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# Designing the Framework Conditions for Assuring Academic Standards: Lessons Learned about Professional, Market, and Government Regulation of Academic Quality[1]

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**Abstract:**

The new demands of mass systems of higher education and the emerging environment of global academic competition are altering the traditional institutions for assuring academic standards in universities. As a consequence many nations are experimenting with new instruments for academic quality assurance. Contemporary government control of academic quality assumes three primary forms: "oversight" or direct regulation; "competition" or steering of market forces; and "mutuality" or professional self-regulation structured by the state. The challenge confronting all nations is to design a policy framework that effectively balances the forces of the state, the market, and the academic profession to assure academic standards in

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universities. Based upon the strengths and weaknesses observed in 14 policy analyses of innovative national instruments of professional self-regulation, market-based regulation, and direct state regulation for assuring academic quality in universities, we outline the essential components of a national framework for assuring academic standards.

## Introduction

The modifications in the traditional mechanisms for assuring academic standards in universities over the last decades provide support for recent theories of institutional change arguing that "institutional refinements" evolve out of exogenous shocks and alterations in endogenous processes (Greif and Laitin, 2004). The traditional rules of educational ministries as well as the self-regulatory collective actions for assuring academic standards by universities are proving ineffective or inadequate to cope with the changes associated with the massification and globalization of higher education in many countries. These changes include significant innovations in the technology of teaching, the widespread adoption of modular instruction and continuous assessment as primary means of organizing university learning, and the global harmonization of degree frameworks and cycles. As a consequence the leading nations are experimenting with many novel policy instruments as they seek to improve their institutional framework for assuring academic quality (Santiago, et al, 2008). In many countries, however, the design of academic quality assurance policies has become a "contested field" between universities and the state (Dill and Beerkens, 2010). What are the key factors that should guide the design of these framework conditions?

To design effective higher education policy in the public interest we argue that academic quality is best defined as equivalent to academic standards (Eustace,1991), i.e., the knowledge, skills, and attitudes achieved by graduates as a result of their academic program or degree. Over their lifetimes this "human capital" developed by graduates provides both private and public economic benefits (Becker, 1994) as well as valued social benefits (McMahon, 2009) in the form of improved parenting, healthier lifestyles, greater civic participation, and increased social cohesion. This broader perspective on human capital provides the primary rationale for public subsidies of higher education in all countries as well as motivation for the "massification" of higher education around the world. From this perspective the public interest in academic quality, similar to the public interest in economic productivity, is best served by an institutional framework of rules and norms that maximizes in as efficient and equitable a manner as possible the academic standards attained by university graduates. Indeed this conception of academic quality as equivalent to academic standards is reflected in national higher education policies that increasingly focus on improving academic outcomes, the educational "value-added" of an academic program or degree (Santiago, et al, 2008).

To explore the strengths and weaknesses of the variety of instruments that states use for assuring academic quality we conducted comparative policy analyses of fourteen national mechanisms. Each of these mechanisms reflects a different approach to assuring quality and functions as a representative case study for this category of instruments (Dill and Beerkens, 2010). The selection includes relatively new instruments that have become popular only in the last decade as well as those that are in place over a century but recently revised to respond to the changed higher education environment. Each analysis was carried out by a respected scholar in higher education with knowledge of the particular instrument and the relevant national setting.

Guided by a common protocol the fourteen analyses assessed the policy goals, implementation problems, and impacts of the newly developed national quality assurance instruments.[2] In the discussion that follows we draw upon these collected policy analyses to outline principles for designing effective national academic quality assurance policy.

## Forms of Regulation

In a comparative study on controlling public services, the public administration scholar Christopher Hood (2004) suggested three primary means employed by contemporary governments to regulate state supported activities: "oversight," or controlling individuals through state directives; "competition," or controlling individuals through market rivalry; and "mutuality," or controlling individuals through the horizontal influence of peers (i.e. self-regulation).[3] Traditionally government regulation has been understood, as suggested by Hood's conception of "oversight," as the promulgation of a binding set of rules applied by a public agency devoted to this purpose. But government regulation can be defined more generally as all state actions designed to influence social behavior valued by the public (Baldwin, Cave, and Lodge, 2012).

Following Hood's argument, the state has several policy alternatives to direct control of academic standards. For example the state could control academic quality through disclosure laws requiring provision of better information to consumers in competitive university markets. Or the state could control academic quality by government steering of professional self-regulation. Therefore, better designed professional self-regulation and market regulation are potentially alternative state policies for assuring academic quality.

