagged that it wishes to change this focus through restoring student demand driven performance pressures.

9.3 England

The most recent formal guide to HEFCE, from the previous Minister John Denham, urged more use of contestable funding. That suggestion did not specify how this might be done and included support for continuation of a large block grant amount. Interpretation in England tended to assume this statement meant an increase to streams of funding directed at achievement of particular outcomes. However, it would be possible for HEFCE to tie more of the block grant to the overall performance of institutions against various measures.

Currently the use of performance based funding is focused in the English system on the distribution of funding for research almost all of which is tied to the outcomes of the Research Assessment Exercise or the competitive scrutiny of individual research projects.

In the teaching and learning allocations the main teaching grant is adjusted each year to take account of whether students completed their study the previous year. In addition the various targeted allocation programs reward the enrolment and retention of certain types of students. The latter comprise about 8% of the teaching allocation, a significant amount (compare the Australian proposal for 6.5% of funding tied to access and learning and teaching performance).

Together the arrangements put pressure on universities to focus on supporting students through the year while avoiding an over-emphasis on pass rates that could cause a lowering of the requirement for passing.

9.4 Scotland

Performance based funding in Scotland is concentrated in research funding allocations which are based on assessments of the quality of previous work and on peer review of the potential for particular projects. Learning and teaching funding is largely driven by student numbers.

The New Horizons changes are intended to strengthen the connection between largely formulaic allocations, based on the main cost drivers of students by discipline, and the outcomes being achieved. Each university would be asked to show how its decisions on use of funding have advanced Scottish Government objectives. The real extent to which Scotland links funds to performance in this way, and what impact it has, will not be known for another year or two.

9.5 Netherlands

The Dutch describe their funding system as performance based funding. However, both the education and research block allocation containing a sizeable element reflecting historic allocations. The historical allocations remain under scrutiny but no changes are evident.

In other regards the system has significant performance based elements:

- 50% of education funding is derived from graduation numbers with a further 13% tied to commencing student enrolments, notionally reflecting public perceptions of the value of the university's course;
- part of the research block grant is allocated for research student completions;
- an increasing proportion of research funding is allocated for projects on a competitive basis; and
- student grants require satisfactory progress in year 1 and completion with ten years or the grant becomes repayable.

The focus on completions has been successful in stimulating a change of expectation with Dutch universities and among their students but is not without its critics. There have been arguments that the system is encouraging lower standards through easy passes but there is no real evidence either way.

9.6 The different uses of performance based funding

The above analysis indicates that Governments have put in place, or propose to use, three main types of performance funding schemes.

First, in creating distinct research funding streams, Governments across four countries have tied allocations to measures of research quality or research outputs. The impact has been clear – in all countries research activity has increased with a strong focus on the measures used. In the UK the proportion of assessments classified to the highest levels of the RAE rose, leading to the profile based ratings used in 2008. In Australia universities increased external research income and research publications substantially. Research councils in each country continue to receive applications for funding for credible projects well in excess of available funding.

Debate is now more focused on the precise means to measure research performance. In Scotland and England the strongly qualitative peer assessment is under pressure from arguments to make better use of quantitative information. In Australia, which uses quantitative indicators, the debate has centred on how to focus better on the quality of the research. Both countries appeared to be heading for a similar mix of qualitative and quantitative measures but recently a drift back towards the respective current arrangements is apparent in public discussion of the new arrangements in both the United Kingdom and Australia.

Second, New Zealand, Scotland and Australia have all considered use of Government to university agreements which specify targets, outcomes, and measures as the basis for receipt of funding. The New Zealand process is most advanced but has yet to have much impact. The Scottish and Australian proposals have yet to be worked through. The challenge will be to what extent such agreements can lead change and, where necessary, reduce payments through lack of progress rather than reflect what an institution was already likely to achieve.

Third, teaching funding can be tied to student inputs and outcomes – their enrolment, achievements and progression. New Zealand used such an approach to drive a rapid expansion in enrolments during the 1990s and into this decade. The Netherlands used it to improve completion rates and timeliness. Both cases were successful but each has raised concerns about the quality of the education being provided. These concerns are not necessarily well founded but point to the need for such arrangements to be associated with quality assurance measures that work.

England's widening participation and related funding streams have had some success in shifting the balance of enrolments to include a broader set of students, consistent with the Government's aims.

Australia is proposing to introduce student demand driven funding, and has announced a major shake-up of quality assurance arrangements as part of the changes. Based on other examples it is likely to support growth in enrolments,

including from the target priority groups, but the broader impacts remain to be seen.

