Performance-based University Funding and the Drive towards 'Institutional Meritocracy' in Italy

Jose Luis Mateos-Gonzalez and Vikki Boliver

Forthcoming in *British Journal of Sociology of Education*

Abstract: Many countries, including Italy, are increasingly managing their public higher education systems in accordance with the New Public Management principle that private-sector management practices improve efficiency and quality. A key mechanism has been the introduction of performance-based funding systems designed to reward 'high-performing' institutions and to incentivise 'lesser-performing' institutions to improve. Instead of improving efficiency and quality across the board, however, we argue that performance-based university funding systems naturalise longstanding structurally-determined inequalities between institutions. They do so by recasting national higher education systems as competitive institutional meritocracies in which differences between institutions rooted in wider structural inequalities are redefined as objective markers of intrinsic institutional worth or 'merit'. We illustrate how performance based university funding systems naturalise pre-existing inequalities between universities drawing on the case of Italy, a country characterised by longstanding inequalities between its Northern and Southern regions, which demonstrably impact on the apparent 'performance' of universities.

Keywords: Higher Education; Performance-based funding; New Public Management; University evaluation; Meritocracy

Introduction

In recent decades many countries with high participation higher education systems (Marginson 2016) including Italy have increasingly sought to manage their universities and other public sector institutions in accordance with the principles of New Public Management (Lane 2000; Broucker and De Wit 2015). First emerging in the late 1970s as part of a neo-liberal economic approach to policy-making known as the 'Washington Consensus' (Williamson 1993), the New Public Management approach (hereafter NPM) represents a paradigmatic shift away from the notion of public sector management as "a process through which policies were formulated, resources allocated, and programs implemented" towards a vision of public sector management being "a policy issue in its own right" (Barzelay 2001, 1). Proponents of the NPM approach argue that private sector management practices are required in order to maximise the efficiency and quality of public sector institutions (Ferlie 1996; Lane 2000). With basic mottos such as "more market, less regulation, and strong leadership" (Schimank 2005, 362), the NPM approach sets out to create 'quasi-markets' in public service provision with a clear emphasis on "securing value for money, [based] on the use of comparative performance indicators" (Ferlie 1996, 6).

In the case of the management and funding of public sector universities, the latter has been embodied, inter alia, in the development of various evaluation-based funding mechanisms informed by so-called 'performance' indicators and underpinned by a "more contractual-oriented vision of how to support research" (Geuna 2001, 607; Turri 2016). This market-like approach to the allocation of resources has been presented as a means of providing greater accountability and of solving the problem of chronic underfunding (Geuna and Martin 2003; OECD 1997). It entails measuring the comparative 'performance' of individual institutions and distributing resources disproportionately to those that 'perform' the best. A key component of the rationale for performance-based university funding is that promoting competition for resources among institutions drives up efficiency and quality across the system, including by incentivising lesser-performing institutions to improve (Herbst 2007, 18:90; in Hicks 2012, 253).

In this paper, we make use of the Italian case to argue that the introduction of performance-based funding for universities can be usefully understood as a mechanism for promoting 'institutional meritocracy'. Intended to replace the mid-twentieth century model of higher education as a unitary system in which institutions enjoyed at least nominal parity of esteem (Moscati 2009, 214; Triventi and Trivellato 2009), the new 'institutional meritocracy' model of higher education presupposes both the inevitability and the desirability of a vertically stratified higher education system in which institutions are positioned according to their worth or 'merit'. Institutional 'merit', according to this model, is considered to be objectively measureable, and to be an intrinsic property of the individual institution concerned (Amsler and Bolsmann 2012).The influence of wider social structures on 'merit', besides 'incentives', go unacknowledged or are notably downplayed, and the responsibility for good or bad 'performance' against efficiency and quality measures is deemed to lie squarely with individual institutions.

Our conceptualisation of performance-based university funding as part of a drive towards 'institutional meritocracy' builds on Pierre Bourdieu's account of how meritocratic ideology is used to legitimate social reproduction via education at the

individual level (Bourdieu 1974; Bourdieu 1977). For Bourdieu, the grading and certifying functions of contemporary educational institutions are *designed* to stratify individuals, rather than to ensure a common high standard for all, by rewarding qualities and capabilities that the education system itself does not cultivate, but which the already-advantaged disproportionately possess (Bourdieu 1977). Through the apparently objective assessment of individual 'merit' conceived of as innate ability, the determining influence of pre-existing social inequalities on the educational outcomes of individuals is not only obscured by the education system but is simultaneously rendered legitimate (Brown et al. 2014). As Bourdieu puts it: "a social gift [is] treated as a natural one" (Bourdieu 1974, 32).

The hierarchical positioning of universities by means of performance-based funding and related competition measures can be viewed in the same light, as serving to render social gifts natural ones. The ideology of institutional meritocracy disguises the fact that the 'performance' of institutions, like that of individuals, depends heavily on pre-existing stocks of economic, cultural and social 'capital'. Those institutions, like those individuals, with more economic capital (e.g. greater income and wealth), more cultural capital (e.g. greater engagement in prestigious activities), and more social capital (e.g. stronger connections with social elites) tend to win 'performance' competitions which reward these kinds of capitals as though they were achieved rather than ascribed characteristics.

