

# Policy reform, performance-based funding and performance agreements in thirteen counties

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**Report for the Dutch Ministry of Education, Culture and Science”**

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Harry de Boer & Ben Jongbloed

i.c.w. Paul Benneworth, Katharina Lemmens-Krug, Andrea Kottmann, Hans Vossensteyn, Leon Cremonini, and Renze Kolster

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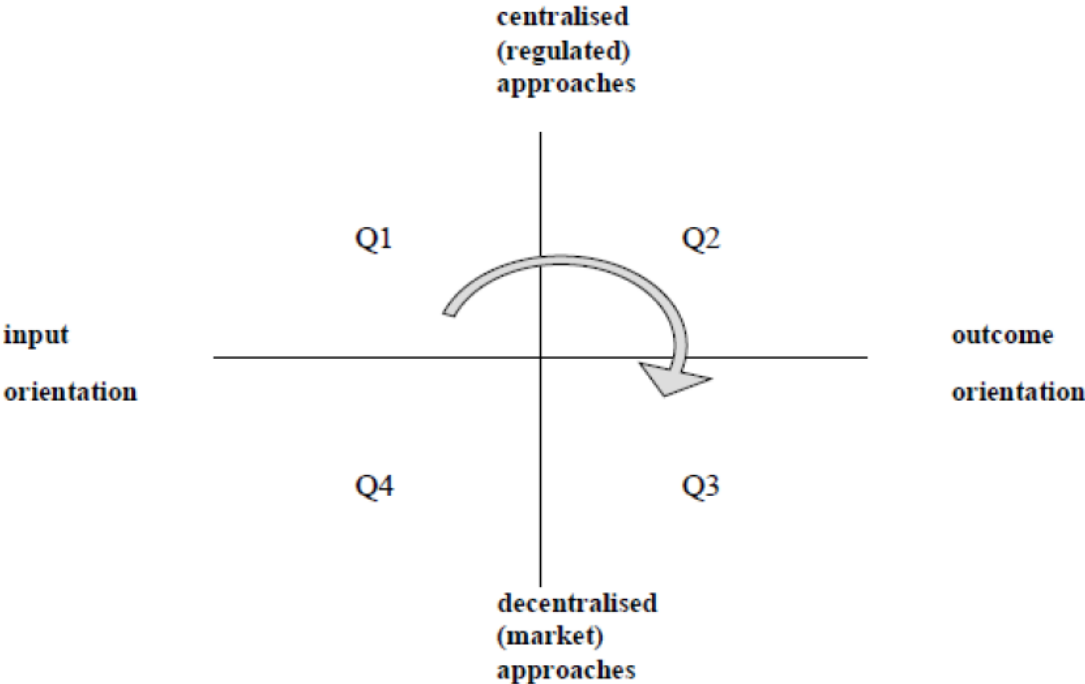
# Policy reform, performance-based funding and performance agreements in thirteen counties

## Introduction

Higher education systems are constantly in flux, and while much is changing governments remain a key player in system steering – the sheer number of government-initiated reforms in the last decade underline the presence of the government in governing higher education systems. Governments are progressively rethinking the size and shape of higher education systems and calling into question the sustainability of current funding models. They are, among other things, changing the nature and form in which funding is provided to universities. Funding is increasingly subject to conditions for its allocation or accompanied with growing accountability requirements.

Public funding mechanisms can be used to embed important incentives to achieve higher education’s three main goals, namely quality, efficiency and equity. Funding modes and funding models not only serve to allocate resources for given ends, they are increasingly being used as governance or management tools (e.g. accountability). Changes in funding mechanisms (illustrated in figure 1) constitute a central package of measures related to public management reforms, and often go hand in hand with changes to other steering instruments.

Figure 1: Classifying funding mechanisms based on degree of outcome orientation and degree of regulation.



One of the key issues in the European Commission's Modernisation Agenda (EC, 2011) on strengthening universities is to make Higher Education funding more effective in order to handle the challenges currently confronting higher education systems. Prominent in the discussion on the funding of higher education is the issue of whether or not to establish a more direct link between the performance of individual HE institutions and the amount of public funding they receive. Within this context, funding mechanisms would have to encourage HE institutions to focus efforts on their individual strengths. This implies funding targeted to the different institutional profiles. The belief is that effective higher education policies should permit some universities to do a few things very well, rather than having them all do a lot of things only reasonably well. The following quote from the Modernisation Agenda is illustrative:

*Europe needs a wide diversity of higher education institutions, and each must pursue excellence in line with its mission and strategic priorities. With more transparent information about the specific profile and performance of individual institutions, policymakers will be in a better position to develop effective higher education strategies and institutions will find it easier to build on their strengths. (European Commission)*

Thus, the tools governments use to steer higher education systems such as funding are changing – modernised is the term that comes to mind. At the same time, traditional mechanisms partly remain in place. It is the blend, and not the replacement of old by new steering devices that pictures the current governance and funding of higher education systems best. Performance-based funding and performance agreements are clear examples of 'new' instruments from the governments toolkit, aiming to govern better rather than govern less. Information on these new blends – what do they look like and how do they work out – is fragmented and rather thin.