Reflecting this broader conception of regulation Table I divides the 14 national quality assurance policies we studied (in italics) by the three primary mechanisms of government control (in bold). "Professional (self) regulation" emphasizes voluntary activities carried out by professional bodies, such as peer evaluation in the UK External Examiner system or voluntary professional accreditation in the US. In contrast "market regulation" emphasizes the role of rivalry between universities as an incentive to ensure academic quality. Rankings and other consumer information tools, such as the CHE program level ranking in Germany or the National Survey of Student Engagement in the US, are mechanisms to inform students about quality differences and thereby may facilitate a constructive rivalry between universities. Finally "government (direct) regulation" may take many forms: a state may choose to define academic standards (e.g. Subject Benchmarking in the UK), to evaluate and enforce standards (e.g. a subject assessment or accreditation), or employ legal, financial, and monitoring instruments (e.g. performance-based contracting).

The nature of a regulatory mechanism should not be confused with the sponsor of the mechanism. Information tools for students can be created by the state (e.g. the Graduate Destination Survey in Australia) or by private agencies (e.g. CHE ranking). Regardless of the sponsor they offer a control mechanism over academic quality by facilitating student choice.

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[2] The protocol used to guide the policy analyses of the selected innovative instruments of quality assurance is available from the senior author.

[3] Hood's classification of contemporary government controls is similar to the classic "triangle" of forces coordinating higher education articulated by Clark (1983), i.e., state, market, and academic oligarchy.

Secondly, it is important to notice that many policy instruments, and particularly successful instruments, are "hybrids" in nature, combining different control regimes (Hood, 2004). Hybrids are not "in-between" instruments that do not fit in the model but they are instruments that simultaneously use the advantages of two or even three regulatory logics. National graduation exams in Brazil or Graduate Destination Survey in Australia are examples of such hybrids. They were set up primarily for the purpose of government oversight but both of them have had an effect, intended or unintended, on student choice (Schwartzman, 2010, Harris and James, 2010). Voluntary professional accreditation tools are also often hybrids, used as a quality signal for the student market.

**Table 1.** New Public Policy Instruments for the Assurance of Academic Quality (Adapted from Dill and Beerkens, 2010, p. 8)

| **Professional (Self) Regulation** | **Market Regulation** | **State (Direct) Regulation** |
|---|---|---|
| *External Examining (UK)* | *CHE-Ranking (Germany)* | *National Qualifications Framework (Australia)* |
| *Teacher Education Accreditation Council (USA)* | *National Survey of Student Engagement (USA)* | *Subject Benchmarking (UK)* |
| | | *Subject Assessments (Denmark)* |
| | | *Subject Accreditation (Germany)* |
| | | *General Medical Council Accreditation (UK)* |
| | | *Academic Audit (Hong Kong)* |
| | | *Performance-based contracting (Catalonia, Spain)* |
| | | *National Report Card on Higher Education (USA)* |
| | | *Course Experience Questionnaire and Graduate Destination Survey (Australia)* |
| | | *National Assessment of Courses (Brazil)* |

Historically most developed countries have relied primarily upon Hood's concept of "mutuality," i.e., the norms of the academic professions and the collegial processes of universities, to assure the provision of higher education beneficial to the public interest. But as noted above the changes now being wrought by technical innovations, globalization, as well as by government higher education policy reforms themselves are altering both the environment of institutions of higher education and the incentives for academic work. In this new context many leading nations are experimenting with new forms of external academic quality assurance influenced by the theories of the "new institutional economics" (Weimer and Vining, 1996). These neo-liberal policies perceive universities as firms in a competitive market for private goods and therefore seek to assure academic standards through the more explicit use of information as in the provision of consumer information, the identification of university

performance indicators, and more direct governmental assessment of the quality of academic programs.

However, the expansion of market forces and market values into spheres of life like universities, which have been traditionally governed by different norms, may "privatize" academic life and lessen the incentives for academic staff to voluntarily cooperate in pursuit of common goals that serve the public interest (Calhoun, 2006). Therefore we suggest that the challenge of assuring academic standards in a university is better understood as a problem of collective action within universities involving the collegial provision of a public good (Dill, 2007).

In the sections to follow we draw upon this theoretical work on government regulation and our analyses of national quality assurance instruments to outline a set of design principles for national policies that will help assure and improve academic standards in universities.

## Design Principles for a National Framework for Assuring Academic Standards

Substantial changes in higher education over the last decades have motivated efforts to redesign the framework conditions for assuring academic standards at the national level.

### 1. A national degree framework

Our analyses suggest that government efforts to publicly define the learning outcomes of academic programs make a modest contribution to assuring academic standards. The rapid expansion of new academic programs that accompanied massification and the growing autonomy of universities in the newly deregulated context of higher education motivated the development of instruments such as the National Degree Frameworks in Australia (McInnis, 2010), the UK Subject Benchmarks Program (Williams, 2010), and at the European level the so-called "Dublin Descriptors". While some policy makers clearly hoped and some academic staff clearly feared that these guidelines could become an effective regulatory device for assuring the fitness of purpose of academic degrees, the impact of these types of instruments appears to have been more limited. The complexity and increasing specialization of academic knowledge as well as the rapid development of new interdisciplinary fields of study have compromised national attempts to prescribe academic content.