The drive towards institutional meritocracy thus recasts higher education systems as competitive 'fields' in which institutions are positioned in relation to one another and are engaged in strategies of position-taking both nationally (Bourdieu 1993; Naidoo 2004) and increasingly globally (Marginson 2008). The capacity of institutions to engage effectively in 'elite' position taking rests substantially on their comparative 'autonomy', and the valorisation of that which autonomy is required to pursue. The selection of students, for example, or the privileging of research over the teaching function of the institution, require a degree of autonomy which is largely (if not exclusively) the preserve of capital-rich institutions (ibid.).

Numerous examples of the inner workings of 'institutional meritocracy' within the field of higher education exist in the literature. Naidoo (2004), building on Bourdieu, analyses the ways in which South African universities have drawn on different capitals to position themselves within the national higher education field. Naidoo describes the development of a three-tiered system in South Africa, comprising a dominant tier of English-medium research intensive universities offering prestigious programmes exclusively to white British-ancestry students; an intermediate tier of Afrikaans-medium universities serving the white Afrikaans community; and a subordinate tier of less well resourced, largely teaching-only universities set up to provide black South African groups with higher education qualifications at sub-degree level. Here the capitals at play are economic, relating to levels of resource; cultural, relating to degree of engagement in research and in prestigious programme delivery; and social, marked by exclusionary associations with linguistic and racial/ethnic 'elites'. The markedly uneven distribution of these capitals across South African universities is clearly a product of the vast structural inequalities created by colonialism, apartheid and their legacies, rather than their intrinsic worth.

A similar kind of conversion of institutional capitals into 'performance' positions is also evident in the UK. Although not drawing explicitly on Bourdieu, Boliver (2015) demonstrates that the generally higher status of 'old' (pre-1992) and 'new' (post-1992) universities, and the especially high status of the ancient universities of Oxford and Cambridge, is driven by their higher economic capital, not least their endowment wealth; greater cultural capital, as represented by research intensity, research 'quality', and academic selectivity in student admissions; and stronger social capital, evident in the socioeconomically privileged backgrounds of their student bodies. As with the three-tiered system of universities in South Africa, the uneven distribution of capitals across ancient, old and new universities in the UK, and the corresponding stratification of institutions in terms of apparent 'performance', is the result of structural inequality rather than intrinsic 'merit', in this case the legacy of the timing and purpose of their foundation.

This paper focuses on the Italian higher education system as a further example of the illusion of institutional meritocracy in higher education, in this case fostered by the relatively recent introduction of performance based university mechanisms and associated NPM strategies (discussed in more detail below). In the Italian case, the uneven distribution of capitals across universities stems from structural inequalities that are largely regional in nature, reflecting the deep and longstanding socioeconomic divide between the Northern and Southern regions of Italy.

Historically and in the present day, the Italian South has a starkly lower level of economic productivity, a significantly higher unemployment rate, and much lower levels of research and development investment than its Northern and Central counterparts. The Italian South and the Islands (together known as the *Mezzogiornio)* had, in 2015, a GDP per capita of 18,100 and 17,800 euros respectively, compared to 32,300 and 33,300 for the North-East and the North-West respectively. In terms of unemployment, both the South and the Islands had unemployment rates of 20% among those aged 20 to 64 in 2015, compared to just 6.7% for the North-East and 8% for the North-West. Moreover, according to Eurostat, research and development investment (including government, higher education, business enterprise sector and private non-for profit sector) per capita in the South was, in 2014, less than half (190 euros per inhabitant) of that in the North-West (502) and the North East (448.7).

Given these stark socioeconomic inequalities between the North and South, it would not be surprising to find that universities located in the Northern and Southern regions differ substantially in terms of their economic, cultural and social capital stocks. Southern universities will inevitably tend to fare badly on common 'performance' metrics such as average time to graduation, which will be lengthened for students from relatively deprived local populations who need to combine study with work, and graduate labour market outcomes, which will be poorer for graduates seeking work in a comparatively under-developed local economy (SVIMEZ 2009; Bagues, Labini, and Zynovyeva 2008). Likewise, Southern universities are likely to fare less well than Northern universities on 'performance' metrics relating to research intensity and quality, given low levels of R&D investment in the region.

In this article, we demonstrate empirically for the Italian case that there is a fundamental contradiction between the creation of an institutional meritocracy and the existence of structural inequalities that shape the performance of institutions as measured against

what are regarded as indicators of merit. Focusing on the kinds of metrics used to determine performance based funding of universities in Italy, we show that these metrics are tightly associated with the regions in which universities are located, with institutions located in the prosperous North showing a higher performance than those located in the comparatively under-developed South. Before proceeding to this empirical analysis, we turn next to an analysis of the emergence of performance based university funding in Italy which has been a key driver towards institutional meritocracy.