To explore this issue this report will present an overview of the state of the art w.r.t. performance-based funding and performance agreements in a number of countries. Our study is conducted for the Dutch Ministry of Education, Culture and Science. It is envisaged to feed into the Dutch higher education debate around profiling and the current experiment carried out with respect to the use of performance agreements in the funding of higher education institutions (HEIs). The study is carried out over the period July through November 2014. In this paper we describe in brush strokes the policy context, the public funding model, the performance indicators used in these models and the performance contracts between the HEIs and the state in thirteen higher education systems. The countries selected for this interim report have in one way or another gone through a process to stimulate quality, diversity, profiling or performance agreements. The countries provide a variety of perspectives and insights about policies, objectives and experiences w.r.t. improving performance and profiling in HE.

The higher education systems selected for this study are:

1. United States – various states, e.g. Tennessee: Performance-based funding (1979)
2. Australia: Mission-based compacts (2011)
3. Germany – various states, e.g. Northrhine Westfalia: Ziel- und Leistungsvereinbarungen (late 1990s)
4. Hong Kong: Performance and Role-related Funding Scheme (2005)
5. Ireland: Structural system change (2012); Institutional Profiles
6. Denmark: University Development Contracts (2007)
7. Finland: Performance Contracts (1994)
8. Netherlands: Performance Contracts (2012)
9. Austria: Leistungsvereinbarungen (2002)

10. Scotland: Outcome Agreements (2012)
11. England: Research Evaluation Framework (2014) (replacing the RAE)

### *Preliminary observations – bullet points and for discussion*

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- The number of changes in public funding models – introducing or rethinking performance incentives in allocating public funds – is overwhelming. There is hardly any country where (substantial) change has not taken place in the last five years.
- While we would argue that PBF and PA are relatively new, some countries already have many years of experience (e.g. United States, Finland, or Germany (NRW)). However, also in these experienced countries the models of PBF and PA have been changed on a regular basis.
- PBF and PA seem to have an ‘experimental character’ – in many countries the funding systems are adapted one round after the other. Evaluation and feedback lead to frequent adaptations.
- The variation of PBF and PA is enormous – every country has its own variant. There is variety in:
  - **Length**, although multiannual contracts are dominant, PBF and PA vary from two-year to six-year contracts. Time span considered to be important for stability.
  - **Content** (e.g. topics addressed and level of detail) – there are for example contracts in which intentions are formulated and contracts in which agreed activities or performances are specified in detail.
  - **Volume and balance** between input-based and output-based funding – ranging from models in which 100% is based on performance to others where the performance-based part is far less.
  - **Use / selection of performance indicators** and their relative weights.
  - **Orientation**: performances may apply to the whole sector or performance agreements may differ from one institution to the other (e.g. ‘menu-approach’)
  - **Process**: developing guidelines, drafting contracts, data processing, reporting, evaluating outcomes vary in time and actor involvement (‘dialogue’ character)
  - **Objectives**: The government or system goals to be achieved by means of PBF or PA differ greatly:
    - Increase university performance in terms of productivity (e.g. increased attainment levels)
    - Increase transparency
    - Increase accountability (demonstrating results – output, outcome or impact) for building public trust, legitimacy
    - Differentiation and institutional profiling – better serve a diversified clientele, or create system stratification (excellence)
    - Stressing national strategic goals – explicit funding for or agreements on achieving specific national priorities and linked to the national agenda

In the remainder of this paper we present the policy context, the funding model, the performance-based indicators and the performance agreements for each of the selected countries.

The Austrian higher education system has three types of institutions: public universities (including art and music), universities of applied science (UAS) and private institutions. The system has undergone several changes in the last decade, related to the constant change of the political landscape as well as to the implementation of the University Act 2002. This Act marks a turning point in Austrian higher education: universities received full legal autonomy under public law, university autonomy was enhanced in several respects and the funding model was completely changed. Since then, the funding model has been altered several times.