The impact of the qualifications frameworks adopted in Australia and a number of other countries as well as the collegially-defined subject benchmarks program implemented in the UK proved more broad and general, formative and developmental rather than regulatory, and appeared to offer limited assistance in assuring academic standards. The most significant contribution of qualifications frameworks that outline in broad descriptors the knowledge and skills expected from the major academic degrees at different levels is to encourage a focus on student learning outcomes rather than course content in national debates about academic standards. In the UK subject benchmarks also appeared to assist some universities in planning new courses of study.

### 2. National support for the provision of valid information on academic quality

Market instruments have been a noticeable addition in the arsenal of regulatory mechanisms in higher education. A necessary condition for an efficient market is that *both* consumers and producers have "perfect" information – rational choice requires that economic

agents are well informed about price *and* quality (Teixeira, et al, 2004). Following this economic logic policymakers in both the UK (DfES, 2003) and US (U. S. Department of Education, 2006) argued that if appropriate university information to inform student choice was provided, then market competition could be an important driver of academic quality.

From an economic perspective inadequate consumer information may provide incentives for commercial publications to produce organizational report cards or rankings to aid consumer choice (Gormley and Weimer, 1999). Indeed, the proliferation of commercial university league tables around the world during the last twenty years is one clear indicator of the growing role market competition is playing in higher education, and consumer expenditures on these rankings offer an indirect measure of the perceived inadequacy of existing information on academic quality. However, the accumulating empirical evidence points to the fact that commercial rankings tend to be unreliable and invalid in their construction, emphasize the notion of prestige at the expense of academic standards, and thereby create dysfunctional incentives for universities, such as prioritizing research over the quality of education (Dill and Soo, 2005; Locke, et al, 2008). The cost and complexity of developing valid indicators of academic quality with relevance to student choice are significant. For-profit publications have a low incentive to invest in more accurate rankings since the current rankings based on easily available indicators already enjoy substantial sales and influence among opinion leaders, students and university personnel. Interestingly the "ranking industry" has started to regulate itself by developing professional norms for a good ranking "product," as the *Berlin Principles on Ranking of Higher Education Institutions* (IHEP, 2006) indicate, but the principles represent the interests of commercial league tables and are too lenient to promote the public benefit.

The information instruments we examined were developed in response to these perceived inadequacies of commercial "league tables." The Centre for Higher Education (CHE) provides academic program rankings in Germany. It pays particular attention to the underlying model for selecting and combining indicators, as well as to the technical rigor of the indicators (Beerkens and Dill, 2010; Federkeil, 2009; Ostriker and Kuh, 2003). The same is true about the National Survey of Student Engagement (NSSE) which measures student experience with known "best practices" in teaching and learning in the US (Ewell, 2010). Unlike these two the Australian Graduate Survey, composed of the Course Experience Questionnaire (CEQ) and Graduate Destination Survey (GDS), is a state sponsored tool. It collects information on graduates' satisfaction with various aspects of their university studies as well as on their labor market success (Harris and James, 2010).

While the CHE, NSSE, and Australia rankings clearly provide more valid information on the academic quality of subjects as well as information more relevant to the interests of prospective students than most of the commercial league tables, our analyses suggest two limitations to academic quality information as a guide to effective student choice. First, problems with the quality of data cannot be eliminated. For example, the reliability of subject-level data in the CHE rankings (Beerkens and Dill, 2010) and Australian surveys (Harris and James, 2010) is debatable given the low and/or highly variable response rates among students surveyed in different fields and the noted association between scores and institutional size. In addition, the experience with these instruments as well as the NSSE (Ewell, 2010) suggests the reported differences among subjects or institutions are modest and scores tend to be stable over time, thereby providing limited guidance to student choice.