The Italian University System: Funding Strategies and the NPM Paradigm

Until the 1990s, the organisation and funding of Italian higher education was delivered in a heavily centralised fashion (Boffo and Moscati 1998; Moscati 2009); for instance, establishing or altering a university degree could only be done through a ministerial decree (Luzzatto and Moscati 2005). This centralisation was especially evident in the provision of funds to universities, with university budgets characterised by firm itemisation and funds allocated strictly according to each budget item (Boffo and Moscati 1998, 353). In 1993, however, a new funding mechanism was introduced, which scrapped the itemisation of university funds in order to "a) increase the level of funding and administrative autonomy of universities and b) allocate an increasing quota of public resources not on a historical basis but on a rewarding model" (Geuna and Labini 2013, 2).

This shift in funding arrangements was consistent with various other changes in the organisation and management of higher education systems in Italy, Europe, and globally, which share core elements of the NPM paradigm. In Italy as elsewhere, universities since the 1990s have been encouraged to tighten their links with non-university sectors, including offering commercial services; their research and teaching activities began to be more closely scrutinised; and there was a "drive to establish a "brand name" for each university (in order to make individual institutions more attractive to prospective students, research customers and the like)" (Moscati, 2009, 210). Among the champions of such reforms was the centre-left coalition government which came to power in 1996 and envisioned an Italian higher education system "in line with the standards of the most advanced European […] higher education systems". The latter could only be achieved, the coalition government claimed, through "a more entrepreneurial, quality-oriented, innovation and competition driven organizational model of university" and "strong decentralization", with the State steering "at a distance and evaluat[ing] universities' performance" (Vaira 2003, 188). These reforms were further galvanised by the Bologna process, which ratified the Sorbonne agreement on the homogenisation of European higher education systems agreed by Italian, French, British and German ministers (Vaira, 2003; Mascoti, 2009).

Against this backdrop, the Italian government has successively introduced new funding strategies that entail institutional competition – both in teaching and research – as a resource allocation strategy (Molin, Turri, and Agasisti 2017). Italy has followed the trend of other European countries of reducing the government's block grant to universities (the *Fondo di Finanziamento Ordinario* or FFO) – from 61.3% in 2000 to 56.1% in 2014 – replaced by an important increase in external contractual funding from 10.1% to 16.3% of the total income of universities, as well as an increase in income from student fees (from 10.8% to 14.7%) (ANVUR 2016, 297).

It is within the FFO block grant itself where the greatest changes have been made, particularly in the introduction of performance-based formulas to distribute an increasing share of it. The introduction of the FFO in 1993 encompasses perfectly the two main premises of the NPM paradigm: greater accountability and market-like allocation of resources (Lane 2000). According to Geuna and Labini (2013, 7), the FFO was created with three main objectives: 1) to grant greater autonomy to Italian public universities, both in terms of funding and administration; 2) to reduce the funding imbalances of higher education institutions regarding their standard costs, their inputs (students, staff, etc.) and their outputs (graduates, publications, etc.); and 3) to connect the allocation of public resources to the evaluation of research and teaching.

The FFO funding flows are divided into three main components: a basic quota, a performance-based rewarding share, and a small portion destined to cover special legal dispositions. Since 2008, when a ministerial decree was passed stating that the performance-based rewarding share should not be less than 7 percent of the FFO, the portion allocated based on evaluation has increased up to 21.6% in 2015 (ANVUR 2016). From this 21.6%, 65% was allocated according to the results of the Italian research evaluation exercise for the years 2004-2010 (known as VQR), 20% depending on the evaluation of institutional recruitment policies, 7% according to the number of students that have had an international exchange experience and the share of students with a secondary degree awarded in a foreign country, and 8% based on the share of students that have acquired at least 20 credits in the academic year 2013/2014.

This competition milieu is transforming the Italian higher education system as a whole, which has been historically 'not differentiated at all' (Triventi and Trivellato 2009, 683). While in countries such as the United Kingdom and the United States, vertical diversity – that is, the "inhomogeneities [sic] regarding reputation and prestige aspects in institutions" (Turri 2014, 7; see also Teichler 2008; Boliver 2015) is a central part of their higher education systems, this has not historically applied to the Italian higher education landscape. When social demand for higher education soared in the 1960s, consistent with European trends, the Italian government responded to it by implementing an 'open-door system', allowing school leavers from any secondary school track to enrol in Italian universities. Despite this, the Italian higher education system remained undifferentiated; institutions kept their comprehensive missions – undertaking both research and teaching activities – a model "justified by the need to grant degrees with legal value (with corresponding equal quality)" (Moscati 2009, 219). The main driver for not allowing the introduction of vocational tracks "was to avoid the creation of a hierarchy of institutions" (Moscati 2009, 221).

The proliferation of performance-based funding mechanisms seems likely, as intended, to undo the historically undifferentiated nature of the Italian higher education system. It has already been demonstrated that the growing proportion of university funding coming from competitively awarded contractual funds is having an important regional impact, "with the universities of Northern Italy enjoying a share almost twice that of those in Central or Southern parts of the country" (Geuna et al. 2015, 116). In this paper we demonstrate empirically that the performance-related element of the FFO block grant evidences as similarly strong regional tinge, with a marked tendency for universities in the less developed South to place last in this competition.