In 2012, almost 74% of university income came from the state budget. In the period 2007 – 2012 the funding model has been adapted several times. The public budget consists of two components: the basic grant (80%) and a formula-based grant (20%). In 2012, the formula-based grant was replaced by the so-called *Hochschulraum-Strukturmittel*, aimed to be more transparent, focus stronger on increasing student numbers and allow for a sufficient funding of teaching and learning.

The funding component *Hochschulraum-Strukturmittel* is based on five indicators:

- Number of enrolled and active students (60% of this component) active students are those that achieve 16 ECTS annually and spent at least 8 hours per week on their study. As regards this indicator discipline is taken into account (there are seven disciplines distinguished)
- The number of graduates (10% of the component)
- Revenues generated from third party funding (14% of the component). This refers to research and services conducted for the European Union, the national and local governments, the Austrian research council, and private foundations.
- Revenues generated from private donations (2% of the component)
- Funding of cooperation (14% of the component). This part is allocated through competition: university can apply for project funding aiming to strengthen collaboration in teaching and research. Particular project that contribute to the establishment of excellent cluster are focussed on.

The basic grant, 80% of the public operational grant, is based on a three year performance agreement between each university and the ministry that regulates the plans and achievements of a university and the financial obligations of the ministry. The ministry draws the guidelines for the preparation of the agreements, then the universities prepare a draft agreement, that is in turn negotiated with the ministry. The strategic issues for the 2013/15 agreements were: improvement of study conditions, transparency, institutional profiling and strategic priority setting, strategies for research infrastructure, intensified collaboration and more internationalisation and mobility.

In the performance agreements universities have to address: the strategic goals and profile, research, advancement and the appreciation of the arts, teaching and training, policies to reduce student drop

outs, improvements of student/staff ratios, part-time studies and special offers for working students, societal needs (knowledge transfer), strengthening of international orientation and mobility of staff and students, cooperation with other universities, definition of indicators that allow to measure the achievement of the performance agreement.

The performance agreements are comprehensive contracts; the performance agreement between the ministry and the university of Graz (2013-2015 for example is a 116 page document. The performance agreements are evaluated on needs, demands, performance and societal needs/social goals. When a university underperforms, the ministry and the university will investigate the reasons for this and these outcomes may have consequences for the next performance agreement.

There are plans to change the funding system (again) after 2015. The critique, in general terms, on the current Austrian performance-based funding model is that it is insufficiently transparent (because of an over-complex system of indicators), and that it does not adequately respond to the need of increasing student numbers.

### *Denmark*

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In the last decade several reforms have been implemented in the Danish higher education system: an increase of the public budget for research (from 0,75 GDP in 2005 to 1,05 GDP in 2011), there have been (imposed) mergers in the system, the internal governance system of universities has been 'modernised', a new system of quality assurance has been introduced, (more) financial incentives to enhance performance in education and in research have been introduced, and performance agreements, based on a dialogue between the state and the universities, have been introduced. The reforms aimed to improve quality, increase productivity, and enhance efficiency. Moreover, they also intended to sharpen the international profile of the universities. The reforms are also related to the Globalisation Strategy. In 2006, the globalisation council, chaired by the prime minister, developed a strategy that aimed to 1) link the basic public funding of universities more directly to quality and performance, 2) increase participation rates in higher education from 45% to 50% and increase student completion time, 3) double the number of PhD graduates and stimulate internationalisation, 4) introduce an accreditation system in Danish higher education. The strategy was accompanied by a substantial budget.

Approximately 90% of the university funds come from the state. The allocation model has two major components: one for education and one for research. In general terms, about 29% of the state budget is performance-based funding for education, 31% are basic grants for research, 33% is competitive research funding, and 7% other (libraries, musea, interests, etc).

The performance based funding for education is based on the taximeter system. It is based on output control in the form of funding allocated on the basis of the students' academic activity measured in terms of exams passed. Different types of rates (teaching, field practice, joint expenses and building taximeter) are combined in one education rate in the taximeter scheme. Next, the universities may receive a completion bonus that is based on students' study duration. The universities therefore receive a subsidy that is based on passed exams (91%) and a bonus if students complete their studies in time (completion bonus – 9%).

The basic grants for research partly are historically conditioned (estimate 50%) and fixed according to 'incremental budgeting' and there also are performance based allocation principles (estimate 30%). And 20% stems from increased investments in PhD-programmes. The distribution of the performance based part of the research fund (the restructuring fund and a new basic grant) is based on:

- 45% allocated proportionally on the basis of educational activities – apart from the subsidy for teaching through the taximeter scheme, universities receive money for research based on their educational activities;
- 20% allocated proportionally on the basis of the amount of research financed by external parties
- 25% allocated proportionally on the basis of bibliometric research indicators (where they follow the Norwegian system)
- 10% allocated proportionally on the basis of the number of graduated PhDs.