Secondly, the presumed link between informed student choice and improvement in academic standards appears overstated. Information provision to consumers is likely to influence academic standards only if academic quality rankings utilize measures linked with societally-valued outcomes, if students use this information in their choice of subjects, and if institutions respond to student choices by improving relevant academic programs (Gormley and Weimer, 1999). However, the reported impacts of even these more valid instruments on academic quality are consistent with earlier international research on student choice. That is, quality rankings and ratings influence the educational decisions of a relatively small though growing segment of the student population, primarily those of high ambition, achievement, and social class (Dill and Soo, 2005; Clarke, 2007). Many students report that academic quality rankings have little influence on their actual choice of a subject or an institution. Instead, the university choices of large numbers of first degree students, particularly in mass systems, suggest the behavior of "myopic consumers" (Gandhi, 2007). Students are influenced by a wide variety of educational, social, and personal factors, such as location, the appeal of university social life, and in the US, the distractions of university athletics, all of which have very little social benefit. The experience with rankings and student choice in Australia, Germany, and the US in our analyses confirms the conclusion about relatively limited effect of rankings on student choice, although the CHE analysis (Beerkens and Dill 2010) offers some hope more valid academic quality rankings might eventually create a closer link between student choice and academic improvement.[4]

While the information tools may have a rather limited market effect, all of them have had some effect on the processes inside universities and departments. They have managed to draw attention to the teaching function, initiate discussions about curriculum and teaching objectives, and about strength and weaknesses of a program (Harris and James, 2010; Ewell, 2010). Therefore information on the quality and performance of academic programs, as we will suggest below, is most likely to assure and improve academic standards if we place greater emphasis on its effective use in the collective actions of the primary producers of higher education -- that is the academic staff.

The analyses of these information-oriented instruments offer additional useful guidance for policy design. First, the relative effectiveness of these instruments is clearly influenced by the role played by government. All of the three information tools are based on voluntary participation, but government endorsement has been essential for making universities participate. Governments can thus require or encourage universities to participate in such initiatives and thereby guarantee useful comparative information that helps potential students but also provides an opportunity for the universities themselves to experiment with internal improvement.

A second useful contribution of the analyzed instruments is the apparent emerging international consensus on measures of societally valued student outcomes (Santiago, et al, 2008). These outcomes include information on student retention, student progression, and graduate outcomes (i.e., the nature of graduates' employment, average salaries, and continuing study). While the public provision of valid information on the educational-value-added of

[4] While the *Measuring Up* report cards (Breneman, 2010), designed to inform policymakers on the relative performance of state higher education systems in the US, similarly have thus far had little direct influence on academic standards, they have encouraged greater attention of policy makers to the measurement of the "educational capital" of states as a whole and increased US interest in the current OECD (2009) project for an international assessment of higher education learning outcomes.

academic programs has proven a daunting task, as the Australian surveys suggest (Harris and James, 2010), societally valued proxies of this value-added, such as indicators of program productivity and labor market outcomes, are more easily obtained and provided. The mandatory provision of the data suggested above, *by university and subject field*, would help students make more satisfying life choices as well as aid academic staff in improving the design and effectiveness of academic programs.[5]

Finally, the international market for research doctoral students is more perfectly competitive and suggests academic program rankings at this level could make a beneficial contribution to improving academic quality (Dill, 2009; Hazelkorn, 2011). Doctoral applicants are an older, more educationally experienced set of consumers, who are pursuing advanced degrees primarily for vocational reasons. Furthermore, many universities in the world now compete aggressively for the best international doctoral students. Doctoral applicants therefore are less likely to be swayed by consumption benefits, social factors, geographical considerations, and institutional reputation in their choice of academic programs and more likely to be influenced by valid information on doctoral program quality. Consequently in this more perfectly competitive market, it is not surprising that the quality rankings designed by the National Research Council (NRC) and subsidized by the federal government have motivated demonstrable improvements in US doctoral programs (Dill, 2009).[6] Given the acknowledged positive influence of research- doctoral graduates on economic growth in the developed countries (Aghion, 2006) and the current efforts in many countries to improve the quality of research doctoral programs (Kottmann, 2011), government support for doctoral quality rankings appears to be a particularly well-justified component of a national academic quality assurance policy.

These examples of market instruments suggest, unless government defines and/or subsidizes the development of more valid information on academic quality and encourages its use, it is unlikely to be produced by the commercial sector. Even though the true market mechanism may not be highly effective in assuring academic standards, comparable information about different universities provides valuable "consumer information" to students and offers an opportunity for internal discussions and improvements within universities. The development and provision of socially beneficial information on academic quality is best understood as a public good, underprovided by markets, and therefore must be subsidized and regulated by government.

## 3. A publicly subsidized national academic quality agency to assure academic standards, independent of both the government and higher education.

[5] There are a number of important methodological issues that would need to be addressed in such a policy (Dill and Soo, 2005). For example, assuring the validity and reliability of student progression information reported by institutions as well as the graduate outcomes reported in alumni surveys, addressing the limitations of differential response rates by field in alumni surveys, the fact that graduate salaries may reflect regional differences in labor markets more than university differences, etc. Nonetheless, despite these limitations, the relevance of information on student progression and graduate outcomes by field to effective student choice warrants serious consideration of a policy that provides these data.