Australia also intends to continue to tie some funding to performance in teaching and learning. As noted in Chapter 2, the consensus is the Learning and Teaching Performance Fund was successful in enhancing the focus on teaching and learning within universities. Every university is now committing more time and resources to learning and teaching to achieve improvements and most have instituted internal performance reward systems. However the Learning and Teaching Performance Fund was criticised for the lack of reliability and validity of the measures used and their inadequacy in comparing the performance of different types of universities. For these reasons the Fund is to be replaced by a system of performance targets developed for each individual university as part of university to Government agreements or 'compacts'.

Overall the concept of funding tied to university performance, whether assessed by Governments or demonstrated in the market place through enrolment demand from students, has become more prevalent. However, each country has developed its own systems of performance based funding. There is no single 'right' approach or a clear world-wide trend which other countries should or could follow. Rather, the various options taken up each have their rationale, which need to be tested against the local needs and policy priorities.

Appendix One: Step by step summaries of the calculation of annual recurrent funding

The following sections provide a summary of the steps involved in calculating the main grant paid to universities in each country as described in the Chapters two, four, five, six and seven.

Australia

1. Determine major splits of funding for allocation

    1.1. Australian Government determines the funding available for each program element and updates legislation and guidelines

2. Determine base education funding per institution

    2.1. DEEWR works with each university to determine the planned EFT for each discipline group for undergraduate places and postgraduate places, the EFT for enabling students, and the number of medical places

    2.2. The planned EFT are multiplied by the relevant funding tariff to determine the standard education funding for the university

    2.3. Add the regional loading component

    2.4. Make adjustments for outcomes of previous year (recovery due to under provision; payment of additional funding for over provision)

3. Add equity payments

    3.1. DEEWR analyses data returns on students to determine allocations for

        3.1.1. general equity program

        3.1.2. disabled students

        3.1.3. Indigenous students

4. Add payments for other programs

    4.1. Diversity and Structural Reform

    4.2. National Institutes

    4.3. Superannuation

    4.4. Support for professional experience for students of education degrees

    4.5. Transitional costs

5. Add learning and teaching performance fund allocation

    5.1. DEEWR analyses data for each indicator to rank universities and assess standing compared with other universities

    5.2. Minister determines allocation based on rankings

6. Add research block grant payments

    6.1. DIISR analyses the relevant indicators to determine the university by university allocations for:

        6.1.1. Institutional Grant Scheme

        6.1.2. Research Training Scheme

        6.1.3. Research Infrastructure Block Grant

        6.1.4. Regional Protection Scheme.

New Zealand

1. Determine major splits of funding for allocation

    1.1. New Zealand Government determines overall funding available to the TEC for distribution

    1.2. New Zealand Government provides its priorities and guidance to the TEC

    1.3. TEC allocates funding across various programs and determines maximum places for funding in high costs courses

2. Agree University Investment Plan

    2.1. A three yearly exercise to agree the university's major deliverables including the balance of students across disciplines and levels

3. Determine Student Achievement Component (SAC)

    3.1. The planned EFT are multiplied by the relevant funding tariff for the discipline and level of course

    3.2. Where required adjust for under provision in previous year

4. Determine Tertiary Education Organisation (TEO) component

    4.1. base payment which equals SAC by 11.57% (to become institution specific from 2011)

    4.2. add equity loading for Maori and Pacific Islander students

    4.3. add loading for students with a disability

    4.4. calculate Performance Based Research Funding

        4.4.1. Outcomes of academic staff research quality assessment, with factors for discipline costs

        4.4.2. postgraduate student completions

        4.4.3. external research income

    4.5. add any Priorities for change funds as agreed in Investment Plan

    4.6. add Strategic Directions funding as agreed in Investment Plan

5. Add SAC and TEO to determine TEC funding for the year

England

1. Determine major splits of funding for allocation and funding rates

    1.1. UK Government determines overall funding available to HEFCE for distribution

    1.2. UK Government provides its priorities and guidance to the HEFCE

    1.3. HEFCE allocates funding across various programs, taking account of previous statements and triennium commitments

    1.4. Against Government targets and funding, including any specific discipline level requirements, HEFCE works with each university to determine the planned EFT for each discipline group and level of study

    1.5. the funding per weighted EFT is determined based on available funds divided by the total weighted student load

2. Determine the standard resource per institution

    2.1. The planned EFT are multiplied by the relevant funding tariff to determine the standard resource for the university

    2.2. Apply the London weighting where applicable

3. Determine the assumed resource per institution

    3.1. The previous year's grant and assumed fee income is indexed and

        3.1.1. adjusted for outcomes of the previous year where necessary

        3.1.2. adjusted for any additional places

4. The assumed resource is compared with the standard resource

    4.1. If it is within 95% to 105% of the standard resource the assumed resource is the due revenue for the current year

    4.2. If it is not within those bounds adjustments are made to the EFT base or to the funding amount to bring it within the allowed limits.

