Diversity and Excellence in Higher Education

Can the Challenges be Reconciled?

Rosalind M. O. Pritchard, Matthias Klumpp and Ulrich Teichler (Eds.)

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ELLEN HAZELKORN

PREFACE

The Ruhr valley, and the city of Essen – where EAIR 2014 was hosted by the University of Duisburg-Essen – has been at the epicentre of the German and European economy over the past centuries. Originally a seed-bed of the industrial revolution on the European continent and early battles between capital and labour, coal mines began production in the 18th century. By the mid-19th century, there were almost 300 mines feeding coking ovens that produced iron and steel. The Zollverein mine, depicted on the cover and now a UNESCO heritage site, was in operation from 1851 to the 1980s. The largest coal mine in Europe during this time, it is an architectural landmark in the Bauhaus style.

Now an urbanized and culturally diverse region, with a strong emphasis on services and technology, the region is also a microcosm of socio-political change. The 20th century witnessed the tumultuous events associated with WW1, the Weimar Republic, WW2 and the rise of Hitler, followed by the early days of the European Coal and Steel Pact and then the European Union. As demand for coal fell after 1958, society and the economy diversified making it a mega-region of approximately 11.5m people.

In many ways, these events parallel changes in education, and especially higher education. The first degree-granting university in Europe, and the world, was the University of Bologna (established 1088). While aloof from commercial activity, the early university encompassed the legal and political-administrative sciences as application-oriented fields in the belief that society should benefit from the scholarly expertise generated by the university. Over the next centuries, universities were created across Europe to help satisfy a thirst for knowledge, and provide the basis for resolving difficult problems.

In Germany, strongly influenced by the scientific revolution, the Humboldtian reforms coupled applied technical and engineering fields with basic disciplinary knowledge. This model of research-based education has become, in many ways, the idealised university model, especially for graduate schools, and implemented around the world. Over the decades a wider range of socio-economic and learner groups, educational requirements and rapidly expanding careers have underpinned the transformation, expansion and diversification of educational provision and its providers everywhere.

Today, the Ruhr region and higher education are part of a globalised world in which boundaries are increasingly porous and the pursuit of excellence reigns supreme.

There is a close interdependence between the interests of the region and those of higher education institutions; indeed, successful regions are those that draw upon the expertise of a diverse set of institutions and expertise at their disposal. Rather than seeing the global dimension as qualitatively more important, the local, regional, national and international are part of a balanced, complementary and synergistic set of portfolio activities. Excellence is amplified and strengthened by diversity.

The EAIR Forum 2014 touched on all these dimensions and more. Enjoy reading the insights and reflections contained within these covers. Many thanks to our hosts at the University of Duisburg-Essen, and our EAIR colleagues and participants, for making 2014 such an important and stimulating event.

Ellen Hazelkorn
President EAIR

ROSALIND PRITCHARD, MATTHIAS KLUMPP AND
ULRICH TEICHLER

THE CHALLENGES OF DIVERSITY AND EXCELLENCE

TRENDS, POLICIES AND DISCOURSES

An Old and a New Theme

"Higher Education: Diversity and Excellence for Society" was the title of a recent conference. About 300 researchers, policy makers and practitioners met at the 36th Annual Forum of the EAIR – a European association promoting dialogues on research findings and practical challenges in the domain of higher education. This book presents a variety of articles based on presentations at this conference. The conference was held at the University of Duisburg-Essen – a suitable site for such reflection, because the history of this institution has been shaped by efforts to serve diversity. Initially, two institutions were founded in the 1970s with the aim of merging the characteristics of universities and of *Fachhochschulen*, the new practice-oriented higher education institutions, under the umbrella of *Gesamthochschule*; though the terminology has been changed, a close link between theory and practice has not vanished. Subsequently, another merger took place between the Universities of Duisburg and Essen, the two institutions located in neighbouring cities; the new institutional entity embarked on a range of forward-looking policies. Among others, diversity management is emphasised, i.e., serving a broad range of students with varied socio-biographic backgrounds, educational experiences and notions of their own present and future.

'Diversity' and 'Excellence' are by no means completely new or completely original themes. The discourse at this conference, however, supported the view of its initiators and organisers that these two terms depict a tension in higher education which has already been salient for quite a while, but has repeatedly changed in nature and continues to pose new challenges. Moreover, it is obvious that the two terms point to a state of affairs which affects many features of the daily life within higher education.

Looking Back

The qualities characterised by the terms 'diversity' and 'excellence' have been viewed as key issues for about five decades – when the expansion of higher education

in terms of enrolment rates moved into the limelight of higher education policy. The debate gained momentum at a time when the American sociologist Martin Trow put forward the developmental theory of 'elite higher education' – 'mass higher education' – 'universal higher education.' Accordingly, higher education has been more or less consistently characterised by a high quality pursuit of knowledge as well as by the education and personality enhancement of the academic and social elite, as long as the enrolment rates have been less than fifteen per cent of the corresponding age group. When expansion has surpassed this threshold, higher education diversifies into functional sectors: 'mass higher education' serving the talents, motives as well as the career and life perspectives of the additional students alongside 'elite higher education' serving the traditional functions. A third sector, i.e., 'universal higher education' was anticipated by Trow for the time when enrolment rates eventually will have surpassed fifty per cent – a stage of expansion which is now reached in many economically advanced countries.

This functional differentiation was expected to be universal in modern societies, unless no power intervened irrationally. However, the modes of diversity and the extent of diversity were not specified by Trow. His concept was often interpreted as having the U.S. system in mind as a model for the modern world, i.e., a system characterised by relatively extreme quality differences between individual institutions of higher education or often between departments within the same disciplinary area as well as by some institutions proud of fostering a specific profile of their own, e.g., emphasis on 'liberal arts', service to the region, 'civic virtues', elite personality, etc. In various European countries also the view had spread since the 1960s that more diversity would be needed in the process of expansion; however, priority was granted to a policy of creating clearly distinct sectors of higher education, whereby the differences were expected to be or to remain small within each sector.

In various countries, a system of different institutional types was established as the most visible element of diversity, for example 'polytechnics' alongside universities in the United Kingdom and *Fachhochschulen* alongside universities in Germany. Altogether, we note the growth of formal diversity in Europe from the 1960s onwards until the 1990s in terms of the functions of institutional types, and/or the length and character of schooling as entry qualification, and/or the length and nature of the study programmes.

Whatever mode of 'formal' (i.e., codified in laws or other official documents) or 'informal' programmes; of 'vertical' (i.e., level of 'quality and reputation') or 'horizontal' (i.e., substantive 'profiles') differentiation emerged in different countries – instability and pressure for new configurations of the higher education seem to be endemic. Four dynamics are named most frequently in respective analyses.

First, the system of varied institutions and study programmes was often destabilised by what was called 'academic drift' or could be more generally called 'status drift'. The sector with less of a role in training the elite, less of an influence

upon academic reproduction, less involvement in research, more direct professional preparation, shorter study programmes, or whatever elements might create the feeling of being at a relatively lower status than the classical institutions tended to strive for a status increase by progressive assimilation to the more prestigious sector. The name change from 'polytechnics' to 'universities' in the UK in 1992 has been often cited as the most visible change of that kind.

Second, the more higher education expanded and the more it was viewed as an essential component of the 'knowledge society', the more attention was paid to more refined informal distinctions than those of institutional types or length of study programmes. Thereby, emphasis was placed almost exclusively on 'vertical' differences. The tendency to 'rank' institutions or other units has spread in various European countries since the 1980s, whereby emphasis increasingly moved over the years away from teaching and learning to research 'performance'.

Third, there were constant political discussions and actual changes as regards the three principles according to which education as well as social selection through higher education were organised. In all countries higher education seems in some respects to serve three principles concurrently: the privileging of the advantaged, the meritocratic principle of nurturing the most ambitious and successful students, and finally the concern for equality of opportunity, possibly by compensatory measures in favour of the underprivileged. The weight of these three principles is a topic of dispute. Similarly, we note a dispute as regards the extent to which the respective processes are viewed as 'transparent', 'fair' or 'just'.

Fourth, in spite of the frequent reference to the term 'autonomy', societal expectations became stronger as 'challenges' or 'pressures' on higher education. Words spread which are bluntly instrumental, e.g., 'employability' or 'knowledge economy' but also more noble expressions such as 'relevance' and 'knowledge society' suggest that the configuration of the higher education system and of the research, teaching and other functions of higher education are decreasingly shaped by the inner logic of knowledge production and dissemination, while the weight of external expectations is growing to serve society more directly, more visibly and in a more targeted manner.

Recent Developments and Issues

Since the beginning of the 21st century we note various moves towards further diversification of higher education as well as the growing virulence of the four dynamics named above. In some respects, the debate is similar to that in the preceding period as far as the issues are concerned, but is characterised by a stronger sense of urgency: higher education is more often envisaged as ending up in disaster, if it does not attend to the demands of the 'knowledge economy', if it does not strengthen 'employability', if it does not dramatically enhance 'quality', 'relevance' and 'efficiency' all at the same time. The recent public discourse, however, differs

from that of the preceding decades in two respects which are closely intertwined. First, three supra-national trends or policies are viewed as highly influential. Second, more attention is paid now to the issue of the relationships between 'diversity' and 'excellence'.

Among recent supra-national trends and policies, the so-called 'Bologna Process' is one of the key components. The introduction of a 'convergent' model of tiers/levels of study programmes and degrees across European countries is a targeted policy for changing the formal configuration of the teaching and learning function in higher education. Levels of study programmes and degrees are expected to become the single most important element of formal diversity within higher education; thereby, it remains open whether varying institutional types will survive as a secondary element of formal diversity or vanish over time; it remains open as well, whether differences of curricular thrusts – e.g., 'theoretical' vs. 'vocational' thrusts – will remain in a subordinate role or eventually become eroded.

The so-called 'Lisbon Process' is another supra-national policy arena. The relevance of research for the future of modern societies is expected to increase substantially, and competition between scholars, institutions of higher education, research countries and supra-national regions seems to become fiercer and to form the basis of high quality and relevance. Closely linked to the increasing belief in competition as a driving force in higher education and research is a growing discussion about the most desirable extent and the most desirable modes of diversity; this framework also reflects concerns about the possible role of an 'elite' or 'excellence' sector within the higher education and research system.

The remaining supra-national theme – the informal vertical diversity – is a global one. 'Ranking' lists of 'world-class universities' have been in the limelight of the higher education policy discourse since the early years of the 21st century. As many analyses have shown, these are not neutral instruments of information and 'transparency', but rather – intentionally or unintentionally – instruments for advertising and reinforcing the value judgements that a strong vertical diversification of higher education and research is desirable, that the 'excellent' sector is by far the most highly relevant for society, and that clustering the highest talents of academics and students within a limited number of institutions is serving the knowledge system and the society most appropriately.

Most of the recent trends and policies have contributed to increasing attention being paid to 'vertical' diversity. This does not mean that other objectives have vanished. For example, student mobility between higher education institutions of different countries can only be facilitated in the framework of the 'Bologna Process' if the national systems are not steeply stratified; they need to offer the students of each institution an opportunity to study for a period at a wide range of institutions in other countries. Yet, the growing emphasis on 'vertical' differences between higher education institutions has discouraged efforts to strive for horizontal diversity, i.e., for specific profiles, while imitating the top has become the clearly dominant dynamic. In terms of headline of this Introduction, we can

say: 'Diversity' and 'Excellence' seem to have more adversarial relationships nowadays than in preceding decades.

Beyond the Limelight of the Policy Discourse: The Varied Features of Diversity and Excellence in Higher Education

An international conference aimed at providing information on the issues of 'diversity' and 'excellence' and at discussing the challenges and their implications for shaping the future of higher education is itself a mirror of the variety of views, prevailing sentiments and actual activities in higher education across countries. The EAIR Forum 2014 has shown on the one hand that higher education is strongly challenged by the dominant 'world-class university' paradigm to strive for the top, to imitate the top, to consider the individual university as the key actor and unit of production, and to foster the quality of research even at the expense of the quality of teaching and of the relevance of both research and teaching. On the other hand, the EAIR Forum has shown that the actors involved do not want to yield to such a narrow approach and that most people analyse the situation from a wider perspective. First, the overall question is raised whether 'diversity' and 'excellence' are bound to have a clearly adversarial relationship, whether a 'peaceful coexistence' is possible, or whether one may even assume a mutually creative influence. Second, attention is paid to a multitude of interesting concepts and activities, which show that visions and realities are much broader than the fashionable discourse suggests.

Some contributions in this volume suggest, for example, that universities see inequality of opportunity and of actual participation in higher education nowadays as an even more striking challenge than ever before – in part, because hopes have faded that this problem would be easily solved due to the process of educational expansion and democratization of society, and in part, because concerns seem to grow about the social cohesion of society. Some contributions point out that not all institutions of higher education aim to occupy a certain rank in a highly stratified system, but on the contrary, intend to serve a broad spectrum of functions, qualities and student profiles. For example, mergers of institutions of higher education might be driven by concepts of economy of scale, broadening the spectrum of disciplines or serving regional expectations, but actually leading to an increasing intra-institutional diversity. Or institutions of higher education may opt for strategies often called 'diversity management', i.e., for a variety of measures which aim not only at improving the chances of 'new students' to succeed in their study, but also try to ensure that diversity provides a creative basis for experience and interaction which eventually lead to greater success than teaching and learning in relatively homogeneous environments. Some contributions focus on changes of steering and management in higher education which enable those responsible to shape higher education so as to address a broader spectrum of challenges and tasks than just those that predominate in current public discourse.

THE CONTRIBUTIONS TO THIS VOLUME

The book is structured in three sections. The first discusses challenges resulting from the pressure of neo-liberal trends upon higher education systems. The second considers the impact of change upon students, focusing particularly upon issues of equity and justice; and the third discusses challenges to the functioning of the institutions with regard to management, governance and performance assessment.

New Challenges for Higher Education

The first section addresses the market-oriented forces that are causing change in higher education structures, and foregrounds the dangers that inhere in some of the financial trends. Four articles present a variety of perspectives.

Peter Scott presents a key overview paper in which he considers whether markets and heavy 'managerialism' necessarily need to go together. Lack of diversity has emerged as a political issue and the market seems to have become a form of hegemony that is assumed to promote differentiation. But Scott argues that the links are not inevitable. He is unconvinced that the ideology of a 'market model' is suitable for higher education in the first place; and even if it were, we ought not to assume that in order to promote diversity we have to encourage more market-like behaviour. Markets do not necessarily lead to diversity, and are just as likely to produce uniformity as to encourage differentiation. League tables and rankings may actually encourage uniformity in that the aspiration is often towards the same *kind* of excellence: usually research-based. Indeed, tighter institutional management may well encourage narrow and traditional criteria, and promote conformity, favouring 'closed' rather than 'open' systems. In short, the operation of markets may reinforce conformity rather than stimulating difference. Markets need managers, but managers may not necessarily need markets.

Yet differentiation of mission and profile in higher education institutions is widely seen as a means of adjusting higher education provision to the growing and increasingly diverse demands of the European labour markets that call for academically trained work forces. *Christiane Gaehtgens* discusses the 'Excellence Initiative' in Germany. She studies its effect on the institutions, giving special attention to its impact on small and medium sized universities in a competitive environment. Mostly it has been the large higher education institutions that have excelled in the Excellence Initiative, but Gaehtgens argues that there is a pressing need to define the 'middle' of a higher education system, to appreciate its role and to re-define institutional strategies to grow, improve and succeed. She concludes that smaller universities have an essential role in meeting the diverse, flexible, stakeholder-driven demand for academic teaching and innovation in our societies. But in order for them to fulfil that role, they will need to limit their research ambitions to selected areas of excellence and make greater use of strategic networks and cooperation. They will need support from policy makers and the public to achieve such a mission,

and will require a shift in priorities which allows areas other than research to become recognised in reputation building and funding.

Though Gaehtgens argues for the importance of smaller higher education institutions, many countries are using mergers as a way of creating larger institutions. However, mergers constitute a vast challenge with respect to governance, quality, diversity and economy. *Göran Melin* offers an analytical study of mergers that have occurred in Denmark and Sweden, conscious of the fact that mergers are almost always dramatic for those involved, and have long term effects on higher education institutions. His study reveals common patterns of merger processes and provides a synthesis of recommendations to consider when planning and implementing such amalgamations. He argues that there is an inverse relationship between the speed of merger and post-merger recovery: a short preparation phase before the actual merger requires relatively longer integration work afterwards; and vice versa. At first glance, it may look as if mergers lead to less diversity within higher education, but this is not necessarily so. Melin believes that strong institutions are better able to nurture diversity inside themselves, allowing small and emerging fields to grow, whereas financially poor institutions may have fewer opportunities to provide the kind of support that leads to increased diversity. But there is a "quality tunnel" that the merged institutions must go through right after the merger: the desired improvements will take some time and the rewards will not be immediate.

The section ends with a cautionary piece by *Carol Frances* from the United States who warns Europeans of the dangers they may encounter by emulating American higher education policies. She believes that it has been a great mistake to shift from making higher education primarily a public responsibility to putting more and more of the burden of paying for higher education onto students and their families. High tuition fees have been implemented but the policy of high student aid has (mostly) not been implemented. This has led to student borrowing with concomitant debt that profoundly affects life decisions; a graduate beginning employment with a heavy debt burden is at a considerable disadvantage compared with an economically buoyant graduate who is well placed to accumulate capital from his or her earnings. The shift to debt finance widens income inequality, and ultimately the quality of national life as reflected in the UN Human Development Index. It has fuelled the growth of for-profit higher education institutions, and has enabled at least one individual entrepreneur to become a billionaire. Frances calls for policy makers in other nations to become more aware of the unanticipated and unfavourable consequences of American policies and to pursue more positive national education policies based on comparative returns to greater investment in their people.

Impact of Changes on Students

In a mass higher education system, the social basis of the students necessarily diversifies. Not all are traditional students from educated backgrounds, and this poses new challenges for planners and managers. The second section of the book is unified

around the theme of social justice for students and addresses life cycle transitions from school to higher education, degree completion, postgraduate education and graduate employability.

Ashley Macrander concentrates upon geographic inequality in South Africa where 60% of Whites attend tertiary education, compared with only 11% of Black Africans: this is still the situation despite the government's strategic plan to change from apartheid to a non-racialised democratic State. She references research indicating that poverty, indigenous language use, inequity in primary and secondary education, and parental death are barriers to post-secondary education, specifically for Black African students. She uses geospatial analysis of the distribution of the Black African and White populations across South Africa to demonstrate an environment in which Black Africans have become relatively isolated. Within their communities, geographic space and social life mutually inform each other to create access barriers to higher education. Her analysis of socio-spatial (in)justice provides a more complete picture of the multiple sociological determinants of education that function concurrently to constrain Black African student access to tertiary education.

Luís Carvalho is also concerned with higher education access, this time in Portugal. It is a country where private schools tend to inflate their students' grades to maximise their chances of getting into university; and public universities lack autonomy to choose the students whom they admit. In a competitive world, student selection becomes an instrument that allows higher education institutions to increase their own status and productivity by filling their courses with able people who will do them credit. He focuses upon the most sought-after university in the country to research the question: how do academics define merit as it relates to student selection in higher education? He concludes that the present Portuguese access system is wasteful and leaves many programmes full of unmotivated candidates. Indeed the academics themselves consider that academic credentials, used without any other criteria, are often rather meaningless; these university teachers attribute more value to motivation, inquisitiveness and critical thinking, even though these dimensions are difficult to assess and indeed are *not* assessed under the current regime. Carvalho clearly thinks that they should be.

Ray Franke examines higher education in the United States where even with universal access for students seeking admittance to the higher education system, there has not been a concomitant increase in educational attainment nor a decrease in societal inequality. Franke therefore seeks to examine ways in which socioeconomic status and related measures affect students' likelihood of obtaining a baccalaureate degree. In a word, he examines student persistence and degree completion. His results show that students from the lower income spectrum are significantly less likely to graduate with a Bachelor's degree than their high-income peers, regardless of institution attended. Accumulated wealth positively affects degree attainment. Franke stresses that administrators, faculty, and policy makers *can* help reduce persistent gaps in educational attainment through measures that increase social integration on campus, reduce the need for gainful employment while studying,

provide adequate financial aid, and increase intellectual stimulus through diversity on campus.

Tony Strike looks at access, not for undergraduates, but for postgraduates in that bastion of neo-liberal values, England. In the United Kingdom, there is already a three-cycle structure of Bachelor's, Master's and doctoral degrees which the 'Bologna Process' seeks to introduce on a wide scale in countries of the European Union. English universities charge very high fees for their programmes, and many students emerge from their first study cycle laden with financial debt. It is perhaps not a cause for surprise that progress from undergraduate to postgraduate programmes has been faltering in recent years. Graduates from Master's courses have better earning potential, and Strike is interested in the extent to which opportunities are available for all those with the ability and ambition to progress their studies. He examines the 'widening participation' agenda for people from backgrounds under-represented at university, particularly as regards their access to postgraduate study. He finds that opportunities for progression vary between different socio-economic groups and that a disadvantaged socio-economic situation is the main obstacle to postgraduate participation. He reports on a major project addressing the developing postgraduate deficit, and calls for a targeted national postgraduate scholarship scheme to be administered by higher education institutions. This would, he believes, help to ensure fair access to study and the professions.