[6] The most recent NRC rankings reflect a number of the points made above regarding the design of more effective information-based policies for academic quality assurance (Ostriker et al., 2011). A major goal of these redesigned rankings was to promote university discussion of means of managing and strengthening research doctoral programs. Consequently the rankings endeavored to define and validate a new, national set of measures of faculty quality, student experiences, and research productivity that each institution could use to benchmark and continually improve the quality and effectiveness of its doctoral programs.

Both government regulatory and self-regulatory instruments may fail because the public interest is not effectively represented by the interests of state bureaucrats or of professionals (Baldwin, Cave, and Lodge, 2012). For example the technical challenge of designing effective external assessments of complex academic outcomes may lead to over regulation by the state, which suppresses instructional innovation and imposes high opportunity costs on academic staff, while reliance upon self-regulatory instruments may yield a too lenient enforcement of academic standards against recalcitrant faculty members (Gugerty and Prakash, 2010). Reflecting this dilemma between academic autonomy and accountability, the Bologna education ministers adopted a governance design for QA agencies stressing their independence. A QA agency must be able to demonstrate that "(i)ts operational independence from higher education institutions and governments is guaranteed in official documentation (e.g. instruments of governance or legislative acts)" and that "(t)he definition and operation of its procedures and methods, the nomination and appointment of external experts and the determination of the outcomes of its quality assurance processes are undertaken autonomously and independently from governments, higher education institutions, and organs of political influence" (ENQA, 2005, p. 25).

With the expansion of the "regulatory state" the credibility of regulation has become a critical policy issue and led to a rapid growth of independent regulatory agencies in the EU (Gilardi, 2008). The independence of regulatory agencies from a government is defended on several grounds, including enhanced credibility via greater independence from politicians and the short-term policy agenda, as well as efficiency gains attributed to expertise, flexibility, and openness to stakeholders (Pollitt, Bathgate, et al. 2001). In addition, research in the nonprofit sector (Gugerty and Prakash, 2010) suggests that accountability mechanisms independent from those being held accountable (i.e. universities) are likely to exhibit more stringent standards and rigorous monitoring of participating members.

As suggested by the Bologna ministers the distance of such an agency from the regulatees and from the government is the critical design issue. The expertise and professionalism of the independent evaluation agency in Denmark (Stensaker, 2010) and of the independent teacher education accreditor (TEAC) in the US (El-Khawas, 2010) contributed to the legitimacy of their reviews. At the same time the position between the government and universities requires a fine balance. The trend toward independent agencies in the public sector has led to certain problems, most importantly to fragmentation and a loss of the political core (Bouckaert, et al, 2010; Lægreid and Verhoest, 2010). Increasing the number of higher education regulatory agencies universities must deal with may create an administrative burden (Better Regulation Taskforce 2000) and different evaluation, accreditation, and data collection exercises, by an independent quality agency as well as by the core government, may cause an evaluation fatigue among universities (Westerheijden, 2007). This leads inevitably to the question of 'Who evaluates the evaluator?,' to which we will return in point 5.

**4. Articulation by the national quality agency of the criteria and standards for a rigorous evaluation process to serve as the basis for the external quality assurance of all institutions of higher education that receive public funds.**

National QA agencies may themselves conduct external quality evaluations of institutions of higher education or may authorize other agencies, whether public, private, and/or non-profit,

to carry out such evaluations in the public interest. In either case, defining the criteria and standards for an objective, valid, and efficient process of evaluation, which can serve to assure and improve academic standards, is the major challenge confronting all national agencies.

A major new development over the last several decades is the introduction of state-sponsored subject assessments and subject accreditations. Subject assessments, such as those implemented in Denmark (Stensaker, 2010), have made important contributions to the improvement of teaching as well as the structure and content of academic curricula in traditional university systems with restricted numbers of universities, disciplines, and fields. However, they are a less effective instrument in expanding systems with new fields of study. Comprehensive subject accreditations (Kehm, 2010), as implemented in Germany and a number of the other nations influenced by the Bologna reforms, better address the development of new fields and degrees, but similar to subject assessments these peer review instruments are extremely labor intensive, costly in terms of academic time and effort, and consequently appear unsustainable over time. More critically, because they focus on the subject level, both of these instruments continue the tradition of centralized state control of academic subjects and may not provide sufficient incentives for the universities to act collectively to develop effective internal, collegial processes for assuring academic standards in all subjects offered. The development of such institutionally-based processes is becoming essential in the new competitive world of deregulated higher education featuring more autonomous universities. This structural weakness in external subject assessments/accreditations is reflected in the policy shift in Denmark (Stensaker, 2010) from subject assessments to an institution-oriented academic audit process as well as in discussions in Germany about the need for an institution or process-oriented form of accreditation (Kehm, 2010).