Data and Methods

In this paper we use cluster analysis to create a typology of Italian universities based on their 'performance' against a series of indicators which purport to measure excellence in teaching provision and research production. Our hypothesis is that the types of institutions found the in data will correspond to a regional distribution, with 'high performing' institutions located overwhelmingly in the North and 'low performing' institutions overwhelmingly in the South.

Our sampling units are publicly funded Italian universities (N=61) spread across 19 constitutionally autonomous regions in Italy, and 5 macro regions.[1] 11 of Italy's universities are located in the North-West, 11 in the North-East, 16 in the Centre, 5 in the Islands, and 18 in the Southern region of the country.

Our indicators of institutional 'performance' include several publicly available metrics used to inform the performance-related funding component of the FFO block grant in Italy. To supplement this data, we also mined performance-related measures from the following sources: a) the *Archivo del Personale Docente* – the Italian Ministry of Instruction, Universities and Research (MIUR)'s data archive on universities' human resources; b) the *Anagrafe Nazionale Studenti* – the statistics office on students run by the MIUR; c) data on the Italian Higher Education system provided by the ANVUR (2014); and d) the Web of Science SCImago ranking of universities. All the data corresponds to the academic year 2011-2012.

In 2015, sixty-five percent of the performance-based element of university funding was based on a research evaluation exercise, the VQR 2004-2010, which involved the assessment of Italian institutions' research quality, capacity to attract resources, the research quality of mobile researchers, the international mobility of researchers and the quality of research co-authored with international authors, the capacity to train PhDs and post-docs, the share of institutions' own funding to fund research, and the improvement of research quality compared to the previous research evaluation exercise (ANVUR 2014, 529). Informed by the above, we use the (1) SCImago Normalized Impact Score which measures the volume of publications and subsequent citations associated with each institution,[2] (2) the percentage of publications written in collaboration with one or more researchers from foreign institutions[3] and (3) the percentage of PhD students within the student body[4]. For the small number of cases

[1] In this paper, we are using the Nomenclature of Territorial Units for statistics (NUTS) level 1 classification, developed by the European Union. See [Accessed May 14 2017]: http://ec.europa.eu/eurostat/documents/345175/7451602/nuts-map-IT.pdf

[2] This is an indicator developed by the Karolinska Institutet in Sweden which "gives an indication of the combined impact of the production volume and field normalized citation score of the analysed unit [university]" (Rehn et al. 2014, 10). In the indicators used in this paper, the Normalised Impact Score uses the publications published between the years 2005-2009, which in the context of this article the data has been collected from the report on the state of Italian research in 2013 (ANVUR 2014, 590).

[3] Data retrieved from ANVUR. 2014. Rapporto Sullo Stato Del Sistema Universitario E Della Ricerca 2013, p. 590.

[4] Data source: Anagrafe Nazionale Studenti as it appears in ANVUR. 2014. Rapporto Sullo Stato Del Sistema Universitario E Della Ricerca 2013. Rome: Agenzia Nationale di Valutazione del sistema Universitario e della Ricerca, p. 297-298.

with missing values on one of more of these metrics (N=6), the sample mean value was used instead.

A further eight percent of the performance-based element of university funding is based on institutional percentages of students obtaining at least 20 credits per academic year. As a proxy for this, we use (4) average number of credits acquired at undergraduate level and[5] (5) average number of credits acquired at postgraduate level[6], supplemented with data on (6) average time in years to graduation from a 3-year undergraduate degree programme[6] and (7) student-staff ratio.[7]

Our chosen method of data analysis, cluster analysis, uses algorithms based on matrix algebra methods to classify cases into types. This technique "help[s] to undercover any structure" in the data (Everitt et al. 2011, 9), producing classifications which are 'objective' in the sense that the same data produces the same taxonomy regardless of the subjectivity of the researcher (Everitt et al. 2011; Byrne and Callaghan 2014). Cluster analysis is an inductive data analysis technique in which clusters "emerge out of the assortment of configurations of attributes associated with the whole case" (Everitt et al. 2011, 9). However, the classification produced by cluster analysis can subsequently be used deductively as a basis for testing a previously defined hypothesis about the nature of the structure of the data (Huberty, Jordan, and Brandt 2005). In this instance, the hypothesis is distinctive clusters of 'higher performing' Northern and 'lower performing' Southern universities will be emerge from the data. If this hypothesis is proven to be correct, it would indicate that a single standard of competition among Italian universities designed to reward high-performing institutions at the expense of poorer performing ones is serving to naturalise longstanding inequalities between regions in Italy.

Results

Four commonly used clustering algorithms are applied to our data, known as the between-groups, within-groups, nearest-neighbour and furthest-neighbour algorithms (Xu and Wunsch 2008). The clusters proceeds agglomeratively; that is, at the beginning of the process, each case constitutes its own cluster, and by the end of the process all cases are included the same cluster. In order to identify the optimal number of clusters identified by each algorithm, elbow plots are used to depict the percentage of dissimilarity between cases accounted for by N clusters (Madhulatha 2012). Reading these plots from left to right, the beginning of a marked downward trajectory in the plotted line, known as the 'elbow point' (Ketchen & Shook 1996), indicates the point at which a further reduction in the number of clusters begins to bring together highly dissimilar cases. Figure 1 shows the elbow plots for the four cluster algorithms used (elbow points are marked with a black square).