The final contribution in the second section addresses the issue of employability in Bulgaria. *Pepka Boyadjieva and Petya Ilieva-Trichkova* explore the impact which the institutional profiles of higher education institutions have on the graduates' early employment history, in the context of expansion and differentiation of higher education. They argue that graduate employability is strongly influenced by institutional characteristics resulting from various modes of differentiation leading to diversity (structural, quality-related and symbolic). They show that only by taking into account the institutional profiles can we understand the influence of higher education institutions upon graduates' life chances. Their assumption is that we should use this understanding to develop adequate higher education policies; and that we need a new combined theoretical framework taking into account both the individual's capabilities, and the relationship between higher education and the labour market.

Impact of Changes on the Functioning of Institutions

The greater the diversity of a higher education system, the greater the need for skillful management systems and sensitive forms of performance assessment. The third section of the book deals with aspects of institutional functioning in view of the challenges posed by diversification.

Barbara Ehrenstorfer, Stefanie Sterrer, Silke Preymann, Regina Aichinger and Martina Gaisch explore the ways in which leadership styles and approaches are applied in higher education. Taking two different types of higher education institutions

in Austria as their example, they study the competencies required by manager academics in each particular institutional environment. One of the institutions is a traditional university whereas the other focuses upon applied sciences. The necessary skills are multi-faceted and differ somewhat in each institutional type; not all can be imparted by training. There is evidence to suggest that a distributed leadership approach is the most successful at personal and organizational levels, and the five authors propose a specific set of leadership values on the basis of their research. In order to promote leadership competencies, there is clearly a need for more predictable manager career plans incorporating proper training opportunities with availability of institutionalised mentoring and coaching. Recruiting practices have not kept up with the requirements of manager academics; they still tend to focus on professional and academic skills, with leadership and management skills being considered merely as a desirable add-on. Improvement at a number of levels is needed to manage this sort of diversity.

Ton Kallenberg also addresses himself to the role of middle managers, this time in the Netherlands. He distinguishes a typology of four roles that are particularly important during strategic innovations: namely Guard, Constructor, Diplomat and Guide. The Guard revitalises, the Constructor transforms and the Diplomat explores. The Guide is people-oriented rather than result-oriented, and is committed to staff in all types of innovation. Academic middle managers are able to see opportunities for synergy where the various practices and skills can reinforce one another. Especially when the organisation innovates, they can potentially play a central role. They have what the author terms a 'prism-effect': they absorb, reflect, refract and transform information from many different sources, selecting, interpreting, filtering and slanting it positively or negatively. They use the input in a slightly different way to that in which they have originally received it, and because of this capacity, they can exercise great influence on strategic innovation. The challenge is to link the distinctive style of academic middle manager with the appropriate type of strategic innovation. A mismatch will lead to a troublesome innovation process plagued by complaints from different quarters within the organisation.

Norbert Sabic studies governance in Romania, a country that has consciously sought to diversify its higher education system by using a classification and ranking exercise. The Romanian government considered the homogeneity of its system a barrier to achieving excellence in an increasingly globalised world, and adopted diversification as one of its main policy objectives. It aimed to use transparency tools as instruments of governance and link them to the allocation of publicly funded study places and other financial incentives. Its attempt to evaluate institutional performance against its own indicators has been severely criticised as an attempt to instrumentalise universities for national political agendas and make them compete against each other. Though the harshest dimensions of this policy have now eased, the new forms of governance appear to be a hybrid combination of a market model and of a sovereign state model in which the former can be made to serve the latter.

The Romanian reform represents a unique case since it was one of the first attempts in Europe actually to use a classification and ranking exercise for such broad purposes.

René Krempkow is also concerned with performance based funding which he believes may become increasingly the norm, even if it is not yet widely implemented in Germany, his home country. He points out that performance ratings need to take account of the basic human 'material' with which the institutions work: namely students. The social background of students varies greatly between institutions, and those from higher strata tend to perform more strongly with concomitant influence upon the reputation of the higher education institutions where they study. After all, diversified higher education institutions have to fulfil needs of different target groups, and some higher education institutions have a majority of students who are the first in their family to attend university, whereas others – typically the most high-prestige, research-oriented – may have a majority of students whose parents and even grandparents were higher education graduates. He examines the Australian method of analysing how institutions add educational value to maximise the performance of students beyond what might normally be expected from their social and academic background. He advocates that higher education institutions should be rewarded financially for their strong 'added-value' performance, and that the Australian model could, with advantage, be applied to Germany and other countries where performance ratings play a vitally important role.

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As we have stated, this broad and interesting book regarding diversity and excellence in higher education is based on the 2014 EAIR Forum in Essen, Germany. Therefore, the editors wish to thank all the supporters of the conference event. We are especially grateful to those who engaged in discussion with the authors of chapters presented here, and thereby took the theme of the conference a step further.

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PART 1

NEW CHALLENGES FOR HIGHER EDUCATION

PETER SCOTT

1. MARKETS AND MANAGERIALISM

Enhancing Diversity or Promoting Conformity?

INTRODUCTION

Best-selling 'guru' books, often aimed at business people transiting through airports, love alliterative lists – the three 'S's, the four 'C's, the six 'R's and so on. The choice of bulleted advice, it sometimes seems, is constrained by their initial letters. In the same spirit this chapter is about the two 'M's – markets and managerialism – both of course boo-words in the traditional academy (Brown & Carasso, 2013; McGettigan, 2013). Often in the context of the evolution of modern higher education systems these two are elided. Markets need managers, and managers require entrepreneurial spaces in which to showcase their skills. The argument presented here is different, that the management revolution that has taken place in higher education over the past two or three decades may be (roughly speaking) synchronous with, but it is not necessarily synonymous with, the somewhat stuttering advance towards greater reliance on more explicit market mechanisms in the funding and organisation of higher education. Markets may indeed need managers, but the reverse is not invariably or necessarily true.

This chapter also addresses a second theme, the assumed dichotomy between convergence and divergence or homogeneity – 'one size fits all' (or most) – and differentiation. 'Assumed' because it is not always clear that higher education institutions are actually becoming more alike, although standardised state funding systems and levelling markets may provide an incentive for them to do so. In terms of their institutional types mass higher education systems appear to be less differentiated than the elite university systems they replaced, a trend that some have found counter-intuitive. But in terms of their organisational cultures, professional and pedagogic practices, knowledge traditions and (crucially) social bases, mass systems are clearly more diverse than elite systems. However, for reasons that may have much to do with the desire of elite research universities to distinguish themselves from other institutions (now much more likely to share the 'university' title) and perhaps to kill off any competition that these other institutions may represent, the alleged lack of 'diversity' in modern higher education has emerged as a political issue. And it is argued, in general rather than specific terms, that market systems may be able to deliver greater differentiation.

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 3–17.

In order to illuminate these two paired (and conveniently alliterative) issues – markets and managerialism; and convergence/conformity and divergence/differentiation – three questions will be considered:

Is there an inevitability about the apparent drift from 'mass' systems of higher education that are publicly oriented (if not publicly directed) and largely publicly funded to 'market' systems (or maybe networks is a better word than systems) composed of 'entrepreneurial' universities and increasingly dependent on 'cost-sharing' (in other words, fees paid by students)?

Are these 'market' systems (or networks of 'entrepreneurial' institutions – or maybe even 'knowledge businesses') – whether historically inevitable or merely ideologically contingent – well designed to encourage greater diversity or are they likely, on the contrary, to reward conformity?

To what extent do the 'market' systems that are emerging in many parts of the world, most strongly in England within Europe but also in Australia, New Zealand and many countries in East Asia, really constitute a genuine market? In the absence of a significant private for-profit sector (as opposed to well established private but not-for-profit institutions that have much in common with their publicly funded peers), does it matter that viable pricing, usually regarded as central to the operation of genuine markets, seems to be weakly developed? Or are these 'market' systems so hedged around by regulatory constraints, and so dependent on (indirect) public funding, that the label is misleading?

'MASSIFICATION' AND 'MARKETISATION'

The first question, then, is whether the drift to 'markets' is inevitable, and what relationship it has with the development of mass higher education. Is 'marketisation' a higher (or lower!) form of 'massification', or something different? Often both are glossed in terms of 'modernising' or 'liberalising' higher education systems, with the former more closely linked perhaps to the development of mass higher education and the latter with the drift towards market systems (Scott, 1994; Marginson, 1997). The new ingredient, which may have tilted development in a more explicitly market direction, is the increasingly unchallenged hegemony of an aggressive free-market neo-conservative ideology.

But, whatever sequence is preferred, there are some common features. The first is the trend towards greater institutional autonomy, and the second is a (rather less certain) trend towards 'cost-sharing' (or charging, or increasing, tuition fees paid by students). The two are often lumped together as a single phenomenon, although here they will be treated separately. There is also a third trend: the growing prominence of publicly available rankings, performance indicators and, in particular, league tables which have fuelled 'brand wars' among institutions. Finally, there is a fourth trend, away from passive collegio-bureaucratic forms of university governance to more managerialist, and latterly entrepreneurial, modes.

Institutional Autonomy

The trend towards greater institutional autonomy can be explained in terms of two ideas, one rather old and the other comparatively recent.

The 'old' idea is that in an open society universities – traditional universities, at any rate – can only fulfil their full potential if they are autonomous institutions (and, therefore, able to ensure the twin freedoms of teaching and research). In its original formulation this idea goes back to the Humboldtian ideal supposedly embodied in the German universities of the 19th century; English and French higher education were perhaps more compromised by their role in the reproduction of elites, social elites in the case of the former and professional elites in the case of the latter, while higher education in the United States was always more utilitarian in its orientation. More recently a clear distinction has been drawn between the territory and competence of the state, the domain of the private – or 'market' – sector and the intermediate (and intermediary) territory of so-called 'civil society' that is neither 'state' nor 'private'. Universities are firmly located in this third sector of 'civil society'

The 'new' idea is that in the high-technology (and, arguably, post-industrial) economy of the 21st century, scientific, professional and technical knowledge have become a primary resource – and, therefore, that knowledge-producing organisations (which include universities and other higher education institutions) have become primary producers of economic wealth (not just, as in former eras, of cultural capital and socio-political esteem). More recently perhaps this idea has been expressed in less triumphant and categorical terms, as it has become clear that raw materials (especially forms of energy) and capital, in its monetary or tradable forms, have retained their importance even in the most knowledge-intensive economies. But it remains a potent idea that explains the proliferation of 'skills agendas' in most countries, developed or developing, and the drive to emphasise the applications, or impact, of research. To realise their full potential, higher education institutions must be flexible, adaptable or (in the favourite word) 'entrepreneurial'. But, so it is argued, they can only act in this way if they are given greater autonomy.

These two ideas, 'old' and 'new', have come together to power the drive towards greater institutional autonomy – although it is probably fair to say that the second has been much more influential than the first. The forms of institutional autonomy that have become popular across Europe – and have been encouraged globally by organisations such as the World Bank and OECD – place a much greater emphasis on the freedom of institutional leaders to manage without unnecessary political or bureaucratic constraints than they do on the traditional freedoms to teach and research celebrated in the Humboldtian ideal (although the latter are absolutely crucial in terms of promoting scientific curiosity and intellectual creativity, which are the real engines of innovation in contemporary societies). We are talking about the freedom to manage not the freedom to think.

Yet both ideas, 'old' and 'new', can be related to the development of 'market' systems of higher education. In both cases the state, especially in its extended form

as the 20th-century ‘welfare state’ or ‘social market’, is defined as the ‘other’ – as a constraint on the university’s traditional freedoms to teach and research (although usually for reasons of administrative conformity rather than from a wish to impose any form of political censorship); and as an equally significant obstacle to the freedom of higher education institutions to spread their ‘entrepreneurial’ wings in order to contribute fully to the global ‘knowledge’ economy. In other words, in the context of the ‘market’ higher education of the 21st century, the state is the problem not the solution as it was conceived to be in the case of the ‘mass’ systems that developed in the second half of the 20th century.

Of course, the state has not disappeared from higher education – and never will. It has simply changed its clothes. The ‘welfare state’ that itself directly provided ‘public’ services such as higher education (often in the cause of nation building or, after 1945/1960, social solidarity) has been replaced by the ‘audit’ or ‘regulation state’ that now safeguards the interests of ‘customers’, invests in scientific capacity (or, if you like, intellectual infrastructure) and ensures ‘value for money’. In its new clothes the state may exercise even greater power and influence over the scale, character and direction of higher education than its ‘welfare state’ ever aspired to wield. This means that the trend towards greater institutional autonomy, although undoubtedly an important element in the evolution of ‘market’ systems of higher education, must be carefully evaluated. Autonomy for whom and in what interests are important questions.

‘Cost-Sharing’

The second trend is towards ‘cost-sharing’, a euphemism used to describe policies that lead to a reduction in direct state funding of universities and their increasing dependence on tuition fees paid by students. As has already been suggested, this is a less well-established trend. Within Europe it has made limited progress. In most European countries where fees (or student charges under different labels) have been charged, they have stayed low. In some key countries, notably in Scandinavia, higher education continues to be ‘free’. And in Germany there has actually been a retreat from ‘cost-sharing’: those *Länder* that did charge fees have abandoned them. Within Europe England is the only country to move towards much higher fees (currently capped at 9,000£ a year). Other parts of the United Kingdom have not followed England: there are no fees in Scotland; Wales and Northern Ireland have kept fees low.

Outside Europe the picture is also mixed. In countries with well-established private universities, for example Korea or Japan, fees have remained common – but have not tended to increase nor has ‘cost-sharing’ tended to spread. In the United States above-inflation tuition fee increases have provoked a powerful political backlash. In poor countries with weak state structures which, combined with endemic corruption, have produced wholly inadequate tax bases, there has often

been no realistic alternative income apart from student fees. But none of this adds up to an irresistible global trend towards 'cost-sharing'.

Where fees have been increased, it has often been because the imposition of austerity policies following the 2008 financial crisis, and consequent economic recession (and increasing state indebtedness as tax income has reduced) has left no alternative. Rarely have there been much evidence of a political will, or ideological drive, to shift the burden of higher education from taxpayers to students (and graduates). There have simply been more pressing claims on (shrinking) public expenditure, notably health and social security. In other words higher tuition fees have largely been collateral damage.

It is also significant that, despite (sadly) an increasing tolerance of growing inequality in many advanced societies, the demands of social equity have remained sufficiently strong to ensure that the financial impact of higher fees has been mitigated by a range of measures. These include low-interest loans (which may never be repaid in full) and scholarships and bursaries for students from disadvantaged social groups. This has had two effects. The first is that the overall total, and proportion, of publicly provided funding made available to higher education has hardly changed – although it may now be included under different categories in national accounts. In other words, the state is still contributing just as much as before (and, consequently, its influence over the development of higher education, although exercised in different ways, has not been diminished). The second effect is that most fee regimes are really a combination of voucher systems (whereby public funding is channelled through students rather than directly to institutions) and graduate taxes (because up-front loans are provided to pay loans and recovered through deductions from the salaries of graduates). Both effects make it doubtful whether the cost of higher education has truly been shifted from taxpayers to 'users'. In short, 'cost-sharing' is often a sham.

In truth, both trends – towards greater institutional autonomy (the 'right of managers to manage', of course, not enhanced freedoms to teach and research), and towards 'cost-sharing' (and higher student fees) – are perhaps better understood not as home-grown higher education policies but as the collateral consequences of a shift in the way the 21st-century state is conceived and organised. One of the most conspicuous features of that shift is the rapid growth of a new 'third sector' – not, of course, the traditional 'third sector' as represented by 'civil society' but the para-state produced by the privatisation and out-sourcing of once 'public' services to commercial organisations that has created an expanding, but shadowy, borderland between the state and the private (or market) sector.

Perhaps the development of so-called 'market' higher education systems is best understood in this context – conceptually, because the evolution of the para-state and universities' role within it (as 'delivery' organisations of nationally mandated 'contracts') probably makes better sense than simply to view them rather idealistically (and naively?) as powerful 'knowledge' organisations within a global 'knowledge society' and also practically, because higher education institutions

must now navigate their courses through the mass of audit and regulation that is the fate of other state 'contractors' such as energy companies or airlines. The new responsibilities thrust on managers in higher education are to manoeuvre, as advantageously as possible, within this constrained (and politicised) environment and to play the 'compliance game' successfully – rather than the more open strategic responsibilities characteristic of truly market organisations.

'Brand Wars'

The third trend associated with the shift to 'market' higher education is the growing number of publicly available rankings, performance indicators and 'league tables' (Drori et al., 2013). The last of these, in particular, now shape institutional strategies in ways that many regard as exaggerated and even unhealthy (Pusser & Marginson, 2013). Two effects can be observed.

The first is the increasing emphasis now placed on institutional 'brands' (and perhaps disproportionate resources now devoted to public relations and marketing – at the expense of mainstream teaching and research). This has given rise to a phenomenon that has been labelled 'brand wars' among institutions – even when the areas in which there is genuine competition between them is in fact highly constrained.

The second effect is the popularity of a new language, the discourse of 'world-class universities'. At a national level this discourse shapes priorities, as states pride themselves on having more than their 'share' of such institutions – or focus funding more selectively in order to establish, and sustain, 'world-class universities'. At an institutional level the impact of this discourse is also apparent in the development of strategies to be among the 'top 10/50/100' in the world. As with brands this competitive behaviour flourishes even in the absence of real competetion – most of all, because globally excellent research depends far more on collaboration than competition (and research excellence is the real denominator of 'world-class'-ness).

The extent to which rankings and the rest, and the 'branding wars' and 'world-class universities' discourse to which they give rise, can properly be regarded as evidence of a shift towards 'market' higher education systems is also open to doubt. It is important to recognise that rankings can equally plausibly be recognised as characteristic of 'mass' systems – for a number of reasons.

- First, they were – and are – a reflection of the political drive towards greater transparency in the allocation of public funding. As elite university systems, characterised by high levels of trust, were transformed into mass higher education systems, in which trust inevitably diminished, demands for greater transparency and accountability inevitably grew – as they did across the whole of the public sector.
- Secondly, rankings also reflect the greater differentiation of institutional missions within mass systems – especially with regard to research. If only a minority of

institutions is seriously to engage in research at a high level, selective funding systems have to be devised – and justified by transparent rankings.
- Finally, of course, as state budgets become more constrained (because of the rising cost of mass systems and also the shift away from high-tax 'welfare states'), questions of efficiency, effectiveness and value-for-money become more urgent – so more explicit evaluation and ranking systems are essential tools.

Managerialism

The fourth trend, although predating the current preoccupation with 'market' systems of higher education, is the development of more robust management systems, and cultures, within institutions (Deem et al., 2007). This development has had a number of strands. One is the devolution of administrative responsibilities that had once resided in ministries to individual institutions, which has already been discussed. Another is the replacement of university councils that had a large number of members, including elected staff and student representatives, a participatory if not democratic orientation and a 'trusteeship' ethos by smaller more executive-style boards often with reduced representation and a more corporate orientation. A third is redefinition of the role of the rector, president or vice-chancellor. Once regarded as the head of an academic collegium, at the most *primus inter pares*, the rector is now increasingly seen as the chief executive officer of an entrepreneurial 'knowledge' corporation. This redefinition of the role of rector has been accompanied by the emergence of senior management teams comprising both vice-rectors (pro-vice-chancellors) with executive responsibilities and senior finance and human resources professionals who are now more confident to trespass on what would once have been regarded as purely academic judgments. This development of more robust management structures has not proceeded at the same pace across Europe. Generally speaking it has been more pronounced in northern (and, in particular, north-west) Europe and has encountered the most resistance in southern Europe. But the overall direction, if not the pace, of travel seems clear (Enders et al., 2011).

However, the links between this managerial revolution and the pressure to promote 'market' solutions in the funding and organisation of higher education are – at best – loose. The major driver of this revolution has been the growth of much more complex and heterogeneous systems (and also of much larger and more complex institutions) – in short, mass higher education. In turn this has been driven by the desire to open up higher education to much wider social groups, itself an aspect of the post-war democratic revolution, which has produced spectacular quantitative growth, and the emergence of a knowledge economy, and the desire of many (most) European countries to build high-skill, high-tech and high value-added economies, which have led to radical qualitative changes in the mission and orientation of universities that emphasise the utility and impact of investment in higher education and science. In the context of these new demands universities have had to develop greater management capacity, regardless of whether dealing with state bureaucracies

of which they no longer legally formed a part and Governments with other, urgent and competing priorities or struggling to cope with the challenges of a new higher education 'market'.