Apart from the basic grants for research there are competitive grants for research (Danish Research Council, private companies, the EU's research programmes, etc).

In 1999, bilateral agreements between the individual university and the ministry were introduced. At the moment, there is the fourth generation of development contracts. Over the years, there has been a shift from 'comprehensive strategic plans' to 'selective mission-based contracts'. The number of agreements laid down in the contract has diminished (to improve the effectiveness). The agreed objectives have become 'smarter', more specified with outspoken targets and ways of measuring and monitoring. The current development contracts ( 2012-2014) have a maximum number of ten goals per institution, some indicated . These goals must be 'smart' (specified) and should aim at the university's profile, some through the intercession of the minister, others by the university.

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### *Finland*

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### *Germany: North-rhine Westphalia*

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In the last fifteen years several reforms have been implemented in the higher education sector of NRW that are laid down in several higher education Acts (2000, 2004 en 2007). The 2007 Act intended to enhance institutional autonomy to make the NRW system more competitive (internationally) and to encourage institutions to develop distinctive profiles. A more differentiated system is one of the main aims. A process that among others things in affected by the well-known Excellence Initiative.

At the moment the NRW ministry has proposed a new Bill. According to the ministry the enhanced institutional autonomy has positively contributed to the performance of the system, but at the same time it perceives some downsides. The NRW institutions do not only compete with institutions from other (German) states, but also among each other ('cannibalism'). Moreover, they do not pay enough attention to the national goals. Therefore, the new Bill proposes to diminish the institutional autonomy – a change that is welcomed by the academics (that say to suffer from micro-management of institutional leadership) but certainly not by institutional leadership.

The 2006 *Hochschulfreiheitgesetz* (section 6) stipulates the funding model. Public funding is provided by the ministry through performance agreements (*'Ziel- und Leistungsvereinbarungen'*). In the beginning for 2014 fifth round for performance agreements has started and will cover the years 2014 and 2015.

The public grant consists of two parts: the basic grant (app. 77% in 2013) and a performance-related grant (23% in 2013). The performance budget differs for universities and universities of applied sciences (UAS). The performance budget consists of indicators in three performance areas. Half of the performance for universities consists of the numbers of graduates; for UAS this is 75%. The number of graduates is weighted by discipline, study length, and degree type. The second part of the performance budget concerns third party income; this makes 40% of the performance budget of universities and 15% for UAS. As regards third party income different weights are attached based on discipline (distinctions between humanities and social sciences, sciences, and engineering). Also external income earned by the central level of the universities are part of this performance component. The third component of the performance budget concerns gender distribution of professorships. This component (*'Gleichstellung'*, percentage of female (junior) professors) makes up 10% of the performance budget.

The ministry signs a target and performance agreement with each of the institutions. This agreement deals with research, teaching, gender issues, internationalisation, and institutional profiling and the multiannual financial public budget. The multiannual character is meant to contribute to stability and predictability. The table of contents of the fourth generation of agreements is the same for all the institutions.<sup>1</sup> On average it contains about forty pages with both general as well as concrete agreements. The topics covered are: institutional profile, public budget, teaching (number of student per discipline, *Hochschulpakt*<sup>2</sup> agreements, quality assurance, capacity teacher training, supply for 'non-traditional' students), research (a.o. collaboration, profiling, PhDs, third party research), valorisation, (a.o. patenting, collaboration), gender issues, internationalisation (a.o. collaboration, mobility of students and staff), pathways with upper secondary education, infrastructure and delivery of information and data.

### *Hong Kong*

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### *Ireland*

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The National Strategy for Higher Education to 2030, which was launched in 2011 (the "Hunt report"), will see the transformation of Ireland's higher education sector over the next two decades. Endorsed by Government as the future blueprint for the sector, the Strategy sets out changes for the sector that are aimed at providing for:

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<sup>1</sup> The concluded target and performance agreements can be found here:

<http://www.wissenschaft.nrw.de/hochschule/hochschulen-in-nrw/ziel-und-leistungsvereinbarungen/>

<sup>2</sup> The number of (potential) enrolments has doubled for some years because of a structural change in the system of upper secondary education. To regulate this substantial but incidental increase the *Hochschulpakt* (I en II) has been established, by means of bilateral contracts that are part of the target and performance agreements.