5. The base teaching funding is the final assumed resource less assumed fee income

6. Add access and other minor payments
    6.1. students from disadvantaged areas
    6.2. retention of students
    6.3. disabled students
    6.4. foundation degrees
    6.5. part-time undergraduates
    6.6. accelerated and intensive provision
    6.7. old and historic buildings
    6.8. institution specific payments
    6.9. non eligible students in strategically important and vulnerable subjects
7. Determine mainstream quality related research funding
    7.1. Determine allocation of funding across the 68 discipline groups by volume and discipline cost weights
    7.2. Allocate discipline funding to universities based on number of staff for that discipline and the relative quality of their research
8. Determine other research related funding
    8.1. research degree supervision
    8.2. charity support
    8.3. business research
    8.4. best 5* departments
    8.5. London research costs allowance
    8.6. research capability fund
9. Determine funding from 4th round of support for business and community engagement

Scotland

1. Determine major splits of funding for allocation

    1.1. Scottish Government determines overall funding available to the SFC for distribution

    1.2. Scottish Government provides its priorities and guidance to the SFC

    1.3. SFC allocates funding across various programs

2. Determine base education funding per institution

    2.1. SFC determines the number of places needed in controlled subjects and broad expectation for places to be provided

    2.2. SFC works with each university to determine the planned EFT for each discipline group for undergraduate places and for postgraduate places

    2.3. The planned EFT are multiplied by the relevant funding tariff to determine the standard education funding for the university

    2.4. Deduct assumed fee income

    2.5. Make adjustments for outcomes of previous year (recovery due to under provision; recovery of fees for overprovision)

3. Add access and other minor payments

    3.1. part-time students and part-time student waiver

    3.2. widening access and retention

    3.3. disabled students

    3.4. specialist institutions supplementary grant

4. Determine research quality funding

    4.1. Determine allocation of funding across the 68 discipline groups

        4.1.1. Charities element based on relative proportion of revenue from charities

        4.1.2. Main research quality funding based on discipline level staff numbers, relative cost of research and relative quality of research

    4.2. Allocate discipline funding to Departments within universities based on number of staff and relative quality of their research

5. Add other research funding elements

    5.1. strategic research development

    5.2. research postgraduates

    5.3. research development foundation

    5.4. knowledge transfer

The Netherlands

1. Determine major splits of funding for allocation

    1.1. Netherlands Government determines overall funding available for distribution

    1.2. Department of Education, Culture and Science allocates funding across various programs

2. Determine education block grant per institution

    2.1. Adjust base grant for annual increase

    2.2. Calculate graduate completions' average for previous two years and multiply by funding rates

    2.3. Calculate commencing students' average for previous two years and multiply by funding rates

    2.4. Add facilities funding for veterinary science and dentistry

3. Determine research block grant funding per institution

    3.1. Calculate base allocation from the number of completions for bachelor and masters

    3.2. Add Strategic Considerations allocation, as adjusted from previous year

    3.3. Add funding for PhD completions, weighted for science/non science

    3.4. Add research school funding, in proportion to 3.1 to 3.3 funding

    3.5. Add funding for previously determined excellent research schools

4. Combine education and research block grants to determine funding for the year

Appendix Two: Comparison of funding elements and approaches

	Australia	New Zealand	England	Scotland	The Netherlands
Separation of base teaching and research funding	Yes	Yes	Yes	Yes	Yes
National target for participation or graduates	40% of 25-34 cohort to have a degree or above by 2025 (current estimate is 32%)	Raise participation levels	50% participation of 18 yr olds before turning 30	Raise participation levels	50% of labour force aged 25-44 have bachelor degrees by 2050
Number of funded students: limits?	Yes but to open up from 2012	Yes; targeted to assessed needs of which student demand is only one factor. Previously open	Yes, targeted central allocations to achieve expansion	Yes, targeted central allocations to achieve expansion	No but Government has capacity to limit numbers to prevent oversupply of discipline.
Student entitlement/limits to individual access to funded place	The current entitlement of standard 7 EFT years plus top up is to be removed with no limits to accessing a Government funded place.	No	Support limited to gaining award of higher level than any previous award	No	Successful completion of schooling entitles access to the linked higher education or vocational stream. Funding limited to length of course plus two years, with student grants and loans subject to ten year limit.