It is also worth emphasising that this managerial revolution was closely aligned with what became labelled as the 'new public management' (NPM), in other words the application of corporate strategies and management techniques to the delivery of public services (Hood & Dunleavy, 1994; Ferlie et al., 1996). As such, universities inevitably adopted many of the private-sector practices current in the 1980s and 1990s. More recently, the idea of NPM has tended to be superseded by other models – for example, so-called 'network management' – that emphasises the negotiated management of multiple (external) relationships rather than the construction of (internal) command-and-control systems (Ferlie et al., 2011). These new models reflected in part the looser and more creative management cultures that have developed in some of the most dynamic 21st-century companies, especially in high-technology and knowledge-intensive sectors. It may be that universities have been slow to adapt their management structures to these new models, despite the fact that their traditional organisational cultures and their creative and entrepreneurial orientation appear to be better aligned with these new models than corporate-style NPM.

DIVERSITY AND DIFFERENTIATION OR CONFORMITY

The second question is whether 'market' systems, whatever constraints they must operate under, are more – or less – likely to produce differentiation of institutional missions and practice than the 'mass' systems they are supposedly replacing? But, before addressing that question, let me ask two other questions. First, what evidence is there that current higher education systems are not sufficiently differentiated? And, if they are not, in what respects is there a lack of diversity (or, to put it more simply, needs, whether from potential students, of forms of delivery or of subjects, are not being adequately met by current systems)? It is important to ask these questions because often it seems to be taken for granted that higher education is not sufficiently diverse, and that greater institutional differentiation is required, without any serious examination of the available evidence.

Arguably there are three ways in which current higher education systems lack diversity.

- First, students from less socially advantaged groups (and also perhaps ethnic and cultural minorities) are under-represented. This may be the result of either active or passive discrimination – in other words, because of biases in favour of the admission of students from bourgeois backgrounds; or because current forms of higher education make participation less attractive to under-represented groups.
- Secondly, the ways in which higher education is currently delivered are not flexible enough. It is still generally assumed that 'standard' students are young

adults who are studying full-time before entering employment or embarking on their professional careers. As a result modes of delivery, in terms of pedagogy, scheduling, organisation, location, perhaps technology, are still designed to meet the needs of these 'standard' students – to the detriment of 'non-standard' students (who may actually be a majority in some institutions and subjects).

- Thirdly, it is alleged there is a bias against more vocational and applied subjects, which as a result either command less prestige (and consequently attract fewer – good – students and graduates are paid lower salaries) and/or are concentrated in less prestigious (and less generously funded) institutions. Sometimes an ideological gloss is added, suggesting that traditional universities and traditional academics disdain links with industry and business – and also local and regional communities.

Logically a properly functioning market in higher education should work to remedy these 'deficits' – if they are indeed the major respects in which higher education lacks diversity. On the first there is little evidence that this is happening, despite the fact that it is beyond dispute that students from disadvantaged groups are under-represented in almost every higher education system. (The bias against them is even greater in less developed countries, and may be increasing everywhere as higher levels of inequality are tolerated in most countries.) In political discourse much less attention is now paid to the unmet needs of such students, because to do so is regarded as meddling by the state and as interference with institutional autonomy. In my own country the focus on so-called 'widening participation' has sharply declined – as student fees have sharply increased (coincidentally?). This points to another problem. 'Markets' tend to favour the articulate and the wealthy; the less articulate and the poor must fend for themselves. The increasing emphasis on 'reputation' and 'comparative advantage', encouraged by the rise of rankings and league tables, has had the same effect. The most prestigious universities are almost without exception the most unequal in terms of their social bases; and the lesson has not been lost on those institutions striving to emulate them. For all these reasons 'market' systems of higher education are likely to offer little to under-represented groups.

But what about the second area where there seems to be a *prima facie* case for a lack of diversity, the comparative lack of flexible provision? Here, perhaps, there is more to be said for the positive contribution of markets. Properly organised part-time provision (as opposed to full-time provision that accepts many students will need to work as well as study) is comparatively rare in many higher education systems, despite their mass scale – although an important reason is that more flexible provision is more difficult to fund in a systematic manner (in terms of both fairness and accountability). There may be two respects in which more market-oriented higher education may help to deliver more flexible provision. The first is by exploiting new learning technologies more aggressively than may be feasible in traditional universities (with their less flexible academic structures and unionised

workforces) – although it is important to note that the much-hyped MOOCs (massive open online courses) attract those who have already had high levels of education (and accordingly possess high levels also of social and cultural capital). The second is by providing lower-cost no-frills higher education, often focused narrowly on skills acquisition (that confer little social and cultural capital).

The third alleged 'deficit', the bias against vocational and applied subjects, is less easy to prove. In one sense it is false. The mass higher education systems that developed with gathering pace from 1960 onwards were – and are – markedly less 'academic' than the elite university systems they superseded. The majority subjects today are business and management, education and health studies, not physics or philosophy. In this respect mass systems have proved to be highly responsive to shifting patterns of student demand – and also changing patterns of employment. But in another sense the bias is half-true. Vocational and applied subjects, apart from venerable professional disciplines such as law and medicine, tend to be concentrated in less prestigious, often non-university, institutions – although every aspiring 'world-class university' now has, or wants, its business school. But two points deserve to be made. First, the evolution of mass higher education systems has tended to mitigate this bias because they have incorporated non-university institutions alongside traditional universities (and in some cases, such as the United Kingdom, they have even been 'promoted' to become universities). Nor has so-called 'academic drift' been all been one-way because traditional universities now offer more vocational subjects (and teach 'academic' subjects in a more 'vocational' way – for example, by stressing the links between studying the humanities and working in the creative/cultural industries). Secondly, there is almost no evidence that 'market' systems would further mitigate this bias; indeed, the signs are that the opposite could happen as for-profit private institutions (and even the more entrepreneurially inclined public ones) developed low-cost (and lower-prestige?) courses in many vocational subjects. The result could be that subjects like education or nursing could be 'down-graded' – in terms of professional status.

So – having considered the preliminary question of whether, and in what respects, current higher education is not sufficiently diverse, back to the main question: are 'market' higher education systems more likely than 'mass' systems to promote differentiation? The available evidence is certainly not strong enough to support the politically and ideologically fashionable view that 'market' systems are inevitably more differentiated. In the first place, in all markets there is a hierarchy of needs some of which it is more profitable, and easier, to meet than others. It is for this reason that regulation is imposed on markets – and also why historically public provision has been developed alongside market provision to meet needs that markets, by themselves, have little or no incentive to meet. Secondly, the operation of markets is just as likely to reinforce conformity as to stimulate difference. Certainly two of the characteristics of 'market' higher education systems – the trend towards greater (managerial) autonomy and the increasing popularity of rankings, performance indicators and league tables – seem likely to produce greater homogeneity.

But much depends on the way in which the market actually operates; to what extent can the 'market' practices that are developing in many higher education systems (and are widely assumed to be the inevitable, and desirable, direction for the evolution of 21st-century higher education systems, a 'single path' of development) constitute a genuine market.

QUASI-MARKETS, MANAGED MARKETS AND 'TRUE' MARKETS

So it is necessary to consider the nature of 'markets' in higher education, the third topic of this chapter. Right at the start it is important to recognise that, in the real world, there are no 'perfect' markets; all markets are flawed if judged against some ideal theoretical standard. So it is not sufficient for opponents of the 'marketisation' of higher education simply to point out that 'markets' in higher education are bound to be imperfect. So are all markets.

However, there are three special characteristics of higher education markets that do need to be emphasised.

- The first is that, with very few exceptions, higher education is a one-off experience (or 'purchase') – unlike a car that is changed every few years (or smart phones that are changed every few months). Although students may also take postgraduate courses, generally they do not repeat the cycles of higher education – unless they have dropped out or failed. Also, unlike many consumer goods, higher education does not become obsolete and need to be replaced by a 'newer model' or a more technologically sophisticated product. Or, rather, it becomes obsolete in a different sense, as skills and knowledge change (as does the wider socio-economic environment) leading to a permanent need for updating.
- The second characteristic is that, by and large, higher education is a positional good, its value being defined predominantly in terms of its accessibility and/or scarcity. Of course, a university education is an absolute good in terms of the enlightenment of individual human beings and the transformation of their lives. But its marketability lies largely in its value as a positional good, which is why league tables and brands are so important. 'World class' translates, potentially at any rate, into the ability to charge higher fees – to heighten prestige (and consumer attractiveness); also graduates of elite universities secure a better rate of return on their individual investment in higher education.
- The third characteristic is that in higher education the sovereignty of the consumer (student) is necessarily constrained. There are three strands of this constraint. The first strand is that students cannot know best, because they are junior partners in a complex learning environment (and also joint partners in a collective learning process, if peer learning is emphasised). So it follows that their 'demands' cannot simply be satisfied in a simple linear way; instead their 'needs' must be negotiated in a highly reflexive (even dialectical) relationship with their teachers. The second strand is that academic qualifications are not

> ‘for sale’ – outside the semi-criminal ‘degree mill’ sector; and despite the strong correlation between socio-economic status and access to elite universities (which may charge no fees or, in cases where fees are charged, have ‘blind’ admissions policies that, at any rate formally, ignore the ability to pay). They must be ‘earned’ by sustained study, and whether students are successful or not is subject to a process of assessment and examination. There are not many markets in which ‘products’ which consumers have ‘purchased’ can nevertheless be denied to them. But the ultimate value of the higher education ‘product’ depends on the factit must be ‘earned’ – not simply because standards need to be kept in order to maintain its market value, but in an even more important sense because the effort expended by students is fundamental to the creation of the ‘good’. The third strand is that the value of higher education can only be defined over the long haul. That value is constantly being adjusted over the whole lifespan of graduates; it cannot be reduced to the starting salaries of new graduates. But it is notoriously difficult to ‘price’ goods, the value of which is not only determined over very long time-spans but is also subject to volatile change – as has been frequently demonstrated by large-scale infrastructure projects such as nuclear power. ‘Net present values’ can be calculated but are subject to so many (arbitrary) assumptions as to be close to meaningless.

The question, therefore, is whether these special characteristics of higher education ‘markets’ mean that there are strict limits to how developed these markets can become – such strict limits as come close to invalidating the whole idea of a ‘market’. Generally, functioning markets must have a number of defining characteristics. Up to eight have been defined, four for the consumers and four for the providers (Jongbloed, 2003). But here only three key components will be considered.

The first is consumer choice. Are potential students able to choose between courses and institutions? Only up to a point… It may even be that they were freer to choose within public higher education systems that guaranteed access for all successful secondary school graduates. League tables and rankings may have had the perverse effect of restricting choice because institutions struggle to improve their standing by recruiting ‘higher quality’ students. It is important not to confuse the increasing paraphernalia of consumer information for enhanced student choice.

The second component of markets is an effective price mechanism. Yet most of the ‘markets’ that have been created out of formerly public higher education systems, notably in England and Australia, have defined tuition fees not as a true reflection of the cost of higher education but simply as a ‘contribution’ by students (really, graduates) to that cost. But defining fees in this way as a ‘contribution’ rather than as a ‘full cost’ has sharply reduced the incentive, and the case, for charging differential ‘prices’ – even without taking into account the reputational incentive to charge high fees and the cartel-like instincts that prevail among institutions.

The third is reasonable access for new providers. But access to the higher education 'market' is – necessarily – severely constrained by two factors. The first factor is the slow historical accretion of reputation that is the basis of the prestige hierarchy among institutions; few 'newcomer' institutions can compete in these terms. Of course, this also applies in commercial markets where some industries are dominated by global high-status companies – for example, Apple and Microsoft in computing or Mercedes Benz and Toyota in automobiles. The second is the need to maintain academic standards, made more insistent by the development of mass higher education systems; arguably quality regimes have become more explicit and intrusive, placing greater obstacles in the way of 'opening up' higher education. Regulation in other sectors rarely plays such a powerful 'blocking' role.

In truth there may be no properly functioning 'market' systems of higher education. Even in those systems with substantial (and prestigious) private sectors (such as the United States, Japan or Korea) the majority of institutions continue to be public, enrolling the majority of students. In the 'market' experiments that have been undertaken in countries where nearly all institutions were (and generally still are) public, the result has been to create public-private hybrid systems in which students/graduates are, in effect, 'taxed' by being obliged to make increased 'contributions' and (usually a limited number of) private for-profit institutions are allowed access to public funding to which previously only public institutions were entitled.

Although there have been important ways in which higher education has been liberalised, the most appropriate conceptual frameworks for describing such liberalisation are perhaps not so much the 'market' as such – but, rather the increasing permeability of the 'public' and the 'private' domains; the emergence of an influential new 'third sector' of privatised and out-sourced 'services' (not just, or particularly, in higher education); a pragmatic rebalancing of public and private contributions to the cost of higher education as a response to state mandated 'austerity' (individual contributions have always been substantial in terms of initial income foregone and enhanced future tax contributions); and the renegotiation of the status (formal and informal) of institutions.

MARKETS AND MANAGERS

In the introduction to this chapter it was stated that often there is an implicit assumption that managers need markets and markets managers. Is that right? Yes, in the sense that the greater autonomy institutions enjoy, the more robust their strategic planning and management systems must become. This need has been reinforced by the growing scale and heterogeneity of institutions, as a result of the development of mass higher education systems enrolling millions of students. Arguably it has been further reinforced by the shift towards more entrepreneurial modes of higher education – although, as I have tried to demonstrate, the entrepreneurial university and the 'market' university are not necessarily the same thing. As a result of all these

trends the 21st-century university – mass or 'market', entrepreneurial or engaged – is undoubtedly a more managed institution than its traditional predecessor.

So there appears to be a powerful case for arguing that there are the strong links between 'markets' and 'managerialism'. But a counter-argument can be made. First, it is evident that the most successful entrepreneurial organisations, at the cutting edge of the market economy, are often characterised by flat, open, loosely coupled, network structures. Some argue that traditional, pre-managerial, universities had many of these same characteristics. It is certainly true that the 'top' universities, globally recognised research-intensive institutions, also tend to be those in which academic self-government is still strong. In that sense 'managerialism' may be antithetical to the growth of the 'market' spirit in higher education. Up to a point, perhaps… The multi-national corporations that dominate the global economy are tightly managed organisations – and the 'markets' that exist, or might develop in higher education are far from free-wheeling; instead they are highly constrained.

Secondly, it equally evident that, given their scale, complexity and multiple forms of engagement, contemporary universities must be, to some degree, managed institutions – even if there is no intention of introducing a 'market' in higher education. Indeed it can be argued that public universities with their multiple accountabilities – to state bureaucracies, to regional economies, to local communities, to their students – may even need to have more robust managerial structures. It can even be argued, somewhat hopefully, that universities that only need to respond to the 'hidden hand' of the market may be able to dispense with top-heavy and top-down management. Again I am personally unconvinced by this assertion – and for the same reason; the actual 'markets' in which universities operate (or are likely to operate) have a lot in common with the constrained political environments characterised of public higher education systems. *Plus ça change*…

In conclusion two points can be made. The first is that it may be both right, and wrong, to link 'markets' with 'managerialism.' As with so many phenomena in contemporary higher education their relationship is highly reflexive, synergies coexisting with contradictions. Just as it is misleading to treat elite and mass higher education as linear opposites, or to regard the 'public' and 'market' university as rivals or alternatives. All are also parts of their 'others.' The second point is that, in the same spirit, we should resist the instinct to link together, semi-automatically, markets, managerialism and diversity (or differentiation). Too often we assume that to promote diversity it is necessary to encourage more market-like behaviour (if not actually markets in a true sense) and to tighten institutional management. But markets are agnostic on the issue of diversity; they are just as likely to produce uniformity as to encourage differentiation – as, perhaps, is tighter institutional management which probably encourages universities to struggle to be more 'successful' according to rather narrow and traditional criteria. Managerialism may tend to promote conformity – and, therefore, favour 'closed' rather than 'open' systems.

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2. DOES SIZE MATTER? – THE EXAMPLE OF THE "EXCELLENCE INITIATIVE" AND ITS IMPACT ON SMALLER UNIVERSITIES IN GERMANY

BACKGROUND

The German Excellence Initiative (GEI) was introduced in 2007 with the aim of considerably increasing excellence in university research. It is a strategic, government-led response to the fact that research and higher education are becoming increasingly global, competitive for reputation, funding, professors and students – and therefore dependent on the prestige and visibility of the institutions in which they are carried out.

In a nutshell, the GEI can be characterised as follows:

- GEI is targeted, in its core element of 'institutional excellence', at entire universities, not individual Schools or departments, with the intention of creating 'top world-class-universities' in Germany. *Fachhochschulen* – universities of applied science – which focus mainly on teaching and applied research, cannot apply. Networks of cooperating universities, e.g., the three major universities in Berlin (Humboldt, Free and Technical University) or the two in Munich (LMU/TUM), are also excluded, as the primary intention was to encourage competition between institutions.
- It is focused almost exclusively on research performance. Teaching and learning have been only marginally recognized in the second round of the competition.
- The programme brings additional 'fresh' money into the universities: an extra 1.9 bn. € for the first funding period of five years, another 2.7 bn. € for the second period from 2012–2017.
- GEI is funded jointly by the federal state (*Bund*) (75%) and the *Länder* (25%), thus allowing the *Bund* to circumvent constitutional restrictions and pour additional money into the underfunded HE system.[1]

When the programme in its current shape runs out in 2017, it will have brought an additional 4.6 bn. € into German universities. Within the federal Constitution of Germany the right to and responsibility for institutional funding of higher education institutions (HEIs) lies exclusively with the *Länder*, who traditionally hold in high regard their independence in matters of education and culture. The GEI is an exception to this rule as it is a joint financial effort of the federal government and

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the *Länder*. This has created an opportunity to compensate for the imbalance in HE funding caused by differences in economic strength of *Länder*. Perhaps even more importantly, it has set a precedent for a constitutional reform that came into place in December 2014 (Bundesministerium für Bildung und Forschung, 2015). The GEI also has moral support from all major non-university research organisations in Germany such as Max Planck, Helmholtz or Fraunhofer-Institutes. This is remarkable, as much of the world-class research in Germany is conducted in research institutes outside the universities, which makes them both competitors and cooperation partners for universities. In supporting the GEI, these organisations recognise the central role of universities in the research system and their need for additional support.

The GEI provides funding for three programme lines:

- *Graduate Schools* with an annual sum of 1–2.5 million € and a total budget of 100 million € over all funding periods 2007–2017.
- *Research Clusters* (large networks of cooperation between university, research institutes and industry) with an annual sum of ca. 6.5 million € and a total budget of 487 million €.
- *Institutional excellence* (*Eliteuniversitäten*), rewarding innovative strategic concepts and institutional management with the aim of securing sustainability with an annual sum of about 13–20 million € and a total budget of 352 million € (see Gemeinsame Wissenschaftskommission, 2005; Wissenschaftsrat, 2009; Deutsche Forschungsgemeinschaft, 2010).

Initial target numbers were for 40 graduate schools, 30 research clusters and 10 awards for institutional excellence.

The GEI has attracted a lot of attention from policy makers in other countries such as France, Spain, China, Korea and Japan, all of which have initiated their own programmes to build "world class universities" (Shin & Kehm, 2013). But compared to other programmes it is unique in a number of ways:

- Unlike the RAE/REF in the UK, which is also focused on rewarding excellence in university research but does so by re-distributing an existing budget, the GEI brings a substantial amount of additional funding into the universities (see Wissenschaftsrat, 2015).
- The sums handed out are large enough to give institutions a real boost beyond the gain in reputation and visibility, unlike the much smaller schemes in France or Spain.
- Still the GEI, being an open competition, is much less rigorous than similar plans in China, which have a very clear focus on creating a few permanent elite institutions.
- Unlike the Netherlands, Germany does not aim to improve the system as a whole (Klumpp et al., 2014).

SIZE MATTERS: CORNERSTONES OF A POLICY OF VERTICAL STRATIFICATION

Ever since the early 1990s, policy makers and peer-led advisory councils in Germany as well as at European level have called for measures to increase the global competitiveness of universities, building a few very large, internationally visible and exceptionally well-funded 'beacon'-universities and encouraging business-like management structures. This policy was based on an assumption that was never seriously challenged, namely that the size of an HEI determines its ability to achieve excellence, and that only the largest universities (in terms of student numbers, range of disciplines, staff and, above all, funding) would ever be able to compete for world class status. As early as 2006 the then President of the *Deutsche Forschungsgemeinschaft* (DFG), the main distributor of federal research funding for universities, set the agenda by saying: "Among the 50 best universities of the world there can be no more than two or three in Germany" (Winnacker, 2006). Initially, there was little doubt about what it would take to create such world-class universities. The strategy was determined by the reputation race in international rankings. The priorities are: first, a focus on entire institutions rather than schools or departments, as reflected in virtually all international rankings, and, second, a selection process of 'informed peer-review' including classic performance indicators such as the total volume of third-party research funding, impact factors and citations as the main excellence criteria.