- A more flexible system, with a greater choice of provision and modes of learning for an increasingly diverse cohort of students;
- Improvements in the quality of the student experience, the quality of teaching and learning and the relevance of learning outcomes; and
- Ensuring that higher education connects more effectively with wider social, economic and enterprise needs through its staff, the quality of its graduates, the relevance of its programmes, the quality of its research and its ability to translate that into high value jobs and real benefits for society.

In May 2013 the Minister for Education and Skills announced a major re-organisation of the country's higher education sector. This announcement followed recommendations made by the Higher Education Authority (HEA) on system reconfiguration, inter-institutional collaboration and system governance in Irish higher education<sup>3</sup>. The system configuration should include:

- Regional clusters to bring together higher education institutions in a region in such a way that the contribution of higher education to the region can be identified and provided for in a coordinated way, in partnership with other education providers, and with business interests and with the wider community
- Universities, in particular relating to significant proposed collaboration and alliances, enhanced collaboration within regional and thematic clusters as well as through systematic rationalisation of provision on a thematic basis
- Proposals for the establishment of technological universities from the merger of institutes of technology<sup>4</sup>.
- Strategic alliances among institutes of technology
- Changes relating to teacher education
- Changes relating to the creative arts and media in Dublin
- Changes relating to institutions funded by the Department of Education and Skills

The public higher education funding model in Ireland has three major components: institutional funding, capital funding, and research funding. The institutional funding component is subdivided in three parts:

- an annual recurrent grant, consisting of a formula-based core grant and a grant to cover undergraduate fees. The core grant is based on student numbers, weighted in four price groups, and adjusted for underrepresented groups, and adjusted for research (5% of the core grant is top-sliced and redistributed on the basis of research degrees awarded and contract research income per academic staff)

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<sup>3</sup> See: [http://9thlevel.ie/wp-content/uploads/International\\_Panel\\_Report.pdf](http://9thlevel.ie/wp-content/uploads/International_Panel_Report.pdf) and <http://www.education.ie/en/Publications/Policy-Reports/HEA-Report-to-the-Minister-for-Education-and-Skills-on-Irish-higher-education.pdf>, particularly pp. 20 ff., and

<sup>4</sup> In 2014 The Minister for Education and Skills, Ruairí Quinn T.D. announced the publication of the Heads of a Bill which will allow for the future establishment of Technological Universities and the mergers of institutes of technology. The Bill provides the legislative underpinning for institutes of technology who have established partnerships and wish to merge, with a view to becoming Technological Universities. The General Scheme Technological Universities Bill is available at <http://www.education.ie/en/The-Education-System/Legislation/General-Scheme-Technological-Universities-Bill-2014.pdf>

- performance related funding, introduced in 2014, which is supposed to cover 10% of the annual core grant and will be linked to performance by HEIs in delivering on national objectives set for the sector
- targeted or strategic funding, which supports national strategic priorities and which may be allocated to institutions on a competitive basis.

The second component of the Irish funding model concerns capital funding and refers to infrastructure and facilities. The Research Funding, the third component of the funding model, comprises funds for buildings and equipment and research programmes.

As the result of the Hunt report a new system performance framework was recently put in place by the HEA. Part of this is that the HEA is entering into a set of individual institutional performance compacts with higher education institutions which will reflect each institution's contribution as part of a new higher education system designed to respond to the needs of Ireland's economy and wider society in the coming years. A key element in the overall approach will be the implementation of performance funding in the sector<sup>5</sup>.

There are seven Key System Objectives defined by the Minister for Education and Skills for 2014-2016. These overarching objectives are then defined according to measurable high-level indicators and monitoring indicators, and the sources for the measurement of such indicators. Each institution has entered into a compact with the HEA, undertaking how it will contribute to national objectives from the position of its particular mission and strengths. For example, all higher education institutions are participating in the establishment of clusters, agreeing governance arrangements and adopting the initial two national objectives for regional clusters in their individual compacts with the HEA<sup>6</sup>. The compacts provide for how performance is to be measured and a proportion of funding will in future years be contingent on performance<sup>7</sup>.