---

[5] Data source: Anagrafe Nazionale Studenti as it appears in ANVUR. 2014. Rapporto Sullo Stato Del Sistema Universitario E Della Ricerca 2013. Rome: Agenzia Nationale di Valutazione del sistema Universitario e della Ricerca, p. 105.

[6] Data source: Anagrafe Nazionale Studenti as it appears in ANVUR. 2014. Rapporto Sullo Stato Del Sistema Universitario E Della Ricerca 2013. Rome: Agenzia Nationale di Valutazione del sistema Universitario e della Ricerca, p. 115.

[7] Data source: MIUR *Ufficio di Statistica*, link: http://ustat.miur.it/, [Data accessed: 10 August 2017].

[Figure 1 near here. Caption: Figure 1. Elbow plots illustrating cluster solutions with a black square highlighting the elbow points]

Elbow plot 1a shows that the between-groups algorithm produces two optimal clusters, but that these two clusters account for a very low percentage of the dissimilarity across individual institutions (11%). The within-groups algorithm produces a 3-cluster solution which accounts for a reasonably high degree of the dissimilarity (almost 40%) between cases (Elbow plot 1b). Plot 1c for the nearest neighbour algorithm presents a 3-cluster solution with 30% of the dissimilarity between cases accounted for by these three clusters. Finally, the furthest-neighbour algorithm offers a 4-cluster solution, as seen in elbow plot 1d; it also accounts for a high degree of the dissimilarity between cases (almost 60%) and so is our preferred model.

Table 1 presents a contingency table for the NUTS1 Italian macro-regions and the 4-cluster solution produced by the furthest neighbour algorithm. As can be seen, the first cluster contains most of the Northern universities (17 out of 22) and no Southern universities. In contrast, cluster two contains most Southern universities (14 out of 18), most of the Islands universities (4 out of 5), and only one Northern university. Clusters three and four are smaller in size and are more mixed with respect to the regional location of institutions. While our preferred model is that produced by the furthest neighbour algorithm, it is worth nothing that the between-groups and within-groups algorithms evidence the same north-south regional divide. Only the nearest-neighbour algorithm fails to find a north-south divide, clustering all but two universities into one large category and two Southern universities into separate singleton clusters.

Table 2 reports which universities are members of each cluster produced by the furthest neighbour algorithm.

[Tables 1 and 2 near here]

Table 3 reports the mean values of each variable in the cluster analysis for each of the four clusters. Comparing cluster 1, containing most of the Northern universities, to cluster 2, containing most of the Southern universities, it is clear that the former 'perform' better on all seven measures. The mean values for Clusters 3 and 4, where most of the Central institutions are found, generally lie somewhere in between.

[Table 3 near here]

Discussion and Conclusion: the Field of Higher Education as an 'Institutional Meritocracy'

The results presented above show that there are indeed differentiated groups of Italian state universities. Specifically, these groups relate to the North/South divide, with the Italian Central macro-region showing intermediate values supporting the idea that the Italian Centre share characteristics of both North and South (Geuna et al. 2015). These findings demonstrate empirically that measures of the institutional performance of Italian universities in relation to what are commonly championed by NPM proponents as indicators of 'merit' map almost perfectly onto the historical macro-regional division between the North and the South of the country. Northern universities in Italy have substantially lower student-staff ratios; their students acquire more university credits and graduate more quickly; they educate more PhD students; and their research

publications are more highly cited and more likely to be placed in internationally recognised outlets. This key finding indicates that measures of 'performance' capture structural inequalities between institutions, in this instance linked to regional location, rather than performance *per se*. Or to put it another way, the performance of institutions cannot be disentangled from their geographic location and its historical and contemporary economic condition.

As noted earlier, the ostensible rationale behind performance-based funding is that it holds universities accountable for the quality of their teaching and research relative to other providers in the market and rewards or penalise institutions accordingly (Lane 2000). However, our results suggest that differences in performance in measures of institutional 'merit' cannot be solely explained by the 'talent' of individual universities. The Italian university and research evaluation agency, ANVUR, claims that a university system that is regularly evaluated – and rewarded accordingly – "represents a virtuous model" that "pushes individual institutions to comply with qualitative criteria that are accepted internationally and defined transparently" (ANVUR 2016, 684-5). The latter understanding of institutional 'merit', dictated by the standards of a global competitive market, is comparable to the neoliberal view of education as meritocratic competition. As with meritocracy as it operates at the level of the individual, institutional meritocracy 'disguises' the privileges of institutions as a 'gift of nature'. Performance-based funding systems act as sorting mechanisms for institutions – as higher education does with students – selecting and/or classifying them against a "virtuous model" based on "quality standards" that are deemed "objective" (ANVUR 2016, 684). The concept of 'institutional meritocracy' captures how, in the context of the neoliberal university, institutional academic taxonomies are "organised according to the hierarchy of qualities commonly ascribed to the dominant group."