As a consequence, financially powerful large universities with technical and medical (life-science) schools have a great advantage over smaller universities with a focus on the less financially potent humanities and social sciences with less money and public visibility (Gerhards, 2013). The consensus underlying the GEI and the shift from a competition of researchers and projects (as for DFG-funding) to a competition of entire institutions has been very adequately described as follows:

> The Excellence Initiative, jointly supported by the *Bund* and the *Länder*, is an ambitious programme for the support of top class research in Germany. It is evidence of a paradigm change in German higher education policy. Up to now, this was governed by the underlying assumption of egalitarianism… Under those conditions, differences in profile and quality had but little opportunity to develop, while now the EI encourages competitive, research-led differentiation within the higher education system. (IAG, 2010, p. 35)

The GEI has sparked a substantial and remarkably critical debate on the role of institutions vs. individual research, on the growing impact of external governance by policy makers at national and European level, and on the challenges to internal governance for HEIs in times of increased international competition. Critics (e.g., Münch, 2007) have pointed to the dangers of a shift from the quality and impact of the actual research/researcher to size and visibility of institutions. Even if one does not share the severe criticism of "neo-liberal" concepts (Shin & Kehm, 2013, p. 1) in

higher education policy, it has been shown that a policy targeted at creating world-class institutions rather than research projects becomes a self-fulfilling prophecy, as it will be easier for large, well reputed universities to attract funds, staff, students and partners for research cooperation (Schreiterer, 2010, pp. 103–104).

But there are more issues that may trouble the GEI: for once, the German Constitution is very clear about the independence of teaching and research in German higher education. This means that linear, business-like managerial structures and strong institutional leadership cannot be introduced even in very large universities in Germany, as is the case in Anglo-Saxon universities, and as were introduced in Denmark some years ago. All leadership and all strategic and financial decisions that concern teaching and research need to be validated by representatives of the academics in each university, i.e. by the Academic Senate. This was only very recently confirmed by a ruling against a professional governing board in one of Germany's major medical schools (Bundesverfassungsgericht, 2014). It has been pointed out by Salmi (2009) that the three most relevant preconditions for world-class universities are: concentration of talent, abundant resources and favourable governance. The federal higher education system in Germany has considerable weaknesses in all of these areas. These will not be fundamentally remedied by the GEI, as the funding there, even though it is substantial, comes only for a limited period and universities will be thrown back upon their own resources afterwards.

DISCUSSION: REFORMING THE REFORM – NEW PERSPECTIVES AND STRATEGIES FOR SMALLER UNIVERSITIES

The GEI in its current shape will come to an end in 2017, and it is still largely undecided what exactly will follow. The first outlines of a new policy are just emerging, the cornerstone being no less than the above-mentioned change in the German Constitution that will make it easier permanently to channel additional, federal funding into the *Länder*-governed universities. There is also talk about paying more attention to teaching, and the influential Council of the Sciences and Humanities (Wissenschaftsrat, 2013) is tirelessly recommending more attention to 'functional' horizontal stratification in addition to vertical competition. But currently the debate has not addressed what may be the key issue: what kind of a research and higher education system is it that Germany really needs, that fits the strengths and characteristics of the traditionally de-centralised German system? Smaller universities are a key player in higher education worldwide, and it is high time to address their role and their potential contribution to the German higher education system in their own right.

Taking a Fresh Look at Vertical Stratification

The GEI drew a lot of public, political and international attention to the higher education sector. Therefore it was very effective in encouraging vertical stratification,

leaving especially those universities that were successful in the third round as the top winners with a substantial reputational head-start in future competition (Schreiterer, 2010, pp. 103–104). Even professionals had underestimated the impact of the "excellence" label, the reward for institutional excellence in the third GEI round, both nationally and internationally. The press reported almost solely on these universities: "red carpets were rolled out" for the winners, as the then Rector of one of the successful institutions put it, for cooperation agreement from leading institutions worldwide. The former President of *Deutsche Forschungsgemeinschaft* (DFG), Matthias Kleiner, and of the *Wissenschaftsrat*, Peter Strohschneider frequently urged journalists, politicians and academics in press conferences and speeches to avoid the term "elite university", reminding press and public that much of the actual research excellence was identified in the less prestigious "Cluster" and "Graduate School" programmes.

Second thoughts arose soon despite the general enthusiasm: what about the importance of encouraging excellent teaching, what about the Humanities, what about the smaller universities that have traditionally formed the backbone of Humboldtian academic excellence in the federally organised state of Germany? Some of these concerns were taken on board when re-shaping the GEI for a second round in 2012. But the real shock came when it emerged that some of the *Exzellenzuniversitäten* had not been able to renew their status, as was the case with Karlsruhe Institute of Technology (KIT), the first merger of a university and a Helmholtz-Institute, or with the University of Göttingen. The Excellence Initiative is meant to be an on-going open competition in which universities can rise or fall, effectively 'downgrading' them. A formal evaluation will be conducted in 2015, but it has already become obvious to insiders and experts (Schreiterer, 2010, p. 112) that to lose the 'excellence' seal may be potentially more damaging than the initial gain in reputation upon winning. It affects, to name just a few of the impacts, the ability to make permanent academic appointments, to attract additional funding and to enter into prestigious international partnerships.

In December 2014 a consensus was reached to continue the GEI after 2017 (Gemeinsame Wissenschaftskommission, 2014), but it is still to be determined what conclusions policy-makers will draw from the evaluation and current research on the impact of GEI. Beyond trying to save and continue some of the most successful projects, it is becoming obvious that the formerly homogeneous university sector itself is breaking up into competing pressure groups. The large, research-intensive and rich universities have organised themselves into the "U15" group; the large technical universities are represented as "TU9". These universities are lobbying jointly, using their influence to ensure that the bulk of state funding will go to them and that public funding efforts will focus on them to help achieve world class status.

This has – not unexpectedly – sparked severe public criticism from the other institutions, which find themselves deprived of the opportunities they feel they deserve. A peer-group of medium-sized universities, which had formed after the first GEI round in 2007, has been revived recently but has not yet defined an agenda.

Similarly, out of the *Fachhochschule*-sector, a group of seven research-active institutions (UAS7) formed some years ago, is claiming their right to be more than 'teaching-only' institutions and insisting that their funding and legal framework should be reformed accordingly. This has led to some changes, allowing universities of applied science to be more research-active and facilitating cooperation with universities in doctoral training; but, in general, the binary system is still in place.

All this shows very clearly that Germany needs a strategy for the higher education sector as a whole which defines complementary roles for all types of institutions and reduces competition to the areas in which it is productive and beneficial.

Re-Discovering the 'Middle'

The winners of the GEI were very clearly the big, research-intensive '*Volluniversitäten*' that cover a wide range of disciplines including the particularly well-funded medical and technical sciences. In the run-up to the second competition, for which results were announced in 2012, concerns about unintended side effects on teaching within smaller institutions had been raised. There were only two mid-sized universities (Bremen and Tübingen with less than 25,000 students each) and a small one (Konstanz with less than 9,000 students) among the winners.

It is remarkable and unique in international comparison that, despite this increase in competitiveness, the German HE system tends to be viewed not so much as that of a linear ranking but rather as that of a pyramid, with a broad base narrowing into a narrow tip. There have been efforts to draw attention to the 'middle' of that pyramid, trying to get away from the notion that 'middle' equals 'mediocrity'. This has led to some remarkable mixed metaphors, most famously by Andreas Voßkuhle (2011), President of the Constitutional Court and President of Freiburg University, before he was appointed to the third most important position in the State. He coined the oxymoron of a 'broad tip' which is fed and supported by a fertile intermediate level: "It is particularly the middle that gives room to individualisation and multiple developments. It is the soil on which not only few but very many can develop with their specific talents and abilities, thus creating a broad tip." The dilemma which Voßkuhle addresses here is crucial when considering the lessons to learn from the GEI: the need to define the 'middle' of a higher education system, to appreciate its role and to re-define institutional strategies to grow, improve and succeed in accordance with their mission.

As long as policy makers, funding bodies and university administrators strictly and uniformly adhere to a reputational hierarchy focused on size, research intensiveness and funds, those who do not make it to the top in such ranking will be primarily perceived – and perceive themselves – as losing out: either because they did not even feel able to apply in the GEI, or because they were not among the winners. Voßkuhle (following the *Wissenschaftsrat*'s recommendations from as early as 2000) suggests adopting a policy by which the 'middle' carries responsibility for training future top researchers and developing ideas on which the few world class universities can

draw for talent and research innovation. This would be a dual role, as it would also encompass a strong commitment to teaching and some regional involvement. This seems feasible, especially as – unlike in the US and UK – the German market for academic careers is still quite open and allows for upward mobility between 'middle' and 'top' universities (see Baier & Münch, 2013, pp. 131–132).

This may be a realistic option for many institutions. They are smaller, poorer, less research-intensive, more teaching oriented, more regional, more applied; and they differ from top universities in terms of the number of students, the student-staff ratio, the range of disciplines, the number of programmes offered, research co-operation, involvement in knowledge transfer, regional involvement, outreach activities, internationalisation, financial situation or extent of institutional autonomy. Yet, some of these differences might be viewed as strengths and 'unique selling points', though not adequately recognised by policy makers, academic leaders and the public in Germany. As Klumpp et al. (2014) show, the Netherlands were relatively more successful even in international rankings through a policy that aimed to support the diversity of institutional profiles rather than top universities only. It can justly be assumed that a strategy for a successful higher education system needs to build on the recognition and encouragement of all these characteristics (and more) as strengths rather than weaknesses, if it is to be successful in the long term perspective. But much depends on the vision and strategy that smaller universities choose for themselves. It is a positive unintended side-effect of the GEI that smaller universities have been encouraged to re-think their role and to identify strategies for themselves that enable them to excel in competition with larger institutions. On a very general note, three such approaches can be identified:

- Expanding: Creating relevant size through cooperation.
- Focusing: Concentrating resources and strategic efforts in a few (cooperating) disciplinary fields of excellence in order to become globally competitive in these fields.
- Marketing: Smaller universities can provide a more personal style in management and student supervision; they feature flat hierarchies and a general atmosphere of personal attention, involvement and participation for staff and students, thus creating a positive spirit that may be beneficial for recruitment and academic productivity.

A successful strategy often is a mix of these approaches. It is worthwhile to look at them individually as they require different means.

Expanding: Creating 'Critical Mass'

For many years it has been a largely undisputed axiom of higher education policy that institutional size is perhaps *the* indispensible prerequisite for excellence. The notions associated with 'size' are visibility, reputation, privileged access to funding, political influence and attractiveness to external partners and highly qualified staff and

students. Thus in a creative interpretation the term 'critical mass' was borrowed from physics to describe an effect by which universities had to grow beyond a certain (yet undefined) limit in terms of money, professorships, students and disciplines to stand even a chance of competing successfully in the league of 'world-class-universities'. In response to this analysis a number of countries, among them Germany, France and Japan, adopted a strategy of 'capacity upgrading' to empower their universities, while other countries chose alternative routes of enforced internationalisation and capacity "incubation" (Shin & Kehm, 2013, p. 10), both of which are also available to less economically powerful systems.

Yet long before the GEI focused on strengthening a few individual universities, policy makers in Germany discussed the possibility of improving the HEIs' academic potential by creating "critical mass" through cooperation rather than through enforced competition, giving smaller universities and research institutes the opportunity to realise and boost their potential. Already in the year 2000 the *Wissenschaftsrat* published "Theses on the Future Development of the Higher Education and Research System in Germany", which called for better cooperation between universities, *Fachhochschulen*, research institutes and the private sector. It recommended that additional funding should be made available to boost research capacity in joint projects, make attractive offers to top people and improve knowledge transfer.

Much of this agenda has become reality over the last 15 years in Germany. But the change has largely gone unnoticed, as it was not reflected in rankings that attracted the attention of a wider public. With the support of national funding programmes such as the "*Pakt für Forschung und Innovation*" (Pact for Research and Innovation) universities and research institutes have initiated projects and established graduate Schools, even institutionalising their cooperation in some six "Science Campi" – the number is growing. Two universities, Karlsruhe University and the largest Medical School, the Charité in Berlin, have been merged with Helmholtz Institutes. Expertise in Health Research has been consolidated in so-called "*Zentren für Gesundheitsforschung*" (Centres for Health-related Research), large-scale cooperation between the public and the private research sector is encouraged through a national programme, and these so-called "Clusters" also form one line of the GEI. But although smaller universities are successfully competing in these initiatives, there is no evidence that they have been able to capitalise on their success in the reputation race.

The cooperation with research institutes like Max Planck, Helmholtz, Fraunhofer and Leibniz-*Gemeinschaft* offers flexibility and better funding opportunities to many of the financially starved universities. Those institutions, on the other hand, already compete among each other for their share in the market and for the best relations with universities which supply them with young talents. This looks like a classical win-win-situation, but unfortunately there are side effects that make the picture look less rosy. Academics in joint appointments often carry less teaching responsibility

if based at an external institution. Universities are in danger of being drained of staff (offering less attractive working conditions), projects and even entire research units by their independent partners who are much better funded (largely by the federal ministry). Financially strained *Länder* like Bremen even deliberate openly the option of handing excellent university research units over to those organisations in order to save funds.

A second set of 'strings attached' concerns the internal governance of the cooperating structures. Traditionally the German university is not a place of linear hierarchy and accountability. Decision making powers in all academic issues are subject to double legitimation by senior management and the Academic Senate, thus reflecting the strong position of academic freedom as laid down in Article 5.3 of the German constitution. This situation becomes more complicated if a university develops a number of additional 'centres of gravity' in addition to the traditional structure of faculties and departments. Successful research centres with external partners will tend to set their own agenda; they will bring different institutional cultures into the university; and their leaders, especially the successful ones, will see it as their natural right to influence institutional decisions so as to benefit their project – and they will have the power to do so (Gaehtgens, 2010, pp. 50–51).

To conclude: Increasing visibility and research potential through cooperation is certainly one of the best options for smaller universities that wish to develop their potential. But it is a strategy that will backfire unless the university is very much in the driving seat with a mature concept and an internal consensus about the road to take. If the university can capitalise on its strengths, set the agenda, choose the partners that meet its requirements, consciously agree on the necessary compromise in Senior Management and Academic Senate and adjust its internal governance, it will be a strong partner in the cooperation, which will be to the benefit of all partners involved.

Focus on Areas of Excellence

A realistic alternative to growth is, for some universities at least, the option to build excellence in a limited range of activities, carrying these to international competetiveness by bundling resources and consciously reducing activities in other areas. There are a number of options for this strategy:

- Focus the mode of academic involvement: It has been suggested that smaller universities that are not competitive in international research should focus on research-informed teaching and carry that to excellence (Wissenschaftsrat, 2013, pp. 49–50). Smaller universities tend to see this option as a danger looming, the reason being that there is currently no reward system or incentive that will recognise teaching at university level to the same extent as research. By taking such a step, universities would currently lose reputation and be perceived by their members and stakeholders as being 'reduced' to *Fachhochschule*-status.

- Focus on one group of disciplines such as medicine, law or economics. This is a model that a number of private universities such as *Bucerius Law School* in Hamburg and the *Frankfurt School of Finance and Management* have adopted quite successfully. In the public sector this mono-disciplinary structure is a tradition for schools of sports, art and music, but less for the traditional academic disciplines. The concept of *universitas* in university is still very strong. Even medical schools tend to maintain their complex relationship with other parts of the university for reasons of research integration.
- Building profile by prioritising: This is a path on which a number of smaller universities have embarked with considerable success. Good examples are the University of Bielefeld, which has been a hub for the social sciences for several decades without giving up its range of disciplines including teacher training, or Konstanz University, which was the only small university to win excellence status as a centre for the humanities.
- Other universities are beginning to mix disciplinary focus with a specific profile in the mode of delivery. Lüneburg University for example introduced new modes of teaching such as a first-year general course and is now at the forefront of introducing MOOCs; or Freiburg University, which gained excellence status for its integrated concept of graduate teaching and postgraduate research.
- Some universities are experimenting with other profiles, often as 'added value' to a specific teaching or research-profile, such as diversity, internationalisation, ecological concepts or bilateral cooperation; or they aim to attract staff and students by building an effective, efficient and caring environment.

CONCLUSION: FUNCTIONAL DIFFERENTIATION AS AN ALTERNATIVE TO VERTICAL STRATIFICATION

Despite many valuable insights into the need to develop the German higher education system as a whole, the incentives and reward systems currently do not encourage multidimensional development. As has been shown in this article, there are two strategic approaches competing rather than complementing each other: There are those that believe that building a few world-class universities with top positions in the international rankings will create enough academic and economic impact to uplift the entire system, and there are those who promote diversity and functional differentiation. In truth, these are not alternatives but two sides of a coin. It is by no means new to say this, but neither institutional nor political policies seem to take it seriously. What can be seen in Germany is a cultural gap between those who adhere strictly to the traditional ideal of independent, curiosity-driven research as an aim and value in its own right, and those (among them many stakeholders) who focus on the wide range of contributions that universities make to society at large: in research and innovation, teaching, training and knowledge transfer.

The lesson to learn from GEI is clear: Only if this gap can be bridged, if a consensus on the multiple values that universities of all sizes provide for society

can be reached, it will be possible to create incentives and rewards that will make it attractive for universities to really choose between different profiles. The GEI created one single pyramid which represents research performance. That is better than linear rankings, since it draws attention to the base and middle. But only if there are several pyramids of equal reward and visibility, reflecting excellence in the various functions that universities perform for society, will it be possible to effectively reward universities of smaller size and excellence in specific areas.

NOTE

[1] In most recent OECD-statistics, Germany still ranks only 22nd of 30 countries on expenditure for tertiary education as a percentage of GDP and clearly below the OECD average (see OECD. *Education at a Glance 2014.* Paris, France: OECD).

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3. UNIVERSITY MERGER PROCESSES

INTRODUCTION

It is difficult to imagine a more comprehensive and emotionally affecting organisational change of a higher education institution (HEI) than a merger with another institution. As an institution, one ceases to exist, and is instead resurrected into a new institution with a new internal culture, brand, name (perhaps), and internal organisation.

Clearly, a merger is a vast challenge for any institution that is entering such a process, not least with respect to governance, quality, diversity, and economy. Any merger will deeply affect the people within the respective organisations. The question is how to merge successfully; to do it in such a way that the goals and ambitions of the merger are achieved while friction, frustration and costs are kept to a minimum. There is good reason to investigate mergers more carefully, with respect to lessons learnt for management, staff and external stakeholders.

This study investigates the four HEI mergers that have been undertaken in Sweden during the 2000s, with particular focus on the actual merger processes. The purpose is to present these mergers to an international audience as this has not been done before, and also to find out what the consequences of the merger processes are for the respective organisations. Together with results relating to merger processes reported in previous literature, the findings from these Swedish mergers are synthesised and a discussion is offered of both their unique and general characteristics.

More specifically, the ambition here is to answer two questions:

1. What features have the merger processes in Sweden displayed with respect to preparation, communication, involvement of staff, and organisation?
2. What lessons can be learnt from these mergers with respect to preparation, communication, involvement of staff, and organisation?

The findings from Sweden are compared with the HEI mergers undertaken in Denmark; then these are combined with findings from other studies aiming to create a synthesised list of lessons learnt. Such a list ought to be of high relevance and interest to anyone occupied with HEI mergers.

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 31–51.

EXPERIENCES OF HEI MERGERS

Several studies have targeted HEI mergers in general, describing and investigating the motives and the outcomes. Harman and Meek (2002) edited a special issue of the journal *Higher Education* in 2002, which contained several important contributions. Hatton (2002) and Mildred (2002) presented studies of the wave of Australian mergers that took place during the early 1990s as a result of changes in the Australian higher education law, and Hay and Fourie (2002) studied the mergers that occurred in South Africa as a consequence of the political changes that overthrew apartheid, also in the early 1990s. Lang (2002), building on findings by Goedegebuure (1993), presented a figure showing levels of institutional cooperation, where a merger is depicted as the most intense form of cooperation (or relationship) that an institution can have with another institution.

Mergers are often the result of political decisions taken above the heads of the institutions themselves. An example is the creation of University of Ulster in 1984. Pritchard and Williamson (2008) explain that at the time, there was a belief that there was no other alternative than to merge the institutions at hand, more or less against the will of at least one partner – a 'shotgun marriage'. Such an involuntary merger has consequences. Pritchard and Williamson's study aimed at measuring the temperature of the organisation some 20 years later. Approximately two thirds of the respondents thought that the previous institution was "a happier place" (ibid., p. 59). This result shows that fully implementing a merger takes time and that internal culture is one of the last things to change. And if internal resistance against a merger is strong, it can be particularly difficult to establish a new identity and a new internal culture. An investigation of a merger between two specialised colleges in England reached a similar conclusion: in a merger process, the management needs to be mindful of existing cultures and subcultures, otherwise academic and scholarly development may suffer in the new institution (Locke, 2007). Back in 1999, Skodvin summarised what the literature was stating about HEI mergers, and concluded among other things that there is a distinction between mergers undertaken by free will and those that are enforced. He noted that similarity regarding size and profile may not necessarily be the recipe for a successful merger. In contrast, Skodvin continued, differences in both size and profile may be actually conducive to a successful merger (Skodvin, 1999).