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#### *United Kingdom: England*

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#### *United Kingdom: Scotland*

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The government's strategic agenda for Scottish higher education focuses on the following principles: open access to all students qualified, flexibility in provisions to meet the diverse needs of students and business, a learner centred funding system based on transparency and access, diversity in the missions of universities and colleges with a focus on areas where they excel, quality and excellence a key determinant aspects within any activity area, strife for international recognition, and organise strong, properly governed institutions that are financially stable aiming for innovation and a high level of

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<sup>5</sup> See: QQI Self-Evaluation Report, P. 11, available at:

<http://www.qqi.ie/Downloads/self%20eval%20reports/self%20evaluation%20report%20March%202014.pdf>

<sup>6</sup> See: HEA (2014). Higher Education System Performance First report 2014 -2016.Report of The Higher Education Authority to the Minister for Education and Skills. At:

[http://www.heai.ie/sites/default/files/final\\_system\\_report.pdf](http://www.heai.ie/sites/default/files/final_system_report.pdf), p.23

<sup>7</sup> See: HEA (2014). Higher Education System Performance First report 2014 -2016.Report of The Higher Education Authority to the Minister for Education and Skills. At:

[http://www.heai.ie/sites/default/files/final\\_system\\_report.pdf](http://www.heai.ie/sites/default/files/final_system_report.pdf), p. 7

collaboration. One of the measures to make the system more efficient (to reduce managerial overheads and overlap in provision as well as to better align post-16 learning with jobs and growth) concerns organisational mergers in the college sector along the lines of the 13 Scottish regions. Universities together with Scottish Funding Council have looked to reduce overlaps in provision.

Another outcome of the process towards “building a smarter future” for Scotland was to initiate a simplification of the funding system as it was unresponsive to the changing needs of demography, was driven by historical patterns, had no performance incentives and was unnecessarily complicated. SFC funding should take into account the regional needs as well as a ‘simple’ link between the funding allocated and the outcomes to be delivered in return.

The annual SFC budget for the colleges accounts for about 73% of colleges’ overall income (excluding bursaries and other student support funds). The remaining 27% stems from tuition fees, education contracts and other revenues. The funding model for colleges is mainly a historical funding formula based on targeted numbers of WSUMS (Weighted Student Units of Measurement) with a price per course.

The overall public budget for universities is allocated by three major components:

- The teaching grant (app. 60% of the government grant), mainly funding the number a study places (using different price categories)
- The Research and Knowledge exchange grant (app. 25%), composed of the research excellence grant, the research postgraduate grant and knowledge exchange grants.
- Strategic projects, capital, equipment and innovation grants (app. 15%)

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11

The teaching grants are allocated to universities on the basis of Full-Time Equivalent (FTE) Students distributed over 12 different funding groups using in total 6 different funding tariffs. SFC sets annual targets of FTE students to be taught and if they meet this target plus or minus 5% they will receive the agreed budget allocation. Otherwise their budget may be reduced (or increased) respectively.

Universities’ research funding consists of three main sources:

- A block grant given by the Scottish Funding Council (in 2013-2014 about £264 million, see table above);
- External research income competitively awarded from the UK-wide Research Councils, National Academies, foundations and international sources (£610 million in 2011-2013; about 14% of what all UK HEIs won and representing about 22% of total university revenues);
- External knowledge exchange income from business, industry, patenting, etc. (£387 in 2011-2012).

Outcome agreements, a three year commitment between the SFC and individual HEIs have been introduced as a key process in delivering and demonstrating universities’ impact from Scotland’s public investment in the sector. In September 2011, following a Ministerial Letter of Guidance, the SFC developed its approach to outcome agreements. During the spring and summer of 2012 it then worked with all HEIs to develop a first set of agreements. Whilst discussions allowed for exploration of the whole of institutions’ missions, and the diversity of missions across the sector as a whole, in this first year there was a common, consistent focus on Ministerial priorities including:

- access for people from the widest possible range of backgrounds;
- efficiency of the learner journey and improved retention;
- improved university and industry collaboration and the exploitation of research;
- equality and diversity;
- the coherence of the pattern of provision, and;
- the entrepreneurial and employability skills of graduates.

In 2014-2015 there were four main areas in which institutions defined their aspirations and achievements: opportunity, innovation, graduates employable & enterprising, and sustainable institutions. Within these areas universities have defined their indicators and achievements. In the area of ‘opportunity’ for example the following indicators have been chosen: admission targets for students from articulation routes, increase participation in evening degree programmes, development of a contextual admission systems for particular postcode students, university-college collaboration projects with HND<sup>8</sup> graduates, or the offering of fully funded student places for target students.