A crucial limitation revealed by the new state policy instruments is the continuing reliance on traditional indicators of academic quality rather than measures of learning outcomes as a primary means of assuring academic standards. The most ambitious attempt to develop measures of the academic outcomes of university programs was the Brazilian system of National Assessment of Courses (ENC), i.e. nationally constructed final examinations in all subjects for all university graduates as a precondition for receiving their degree (Schwartzman, 2010). These exams, however, encouraged all universities to adjust to the same academic pattern and lessened incentives for the development of new and innovative modes of study. Furthermore, they turned out to be politically unfeasible and financially unsustainable. In 2004 the ENC comprehensive field exams were abandoned for the National Exam for the Assessment of Students (ENADE) system, a more limited number of field exams administered on a sampling basis, and now one part of a broadened national quality assurance system.

The experience with performance contracts in Catalonia (Vilalta and Brugué, 2010) provides additional challenges to developing effective national outcome measures. Accountability through contracting in the non-profit sector poses significant challenges because of information asymmetries, particularly the “hidden information” and “hidden actions” associated with the production of complex public goods (Gugerty and Prakash, 2010). In Spain while the improvement of academic quality was an important goal of the performance contracts, the indicators of academic quality employed proved too generic. The predictable emphasis on measures of student retention and graduation also created incentives for reducing or simplifying academic standards. For these reasons performance-based funding or contracting, which are often based upon available input, process, and output measures, have consistently proven to be

an inadequate instrument for assuring academic standards in the higher education sector (Jongbloed and Vossensteyn, 2001). It is worth noting that in Spain, as in other countries experimenting with university performance contracts such as Denmark and Finland, these contracts are usually reinforced by external quality assurance policies such as the discussed subject assessments, subject accreditations, and academic audits.

The significant challenge of developing more valid and useful measures of academic value-added has led to experiments with standardized tests of general knowledge and skill such as the Graduate Skills Assessment (GSA) in Australia (Harris and James, 2010), the Collegiate Learning Assessment (CLA) in the US (Ewell, 2010), and the OECD AHELO Project (2009). As discussed above, even the most careful and nuanced data instruments, such as the Australian Course Experience Questionnaire (CEQ) for example, tend to face such serious validity and reliability concerns that they are too controversial for a strong policy instrument. The Danish case suggests that avoiding quantifiable performance indicators in the subject assessments may have been the main reason behind high legitimacy of the instrument among universities (Stensaker, 2010).

Overall these limitations lead us to the conclusion that the continued search for universal, valid measures of academic value added, particularly at the university level, is similar to a quest for the Holy Grail (Douglass, Thomson, and Zhao, 2012). The evidence thus far suggests this pursuit is as likely to distort or diminish academic standards as to assure them. Instead, our collected analyses of new state policy instruments suggest a major focus of effective academic quality assurance policy should be providing incentives and support for collective actions of all academic staff within a program to develop valid, direct measures of learning outcomes *at the subject level within universities*. As Pascarella and Terenzini (2005, p. 648) concluded in their exhaustive review of the available empirical research on teaching and learning in higher education:

> Assessment of department-specific learning outcomes can be a useful vehicle for change. *Assessment plans and activities developed and approved by faculty* can provide an empirical foundation of systematic and ongoing rethinking, redesigning, and restructuring programs and curricula. For faculty members, trained to be skeptical about claims, evidence is the gold standard in the academy, and they are unlikely to adopt new ways of thinking or behaving without first being convinced that the new pedagogies and organizational structures are better than the old. In addition, *the findings of assessment studies specific to faculty members' academic units will generate more interest and action than general or institution-wide evidence.* (emphasis added).

On the positive side our analyses of state regulatory instruments provide valuable guidelines for the design of more effective external quality assurance processes. First, these analyses support the view that assuring and improving academic standards within universities will require actively engaging both the collegial leadership of an institution as well as the academic staff in departments and programs. The positive impacts of the studied subject assessments and accreditations as well as the information tools discussed earlier were most clearly visible in the more frequent collegial discussions in academic programs and collective

actions taken to improve student learning (Dill and Beerkens, 2010).[7] It is after all at the subject level that academic standards are best assured and improved. At the same time an effective external quality assurance process cannot simply promote compliance with state mandates, but must reinforce internal accountability, creating incentives for collective actions by the university to assume ongoing responsibility for assuring and improving academic standards in all academic programs through close monitoring and active experimentation (Shavelson, 2010). For this to occur, the university's core academic processes for assuring academic standards must be externally evaluated by competent peer reviewers and these evaluations must include an assessment of the impact of these processes at the subject or program level.[8] As Massy (2010) suggests, this will require academic audits of institutions that include a review of a representative sample of academic programs.