The above mentioned examples indicate how important it is to pay attention to people when planning and implementing a merger. The motives behind the merger need to be explained and the idea needs to be anchored among the staff and students. Furthermore, transparency in the decision-making process and good communication are of great importance, something that is for instance noted by Cai (2007) who has made a thorough investigation of a merger between three HEIs in China with respect to integration of the staff; and indeed Norgård and Skodvin (2002) reached similar conclusions in a study of Telemark College in Norway. Following this trend, the Higher Education Funding Council in England (HEFCE) has outlined a summary

for HEIs listing crucial factors for successful collaboration, alliance building and mergers (HEFCE, 2012). Among the many recommendations, we find for instance this:

> Communication and dialogue with stakeholders, especially staff and students, are essential throughout the process. Support will be developed and resistance reduced if there is a concerted effort to explain the vision and address fears. Expectations need to be managed and kept realistic. (HEFCE, 2012, p. 7)

Others have investigated the actual merger processes in the format of case studies. One example is the description by Luke Georghiou (2009) of the merger that established the University of Manchester in 2004. He points to a number of circumstances in favour of an increasingly closer relationship between the Victoria University of Manchester and the University of Manchester Institute of Science and Technology, a process that eventually led to the merger between them. Some of these circumstances were internal, like joint facilities and a couple of joint research environments, joint committees that aimed at eliminating duplication of courses, and the longstanding good social relationship between the two institutions. However, Georghiou (2009, p. 50) stresses that it was probably external pressures that made the relation develop towards an actual merger; he mentions six points that received explicit attention at the time:

- Increasing complexity of research problems demanding broader interdisciplinary solutions and teams of critical mass with access to modern infrastructure;
- increasing importance of the knowledge economy and the recognition of the role of universities in contributing to business and the community;
- changing nature of the course provision, with rising student fees being accompanied by greater emphasis on quality, relevance to employment and student choice;
- globalisation of higher education, increasing competition for students, top quality academic staff and research funding;
- the need to modernise governance and management structures to make decision-making more streamlined and agile;
- a recognition of limited resources for both teaching and research; and increased selectivity in funding mechanisms.

A joint working group was set up and, initially, merger was only one of several options. Once it became the preferred option, a complicated process of implementation ensued that would last for some two and a half years. Hundreds of staff became involved in the process as well as many students. A communication infrastructure was created in order to keep all possible stakeholders informed. Political and financial support were mobilised at local, regional and national levels, and a most ambitious estate construction project was launched. There were concerns regarding potential job loss from the staff and they were met with a memorandum guaranteeing employment for only two years dating from the foundation of the new institution. There was also an early retirement and voluntary severance package

available. Through a mix of highly successful fund-raising, good communications, reasonable transparency during the process, and dynamic decision-making, most doubters were won over and the merger became a reality, immediately forming the largest university in the UK.

The process at the University of Manchester can be contrasted to the process at Sichuan University in China, as described by Wan and Peterson (2007), which proved to be most complex and problematic. The merger took place in 1994 between Chengdu University of Science and Technology (CUST) and the 'old' Sichuan University (abbreviated SCU, unlike today's 'new' Sichuan University (SU)) which eventually was the result of the merger. Despite the fact that essentially all critical factors favoured a merger (complementary disciplinary profiles, equal size, vast pre-merger cooperation and partnership, campuses located on each side of the same street, political reforms and agenda that pointed towards a win-win outcome from the merger, etc.), the process became long and painful. For several post-merger years, the university's attractiveness, reputation, competitiveness and quality decreased. What went wrong?

In brief, both institutions were allowed to continue almost as before. A minor re-organisation was undertaken made but old borders between the respective institutions and faculties remained untouched. No integration came about. Nor was the merger in any way anchored among staff and students; they were faced with the decision after it was made. Moreover, there was an agreement that both institutions should be equally represented in all decision-making bodies. In China, there is often a political manager appointed side by side with an academic manager. If one of them came from one of the institutions, then the other one had to come from the other. This division of power continued further down in the organisation.

> Take the example of the appointment of senior administrators for financial affairs. If the Vice President for financial affairs was from SCU, then the Director for the Office of Finance must be from CUST, and two of the three Associate Directors would be from SCU, the other one from CUST. This rigid arrangement appeared to be fair to both sides, but at the cost of administrative effectiveness. As it stressed the balance of the two sides, it often failed to place the best candidate in a position. (Wan & Peterson, 2007, pp. 692–693)

The result was a strong sense of 'us and them'. In addition, the question of the name of the new institution turned out to be most toxic. After not being able to agree at all, the provincial government stepped in and ordered a name that no constituent wanted: Sichuan Union University. After four years of diminishing academic reputation and attractiveness, the Ministry intervened and gave the institution the same name that one of the former institutions had: Sichuan University. Former CUST was not happy but the issue was at least solved. Today, SU is again one of China's best universities.

The academic merger literature is growing vast and the works cited above are by necessity a selection but together they show the importance of 'doing right' when planning and implementing a merger. And 'doing right' seems to be very much

about raising both internal and external support by paying attention to preparation, communication and involvement of staff; transparent decision-making was necessary at organisational level. Consequently, the theoretical perspective that we take in the present chapter means that a merger needs to be well prepared in the sense that its rationale must be clearly communicated both externally and internally, and that the staff should be thoroughly engaged in the preparation. If this is not done, or is not done well, the merger will probably still take place, but it is most likely that the institution will face a protracted and somewhat troublesome 'healing' period which will delay the anticipated positive outcome of the merger.

SAMPLE AND METHOD

In Sweden, the four mergers to be studied are the Stockholm School of Teacher Training, which was incorporated into Stockholm University; the establishment of the Linnaeus University; the establishment of the Stockholm University of the Arts; and the incorporation of the University College Gotland into Uppsala University.

The approach is predominantly qualitative. Interviews have been conducted with top management at the respective HEIs including Rectors or former Rectors, and other key individuals who were deeply involved in the mergers or have particular insight into them. Most interviews were face-to-face and semi-structured; a prepared set of questions was followed up with additional spontaneous questions depending on how the respondents answered. On a few occasions, a couple of people were interviewed together. All interviews were transcribed.

Themes that were covered selectively in the interviews include: the work that was done before and after the merger; staff and student attitudes; the position of the government; local and regional stakeholders; results and effects of the merger; main challenges; and success factors.

In addition, site visits were made to the HEIs where they were perceived relevant: Linnaeus University, Stockholm University and University College Gotland. Three Danish universities with a story of mergers were also visited and top management, including Deans and Rectors,were interviewed there as well. Representatives of the staff were also interviewed, and efforts were made to hear both positive and negative voices. These Danish universities are the University of Copenhagen, Aarhus University, and the University of Southern Denmark. They are not presented in as much detail as the Swedish cases; however, the Danish data serve as comparative material which has been valuable in understanding and interpreting the Swedish data. In total, 30 respondents were interviewed, each interview lasting between one and two hours.

The case of Linnaeus University in Sweden is somewhat special. Knowledge and insights had already been gained through an evaluation of the process that preceded the merger between Växjö University and Kalmar University College in 2010 resulting in the formation of the Linnaeus University (Geschwind & Melin, 2011); and a research project was conducted in which the new university was studied during

its first three years, 2010–2012 (Melin, 2013). Altogether over 80 respondents among the staff and students at Linnaeus University were interviewed in these two earlier projects, six of which are included among the 30 interviews used within the present study.

Although the interview data are extensive, no quotations are given in the following presentation of the merger processes because many of the interviewees are in a position where quotations could be easily attributed to the individual him- or herself.

Any available documents or literature pertaining to the particular mergers under scrutiny have also been investigated; this includes for instance steering documents, policy documents, reports, evaluations, debate articles, and information on websites.

RESULTS

Linnaeus University

After several years of relatively good relations, cooperation between Växjö University and Kalmar University College in the south of Sweden was intensified in 2005, leading to the establishment of an alliance in 2006 with the name Akademi Sydost (Academy South East). Blekinge Institute of Technology was also part of this alliance. Cooperation within Akademi Sydost worked well, in fact so well that the three institutions wanted to develop their collaboration even further. When trying to do so, towards the end of 2007, it became clear that the three institutions in juridical terms were three separate governmental authorities: this constituted a crucial legal constraint. Växjö University and Kalmar University College declared their intention to form a new joint institution. Blekinge Institute of Technology chose to opt out of that process. The merger process at Linnaeus University and its rationale from the perspective of the top management have recently been described by the former Rector at Kalmar University College (Bladh, 2012).

The Swedish government stated in the 2008 budget bill that it intended to comply with the proposal from Växjö University and Kalmar University College and establish a new institution, named Linnaeus University, as of 1 January 2010. Special funds were allocated for the period 2009–2011 to cover the costs that would be incurred with the establishment of the new institution. The government also announced that a special organising committee would be set up to prepare and implement the merger.

A local steering committee containing representatives from management, staff and students led the merger process. The operational work was implemented by a number of additional working groups dealing inter alia with the strategy, brand,organisation and administrative coordination of the new institution. All these groups were formed in the spring of 2008.

The plan for the merger preparations was to work with great openness and involve staff and students extensively, emphasising internal communication and dialogue with the surrounding community and the Ministry of Education and Research. Respondents witnessed a transparent process with rich amounts of information

about what happened. The internal anchoring, not least in all the working groups at departmental level, was allowed to take a long time, something that was a conscious decision by the principals.

There were different attitudes among the stakeholders, internal and external. The respective Rectors and their top management staff understood well that it was crucial to get the staff of the two institutions 'on-board'. High priority, significant resources and sufficient time were therefore devoted to anchoring the idea of a merger among the staff. A temporary webpage was set up, information cafés were held to which anyone could come and hear merger news;in every other possible way information was given to the staff and the students. As a consequence, nobody complained of lack of information – on the contrary. Staff and students were invited to various meetings and to the working groups that were set up (at least students were *invited*, though they did not always participate); hence, people got to know each other and felt involved in the planning. Generally, the idea of the merger was established and the planning was perceived as reasonably transparent. The staff essentially felt that they were allowed to give their opinion. All employees were offered unchanged employment at the new institution, and all except six people accepted new positions at Linnaeus University.

The communication strategy vis-à-vis the surrounding society was equally painstaking and transparent – or at least so it seemed. Local and regional politicians were repeatedly invited and presented with the rationale for the merger. Their potential initial scepticism and 'this-is-our-university' attitude were met with a plea for their support in order to create a stronger new university for the good of the region and the institution itself. And they did give their support, and felt that they could trust the Rectors in this matter. Likewise local and regional business were invited and informed at meetings where they could present their opinions and their expectations of a new university. Again, the motives for the merger were presented and explained, and the business sector was convinced that this was something good for regional development.

It should be noted that there had been previous attempts to establish better cooperation between the two cities of Kalmar and Växjö, and also more cooperation within the region as a whole. Globalisation, economic crisis and a growing feeling of not being at the nerve centre any longer, but at the periphery of a peripheral country, had brought about a sense among politicians and business leaders that collaboration was better than competition. But what should they collaborate about? Around what could they unite, at least symbolically? The plan to form a new merged university was spot-on in this respect. Politicians testified in our interviews that this was the project around which they could unite in the interests of regional collaboration.

Local media were invited and regularly informed as well. The communication strategy resulted in more or less positive media coverage, something that could easily have gone the other way. But, as it happened, when the new university was finally in place and a new management took over, this positive relationship with local media was broken and the first year's media coverage of the new university

was predominantly negative and often included harsh attacks and criticism of the new Rector or other key individuals, not always for just reasons. The reason for this circumstance is difficult to explain fully, but according to the interviews, it had much to do with the way the new management communicated with media; the tone changed and the journalists thought that the new management had become significantly more arrogant. Indeed, this was the perception of many of the staff (Melin, 2013).

The otherwise mostly positive attitudes towards the merger during the preparation phase were the result of a carefully planned and conducted communication strategy. It left staff and students mostly positive towards the merger, local and regional politicians supportive, local and regional business trustful, and local media satisfied.

Some resistance was also voiced, primarily at Växjö University, and this resistance had different motives. At Växjö University, there was a rather widespread perception that the brand and standing of the university were strong. The institution had been granted university status some ten years before, and the staff and the public in Växjö in general were relatively proud of their university. Thus, merging with an institution that was not a full scale university was seen as a risk, even though it would mean a larger and more comprehensive university. There was also concern within the administration which saw centralised or streamlined services as a threat to employment. That concern proved unwarranted as administration did in fact *grow* as a result of the merger, at least during the first three years that followed.

Among the critical voices was the official standpoint of one of the academic trade unions, SULF, which is the most important of them as it has the most members. At times, its criticisms of the merger were loud and meetings were reported in the media as stormy. At one point, the central national management of SULF had to step in and sort things out. Although SULF as a union eventually accepted the merger, certain critical voices remained loud within SULF for several years after it took place.

Geography has been a key issue. The challenge was to overcome the one hundred kilometres between the cities of Kalmar and Växjö. It is certainly a fact that almost all Swedish universities run their business in more than one place, but it does not make the challenge smaller. Arranging for an optimum solution regarding communications was seen as one of the most crucial parts of the merger. An important declaration was made during the process, namely, that in general it would be teachers who should travel and not students. The university has also successfully invested in technical equipment for videoconferencing, something that has saved many trips and of course a lot of money. Still, it is often pointed out how much travelling continues to be required, especially for managers.

During the years that followed the merger, the number of applications to the university courses and programmes increased significantly, compared to what the two respective institutions had jointly experienced before. However, the time for the merger, i.e., 2010, coincided with the effects of the financial crisis and as a consequence, all Swedish universities experienced an increased pressure for education from young people who no longer could find jobs as easily as before. A comparison with all other academic institutions in Sweden still shows that the

Linnaeus University's courses and programmes were more in demand than were those at other Swedish universities. There seemed to be a positive merger effect, where the new university was perceived as more attractive to study at than the two former institutions, combined.

Incorporation of Stockholm School of Teacher Training into Stockholm University

The merger between Stockholm School of Teacher Training (LHS) and Stockholm University (SU) took place after a political decision against LHS's explicit will, as the result of a process that must be described as turbulent. When the government in November 2006 announced that a merger would occur, SU was not prepared to merge either since the two institutions had come into hefty conflict. The background to the conflict was disagreement about how teacher training should be conducted and about the exercise of power over PhD studies in the educational sciences. Teacher training in Stockholm had long been conducted in close cooperation between LHS and SU; SU was responsible for providing subject courses in teacher education and also had the right to award PhD degrees; decisions on admissions to PhD training, fellowships etc. in LHS were in fact taken by the Faculty of Social Sciences at SU.

The cooperation, however, had led to some dissatisfaction both at SU and LHS. Around 2004, SU's staff experienced teacher training consistently as a problem, due to the perceived lack of quality in LHS's activities, partly because LHS gave priority to specialised Education experts and disfavoured disciplinary experts. LHS felt that SU had taken the national teacher training reform from 2000 too lightly, which stated that Education should be included in all subject courses. LHS also felt that SU did not give LHS enough influence over 'their' PhDs. LHS had been hoping to get the right to award PhDs and had pushed for the establishment of a certain educational research field, something that the government finally disallowed.

When it was clear that LHS would not be able to strengthen its links to research in its own right, both SU's and LHS's respective managements became positive about LHS being incorporated into SU. In the fall of 2005, they launched a formal inquiry into the matter, known as the Regina investigation. This was intended to shed light on the preconditions for LHS to be included in SU and form a faculty of its own. The investigation team, consisting of senior representatives from both LHS and SU, was united in favour of a merger of this kind and the formation of an Education Faculty at SU. The report from the investigation was distributed within the two institutions for internal consultation. At SU the response was mildly positive, but at LHS the response was extremely negative. All parts of the organisation were strongly against the report's proposals: LHS's Rector concluded that the merger was not possible and resigned. Shortly thereafter, in June 2006, SU decided not to extend the mandate of the committee handling LHS's PhD training, on the grounds that the LHS' financial support, admission and examination of the PhD students were not up to standard. LHS's new leadership reacted strongly to this decision.

In November 2006, the new government caught both LHS and SU by surprise by sending out a press release entitled "Incorporation of Stockholm School of Teacher Training into Stockholm University". When the press release came, SU was preparing an application for accreditation to provide teacher training and awards on its own. The interviewees speculated on whether SU's application, which probably could not be denied, in combination with forthcoming evaluations of teacher training (which it was suspected would hit LHS hard), may have prompted the government's surprising move.

Soon it became clear that the merger would be implemented on 1 January 2008. The preparation process was complicated not least by the fact that the only existing 'decision' about the merger was the press release. In the late spring of 2007 the government allocated additional funds to the merger process, which came to be regarded as a *de facto* decision and led to different working groups being set up. It also meant an end to the LHS's internal discussions about how the merger could possibly be avoided. The formal decision was eventually taken by the Parliament in December 2007, just a few weeks before the merger was to take place. It may be noted that the additional funds only covered a portion of the full costs of the merger process.

The government made it clear that a merger would mean the end of LHS's existence and the incorporation of its activities into SU. SU's Rector announced early on that an Education Faculty would not be established; instead LHS's activities would be incorporated into SU's existing organisation within faculties and departments. The proposals of the Regina investigation were thus effectively dead.

Fusion work was led by a steering committee consisting of one representative each from LHS and SU, plus SU's Rector and Deans. The committee chairman was an Education professor at SU who was also Vice Rector for teacher training, and he quickly gained legitimacy on all sides. He worked full time on the merger, which was a positive factor since the merger's practical implementation largely came to be associated with the chairman himself, and his commitment thus showed LHS staff that the task was being given high priority.

The steering committee proposed the establishment of six new departments that would be spread out across the faculties, and this proposal was approved. A number of working groups were established which would anchor the merger within SU's organisation. Some staff at LHS experienced dissatisfaction as did parts of the SU staff. Still, when the merger took place the ground was rather well prepared.

A happy circumstance was that LHS had amassed considerable financial capital. SU used it to let everyone at LHS and at the SU administrative services aged 60 or more go into full retirement, if they wanted to. Many teachers at LHS took the chance, especially lecturers without PhDs who were not guaranteed permanent positions at SU and generally felt not very welcome at SU; administrative staff at both LHS and SU availed themselves of the opportunity.

The outcome of the merger is largely positive. The number of applicants to the teacher education programmes has increased significantly and is higher than at many

other universities. Interviewees in SU's management are confident that the quality of teacher education has improved, partly because the training to a greater extent than previously is conducted by PhD graduates, partly because increased research in Education has had an impact on teaching. The discontent that existed prior to the merger has essentially disappeared. For the most part this is reported to be due to the passage of time. The most unhappy people left LHS/SU quite early on, often after having accepted the offer to retire. Others have subsequently retired as well.

In some respects, the merger has had negative consequences. The main one concerns the Office of Teacher Education, which SU's management was forced to close down. The Office was almost entirely populated by former LHS staff but with a manager from SU, and it became a bastion where both LHS's discontent and old LHS structures survived. The establishment of the Office is reported to be perhaps the biggest mistake that SU made during the process. After the Office's closure the administration of teacher education was handled at department level.

Incorporation of Gotland University College into Uppsala University

On 1 July 2013, Gotland University College was incorporated into Uppsala University, after fifteen years of existence as an independent institution. Gotland University College was Sweden's smallest HEI and its limited size has always been a feature of its existence. The number of employees never reached more than about two hundred, all found. Gotland University College often had to struggle to find a profile that attracted students. It made a strong attempt to develop so-called Liberal Arts education of the Anglo-Saxon type, and it also developed a significant number of distance learning courses.

Distance students, however, tend to not always to complete their credits or their degree. There is also a percentage who enrol in a course but do not participate. For many years, Gotland University College (and other Swedish HEIs too) were to some extent financially compensated for students who did enrol but in fact never participated in the courses, but when the government changed the rules in 2012 and required that students actually complete the course in order to reimburse the HEIs, this significantly reduced revenues for Gotland University College. These circumstances, coupled with a generally more competitive university system, made Gotland University College's finances increasingly stressed. There were indications from the Ministry of Education and Research that Gotland University College should seek a merger partner.

Gotland University College had for long maintained a partnership with Uppsala University, and in 2008 the two parties signed a cooperation agreement. Gotland University College had also collaborated with other HEIs, especially with Linköping University and Södertörn University. The relationships with these two HEIs were however not as close as with Uppsala University.

