map" for potential clients and employers.

How large is the for-profit component of French PHE? No close estimate can be responsibly made. Government has chosen not to gather comprehensive data sorted by for-profit/nonprofit. We will nonetheless hazard a very broad estimate: the for-profit share of PHE is probably substantially larger than 20 percent, and substantially smaller than 50 percent. Few of the roughly 235,000 PHE enrollments in 2000 were for-profit. The nonprofit share has grown over the past 15 years, so it is probably still today significantly larger than the for-profit share. On the other hand, the five largest groups mentioned above claim having some 80,000 students, thus accounting for roughly 18 percent of PHE. Whatever the exact current share of for-profit PHE, it is notably growing.

The 19 percent private share—representing some 436,000 of France's 2.3 million enrollments (2013)—is striking by its sheer size and also in comparative terms.

An Accommodating State Policy

Any outsider's guess that such private, and especially for-profit, growth would happen despite restrictive state policy would be grossly mistaken. So would an assumption that the state has only recently become accommodating, with a more limited role and a broader acceptance of the market. On the contrary, state policy has been generally accommodating ever since the end of the Napoleonic era.

Specific state provisions have many times changed or been added, but no such provision has upset the general atmosphere of tolerance. To be sure, regulations have placed some restrictions, but they have also conveyed state recognition, thus buttressing PHE legitimacy, and now even for-profit legitimacy. In fact, several of the provisions introduced over time have *liberalized policy*. In the past half century, for example, PHE has gained rights to offer state diplomas, getting more latitude from various ministries for their vocational training, and even forming partnerships with public entities, including universities.

In the past two centuries, the French State has never banned or nationalized PHE—interventions seen in some European and other countries. On the contrary, it has generally allowed private institutions to go about their business. In the immediate post-Napoleonic era, tolerance of PHE mostly meant tolerance of Catholic institutions; today it is mostly business that has latitude to go about its business in PHE.

Remarkably, all of the above holds for for-profit PHE as for nonprofit PHE. For-profit non-university higher education awards official degrees and diplomas. When allowing PHE, many countries in Europe and beyond proscribe for-profit education or regulate it more stringently than nonprofit PHE. French public policy is virtually neutral in this respect.

None of this means that the French State places no restrictions on PHE. Perhaps the most striking is that no PHE institution can be a university. Nor, for the most part, can any PHE institution offer university degrees or diplomas. But equally striking is how restricted the restrictions are. There are no extra restrictions on the for-profit PHE institutions and, since 1968, private institutions can in partnership with universities award university degrees and diplomas. Additionally, since 1999, if granted permission from a national commission and the ministry, business schools can by themselves award one of the three university degrees, the master. Though PHE graduates do not have the same access to the civil service as their counterparts from public education, the great majority of PHE graduates seek employment in the private sector and international business anyway.

Unions and public universities sometimes lobby for the state to be less accommodating of PHE, and their case may resonate with many citizens' longstanding unease about private ownership and management in higher education. But actual French policy remains largely accommodating of PHE, now even of for-profit PHE. ■

Performance-Based Funding of Universities in Europe

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In a context of tight public budgets, performance-based funding of universities is often perceived as a useful tool

by policy makers, both in order to connect funding to measureable indicators and thus increase the transparency of spending, as well as to incentivize and reward the achievement of specific policy goals.

Definition

Performance-based funding is understood here as funding allocated based on indicators measuring the output (at different stages) of the process of learning and teaching, research or interaction with external stakeholders. Indicators used are for instance the number of graduates, the number of credits awarded, the number of publications or citations, the amount of external funding obtained and other factors. Performance-based funding is associated to funding formulae with output criteria, as well as performance-contracts between public authorities and universities including goals and targets to be achieved.

Various Purposes

Performance-based funding may be used for diverse purposes. This ranges from being simply a distribution mechanism, to the idea of a steering tool to increase the performance of universities in certain areas that are linked to specific policy goals, such as increasing higher education attainment, fostering knowledge transfer, increasing university-industry collaboration, and others.

The Share of Performance-based Funding

It is important to note that a funding mechanism is rarely ever completely performance-based. This means that a formula can for instance be composed of a few output indicators (such as the number of doctoral degrees awarded, number of citations) and a few input indicators (number of students enrolled at bachelor and/or master level). The share of funding that is allocated based on performance (meaning via output indicators) is often smaller than the share based on more traditional input-indicators.

A majority of the 28 systems in Europe covered in the study consider their basic funding allocation mechanism to be at least partially performance-based for teaching (via criteria that are linked to the number of graduates at bachelor or master level or the total number of credits awarded), and partially or mainly performance-based for research, where indicators related to publications and external research funding are normally taken into account.

Nevertheless, the most common method of allocation remains a primarily input-based formula used by 13 of the systems considered. It is often combined with other mechanisms such as performance contracts or budget negotiations and historical allocation.

Indicators and Associated Effects

Performance-based funding can have various effects on teaching, research and institutional management and governance. Study completion criteria such as the number of credits or degrees awarded are used with a view to fostering quicker graduation, increasing the completion rate and higher education attainment in general. In systems where universities are free to decide on student numbers, such completion criteria provide a clear incentive to increase enrollment, which usually needs to be proportionally higher than the desired number of graduates due to students dropping out. In contrast to input indicators such as student numbers, completion criteria have the advantage that they force institutions to focus on the end product of the teaching and learning process and discourage institutions from keeping students enrolled as long as possible. This can be a driver for the development of student support services and measures to reduce the number of dropouts (e.g. tutoring, guidance, and counselling, etc.).