A second design principal is defining the nature of the core academic processes that must be externally evaluated in an institutional audit (Shavelson, 2010). While a more comprehensive evaluation may be required for accreditation of a new publicly supported institution or award of a university title, some existing external university quality reviews cast such a wide net that they compromise the rigor and impact of the evaluations. Furthermore, given the increasing incentives for individual and university reputation based upon research, most countries are discovering the greater challenge is creating incentives for the assurance and improvement of academic standards in existing degree programs and universities. In short, what framework conditions will best motivate development of a robust institutional culture of quality in university teaching and student learning?

Our analyses suggest that as in the Hong Kong Academic Audit process (Massy, 2010) this requires an external evaluation with a laser-like focus on the essential processes universities themselves employ to set, monitor, and assure their academic standards. These essential processes include: the university's processes for designing, approving and evaluating academic programs; the processes for evaluating and improving instruction; and the processes for assuring the integrity of marking standards and student assessments. The UK experience with external examiners (Lewis, 2010), as well as the potentially negative influence of information technology on the validity and reliability of continuous assessment practices, suggest that evaluations of the equity and integrity of student examinations as well as grading or marking practices need to be an essential feature of external academic quality assurance. However, these evaluations will likely prove most effective if external reviewers conduct "meta-evaluations" focused on the

[7] Policymakers may understandably question whether external assessments that promote greater collegial discussion among academic staff about improving academic standards are of significant public benefit. But both laboratory and field research suggests that face to face communication in social dilemmas is the most effective means of producing substantial increases in needed cooperation and coordination over time (Ostrom and Walker, 1997). Departmental meetings about assuring program quality, information exchanges with respected peers from other departments about means of improving educational activities, and face-to-face collegial performance reviews regarding the quality of teaching and student learning in an academic program appear to promote the social ties necessary for the more effective observation, communication, and enforcement of academic standards (Dill and Beerkens, 2010).

[8] The issue of reviewing academic subjects as part of university academic audits has been a particularly contentious issue in the UK, but the failure to study the effects on academic programs of an institution's quality assurance processes compromises the efficacy of external audits. Logically the only valid means for assessing the effectiveness of teaching or instruction is to evaluate its impact upon student learning. Similarly, the only valid means of evaluating the effectiveness of a university's processes for assuring academic standards is to investigate their impact upon and the responses by academic subjects or programs.

adequacy of institutionally-based processes for assuring the validity of subject–level examinations and marking (Stensaker, et al, 2008).

The suggested processes are also areas in which academic staff have distinctive expertise and where their time and effort in external peer reviews logically should be concentrated. In contrast, while there is certainly a public interest in the quality of academic governance, institutional administration, financial affairs, student services, and other university activities, there is little empirical evidence that these processes are as influential on academic standards as the core academic processes of curriculum design, instruction, and student assessment. Students' learning of academic content and their cognitive development are most significantly associated with the pattern and sequence of the courses in which they enroll, by program requirements that integrate learning from separate courses, and by the frequency of communication and interaction among faculty members in the subject field (Pascarella and Terenzini, 2005). Furthermore, the suggested core academic processes are arguably essential to assuring academic standards in all institutions of higher education, whether public or private, traditional or distance-based.

A third design consideration is the methodology of these external reviews. As in other areas of government control, the ability of regulatory institutions to function effectively depends on whether they have the support of citizens, affected organizations, and ultimately of the state. But the legitimacy of regulatory institutions also depends upon their ability to achieve some standard of accountability and transparency (Buchanan and Keohane, 2006). With regard to QA agencies organizational transparency has most often required public membership on their boards of control and/or public provision of their standards, procedures, and assessments. Accountability has most often required external evaluations of these agencies, which also are published (see #5 below).

An additional means for establishing legitimacy is the "epistemic-deliberative" quality of regulatory institutions (Buchanan and Keohane, 2006). That is, does the institution or regime function in such a way as to facilitate principled, factually-informed deliberation about the terms of accountability? A purported advantage of professional self-regulation is access to greater expertise and technical knowledge of practices and innovative possibilities that can lead to the design of more effective accountability mechanisms (Baldwin, Cave, and Lodge, 2012). The learning-oriented subject accreditation process developed by TEAC (El-Khawas, 2010) and the new approach to subject accreditation by ABET (Volkwein, Lattuca, Harper, and Domingo, 2007) have provided a potentially valuable model for the design of more objective external quality assurance assessments for universities as well. An important component of these approaches -- also reflected in the subject assessments in Denmark (Stensaker, 2010) and the accreditation process of the General Medical Council in the UK (Harvey, 2010) -- is the adoption of a rigorous, evaluation methodology conforming to social scientific standards of evidence (Dill and Beerkens, 2010). In contrast the TEAC evaluators have been consistently surprised to discover in their US reviews faculty members who fail to apply in their collegial evaluation of academic modules and programs the same scholarly rigor they apply in their research. Accordingly these more rigorous external reviews place much weight on assessing the validity and reliability of institutional measures and mechanisms for assuring the quality of teaching and student learning. Peer reviewers are trained, supported during the review process by professional staff, and employ systematic, standardized procedures and protocols. These external reviews all strongly emphasize development within universities of a "culture of evidence" (Shavelson, 2010)