In the context of an institutional meritocracy based on standards dictated by global competition, the 'logic proper to the system' is shaped by global university league tables –such as the *Times Higher Education* ranking or the *Academic Ranking of World Universities* produced by Shanghai Ranking Consultancy, leading to the normalisation of the research-intensive university as the 'virtuous' institutional model (Van Vught and Ziegele 2011; Hazelkorn 2007; Marginson and van der Wende 2007; David 2016). Our results suggest that, in the case of Italy, the capacity of a given institution to match this 'virtuous' model is a function of their regional environments. Thus, instead of improving efficiency and quality across the board, systems of institutional meritocracy translated into, inter alia, performance-based university funding systems serve to naturalise structurally-determined inequalities between institutions.

The concept of institutional meritocracy developed in this paper advances existing Bourdieusian accounts of the nature and drivers of the growing vertical stratification of universities throughout the world. It does so by showing how Bourdieu's critique of the illusion of meritocracy applies to institutions as well as individuals: in both cases, inequitable outcomes are misrepresented as the inevitable result of the playing-out of differences in intrinsic merit under conditions of fair competition (Bourdieu 1977). Bourdiesian scholars have highlighted the national and global higher education fields in which universities compete, and the ways in which institutional capitals largely predetermine successful position-taking within those fields (Naidoo 2004; Marginson 2008). The concept of institutional meritocracy completes this account, by giving a name to the game being played.

The institutional meritocracy game, as with the game played at the level of the individual (cf. Young 1958), is highly problematic given what is now an axiomatic proposition of Bourdieu's oeuvre: that 'all statistical inquiries show that the social properties of agents, thus their dispositions, correspond to the social properties of the position they occupy' (Bourdieu 1993, 165). Our empirical analysis shows that Italian institutions' social properties in terms of their regional environments, which correlate strongly with the age of institutions, the social background of their students, and their capacity to attract resources, successfully explain inequalities within the Italian higher education field.

Several decades of higher education policy-making have served to formalise and crystalize this differentiation within the Italian higher education system, making institutional hierarchies explicit, and naturalising power asymmetries within the national field. It is important to recognise, however, that these changes to the Italian national higher education system are a consequence of the emergence of a global 'field of power' (ibid., Marginson 2006) in higher education. This field of power is dominated by the US model of higher education, and to a lesser extent that of other Anglo-Saxon countries such as the UK, which has captured 'policy imagination everywhere [via] a selective reading of US practices' (Marginson 2008, 310). In many countries, we find practices that seek to emulate the structural features of this hegemonic model, consisting of a highly hierarchised system with a wide range of institutional types, a strong sense of competition for the brightest students and academics, and a premium placed on research performance and influence, to name a few of its features.

The dominance of this model in the field of global higher education has driven policy-makers and university officials to pursue a range of national and institutional strategies for 'positon-taking' (cf. Brankovic 2018). In Italy, playing the game of institutional meritocracy through the use of performance-based funding mechanisms seems to be regarded as the only way to successfully position Italian universities within the global higher education field (ibid.). The Italian case is, of course, far from unique in its response to the global field of power. Institutional meritocracy would seem, to many, to be the only game in town.

It is worth saying in closing that we acknowledge that the Italian government does not entirely fund universities based on performance. Italian universities receive region-specific funding per student, as the Italian government recognises that students from different regions have, on average, unequal levels of income and thus different capacities to make contributions to their student fees (ANVUR 2016, 302). Moreover, the Italian government has introduced cushioning measures in the form of funding mechanisms that prevent universities from seeing their budgets reduced more than 2 percent of what they received in the previous academic year. These measures clearly alleviate the funding deprivation that underperforming universities would otherwise suffer if funding models were purely competitive, and acknowledge at least to some extent that individual institutions never compete on a level playing field. However, we would contend that the introduction of these counterbalancing measures actually reinforce our argument that the establishment of a pure institutional meritocracy – one with no equalising or redistributive measures – would serve to naturalise and thereby legitimate structurally-determined inequalities between institutions, rather than, as claimed, improving efficiency and quality across the board.

References

Amsler, Sarah S., and Chris Bolsmann. 2012. "University Ranking as Social Exclusion." *British Journal of Sociology of Education* 33 (2). Routledge : 283–301. doi:10.1080/01425692.2011.649835.

ANVUR. 2014. *Rapporto Sullo Stato Del Sistema Universitario e Della Ricerca 2013*. Rome: Agenzia Nationale di Valutazione del sistema Universitario e della Ricerca.

ANVUR. 2016. *Rapporto Biennale Sullo Stato Del Sistema Universitario e Della Ricerca 2016*. Rome: Agenzia Nationale di Valutazione del sistema Universitario e della Ricerca.

Bagues, M., Mauro Sylos Labini, and N. Zynovyeva. 2008. "Differential Grading Standards and University Funding: Evidence from Italy." *CESifo Economic Studies* 54 (2): 149–176. doi:10.1093/cesifo/ifn011.

Barzelay, Michael. 2001. *The New Public Management: Improving Research and Policy Dialogue*. Berkeley: University of California Press.

Boffo, Stefano, and Roberto Moscati. 1998. "Evaluation in the Italian Higher Education System: Many Tribes, Many Territories...Many Godfathers." *European Journal of Education* 33 (3): 349–361.