### *United States of America: Tennessee*

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In 2010, a comprehensive reform agenda was presented that seeks to transform public higher education through changes in academic, fiscal and administrative policies at the state and institutional level. At the centre of these reforms is a widening access agenda, while also acknowledging the state's diminished funding capacity to support higher education. The overarching goal of the 2010-15 Public Agenda for Tennessee Higher Education is to have Tennessee meet the projected national average in educational attainment by 2025. The primary state policy levers for addressing the state’s educational needs include promoting: (1) productivity and efficiency through an outcomes-based funding formula; (2) quality assurance through revised performance funding standards; (3) economic and workforce development through responses to a study of labour market supply and demand; (4) efficiency and effectiveness through purposeful reporting; (5) efficiencies through mission and sector differentiation; (6) efficiencies through inter-institutional collaboration and reduced duplication; and (7) efficiencies through incentives for extramural support<sup>9</sup>.

Prior to 2010, Tennessee had a higher education funding model that allocated approximately 60% of state money based on institutional enrolments. At the time it was concluded that the performance-base of the model had little impact on altering institutional behaviour. For this reason Tennessee overhauled its formula, and designed 100% output-based funding scheme, rewarding institutions for the production of outcomes that further the educational attainment and productivity of goals of the Tennessee master plan. The outcomes are weighted according to institutional mission. It is known as the most aggressive US performance-based funding model.

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<sup>8</sup> A Higher National Diploma (HND) is a qualification that is considered equivalent to the second year of a three year university (hons) degree course. It is a semi vocational / semiprofessional qualification, usually studied full-time, in 2 to 3 academic years’ time.

<sup>9</sup> See for example the “History” and “current Context” sections in the annual THEC Fact Books

The 2010-2015 funding model, that employs two similar but distinct funding formulae for universities and community colleges, has two major components.<sup>10</sup> Firstly, the funding formula based on institutional productivity outcomes, and secondly, the performance funding based on annual targets for quality enhancement. To start with the latter: universities can earn up to an additional 5.45% of their “funding based on productivity outcomes”, when they do well in comparison with other universities (benchmark) on additional performance funding program metrics set by the state. For the 2010-2015 the state set metrics relate to ‘learning and engagement’ (75%) and ‘access and success’ (25%). These metrics include issues such as course assessments, job placements, an student satisfaction.

The funding formulae based on institutional outcomes include the following indicators: student progression (24, 48 and 72 credit hours), number of degrees (Ad, Ba, Ma, and doctoral), student transfers, research/grant funding, degrees per 100 student FTE, and graduation rate. For some indicators a premium can be earned (based on low-income and adult students). Next, the outcomes are weighted to reflect institutional mission (based on Carnegie classification); a high research doctoral university gets different weights than a master’s medium university. Next, the total weighted outcome per institution is monetised by multiplying the values with average faculty salaries (based on Carnegie classification). Finally, the fixed costs for maintenance, operation and the like are calculated and added.

#### *United States of America: Louisiana*

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The 2011 master plan for higher education in Louisiana, established by the Board of regents, mentions three main goals: raising educational attainment of Louisiana’s adult population to 42% by 2025, invest in research to sustain and expand the State’s economic development, and increased efficiency and accountability in the higher education sector. These goals were among other reviews the result of the recommendations of the Postsecondary review Commission (PERC) that suggested to remove barriers to college completion and workforce entrance, realise efficiencies, and establish stable funding levels. The economic recession ended a period of growth in public funding, leaving institutions to increase their revenues from private sources, such as tuition fees. In light of this funding context the GRAD Act was adopted in 2010. The GRAD Act, a key component to attain the master plan’s goals, intends to encourage institutions to increase the graduation and retention rates and align the study programmes with the workforce needs through a performance funding model.

In 2014, Louisiana adopted the Workforce and Innovation for a Stronger Economy (WISE) Fund to strategically align new investments in higher education with the workforce needs. These funds are available to “research institutions that produce nationally recognized commercial research and colleges and universities that partner with private industries to produce graduates in high demand degrees and certificates that enable them to link their coursework to industry needs and projected workforce demands.”<sup>11</sup> To receive the funds institutions must match 20% of the desired fund with private resources. WISE funds are allocated independently from other higher education funds.

In 1997, the Board of Regents introduced a funding model that contained several performance indicators, but in ‘these early days’ the funding was largely based on enrolments. After several

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<sup>10</sup> We will focus here on universities.

<sup>11</sup> <http://www.lsu.edu/ur/ocur/lsunews/MediaCenter/News/2014/06/item70592.html> (accessed 07-08-2014).

revisions, in 2008/09 the funding model had a core funding component (75%) and a performance component (25%). Currently, Louisiana funds the HEIs using a formula with two components: *cost* and *performance*. The cost component governs core, general and operations funding and comprises 75% of the total funding. This covers instruction, faculty and student academic support and administration. The cost level is calculated by multiplying completed student credit hours by a discipline and level cost matrix. For each institution, the resulting credit hour cost matrix is multiplied by a rate based on their average faculty salary. Thirty per cent is added on for academic support services. Operations and maintenance is calculated at \$6.75 per gross square foot with a modest premium on penalty based on ratio of academic and support square foot to FTE enrolment.