In 2011, the management at Gotland University College started to investigate alternatives with respect to its future. The options were to either merge with another

institution, which later was specified to be Uppsala University, or to continue an independent existence. After an internal process, Gotland University College and Uppsala University formulated a joint letter of intent where it was specified that the former was to be incorporated into the latter. This letter of intent was one of the last decisions of the Rector at Uppsala University before a new Rector was to take office at the turn of 2011/2012. The new Rector chose to put on the brakes and allowed a few months in the winter of 2012 to thoroughly investigate the consequences of the merger. This internal investigation, however, concluded in favour of a merger.

On 19 April 2012, both the board of Gotland University College and the University Senate at Uppsala University met. They decided to submit a request to the government for a merger. This request was signed by the two institutions' respective Rectors on 24 April 2012. Parliament approved the merger on 12 December 2012, and it took place just over half a year later, on 1 July 2013.

It has been described to us how the former Rector of Uppsala University was very welcoming towards Gotland University College and its staff. He dealt with sensitive issues in a gentle way and won the staff's trust. Even the surrounding community and local industry in Gotland realised Gotland University College's increasingly precarious situation and with time were convinced that a merger with Uppsala University was something positive rather than a threat.

Uppsala University was from the beginning of the process clear that it did not intend to allow Gotland University College to become an independent unit within the university. Instead, Gotland University College's various activities were to be fully subsumed into the university's existing organisation. Gotland University College had three departments which housed a number of topics, some very small in terms of number of employees. These different topics or subject areas came to be subsumed into eighteen different departments at the university.

The departments involved at Uppsala University felt not entirely positive. At times some of them aired quite loud scepticism towards receiving Gotland University College's staff into their own organisation. The arguments focused mainly on concerns that the quality would be adversely affected. In part, the negative opinion at some of Uppsala University's departments may have been due to weak involvement of the university staff in the initial phase of the merger process. There was a little bit of analysis of the number of students or the volume of research and research funding at Gotland University College, but no actual interaction with the colleagues at Gotland University College. Only after the decision to merge was made, did a deeper involvement of the staff in Uppsala occur at the departments concerned, which led to more positive attitudes at least in one of the departments. The critical attitude still persisted at some departments but most staff were positive from the outset.

At Gotland University College, preparatory work, communication and involvement of staff were all from the beginning relatively intensive, and the staff eventually in principle became positive about becoming part of Uppsala University.

Seven working groups were established to prepare the merger in practice. These groups dealt with issues such as administrative systems, IT systems, communication etc. It was clear that it was Uppsala University's systems that were to be introduced also at Gotland University College.

The motive for the merger from Gotland University College's side was to ensure continued academic activity on the island of Gotland. Although no absolute guarantee was given regarding the amount and scope of the future teaching and research on Gotland, it must be assumed that the university will keep its word and at least maintain research and teaching for quite a few years on what is now Campus Visby.

It is perhaps less clear what Uppsala University had to win from the merger. The expansion in terms of number of staff and research funding was so small in relation to the size of Uppsala University that it was barely visible in the statistics. And it is well known that although there were some strong research units at Gotland University College, there were also problems with lack of quality in many areas. It was hardly the incorporation of additional academic strength from Gotland University College that attracted Uppsala University. Certainly there was some widening in subjects such as archaeology and art history where Gotland University College's focus and expertise could positively complement the expertise available at the university's departments; art restoration is an explicit example of this. On the whole, however, Uppsala University had no need of the expertise and the staff from Gotland University College, though it was generally sympathetic to a merger.

It is not unlikely that Uppsala University also saw values other than purely academic ones when it incorporated Gotland University College into its organisation. Gotland University College's campus in the medieval town of Visby is very beautifully located next to the harbour and to Almedalen Park. From a cultural history perspective, it is in many ways a jewel in the crown for Sweden's oldest university. Already before the merger had officially taken place, some departments of the university decided to locate workshops or staff meetings on the campus in Visby, where Gotland University College willingly assisted in organising the practical arrangements. Furthermore, in Sweden, there is a long tradition of holding an annual week of political activities in Almedalen Park during summer. During recent years, there has been a dramatic increase in the importance of this week not only to political parties but also to NGOs or other interest organisations; thus, it may seem tempting to by physically present right in the heart of the political context, where research and higher education issues are discussed every year. Overall, the island of Gotland with its rich cultural history and its status as a popular holiday location, is associated with something positive for many people. And given the internal economic situation for Gotland University College, its attractive campus in Visby would have probably gone to some other university anyway unless Uppsala University had acted. Viewed in this light, there may not have been much to lose, and almost everything to gain from a merger.

Stockholm University of the Arts

Stockholm Academy of Dramatic Arts (SADA) was formed on 1 January 2011 through the merger of the University College of Film, Radio, Television and Theatre (TH) and Stockholm Academy of Dramatic Art (DI). The idea to merge came from the two institutions' respective boards in 2009. The main purpose of the merger was not economic, but rather educational and artistic. The rationale for the merger was to create a more powerful artistic environment with new opportunities for educational development and artistic research. Through a merger it would be possible to create a stable platform for cross-border meetings between artistic areas, both nationally and internationally. Earlier, actors were trained at the TH and directors at the DI. A merger would create a cohesive academic environment, which in turn would produce a favourable climate where students would have the opportunity to work in joint interdisciplinary projects.

In the 2010 state budget, the government announced its conclusion that the merger would increase the possibility of developing a dynamic environment for the dramatic arts. A merger would create opportunities for students to meet across professional boundaries and promote the development of education and research, which was judged likely to attract more students. A merger could also lead to some activities being better streamlined in the long run. The government decided that SEK 15 million (at the time ca. 1.7 million €) would be distributed to the two institutions during the period 2009–2011 in order to cover additional costs that the merger was expected to generate.

Work on the merger was initially led by a steering committee consisting of the Rectors from both institutions together with their respective boards. The merger process was in many ways inspired by the merger of Växjö University and the Kalmar University College, which as we know from what was reported above led to the creation of Linnaeus University. The government established an organising committee in early 2010, which shortly thereafter began its operations and took over the work of the merger process. The two Rectors, the chairmen and members of the respective board then worked together in the organising committee, with an external Chair. Planning of unified administrative systems such as intranet, admission procedures and economic and personnel systems was completed at the time of the organising committee's formation. Consequently, 2010 was devoted to implementing the new systems and facilitating the completion of the merger process. In the final phase of the merger process, the organising committee was replaced by the newly appointed board at DI and its Rector.

An investigation was undertaken in order to gather knowledge for future educational and research development. The result was presented in early 2010, and two themes were highlighted as particularly important: crossovers between Arts borders and increased freedom of choice for students. The investigation results were communicated to the staff in the form of open seminars where they were given the opportunity to comment on them. Student unions at each institution were invited

to this, as to other parts of the process. Subsequently, the organising committee presented a proposal for the new institution's internal organisation and in September 2010, a decision was taken to bring this new organisation into being. A conceptual policy document was also compiled that pointed out the core values of the research and education at the new institution through a number of keywords such as flexibility, openness, and sustainability.

On 1 January 2011, the new institution, Stockholm Academy of Dramatic Arts, was inaugurated. The merger created three new departments: Department of Performing Arts, Film and Media Department, and Department for Acting.

Later in 2011, discussions were initiated regarding a common platform for artistic research and graduate studies: it involved six art colleges in Stockholm of which Stockholm Academy of Dramatic Arts was one. The six institutions expressed their wish to form a loosely coupled research centre; however, the Ministry of Education and Research said that it would not support this. By contrast, a merger between institutions was promised financial support. In January 2012, three of the art colleges signed a letter of intent in which The University of Dance and Circus, The University College of Opera in Stockholm and The Stockholm Academy of Dramatic Arts affirmed that they were in favour of a merger. The three other art colleges were not interested in a merger. On 1 January 2014, the merger officially took place and Stockholm University of the Arts was formed. However, it is not a full merger in technical terms; Stockholm University of the Arts consists of a shared department for research and doctoral studies. The three participating institutions will remain autonomous units and retain their names and authority over their respective graduate education.

DISCUSSION

A Note on Diversity

Indisputably the mergers in Sweden and Denmark were undertaken as a measure to improve operational quality, resulting in more research funding and increased attractiveness to students. At least this was the intention as the situation at the former institutions in one way or the other was regarded as unsatisfactory. To offer two examples, teacher training in Stockholm was assessed not to be of sufficient standard; and research and education at the institutions in Kalmar and Växjö were judged too weak for future competitiveness, internationally as well as nationally.

But quality in academia also comprises values other than academic publications and student numbers. Diversity is one such value, and it concerns both intra-institutional diversity as well as inter-institutional diversity in any given national or international arena. Will not mergers between HEIs result in less diversity, especially less inter-institutional diversity?

In Denmark, reducing the number of HEIs was indeed one of the ambitions with the merger reform; not just for the sake of reducing HEIs but because the Danish

government wanted to create fewer and stronger universities. In Sweden, the government probably wanted the same but choose another steering mechanism, a much softer one where it was declared that those HEIs that faced economic problems (contingent upon quality issues) ought to seek partners, and that mergers would be supported. Have the mergers resulted in a less diversified HEI landscape in Sweden and Denmark?

At a first glance, it may seem so. Not least in Denmark, the number of universities is reduced from twelve to eight. In Sweden, there is the same number of universities as before the mergers but there are fewer colleges.

But before drawing the conclusion that the mergers resulted in less diversity, one important observation should be made: as far as we can see, the HEIs that engaged in mergers became stronger impacting positively upon the overall standing of Danish research. Many policy makers look towards Denmark and want to understand how Danish research has been able to develop in such a positive manner during the last few years. The best Danish universities have taken prominent positions on various ranking lists. Also the Swedish mergers that are presented here resulted in strengthened institutions, although it is still too early to be sure about the two most recent ones. And strong institutions presumably have better possibilities to nurture diversity inside themselves. An HEI in reasonably good economic circumstances can allow small and emerging fields to grow; it can take strategic actions and profile itself; and it has more resources to engage in institutional cooperation, international student exchange or other types of joint ventures with external partners. Weak and economically poor institutions, on the other hand, may have few opportunities to provide their staff and students with the kind of financial and management support that lead to increased diversity. Insofar as this is true, the mergers could after all result in increased diversity, but it may take some time. There is a ‘quality tunnel’ that the merged institutions need to go through right after the merger, meaning that the desired improvement is not achieved instantly, but only after some time. Once out of the quality tunnel, the merger starts to pay off and the institution can, one hopes, start to invest in its operations in a way that also means increased diversity.

Synthesis of Lessons Learnt

Given what has been presented above regarding the merger processes, it can be concluded that much attention is typically given in Sweden to transparency when planning a merger. Preparation, communication, and involvement of staff are often careful and thorough. The fact that the will of a majority of the staff at Stockholm School of Teacher Training was ignored does not really falsify this conclusion. The outcome of the investigation, including its proposition to merge with Stockholm University, was remitted to all parts of the institution. Preparation, communication, and the involvement of staff were extensive along the way, although not at all supported by the institution’s staff.

In all four cases, a number of working groups were set up with broad representation of different staff and student groups. The working groups were normally allowed significant time to complete their assigned tasks and to find solutions that were accepted by a majority, if not by all concerned. This ambition of anchoring the idea of a merger, of emphasising transparent communication both internally and externally, and involving a wide representation of the staff and students in the preparation, contrasts with how merger processes have been organised in some other places.

Denmark is one such contrasting example. Denmark went through an extensive wave of university and institute mergers in 2006, most of which were inaugurated 1 January 2007. All Danish universities except three were affected by the mergers. The details of this wave of Danish mergers have been described and analysed by Foss Hansen (2012) and commented upon by Aagaard and Bloch (2012). These works are however in Danish.

In essence, the mergers in Denmark were characterised by a clear top-down approach from the government towards the university and research institute sector. Following legal reforms of some magnitude in the HEI sector, in the winter of 2006 the Danish government announced its desire to see voluntary mergers between universities and governmental research institutes. The universities were to report their response, including preferred partners, to the government within a couple of months. An intensive exploration began of who could possibly partner with whom. Some were essentially positive about merging while others resisted and some refused. Rectors and university board Chairs met and negotiated. In April, the universities reported back to the government. Further discussions followed between the government and the universities as well as the institutions concerned, and a preliminary outcome was presented in June. The respective institutions were told to keep discussing and preparing for a merger with the chosen partners, and to report back again to the government in September. A formal governmental decision regarding the mergers was taken in October, and the mergers took place 1 January 2007, with some exceptions: for instance the Danish Pedagogical University which did not merge with Aarhus University until later in 2007. Furthermore a few smaller units were merged at later stages.

Consequently, the merger processes were much faster than what we have witnessed in Sweden, and the Danish government took a more interventionist position than the Swedish government. Foss Hansen's title is "*Voluntary Compliance"* (author's free translation – the implication is that the compliance was not always voluntary at all); indeed, it is a paradox that the Danish mergers were both enforced and voluntary (Foss Hansen, 2012).

Among our cases, we find examples of different kinds of university mergers, for instance two merging partners of equal size, one small institution merging with a larger one, and enforced taking over of one institution by another. Although all mergers are unique in terms of their context, common patterns related to the merger processes are revealed that at least in part may be of general interest and of relevance

to many other mergers as well. Many experiences and lessons learnt from the mergers point in the same direction, and some conclusions and even recommendations appear repeatedly in the merger literature, although with slightly different angles. Previous studies have occasionally tried to present a set of recommendations or action points to be considered for others who may enter an HEI merger. Below, an attempt is made to combine findings of other similar studies which, together with the results from this study, create a synthesised set of key issues to consider in any merger process.

Many have pointed to the importance of clarity regarding the motives of the merger and what it is meant to achieve. The Linnaeus University may serve as a good example in this respect: that merger was conducted in order to strengthen the quality of research and education, nothing else.

- For democratic and collegial reasons it is important to involve staff and at least to some extent also students in the merger process. Obviously, this is crucial when it comes to raising internal support for the merger. The relative lack of staff involvement in the Danish mergers resulted in frustration – in some cases significantly so. It has most likely made the subsequent local integration processes more difficult and time-consuming than would otherwise have been the case.
- If a change of name of the institution(s) is on the agenda, this should be resolved very early in the merger process.
- When two parts merge there is at least one Rector who will not be Rector any longer. Several respondents and authors have underlined the importance of resolving this matter early, possibly even before the actual merger process begins.
- Key management staff should be appointed early in the merger process. Allowing such appointments to wait may result in uncertainty among the staff as to who has decision-making authority; and the work with merger decisions and details is at risk of being delayed.
- Any merger needs external support. Several voices have emphasised the importance of having high political support as well as support from stakeholders in the surrounding region, both from business and politics.
- The speed of the merger process must be considered. There may be reasons to allow the process to take a shorter or longer time. Experience indicates that a short preparation phase before the actual merger requires a longer phase of 'post-merger healing' and relatively longer subsequent integration work. However, in a preparation phase that is too long, certain questions may be put on hold and may with time prove difficult to solve.
- In several cases a re-organisation of the new institution has been necessary after the merger. Essentially all examples covered in this study have undergone a re-organisation, at the point of the merger, or after a few years, or both. There is no model for how this should be done, especially as it is dependent on how closely integrated the merged units are planned to be. Here, several options are available. Typically, such a re-organisation has come as a negative surprise to the staff.

A merger is a response to perceived external and sometimes internal pressure for change. The merger process, in all its details and within its own unique context, aims at arriving at a successful result which in reasonable time fulfils the expectations of the new institution, be they external or internal. As we have seen in the empirical examples given here, paying serious attention to the preparation, communication, and involvement of staff is likely to pay off and help make the merger successful.

The changing level of support from the staff over time can be depicted graphically. An example is given in Figure 1, which builds on the situation at Linnaeus University. The linear curve may take different shapes but is in many cases likely to have a rather similar look to the figure. Possible differences in the curve's shape can for instance depend on how soon before the merger the idea is communicated, how much the staff is involved in the process, and how well the motives for the merger are communicated. The actual level of support may of course vary greatly.

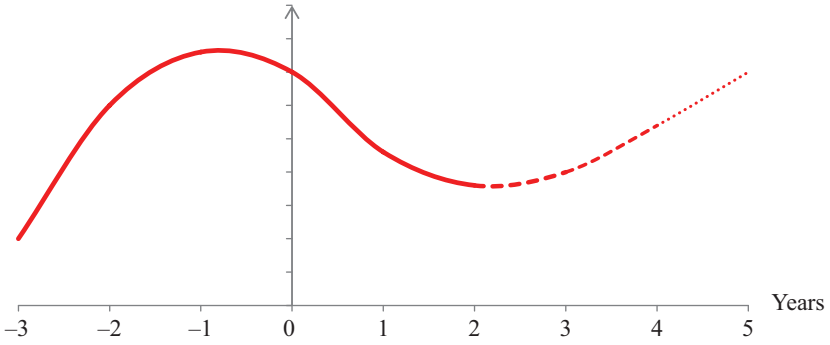

Figure 1. Example of level of staff support for the merger, with time

If the idea of the merger is announced relatively early, so that there is time for the type of anchoring of the idea that we have seen in the Swedish cases, the support tends to build up as the staff are engaged in various working groups and get information. The support may peak around the time of the merger, or it could peak slightly before or after, depending on how long the preparation phase is. In Figure 1, it peaks slightly before and then drops as the positive outcomes of the merger are not immediately realised – the university is in the 'quality tunnel'. As we have noted, extensive reorganisations have often been undertaken a couple of years after the merger, tiresome to the staff, and this circumstance can also cause a drop of the level of support. However, as the years go by, positive effects of the merger are increasingly seen and the level of support goes up. Also, the staff's identification shift towards the new institution rather than the old ones, and eventually, almost no one speaks of the old institutions anymore. This is depicted by the ever thinner line – when it has faded completely, it is simply no longer relevant to talk about support for the merger; the merger is history. Through a careful merger process, it is

probably possible to significantly reduce the level of negative feelings, frustration, and residual identification with either one of the old institutions and thus the time to complete the merger not only on paper but in the everyday work for staff and students.

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4. THE DANGEROUS ROLE OF ECONOMISTS IN SHAPING AMERICAN HIGHER EDUCATION POLICY

Europeans Should Take a Different Path

INTRODUCTION

The United States has world class higher education. Often we Americans offer our system as a model for other nations to replicate or adapt. Before other nations move in that direction too quickly, however, it is essential to take another look at how the American system is being transformed and may no longer inspire emulation.

This chapter makes five points:

1. American economists made serious mistakes when they analysed higher education, beginning in the 1970s.
2. These mistakes led to bad policy advice.
3. Bad policy advice has led to unwanted consequences.
4. These unwanted consequences have contributed to national disasters for Americans.
5. Europeans should hasten to achieve different outcomes.

These observations are based on experience and insights gained, starting in the 1970s, when the author of this contribution had the privilege of serving as the Chief Economist of the American Council on Education, Washington D.C. She came to these conclusions as an insider. More than thirty years of subsequent experience make it possible to track the consequences of the bad analysis, as well as the outcomes of the bad policy advice.

In this chapter ten significant education policy areas are examined where the author believes the economists made mistakes in their analysis – which mistakes then led to bad policy recommendations. These ten policy areas include: (1) College enrolment projections, (2) Tuition policy, (3) Explaining tuition increases, (4) Student financial aid policy, (5) Adjusting the value of student grants for inflation, (6) Inequality in higher education, (7) Productivity, (8) Measuring the benefits of higher education, (9) Impact of technology on college costs, and (10) Higher education among federal and state budget priorities.

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 53–67.

COLLEGE ENROLMENT PROJECTIONS

Bad analysis: Starting in the early 1970s American economists saw the demographers' projections of a substantial decline in the number of traditional college-age young people aged 18–24 (see California Postsecondary Education Commission, 1982; Carter, 1976; Dresch, 1975; Freeman, 1976; Froomkin, 1976; see also Breneman, 1983). They made widely accepted projections of a substantial decline in college enrolment. The two panels in Figure 1 show the actual American college enrolment trend up to the late 1970s and the demographers' projections of the decline in the traditional college-age population aged 18–24 in the 1980s. Most of the economists were led by the demographers' projection of the decline in the college-age population to project a commensurate decline in the college enrolment (A). However, the actual college enrolment did not decline, but rather increased substantially (B).

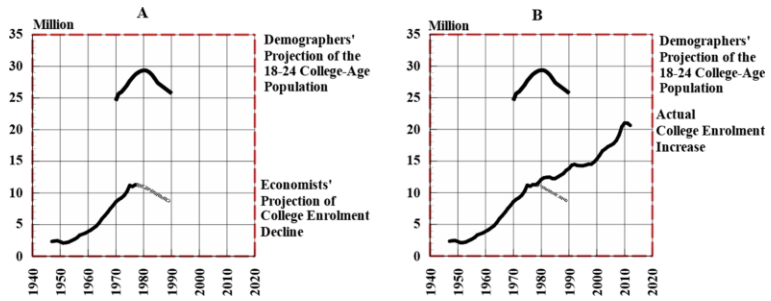

Figure 1. Economists' mistaken projection of the decline in college enrolment based on the demographers' projection of the decline in the 18–24 year-old college-age population
Source: College Enrolment: U.S. Department of Education. Digest of Education Statistics: 2013, Table 303.10; U.S. Department of Commerce (1967), p-25, page 381.