for assuring and improving academic standards through progress monitoring, feedback, and encouragement of experimentation.

**5. The national QA agency should itself be subject to regular public evaluation by an appropriate national government audit or evaluation agency.**

A main goal of the Bologna Process is "promotion of European cooperation in quality assurance with a view to developing comparable criteria and methodologies" (Bologna Declaration, 1999), but as noted national academic audits, subject assessments, and accreditation processes, vary substantially in the objectivity and rigor of their evaluation methodologies (Dill and Beerkens, 2010). As a protection of the public interest, all national QA agencies in Bologna-participating countries are now required to undergo an international evaluation of their conformance with the *European Standards and Guidelines for Quality Assurance* (ESG) (Stensaker, et al, 2010). But a recent independent evaluation of the Bologna Process (Westerheijden, et al, 2010) observed that these external reviews of national QA agencies vary so much in their methods and processes that they failed to enhance the public's faith in the regulatory process, therefore greater attention needs to be given in the future to achieving the Bologna goal of compatible quality assurance practices.

The preferred process for evaluating national QA agencies reflects the limitations of professional self-regulation in that it is often controlled by the agencies themselves in cooperation with associations of agency professionals and/or selected representatives of those regulated (Dill, 2011). This type of evaluation may lack genuine independence, often fails to employ a suitably relevant and robust method of validation, and generally ignores the critical issue of value for money (Blackmur, 2008). Such peer evaluations also may provide insufficient incentives for agencies to develop a truly objective and scientific process for external quality assurance.

One obvious problem with self-regulation is that relevant agencies may attempt to "capture" (Baldwin, Cave, and Lodge, 2012) or shape the regulatory process to ensure their survival and prosperity rather than maximizing the public interest. As the European Network of Quality Assurance (ENQA) Agencies argued to the Bologna Ministerial Conference in 2010: "There is little point in adopting a 'hard line' position in respect of compliance with the ESG [European Standards and Guidelines] if, by doing so trustworthy and credible agencies are prevented in gaining ffull membership of ENQA…." (ENQA 2010: 1). Therefore the public interest is likely to be better served if QA agencies are publicly evaluated by established, respected, and truly independent national evaluation or audit agencies with the proven capacity to evaluate the efficacy of various regulatory institutions and regimes. National examples of such agencies include the Australian National Audit Office, the German Federal Audit Office, the UK National Audit Office, and the US Government Accountability Office (Dill, 2011). Since all regulatory activities produce both positive and negative impacts the ability to assess objectively the social benefits and associated social costs of regulatory laws, agencies, and information is important to both the public and to the universities who will be directly affected. The public, policymakers, and the regulated universities will thereby be provided with more truly independent, objective, evidence-based, and expert assessments of the extent to which current QA agencies assure or improve academic standards and the agencies themselves will gain greater insights into means of improving their methodologies and core practices.

## Conclusion

The ultimate goal of external quality assurance should be for universities themselves to become genuine "learning organizations" (Dill, 1999) in which each institution's assurance of academic standards demonstrably involves: a "culture of evidence" utilizing accepted canons of scholarly inquiry; effective peer accountability for the quality of academic programs and the validity of unit-level academic decision making; and systematic identification and dissemination of best practice for improving teaching and student learning in all subject fields.

The most beneficial university education for students as well as for society still appears to be academic programs designed by and whose standards are assured through the collective actions of knowledgeable faculty members. Given the complexities and uncertainties of measuring learning outcomes and assuring academic standards in universities, external academic quality assurance policies that are designed to promote the universal academic values of objectivity, rigor, and a scientific approach to understanding will likely best protect the public interest in the coming years.

The self-organization of internal governance arrangements, the importance of face-to-face communication among peers for increasing trust, and the active collective monitoring of valid measures of performance are the critical design principles for assisting organizations to voluntarily address collective action dilemmas in the provision of public goods (Gugerty and Prakash, 2010; Ostrom, 2010). We have suggested how these principles might inform the design of more effective public policies to assist autonomous universities in improving the collegial processes essential to assuring academic standards in the new age of academic globalization and massification.

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