The performance component uses metrics aligned with the Louisiana GRAD Act whose objectives are student access, articulation and transfer, workforce and economic development, and institutional efficiency and accountability. Each performance objective is comprised of a series of “elements” or sub-goals. Housed under each element is a series of quantitative measures.<sup>12</sup> These measurements are categorized as:

- Targeted: Specific short- and long-term measures. Institutions must have baseline data, annual benchmarks and six-year targets. Institutions report annual progress on measures.
- Tracked: Measurements requiring baseline and actual data must be reported in the first two years. These will be converted in “targeted” measures in years three through six.
- Descriptive: These measures do not require annual benchmarks and targets. However, institutions are required to submit baseline and actual data via annual reports.

The performance indicators that are used are: number of graduates (29%), number of graduates with an undergraduate degree 25 years and older (9%), number of graduates by race (9%), number of graduates PELL recipients (8.5%), transfer to/from institutions with associate degree (2%), transfer to/from institution with more than or equal to 30 hours (2%), number of graduates in SYEM/health workforce (29.5%), research and development (9%), and workforce training (2%).

14

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As a consequence of the GRAD Act in 2010, in 2011 the Board of Regents entered into six-year agreements with the institutions to develop long-term performance goals and measure progress. Thirty institutions concluded such performance agreements with the Board of Regents. The performance agreements establish annual performance targets that are unique to each institution’s mission and based on the objectives in the GRAD Act. The contract allows institutions to annually increase tuition by up to 10 per cent in exchange for meeting performance targets.

#### *United States of America: South Carolina*

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South Carolina was one of the first states to introduce performance funding in its public higher education sector. It is also one of the examples of performance funding models that have been abandoned.

*The 1996-2002 funding model.* The Commission on Higher Education (CHE) developed a funding model that allocates 100% of the state funding to performances by the public institutions. This funding model

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<sup>12</sup>

consisted of nine success factors and 37 attached indicators. The success factors were: mission focus, quality of facility, instructional quality, institutional cooperation and collaboration, administrative efficiency, entrance requirements, graduates' achievements, user-friendliness of institution, and research funding (Dougherty et al., 2010). Data on the indicators was to be collected by the institutions, and submitted to the CHE. In turn, CHE would apply the funding formula on the received data. CHE intended to audit the institutions' data every two year. Institutions that did not meet the required performance standards, thus being at risk of losing funding, could apply for additional funding through the performance funding pool. With the funds the institutions were expected to improve their performance.

Before implementation of the model, the sector was heavily divided (Nettles, et al., 2002), a situation that probably was not beneficial to a successful implementation. In its evaluation the South Carolina Legislative Audit Council (2001) recommended to change the performance funding, as it had a number of concerns:

- The indicators did not adequately assess institutional quality. The indicators were too narrow, changed from year to year and some could not be adequately measured / quantified.
- Similar standards have been set for similar institutions. However, within the same group of institutions there can be large differences (e.g. in the student population). Also less differentiation in institutions' missions was possible because of the similarity in standards.
- Institutional representatives had a high administrative burden to collect the required data.
- Volatility in the performance scores could result in extreme fluctuations in funding.
- Due the uneven parity in funding of the CHE some institutions have been – based on their calculated financial needs – awarded a higher percentage of funding. When the performance funding was introduced this meant that institution did not start on a level playing field: some institutions had more financial capacity to perform.

Six years after its introduction, and two years after its 'full' implementation, South Carolina substantially altered the performance funding model by which the model was effectively abandoned (in 2001-2002). Apart from the reasons above, the protests from university faculty and administrators, who "were overloaded from trying to implement the program" contributed to its abolition (Scott, 2013). Additional insights suggest that there were weaknesses in the design of the funding formula as it used a strongly uniform formula incapable of differentiating between different institutions' missions (McLendon & Hearn, 2013). Abandoning performance funding was also triggered by a sharp drop in tax revenues and the lack of empirical evidence that the performance model actually enhanced institutional performance.

After experimenting with output based funding for ten years, the model was abandoned all together in 2006. It was replaced with a new accountability plan for public higher education institutions. In 2012, the state legislators however began to discuss re-introducing performance funding in higher education., taking into account graduation rates, job placement, institutional outcomes in economic development, and services to disadvantaged students.