The problem was that the economists' enrolment projection models of that time were much too simple. They saw the demographers' projected decline in the college-age population and on that basis predicted a decline in college enrolment. In reality, however, a multitude of factors have an impact on college enrolment. Therefore, a model for projecting college enrolment should look more like the one shown in Figure 2.

Bad advice: Accompanying the bad analysis of enrolment was the bad advice that the job of colleges and universities was to retrench. The Ford Foundation even funded a nationwide road show arguing that responsible managers should make the tough decision to down size and showed them how to do it (Crossland, 1980; cf. the critique by Frances, 1980a).

What actually happened?

The outcome depended significantly on whether the education system was decentralized or centralized. To illustrate the difference between decentralized

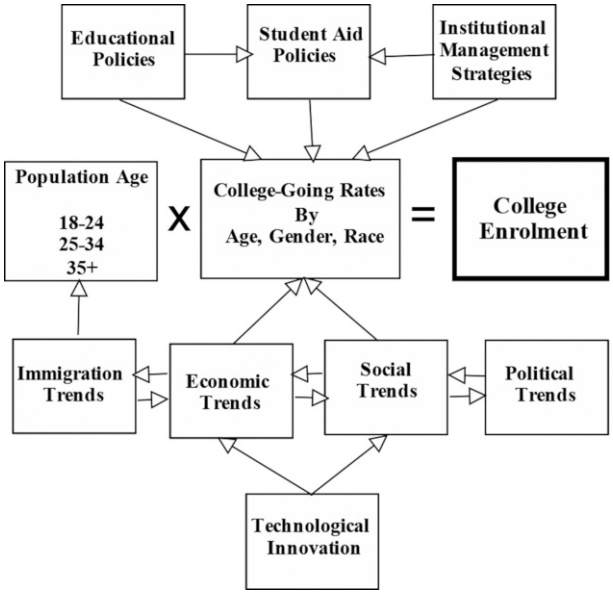

Figure 2. Model for projecting college enrolment

and centralized educational systems, consider that the U.S. would be described as 'decentralized'. It has no centralized or national Education Ministry but instead 50 State Departments of Education. In contrast, the Parisian French Ministry of Education which oversees education in all of the French Departments would be characterized as a 'centralized' educational system. In the U.S. the individual college and university executives developed an entrepreneurial spirit and created new education markets. Women and minorities accounted for a very large share of the increased enrolment (see Frances, 1980b). More centralized educational systems, where the top-down command from a national education ministry to retrench became a self-fulfilling prophecy, did not see the same growth in enrolment. The consequence of the bad advice based on the mistaken forecast of declining enrolment was that education markets were viewed as weaker than they actually were, and colleges and universities were hesitant to raise tuition to cover their actual increase in costs. In fact, the real problem was inflation, not weak markets. Actually, the 1970s and 1980s were characterized by much higher rates of cost increase than decades before or after that period, as shown in Figure 3.

Annual price increases during the 1970s and 1980s reached as high as 13%, more than twice the rate of increase before or after those decades. In the 1970s and early 1980s academics' salaries did not increase as much as their living cost, and individual faculty members faced a substantial loss of purchasing power. A few years later, when the institutions saw that they needed to increase faculty salaries to

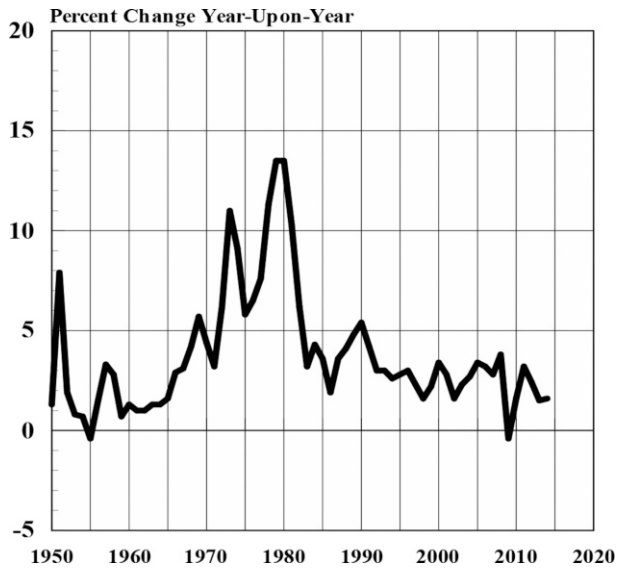

Figure 3. Trends in U.S. inflation as measured by year-upon-year percent changes in the Consumer Price Index
Source: U.S. Department of Labor (2015), Table 24.

keep quality professors, the fact that these costs then rose at a faster rate than the overall Consumer Price Index was highlighted in the media and was then regarded by the public as taking advantage of the students. This contributed to the new wave of demands for stricter accountability standards in higher education. American faculty did not recover the earlier purchasing power of their salaries until the 1990s, close to two decades later, as shown in Figure 4. By 2013, faculty salaries on average were only slightly higher in real value than they were in the early 1970s (see the data published by the National Center for Education Statistics in the Digest of Education Statistics, 2013).

TUITION POLICY

Bad analysis and bad advice: American economists characterized tuition as ‘elastic’, meaning that if tuition fees were raised, enrolment would fall off. Initially, the advice was to hold down the increases in tuition, even when more resources were needed to cover real cost increases. As a consequence, colleges and universities grew weaker financially.

Beginning in the 1970s there was a new economic view of tuition. Low tuition came to be characterized from an economic perspective as ‘inefficient’. It was seen as benefiting higher income students who could easily afford to pay higher tuition,

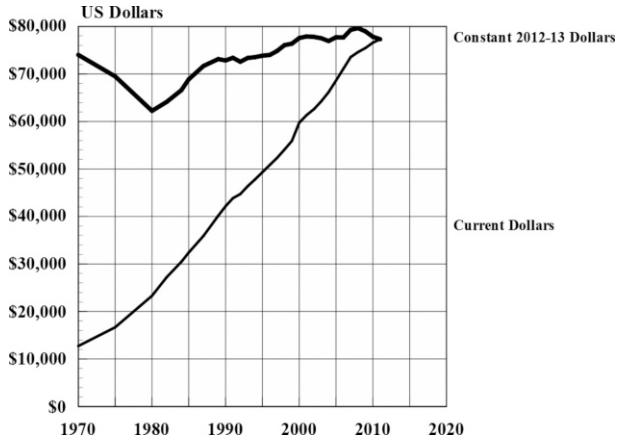

Figure 4. Salaries of faculty in the U.S. since 1970
Source: U.S. Department of Education. Digest of Education Statistics: 2013, Table 316.10.

and low tuition was therefore a waste of taxpayers' money. A policy of relatively high tuition offset by high aid for needy students was recommended by the economists as far more 'efficient' (see for example Hartman, 1974).

Explaining Tuition Increases

Most analysts trying to explain tuition cost increases rely primarily on reasons relating to institutional costs. Explaining tuition increases is indeed complicated and there are many factors that need to be taken into consideration. The most important factor to stress, however, is not cost increase but rather revenue shortfall. Simple arithmetic will help to explain how a revenue shortfall compounds its impact on tuition. For example, if the total cost per student is $10,000 in one year at a state university and if the state provides $5,000 per student, the university has to charge $5,000 tuition. If the cost rises in the subsequent year by $1,000, to $11.000, that is 10%, but the state funds are reduced by $1,000 that is by 20%, the tuition has to rise by $2,000, to $7,000, that is by a staggering 40%. An increase in total cost accompanied by a shortfall in state support could result in a tuition increase many times the original increase in the underlying costs. This helps to explain why tuition generally rises at a much faster rate than the overall Consumer Price Index (CPI).The reasons why tuition increases are actually quite complex are shown in Figure 5. This model to help explain tuition increases takes into account cost trends in the overall economy, costs relating particularly to higher education, measured by the Higher Education Price Index (HEPI, Common Fund, 2015), offsetting trends in the productivity of teaching and learning, quality competition especially among the elite institutions, shortfalls in non-tuition revenues, and shortfalls in federal

and state student aid, for which the colleges and universities compensate with institutionally funded student aid.

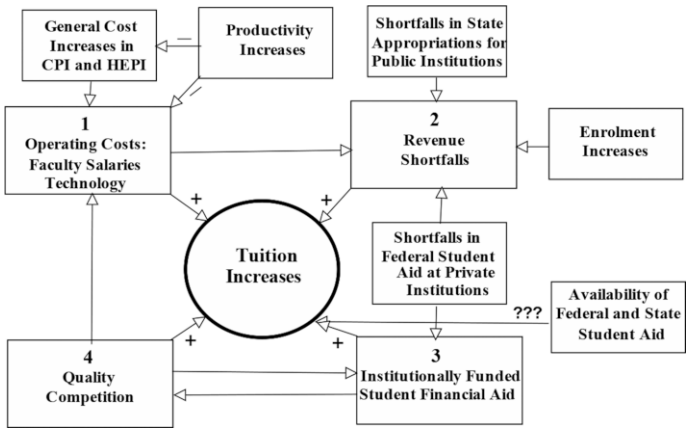

Figure 5. A model to help explain increases in college tuition

STUDENT FINANCIAL AID POLICY

Tuition increased at higher education institutions in the U.S. under the policy of high tuition offset by student aid for needy students. Sceptics were reassured that 'aid' meant 'grants' for low income students. This was not to be. 'Aid,' meaning grants that do not have to be paid back, was redefined to include loans which do have to be paid back – with interest. By as early as the 1980s the amount of money in loans to students substantially exceeded the amount in grants (see Figure 6).

In the mid-1970s, loans and grants were about equal in the amount of aid provided. According to the most recent data, however, the amount awarded in grants is now only half as much as that provided in loans. In 2013 the Federal Reserve Bank of New York reported that unpaid student loans amounted to a staggering 1.3 trillion dollars, more than all other consumer debt outstanding in the whole country, except for mortgages (Federal Reserve Bank of New York, 2013).

ADJUSTING THE VALUE OF STUDENT AID FOR INFLATION

If economists analyse the effectiveness of student aid in achieving the goal of providing accessible, affordable, quality higher education, it is essential to know the purchasing power of the aid being provided to students over time. This is done by adjusting the current dollar amount of the aid for inflation, by calculating the constant dollar amount of aid. For instance, to calculate constant dollar purchasing power of faculty salaries the current dollar amount is divided by the Consumer Price Index. But this procedure is seriously flawed when it is applied by the economists

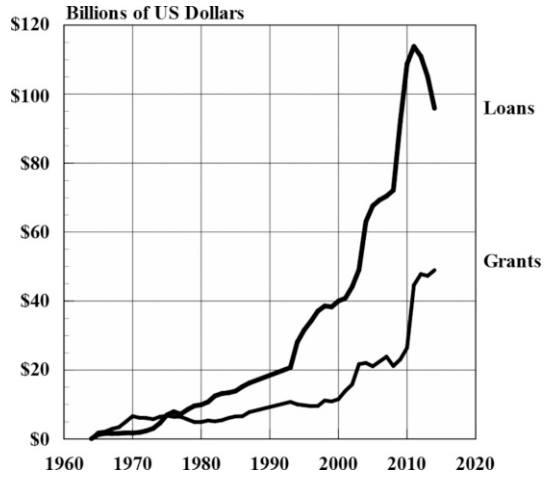

Figure 6. Trends in student grants and loans in the U.S. from 1963–64 to 2013–14
Source: College Board,Trends in Higher Education Series,
Trends in Student Aid: 2014 (and earlier editions).

to calculate the purchasing power of student aid in constant dollars. To put it simply, the price index used to calculate constant purchasing power has to be made up of items that the purchaser actually buys with the money. Students do not use student aid to buy the items in the Consumer Price Index; they use student aid to pay for such items as tuition and fees, room, board, books and travel – most of which items have increased in cost at vastly greater rates than the CPI. Thus, using the CPI to adjust student aid for inflation substantially underestimates the impact of the cost increases eroding the purchasing power of student aid. Actually a Student Cost Index should be constructed and used for the purpose of calculating trends in the real value of student aid in dollars of constant purchasing power. The author Frances (n.d.) has constructed a Student Cost Index using actual trends in such student costs as tuition and fees, room, board, books, and travel, as well as student budget data from the College Board to calculate the weights of the cost components. Beginning in the early 1980s, the Student Cost Index increases at a much faster rate than the CPI. As a consequence, using the CPI to calculate the inflation-adjusted real value of student aid over time significantly overestimates the true value of student aid awarded to students.

Over even a few years, the difference in the real value to students of the student aid purportedly awarded to them amounts to billions of dollars. In current dollars, federal grants to students in the U.S. more than doubled over the ten years from 1994–95 to 2004–05. When the CPI is used for inflation adjustment, federal grants to students increase in real value by about two thirds. According to the author's calculation, using the Student Cost Index to make the inflation adjustment shows that federal grants to students increased by only about one third (ibid.). Calculating

the real value of student aid is not just a technical issue. The impact of economists using the wrong index is so large that it should become a political issue. The bad analysis leads to the mistaken conclusion that higher education is 'affordable' and students can, with aid, handle the costs when, in fact,this greatly overestimates the real value of the aid actually awarded to students to pay for college.

INEQUALITY IN HIGHER EDUCATION

Student aid is recommended by the economists to promote greater educational opportunity and to narrow the gaps between students from low and high income families and between different race and ethnicity groups. The fact is, however, that students from high income families continue to enrol in colleges and universities at rates much higher than those of students from low income families. And while the college-going rates of all racial groups are generally increasing, the gaps between the Asian and White rates and the Black and Hispanic rates have not been eliminated (see Figure 7). This is true even after close to half a century of implementing existing higher education policies (see U.S. Department of Education, 2014).

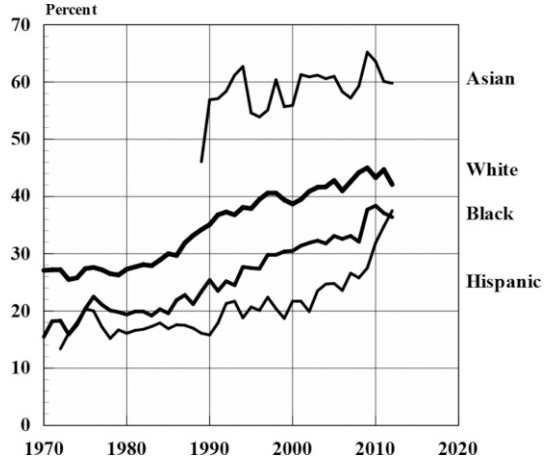

Figure 7. Percent of 18–24 years old enrolled in degree-granting institutions in the U.S., 1970–2012, by race
Source: U.S. Department of Education, Digest of Education Statistics: 2013, Table 302.60.

LOW PRODUCTIVITY

Even friends of higher education are content to characterize the function of instructing students as "low productivity." Economists usually calculate productivity using something equivalent to student credit hours. However, student credit hours

are inputs, not outputs of education. Outputs should be used in calculating the productivity of education. They should cover what is learned or what is created. Using outputs instead of inputs to measure the productivity of higher education would result in characterizing higher education as highly productive. Admittedly, however, higher education has not yet done a nearly adequate job of measuring educational outputs. Mistakenly characterizing higher education as "low productivity" often leads to recommendations to colleges and universities to adopt more business-oriented approaches to management.

MEASURING THE BENEFITS OF HIGHER EDUCATION

Historically the benefits of higher education were viewed as redounding to society. An educated citizenry was considered by the American founding fathers as essential to a functioning democracy. Benefits to society undergirded beliefs in the past about the importance of low tuition as a means of promoting broad access to higher education. Over the course of the 1970s and even more in the 1980s, when marketization of higher education began to take hold in the U.S., a concomitant sea change in ideas about who benefits from higher education began to take place. The idea that the primary beneficiary of higher education is the individual began to supersede the previous belief that society as a whole is the primary beneficiary of higher education, which belief had previously been the justification for convictions about the appropriateness of low tuition policies. If, in contrast, individuals are the primary beneficiaries of higher education, then individuals should pay for it. And not only should they pay for it, since higher education is a good investment, they should *borrow* to pay for it if they cannot afford it using current income. Out of this reasoning by economists emerges the justification for financing higher education with student debt.

IMPACT OF INFORMATION TECHNOLOGY

Economists offered the opinion that information technology (IT) held the potential for dramatically lowering the costs of education by substituting investment in IT for college faculty (see Massey & Zemsky, 1995).This did not happen (see Finkelstein et al., 2000). In general, up to now, IT has generally raised costs instead of lowering them, in part because of the extremely rapid evolution of the technology and the never-ending costs of updating it to the newest version.

HIGHER EDUCATION AMONG FEDERAL AND STATE BUDGET PRIORITIES

At the federal level economists saw the rise of spending on health and retirement benefits for the elderly, and at the state level the rise in spending on prisons. They declared that there simply would be no more funds for higher education and that the smart thing to do would be to adapt to the new more stringent financial

environment. Educational leaders, cooperating, attempted to maintain the quality of their educational programs with even fewer resources.

In the U.S., it seems that educators are not even at the table where the national and state allocations of resources are being made. These allocations involve choices that should be explicit, acknowledged, and debated. But they are not. Without focusing on the actual choices being made, significant budget resources are allocated to protecting the retirement and health benefits of the older generation at the expense of education and job training programs benefiting the younger generation. For instance, in a few short years policy choices have transformed poverty in the United States from a condition associated with the elderly to a condition far more characteristic of the young. In 1959, 27% of the younger population aged 18 and under was living in poverty, as compared with the larger 35% of the older population aged 65 and over. By the year 2013, however, as a result of national policies benefiting the older population, the percentage of people aged 65 and over living in poverty had declined to 10%, only half the rate of 20% of younger people still living in poverty (Census Bureau, September 2014).

Problems with Economists' Analysis of Education Policies

Generalizing from an overall review of these ten policy domains, we can synthesise at least six over-arching problems with the economists' analyses. First, the underlying values of the economists are seldom stated. Second, the analyses are too simplistic, whereas the issues are extremely complex. Third, the economists generally ignore what other disciplines have to say about human behaviour and decision-making even when the economists' "rational man" fails to explain what is happening. Fourth, often the analysis is based on information that is shockingly out-of-date. Fifth, economists' methodology is generally static and cannot deal very well with issues which are evolving and dynamic. Sixth and finally, economists seem to be particularly ill-equipped to take into consideration the unintended consequences of their policy recommendations.

THE BIGGEST MISTAKE OF ALL

The biggest mistake of all is the shift from making higher education primarily a public responsibility to putting more and more of the burden of paying for higher education onto the students who are forced to borrow and to accumulate large amounts of student debt. This radical shift merits a more extended description and further discussion of the serious consequences.

Impact on the Students

Clearly, the prospect of incurring debt, probably major debt, affects virtually all of the decisions relating to the education of students and their families. These decisions

range from what classes to take in high school, whether or not to go to college, where to apply, where to enrol,what to study, whether to work while in college, how long to take to complete a programme, and the kind of work to look for after graduation. If students have to think about repaying debt, they are less likely to choose a low paying teaching job instead of a high paying job in finance. A young man might even think seriously about whether to marry a young woman who has as much student debt as he has. Having to take on student debt affects students' life chances. A simple model demonstrates the differences between two students identical in every relevant way, except that one has incurred student debt while the other has not. The two of them have the same major in college, graduate at the same time, go to work for the same company, start at the same salary, have the same career progression, and get the same rate of return on the investments that they make. The big difference is that one student has a student loan and the other does not. One student is paying off a loan and the other is accumulating assets. At the end of the term of the loan, depending on the time allowed for repayment and the comparative interest rates, the one that did *not* have a student loan has many times the assets of the student who *did* have the loan. It is assets that count, not just income, when considering the possibility of setting up a new business or surviving a period of unemployment.

In analysing whether students could handle their loans, economists looked only at the debt service in relation to the student's current income. They made a mistake in not taking into account the impact of the student loan on the student's comparative ability to accumulate assets over time. The economists have also overlooked student debt as a factor that may well contribute to the increasing income inequality evident in the U.S. The way that the United States is choosing to finance its higher education is creating a nation of debtors. The amount of student debt is staggering. It has quadrupled since 2001 when it was under $300 million, exploding to over $1 trillion in 2013. It has increased because of more student borrowers and higher loan amounts for each borrower. It now exceeds the total amount of credit card debt in the United States (Lee, 2013).