Boliver, Vikki. 2015. "Are There Distinctive Clusters of Higher and Lower Status Universities in the UK?" *Oxford Review of Education* 41 (5): 608–627.

Bourdieu, Pierre. 1974. "The School as a Conservative Force: Scholastic and Cultural Inequalities." In *Contemporary Research in the Sociology of Education*, edited by L Eggleston, 32–46. London: Methuen.

Bourdieu, Pierre. 1977. "Cultural Reproduction and Social Reproduction." In *Power and Ideology in Education*, edited by J Karabel and A. Halsey, 487–511. New York: Oxford University Press.

Bourdieu, Pierre. 1993. *The Field of Cultural Production*. Cambridge: Polity Press.

Brankovic, Jelena. 2018. "The Status Games They Play: Unpacking the Dynamics of Organisational Status Competition in Higher Education." *Higher Education* 75 (4). Higher Education: 695–709. doi:10.1007/s10734-017-0169-2.

Broucker, Bruno, and Kurt De Wit. 2015. "New Public Management in Higher Education." In *The Palgrave International Handbook of Higher Education Policy and Governance*, edited by Jeroen Huisman, Harry de Boer, David D Dill, and Manuel Souto-Otero, 57–75. London: Palgrave Macmillan UK.

Brown, Phillip, Sally Power, Gerbrand Tholen, and Annabelle Allouch. 2016. "Credentials, Talent and Cultural Capital: A Comparative Study of Educational Elites in England and France." *British Journal of Sociology of Education* 37 (2). Routledge: 191–211. doi:10.1080/01425692.2014.920247.

Byrne, David, and Gill Callaghan. 2014. *Complexity Theory and the Social Sciences: The State of the Art*. Oxon: Routledge.

David, Matthew. 2016. "Fabricated World Class : Global University League Tables , Status Differentiation and Myths of Global Competition Differentiation and Myths of Global Competition." *British Journal of Sociology of Education* 37 (1). Routledge: 169–189. doi:10.1080/01425692.2015.1096190.

Everitt, Brian S., Sabine Landau, Morven Leese, and Daniel Stahl. 2011. *Cluster Analysis*. London: John Wiley & Sons.

Ferlie, Ewan. 1996. *The New Public Management in Action*. Oxford: Oxford University Press.

Geuna, Aldo. 2001. “The Changing Rationale for European University Research Funding: Are There Negative Unintended Consequences?” *Journal of Economic Issues* 35 (3): 607–632.
Geuna, Aldo, and Mauro Sylos Labini. 2013. “Il Finanziamento Pubblico Delle Università Italiane: Venti Anni Di Reiforme Incompiute.” *Department of Economics and Statistics “Cognetti de Martiis” Working Paper Series* 19: 1–25.
Geuna, Aldo, and Ben R. Martin. 2003. “University Research Evaluation and Funding: An International Comparison.” *Minerva* 41 (4): 277–304.
Hazelkorn, Ellen. 2007. “The Impact of League Tables and Ranking Systems on Higher Education Decision Making.” *Higher Education Management and Policy* 19 (2): 1–24.
Herbst, Marcel. 2007. *Financing Public Universities. The Case of Performance Funding. Higher Education Dynamics Series*. Vol. 18. New York: Springer.
Hicks, Diana. 2012. “Performance-Based University Research Funding Systems.” *Research Policy* 41 (2): 251–261.
Huberty, Carl J., Michael E. Jordan, and Christopher W. Brandt. 2005. “Cluster Analysis in Higher Education Research.” In *Higher Education: Handbook of Theory and Research. Volume XX*, edited by J. C. Smart, 437–457. Dordrecht: Springer.
Lane, Jan-Erik. 2000. *New Public Management*. London: Routledge.
Luzzatto, Giunio, and Roberto Moscati. 2005. “University Reform in Italy: Fears, Expectations and Contradictions.” In *Reform and Change in Higher Education. Higher Education Dynamics, Vol. 8.*, edited by A. Gornitzka, M. Kogan, and A. Amaral, 153–168. Dordrecht: Springer.
Marginson, Simon. 2006. “Dynamics of National and Global Competition in Higher Education.” *Higher Education* 52 (1): 1–39. doi:10.1007/s10734-004-7649-x.
Marginson, Simon. 2008. “Global Field and Global Imagining: Bourdieu and Worldwide Higher Education.” *British Journal of Sociology of Education* 29 (3): 283–301.
Marginson, Simon. 2016. “High Participation Systems of Higher Education.” *Journal of Higher Education* 87 (2): 243–271.
Marginson, Simon, and Marijk van der Wende. 2007. “To Rank or to Be Ranked: The Impact of Global Rankings in Higher Education.” *Journal of Studies in International Education* 11 (3–4): 306–329. doi:10.1177/1028315307303544.
Molin, Martina Dal, Mateo Turri, and Tommaso Agasisti. 2017. “New Public Management Reforms in the Italian Universities: Managerial Tools, Accountability Mechanisms or Simply Compliance?” *International Journal of Public Administration* 40: 256–269. doi:10.1080/01900692.2015.1107737.
Moscati, Roberto. 2009. “The Implementation of the Bologna Process in Italy.” In *European Integration and the Governance of Higher Education and Research. Higher Education Dynamics, Vol. 26*, edited by A. Amaral, G. Neave, C. Musselin, and P. Maassen, 207–225. Dordrecht: Springer.
Naidoo, Rajani. 2004. “Fields and Institutional Strategy: Bourdieu on the Relationship between Higher Education, Inequality and Society.” *British Journal of Sociology of Education* 25 (4): 457–471. doi:10.1080/0142569042000236952.
OECD. 1997. *The Evaluation of Scientific Research: Selected Experiences*. Paris: OECD.
Schimank, Uwe. 2005. “New Public Management and the Academic Profession: Reflection on the German Situation.” *Minerva* 43 (4): 361–376.
SVIMEZ. 2009. *Rapporto SVIMEZ 2009*. Rome: Associazione per lo sviluppo