Funding for Teaching

	Australia	New Zealand	England	Scotland	The Netherlands
Base unit of teaching funding	Student's subject	Student's course	Student's course	Student's course	Student's course
Allocation of base teaching funds	Students by discipline	Students by discipline by level; institution supplement	Students by discipline by level	Students by discipline by level – proposal to simplify removing level and fewer discipline groups	Base funding, commencing students by discipline; graduates by disciplines
Funding tolerance band	1% under; 5% over (rising to 10% in 2010). No limits or floors to funding from 2012	3% above or below base teaching funding	5% of resource	Within 3% for controlled fields; up to -1.5% for others; recovery of tuition fee for 110% plus	No
Performance funding for education	Learning and Teaching Performance Fund. 2.5% of funding to be tied to performance from 2012	No	No	No	Graduate numbers part of funding formula. Student grant converts to loan if student not successful.
Regional loadings	Yes, for students at rural campuses; set to be restructured	No	Yes for London (2 zones)	No	No
Equity funding	Yes	Yes	Yes	Yes	To support migrant access
Disability funding	Yes, by share of disabled students	Yes, by share of all students	Yes, by share of all students	Yes, by share of all students	No

Students

	Australia	New Zealand	England	Scotland	The Netherlands
Student age	Does not affect funding; minor difference for income support	No difference	No difference	No difference	Students over 30 not eligible for funded place nor grants or loans
Part time students	Funding and fees based on enrolled units not courses; usually not eligible for income support and scholarships	Funding proportionate to enrolment; fees not controlled but usually proportionate to full-time	Funding proportionate to enrolment; fees not controlled but usually proportionate to full-time	Funding proportionate to enrolment fees not controlled but usually proportionate to full-time	University funding paid for enrolment and graduation; HBO funding counts full-time and part-time equally; fees not controlled
Student fees for Government funded students	Yes by subject by discipline Income contingent loan	Yes by course Income contingent loan, no interest if remain in New Zealand	Yes, by course but effectively set to single maximum Income contingent loan	No in effect Government pays formal fee	Yes No direct grant or loan for fee
Student income support	Targeted to low and middle incomes with high education scholarships	Student allowance for low income students. Income contingent loan, no interest if remain in New Zealand	Low income grant; income contingent loan	Low income grant; income contingent loan	Grant with low income supplement; additional loans repayable over income threshold

Research

	Australia	New Zealand	England	Scotland	The Netherlands
Base research funding	Yes, based on extent of research activity, with a more qualitative assessment to be developed	Yes, based on extent and quality of research activity	Yes based on quality of research	Yes based on quality and extent of research activity	Yes, based on history and student numbers
Research Council funding for projects	Yes	Yes	Yes	Yes	Yes
Funding for engagement with business, industry, community	No	Yes	Yes	Yes	Small programs
Separate capital funding in addition to base grants	Major fund plus smaller projects funding	Small projects	Small projects	Small projects	Built into base funding
Use of institutional agreements	Formal funding agreements; to be replaced by 'Compacts' that reflect research foci and specific learning and teaching performance targets	Detailed agreed plans as basis for funding. Now under review.	No	Proposal for Outcome Agreements as basis for future simplified funding arrangements	No

Appendix Three: Student numbers by country

	Australia (2007)		New Zealand (2007)		All UK (2006-07)		England, Wales, Northern Ireland (2006-07)		Scotland (2006-07)		Netherlands (2007)	
	Number	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
All students	1,029,846	100%	170,183	100%	2,306,105	100%	2,104,155	100%	201,950	100%	211,400	100%
Domestic Students	756,747	73%	146,931	86%	2,076,465	90%	1,898,436	90%	178,029	88%		
International Students	273,099	27%	23,252	14%	229,640	10%	205,719	10%	23,921	12%		
Undergraduate	720,003	70%	152,533	90%	1,804,970	78%	1,653,508	79%	151,463	75%		
Postgraduate	278,257	27%	17,278	10%	501,135	22%	450,648	21%	50,488	25%		

Notes:

- For the UK international student numbers refer to Non-European Union students only
- Data on England is usually provided as part of UK wide data. Comparable Scottish data is available from the SFC and Universities Scotland. Hence data for England, Wales and Northern Ireland has been derived to represent England.