Bibliometric criteria might represent a relatively easy way to measure research outputs, but their use is very controversial.

However, increasing enrollment can be challenging for institutions given limited space and facilities. In addition, completion criteria bear the risk of decreasing educational quality and standards to be able to produce more graduates in less time. As a consequence, big lectures might be privileged over smaller seminars, leading to less close contacts between professors and students.

Output indicators in research funding try to measure the productivity of an institution and its researchers, for example, through bibliometric criteria, the amount of external funding obtained, the number of contracts with business and industry, etc. These indicators may incentivize the dissemination of research results in academia and cooperation with external partners. The latter has not only the potential to foster knowledge transfer, but helps to ensure that research results are used outside of academia and are relevant to other stakeholders, which can enhance the impact of research on society.

Bibliometric criteria might represent a relatively easy way to measure research outputs, but their use is very controversial as they put high pressure on academics to publish early and frequently, with the risk to foster quantity rather

than quality and make academic staff privilege research over teaching.

Opportunities and Limitations

The analysis reveals that the expectations of performance-based funding are often too high and that incentives should therefore be used with caution. It can help increase the transparency of funding allocation and the accountability of public spending. It might also support profiling and strategic positioning of universities, notably through performance contracts between public authorities and universities. A pre-requisite for this is that procedures and goals are clear and not too complex, and that universities are an equal partner of the ministry, so that a real dialogue can take place.

However, the effects of performance-based funding are difficult to control and are highly dependent on other factors, such as the regulatory framework, the overall funding system and share of funding allocated based on performance, as well as the institutional profile, income structure, internal management and governance. It bears the risk of a decrease in quality of teaching and research if no other measures are taken to prevent this.

Furthermore, the fact that institutions receive their funding not upfront (when a student enrolls), but at a later stage (when a student has made progress, e.g. completed a year or graduated), makes funding very volatile and does not leave much room for adaptation, with buffer budgets becoming very small. The cost structure of universities is very rigid with a high amount of staff costs, accounting on average for around two thirds of the overall expenditure, which makes quick adjustments difficult. This constellation limits the possibilities to invest in innovations such as new modes of teaching, new programs, or high-risk research.

Recommendations

Policymakers, funders, and universities should take a holistic view on performance-based funding and develop strategies for reaping its benefits while mitigating its risks. They should pay attention to the characteristics of the overall university funding system and ensure transparency for all actors. Keeping the share of performance-based funding limited and providing it in form of additional funds are ways to ensure the financial sustainability of the institutions. Furthermore, the costs of universities' activities should be taken into account when determining funding levels. At institutional level, university leaders need to develop a strategic approach toward internal funding allocation, based on the institutional profile and strengths as well as their vision for the future.

Institutional autonomy is a prerequisite to enable university leaders and managers to develop and implement strategies to work with performance-based funding mechanisms, and put in place measures to mitigate its risks such as appropriate quality assurance mechanisms.

Funding, be it performance-based or not, is just one tool that must be combined with other measures to ensure the sustainability of the system and the high quality of education and research. ■

NEW PUBLICATIONS

Austin, Ian, and Glen A. Jones. *Governance of Higher Education: Global Perspectives, Theories, and Practices.* New York: Routledge, 2016. 203 pp. (pb). ISBN 978-0-415-73975-7. Web site: www.routledge.com/education.

This volume provides a multifaceted discussion of both the theoretical and practical aspects of higher education governance in a global perspective. It is aimed at advanced graduate students as well as those concerned with understanding aspects of governance. Among the topics discussed are relations between state and university, academic self-governance, governance and management, theories of governance, and others.

Bellin, William. *The Islamic Republic of Iran: Its Educational System and Methods of Evaluation*. Milwaukee, WI: Educational Credential Evaluators, 2015. 207 pp. $125 (pb) ISBN 978-1-883971-29-8. Web site: http://publications.ece.org.

Aimed at credential evaluators, this book provides an informative overview of Iran's educational system, including current statistics. It also includes a comprehensive listing of Iranian higher education institutions in English and Farsi, and sample documents relating to academic degrees and certificates, with English translations. Given the paucity of information about Iranian higher education, this is a useful compendium.

Cloete, Nico, Peter Maassen, and Tracy Bailey, eds. *Knowledge Production and Contradictory Functions in African Higher Education.* Cape Town, South Africa: African Minds, 2015. 295 pp. (pb). ISBN 978-1-920-677855. Web site: www.africanminds.org.za.

A series of research-based essays on aspects of African higher education with a special focus on the role of research universities, this book includes such topics as the performance of African flagship universities, incentives for knowledge production, the roles of national councils for higher education, student engagement, and others.

Cloete, Nico, Johann Mouton, and Charles Sheppard. *Doctoral Education in South Africa*. Cape Town, South Africa: African Minds, 2015. 282 pp. (pb). ISBN 978-1-928-331001. Website: www.africanminds.org.za.

The focus of this volume is on how to increase the number of doctorates offered in South Africa to 5,000 annually by 2030—this goal will require significant changes in current policy and practice. Among the topics considered are how to improve efficiency in doctoral educa-