dell'industria nel Mezzogiorno.
Triventi, Moris, and Paolo Trivellato. 2009. "Participation, Performance and Inequality in Italian Higher Education in the 20th Century: Evidence from the Italian Longitudinal Household Survey." *Higher Education* 57 (6): 681–702.
Turri, Matteo. 2016. "The Difficult Transition of the Italian University System: Growth, Underfunding and Reforms." *Journal of Further and Higher Education* 40 (1): 83–106.
Vaira, Massimiliano. 2003. "Higher Education Reform in Italy: An Institutional Analysis and a First Appraisal." *Higher Education Policy* 16: 179–197.
Van Vught, Frans, and Frank Ziegele. 2011. *U-Multirank: Design and Testing the Feasibility of a Multidimensional Global University Ranking*. Consortium for Higher Education and Research Performance Assessment. http://www.eurashe.eu/library/u-multirank_design-and-testing-the-feasibility-of-a-multidimensional-global-university-ranking-pdf/.
Williamson, John. 1993. "Democracy and the 'Washington Consensus.'" *World Development* 21 (8): 1329–1336.
Young, Michael. 1958. "The Rise of the Meritocracy 1870-2033. An Essay on Education and Equality." London: Thames and Hudson.

Table 1. Contingency table for the furthest neighbour 4-cluster solution and the NUTS1 Italian Macro-regions.

		Furthest neighbour clusters				
		1	2	3	4	Totals
NUTS1 Macro-regions	North-West	7	1	2	1	11
	North-East	10	0	1	0	11
	Centre	3	2	6	5	16
	Islands	0	4	0	1	5
	South	0	14	4	0	18
	Totals	20	21	13	7	61

Table 2. Cluster memberships of Italian universities for the furthest neighbour algorithm.

Cluster 1 (N=20)	**Cluster 2 (N=21)**	**Cluster 3 (N=13)**
'Insubria' Varese-Como	'Magna Graecia' Catanzaro	'Carlo Bo' Urbino
'IUAV' Venezia	Basilicata	'G. d'Annunzio' Chieti-Pescara
Bologna	Brescia	Bari
Ferrara	Cagliari	'Ca Foscari' Venezia
Milano	Calabria	Bergamo
Milano-Bicocca	Cassino e Lazio Meridionale	Firenze
Modena e Reggio Emilia	Catania	Macerata
Padova	L'Aquila	Roma Tre
Parma	Messina	Marche Politecnico
Pavia	Molise	'L'Orientale' Napoli
Perugia	'Federico II' Napoli	'Parthenope' Napoli
Piemonte Orientale	'Mediterranea' Reggio Calabria	Torino Politecnico
Milano Politecnico	Foggia	'La Sapienza' Roma
Torino	'Seconda' Napoli	
Trento	Palermo	**Cluster 4 (N=7)**
Trieste	Pisa	'Foro Italico' Roma
Udine	Bari Politecnico	'Tor Vergata' Roma
Verona	Salento	Camerino
Stranieri de Perugia	Salerno	Genova
Stranieri di Siena	Sannio di Benevento	Sassari
	Teramo	Siena
		Tuscia

Table 3. Mean values and standard deviations (in parentheses) of each variable for the four clusters (furthest neighbour algorithm)

	Furthest neighbour clusters			
	1	2	3	4
SCImago normalized impact score	1.37 (0.08)	1.19 (0.16)	1.19 (0.11)	1.19 (0.10)
% of publications with an international co-author	37.17 (4.70)	29.33 (5.83)	33.91 (4.72)	36.33 (2.87)
% PhD students within study body	2.38 (0.70)	1.56 (0.35)	1.85 (0.48)	3.50 (0.72)
Average number of undergraduate credits acquired	34.56 (3.33)	25.66 (2.56)	30.07 (3.14)	29.91 (2.83)
Average number of postgraduate credits acquired	38.21 (3.02)	31.90 (3.51)	35.73 (2.87)	35.17 (2.36)
Average number of years to graduation	4.59 (0.31)	5.65 (0.45)	5.09 (0.42)	5.35 (0.55)
Student/staff ratio	26.46 (4.6)	32.36 (5.22)	37.91 (7.19)	24.20 (3.47)