Impact on Institutions

Shifting higher education policy to a model of high tuition and high aid – but with aid not keeping up with need – also has substantial impacts on the institutions. With grant aid from federal and state sources not keeping up with student need, the colleges and universities are stepping up to provide larger and larger amounts of institutionally funded student aid in the form of tuition discounting,fellowships and scholarships. For example, in the public sector of higher education, the amounts of scholarship and fellowship aid have grown extraordinarily. In 2012 this aid to students amounted to an equivalent of 25% of tuition revenue. This means that a sizeable share of the increase in tuition costs to all the students could be accounted for by the institutional aid to some of the students. It is surely arguable that the aid to the needy students should be a broad public responsibility and should not be more

than proportionately borne by the families of students who are paying tuition to attend college.

The institutionally funded student aid is also very large in relation to the institutional expenditures for salaries and wages of people employed to instruct students. In 2012 this aid was equivalent to 30% of the total expenditures for faculty salaries, and could certainly weigh against attempts to increase them (percentages calculated by the author using revenue and expenditure data from the U.S. Department of Education, Digest of Education Statistics: 2013). In addition to student debt, we should also take into consideration that the institutions themselves are beginning to take on massive amounts of new debt to finance their own operations and capital improvements.

Impacts on Society as a Whole

Huge amounts of student debt may be a major factor contributing to the increase in income inequality taking place in the United States. Lower income students with increasing amounts of student loans are paying them off in part to higher income holders of the loans. This helps widen the gaps between the lower income and the higher income families. In some more extreme situations, this system of using student loans to help finance higher education has resulted in an unacceptable number of seedy practices, conflicts of interest, and outright corruption. Banks began to pay college student aid administrators "consultancies" which were actually used to steer students to their particular bank. Government employees with responsibility for administering student loan programs have ended up owning shares in the loan companies (see FinAid, 2014). At the height of the financial crisis in the U.S., a Federal Reserve Report (2010) documented the fact that some student loans were being securitized. These student loans were being combined and sold to investors not in a position to evaluate the risk of buying these securities, thus contributing to the national financial crisis.

ESTABLISHMENT AND GROWTH OF THE FOR-PROFIT HIGHER EDUCATION SECTOR

A separate and complex concern is the role that student loans may be playing in the establishment and extraordinary growth of the for-profit education sector in the United States. Many of the for-profit institutions are long-established, accredited, and highly respected providers of quality higher education. Many more of the for-profit institutions are being challenged, however, as not providing value for the students' money. Many for-profit institutions are accused of not providing the education that the students require to be employed in the jobs that they need to pay off the loans they have assumed. Some for-profit institutions have been found to be using illegal recruitment inducements, and executive compensation greater than the

compensation characteristic of the non-profit and public colleges and universities. Though most of the new for-profit higher education institutions are small, the increase in the number of them is extraordinary. These for-profit institutions also account for a large share of the increase in total enrolment, particularly in the private sector of higher education. They rely heavily on student aid as their major source of revenue. Typically, more than 85–90% of their revenue comes directly or indirectly from federal student aid, that is, primarily from Pell grants and student loans (see Federal Reserve Board, 2010).

Accompanying this is a phenomenon which should be examined carefully but which has received much less attention than it deserves. This American model of financing higher education allows the creation of a billionaire. Yes, a billionaire was created within the federal student aid system using federal resources. John Sperling, who died in August 2014 at the age of 93, established the University of Phoenix (UOPX) in 1976 to serve working adults, when he was still a tenured professor at the San Jose State University. UOPX is a wholly owned subsidiary of the Apollo Group, a publicly traded company listed on the NASDAQ stock exchange. It had grown to a peak enrolment of over 600,000 students by 2010 to become the largest higher education institution in the U.S. Then under pressure because of the high debt of students, high loan default rates, low graduation rates, and meagre job prospects for the students, enrolment dropped precipitously to less than 300,000; and more than a hundred campuses, close to half the earlier total, were closed.

John Sperling was recognized by the Forbes Magazine 400 for many years as one of the country's wealthiest men: he became a billionaire. He did it legally, based on expert knowledge of how to function within the American higher education model. Close to 89% of the University of Phoenix revenue in 2010 came from federal government student aid funds. In 2010, UOPX students were awarded more Pell grant aid ($657 million) than the students at any other institution in the United States (U.S. Senate Committee on Health, Education, Labor, and Pensions, 2012). In 2010, well over $1 billion was channelled from the federal government through the several student financial aid programs to the University of Phoenix (see Hanford, 2012). This is in spite of the fact that the University of Phoenix continues to harvest federal funds even though recently the student loan default rate of 26% was substantially greater than its graduation rate of 15% (Marklein et al., 2013). Should this phenomenon be viewed as an awesome individual entrepreneurial accomplishment or as an astoundingly bad education model in dire need of fixing?

THE DISASTERS BEING CREATED

In summary, there are at least four major disasters now negatively affecting the American higher education model as a result of the economists' bad analysis and bad policy advice beginning in the 1970s.

1. Forcing students to borrow to pay for their college education is creating a nation of debtors.
2. The student debt burden is contributing to an unfortunate increase in income inequality.
3. Significant inequalities by race and ethnicity are persisting in opportunities for college education.
4. The basic shift of the financing of higher education to student loans is enabling the establishment and rampant growth of for-profit institutions managed by individuals driven in many cases more by profit than by traditional educational values.

The author of this contribution believes that the current American model for higher education is in desperate need of fixing, and that the Europeans should work hard and fast to avoid the extreme excesses of this damaged American higher education model. Europeans should aspire to produce a more worthy outcome.

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PART 2

IMPACT OF CHANGES ON STUDENTS

ASHLEY MACRANDER

5. SPATIAL (IN)JUSTICE

Mapping Post-Apartheid South African Tertiary Education Access

> Apartheid was a new term but an old idea. It literally means "a partness" and it represented the codification in one oppressive system of all the laws and regulations that had kept Africans in an inferior position to Whites for centuries. What had been more or less *de facto* was to become relentlessly *de jure*. The often haphazard segregation of the past … was to be consolidated into a monolithic system that was diabolical in its detail, inescapable in its reach, and overwhelming in its power. (Nelson Mandela, 1994, p. 111)

INTRODUCTION

Prior to 1948 and the introduction of *de jure* apartheid, South Africa already operated under a *de facto* culture of racial segregation. Apartheid solidified and sanctioned these social barriers, especially in education where apartheid policy fostered "separate [intellectual] development for separate ethnic groups" (Fataar, 1997, p. 340; Wieder, 2001). Accordingly, institutional rights in postsecondary education during the apartheid regime were largely dichotomised along racial lines. Predominantly White teaching and research institutions were characterised as "insulated islands of racial privilege" whereas, Black universities were "designed as instruments of racial ideology and state policy" (Wieder, 2001, p. 628). The Extension of Education Act exemplified this practice. After its passage in 1959, the government formally adopted control of admission into tertiary education in order to constrain Black African student access into the nation's most prestigious institutions which were predominantly White (Woodrooffe, 2011). The Act's effect is evidenced over time. In 1956, 2,300 Black African students out of ten million were enrolled in postsecondary institutions – less than one percent. By 1983 this number increased to 32,700; however, by 1990 the enrolment rate for Black Africans was still hovering at only 9%, whereas the participation rate for Whites was 60% (du Toit, 2009). Coloureds and Indians comprised the remainder of the college-going population with participation rates of approximately 13% and 40%, respectively (MacGregor, 2014). In 1994, the apartheid regime was dismantled and the tertiary system, specifically, has been challenged to meet goals of equity, human resource development and efficiency to ameliorate past injustices committed against the Black African majority (Department of Education, 1997; Herman, 1995).[1] The 2001

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 71–90.

National Plan for Higher Education severed direct state control of tertiary education and established cooperative governance with postsecondary institutions. This new relationship between the government and tertiary education recognised institutional autonomy and limited the role of the state to "systematic planning, funding, and quality assurance" (du Toit, 2009, p. 629; Hall & Symes, 2005). Additionally, the 1997 Higher Education Act instituted a new system of postsecondary admission committed to equality of access for all South Africans (du Toit, 2009). Today, the South African government continues to restructure tertiary education through the creation of policies meant to redress historical inequalities by (1) increasing participation rates for students from disadvantaged racial groups; (2) decreasing the imbalance between Black African and female faculty and staff and their White, male counterparts; and (3) ameliorating structural inequalities between historically Black African and historically White tertiary institutions (Department of Education, 1997; Woodrooffe, 2011). Tertiary education funding facilitates these policy goals. The new funding framework for postsecondary education, introduced by the Ministry of Education in 2004, was devised to mitigate inequalities among historically Black African and White institutions and the student financial aid programme was designed to specifically target students who were denied equal access to tertiary education based on socioeconomic status and racial group (International Education Association of South Africa, 2012; Ministry of Education, 2004; Wangenge-Ouma, 2010).

Yet, despite these and numerous other reforms, discrepancies in participation rates among young South Africans persist. Sixty percent of Whites attend tertiary education, but only 11% of Black Africans do (International Education Association of South Africa, 2012). Literature on post-apartheid South African tertiary education identifies four general access barriers: poverty (Breier, 2010; Letseka et al., 2009; Lindow, 2006; Nimubona & Vencatachellum, 2007; Wangenge-Ouma, 2010), indigenous language use (Greenfield, 2010; Koch & Dornbrack, 2008; Posel & Casale, 2011), inequity in primary and secondary school (Fedderke et al., 2000; Holtman et al., 2005; Spaull, 2012; Yamauchi, 2005, 2011), and parental death (Bicego et al., 2003; Case et al., 2004; Chuong & Operario, 2012; UNAIDS, UNICEF, & USAID, 2004).

BACKGROUND LITERATURE

There is a feeling in South Africa that education, as a common experience, can serve to connect diverse students across the nation. More specifically, tertiary education can "foster social connectedness allow[ing] members to promote social cohesion within the university setting and by extension society" (Woodrooffe, 2011, p. 181). Thus, since the 1990s South African education has served as one facet of the government's strategic plan for social change from apartheid to a non-racialised democratic state (Herman, 1995). However, postsecondary education can only function as a panacea for South Africa's historical ills when it has rid itself of

inequalities in access that are reminiscent of apartheid. Researchers have examined the roots of postsecondary access inequality in South Africa through many different, but interconnected, lenses, including poverty, indigenous language use, inequity in primary and secondary school, and parental death in order to ascertain what barriers continue to preclude access for Black African students. Additionally, a growing body of literature continues to highlight the socio-spatial isolation of Black African and White communities despite the dissolution of apartheid policies which once legally segregated them. The purpose of this paper is to utilise Edward Soja's (2010) critical theory linking marginalisation and geography (spatial (in)justice) to illustrate how geospatial mapping can visually and tangibly help us comprehend how the location of Black Africans, Whites, and the aforementioned barriers to tertiary education, vary across South Africa.[2] It can also suggest how the cumulative effect of multiple barriers located among a socio-spatially isolated population may be responsible for inequality in access to tertiary education in the post-apartheid era.[3]

Socio-Spatial Isolation

Conceptualizing community in South Africa requires acknowledging the country's legacy of enforced racial segregation and the imprint this history has left behind (Rohleder et al., 2007). It wasn't until 1994, the end of legal apartheid, that the segregationist laws which once kept the different racial groups in South Africa socially and spatially isolated from one another were dismantled. Dismantling these laws meant that Black Africans and Whites could now attend the same schools, live in the same neighbourhoods, and enjoy the same public spaces; however, socio-spatial integration has not become the national narrative (Finchilescu et al., 2007). Urban and suburban residential spaces continue to be characterised by separate spheres in which life is privatised along racial lines (Christopher, 2005; Kitchin, 2002; Rohleder et al., 2007). Rohleder and his colleagues (2007) provide a stark description of these separate spheres in their study noting that the urban landscape of Cape Town is reflective of continued residential racial segregation across South Africa. Whites in Cape Town typically live in prime geographical areas with large homes and spacious gardens; whereas, historically, Black Africans have resided in a highly congested, informal settlement living in huts or shanties. While there has been migration by the middle and upper middle class from Black African settlements to formally White areas, much of Cape Town, and South Africa more broadly, continues to be racially divided (Durrheim, 2005; Rohleder et al., 2007).

Public spaces and institutions are similarly polarised. In their study of racial segregation on a South African beach, Dixon and Durrheim (2003) found that interpersonal contact was more likely to happen on an intragroup rather than intergroup level and that the probability of White and Black African beachgoers encountering one another was significantly lower than one would expect due to chance. They found systematic segregation on the beach to be more overt on Boxing Day and New Year's Day during which an influx of Black Africans would

spur the withdrawal of Whites. This was exemplified by a growing trend of White avoidance of beaches on holidays when Black Africans are more likely to arrive in larger numbers. Similarly, in university settings, researchers have described continued racial homogeneity among student populations in historically White and historically Black African institutions, dichotomised seating patterns in informal spaces and residence hall dining centres, and – perhaps most disconcerting – White South African students who have had little to no contact with people of other races (Rohleder et al., 2007; Schrieff et al., 2005). Clearly, race relations remain highly segregated in post-apartheid South Africa as a result of informal socio-spatial isolation in intimate (residential) and public (community and university) settings (Rohleder et al., 2007).

Poverty

> South Africa emerged from apartheid with stark racial, wealth, and wage inequalities. It is estimated that White South Africans own 87 percent of the land, while close to 50 percent of Black South Africans … live in poverty. (Nimubona & Vencatachellum, 2007, p. 149)

Thus, poverty is regarded by some as the country's most pressing social problem given that the extent of poverty in South Africa continues to mirror apartheid patterns of racial segregation (Letseka et al., 2009). This has resulted in South Africa being described as a country of two nations – one White and prosperous, the other Black African and characterised by underdeveloped economic, physical, and infrastructural conditions (Breier, 2010; Letseka et al., 2009; Mbeki, 1998).[4] In fact Letseka and his colleagues (2009) argue that if White South Africa comprised its own nation it would rank 24th in the world in per capita income next to Spain; however, Black South Africa would rank 123rd, just above the Democratic Republic of Congo. This differentiated experience of poverty within Black African communities has led to significantly divergent educational experiences and outcomes.

Under apartheid the National Party government privileged White education while marginalizing Black Africans who were placed in low quality, underfunded schools which continue to be the poorest in the nation (Breier, 2010). This history has impacted access to post-apartheid education. Nimubona and Vencatachellum (2007) investigated White and Black South African familial investment in children's education. Their results indicated that intergenerational mobility is growing at a more significant pace among White families and that the poorest Black African children have the lowest rate of intergenerational mobility; whereas, this is not the case for the poorest White children. The researchers attribute the diminished rate of successive educational achievements in later generations of Black Africans to residual racism from the apartheid regime. Barriers include lack of access to the credit market, as well as the cost and quality of tertiary educational opportunities for Black African students. For those Black African students who do attend tertiary education, meeting

basic needs and financing the cost of postsecondary education are access impediments (Letseka et al., 2009; Lindow, 2006). According to Breier (2010), finances play a very important role in the lives of Black African tertiary students coming from lower socioeconomic backgrounds; financial stringency affects their choice of institution and programme of study, as well as leading these students to depart postsecondary institutions prematurely because of unexpected financial demands or because they underestimated the full cost of education. In many ways, poverty not only contributes to spatial isolation in South Africa, but also continues to relegate Black Africans to second-class citizenship socially and educationally.

Indigenous Language Use

South Africa is a multilingual country with eleven officially recognised languages, nine of which are indigenous languages spoken by the majority of Black Africans as their mother tongue or home language. Yet, English remains the dominant language of business and public life (Posel & Casale, 2011). In tertiary institutions, as well, the colonial languages of English and Afrikaans are privileged, often leading to the denigration of the use of indigenous languages (Greenfield, 2010; Koch & Dornbrack, 2008). Greenfield (2010) found that language arrangements which privilege English and Afrikaans, such as those found within tertiary institutions, naturalise the hegemonic status of these dominant languages and continue a legacy of colonialism in South Africa. As a result, a system of inequality is perpetuated by disadvantaging Black African students. "Rather than representing purely educational interests, these language policies are embedded in a whole set of political, ideological, social, and economic agendas that operate to preserve the benefits of dominant groups" (ibid., p. 518). In creating distinct opportunities based upon language acquisition, tertiary institutions in South Africa have crafted language policy into an instrument for constraining Black African students' educational opportunities.

Initially, post-apartheid policies were enacted, and institutions were developed, to aid the country in transitioning to a more multilingual state and to foster the improved status of the indigenous languages spoken by the historically disadvantaged Black African majority (Posel & Casale, 2011). South Africa's Constitution includes a provision stating: "everyone has the right to receive education in the official language or languages of their choice in public educational institutions where that education is reasonably practicable" (ibid., p. 450). Additionally, South Africa's Language-in-Education Policy of 1997 promotes the use of additive bilingualism; students are taught in their native language as well as in a second language in order to encourage second language acquisition. In the wake of these policy provisions, however, South Africa has evolved into a more monolingual state than it had been during the apartheid era; language policies have become a post-apartheid apparatus for maintaining traditional, stratified systems of social reproduction (Greenfield, 2010; Posel & Casale, 2011).

The effect of this language mismatch has had a devastating impact on the participation of Black African students in education. Black African school children in South Africa struggle in English-only schools due to the lack of English exposure at home and the likelihood that their teachers fail to utilise English as well, instead switching between mother tongue and English, leading to higher dropout rates among Black African students (Greenfield, 2010; Posel & Casale, 2011). Those students who do continue in school are often impaired in their academic success and cognitive development due to the fact that teachers, out of necessity, must stick to rote learning because of students' unfamiliarity with the English language (Posel & Casale, 2011). In Black African classrooms in which language competency is poor, these students have high failure rates at the tertiary level due to their inability "to cope with the demands of more advanced, English-taught, curriculum" (ibid., p. 451). Conversely, the tertiary education performance of White students who learn English or Afrikaans as their primary, home language has been markedly better. Since the primary languages of tertiary education in South Africa are English and Afrikaans, this achievement discrepancy has led to vast inequalities in educational outcomes (ibid.).[5] Though the prominence of English in tertiary institutions is likely due to the language's role as an international lingua franca, Afrikaans does not serve a similar purpose. This begs the question as to whether local indigenous languages could be employed in concert with English instruction as opposed to Afrikaans, a language imbued with South Africa's history of inequality?

Inequity in Primary and Secondary School

"South Africa spends a bigger share of its GDP on education than any other country on the continent. Yet its results are among the worst" (*The Economist*, 2010, p. 47). Much like residential and public life in South Africa, government schools were formally segregated until the end of apartheid, during which education policy was vastly different for South Africa's various racial groups (Holtman et al., 2005). Black African schools, in particular, were utilised as sites for inculcating students with a sense of inferiority and reinforcing state policy (Spaull, 2012). Today, schooling in South Africa still suffers, not from racialised curricula, but from high student-teacher ratios, poorly qualified teachers, and inadequate funding (Fedderke et al., 2000).

Yamauchi (2005/2011) found that primary and secondary education for Black African students remains substandard for two very significant reasons: (1) Black African students attend schools with much higher student-teacher ratios, and (2) school quality reflects school inputs – and inputs are greater in White communities which house residents with higher incomes. Student-teacher ratio is a measure of school quality; it represents the amount of human capital that a teacher can invest in his or her students based upon the number of students in the classroom (Yamauchi, 2005). Thus, the student-teacher ratio in a classroom has long-term consequences for the continued academic development of the student, and the higher student-teacher ratios found in Black African schools have considerable implications for

this group of students, specifically. Yamauchi (2011) also examined the relationship between the spatial isolation of South Africa's racial groups and the school fee. Formerly White primary and secondary schools are still located in primarily White communities and the same is true of formerly Black African schools. A higher school fee is charged in residential areas with a higher proportion of Whites, and Yamauchi (2011) directly linked school fee resources to the matriculation pass rate.[6] In other words, students who attend schools with higher fees are more likely to successfully matriculate through primary and secondary school and pass the exams required for tertiary education.

The educational inequity experienced by Black African students in primary and secondary school is unequivocally linked to their ability to participate in South Africa's tertiary education system. In 2008, of the one in four Black African students who took the matriculation exam in mathematics, only 39% passed compared with 98% of their White peers (*The Economist*, 2010). And, only one in ten Black African students qualifies for postsecondary education; whereas, more than half of White students do (ibid.). While much of the inequity experienced in primary and secondary education by Black African students can be attributed to the apartheid legacy, inadequate teacher preparation, high student-teacher ratios, and poor financing continue to subject Black Africans to inferior educational opportunities.

Parental Death

The HIV/AIDS epidemic has had a devastating impact globally, but one of the most significant consequences has been the rise in the number of orphaned children (Chuong & Operario, 2012; UNAIDS, UNICEF, & USAID, 2004).[7] In sub-Saharan Africa 12 million children are orphaned due to HIV/AIDS, 1.4 million in South Africa alone, and these numbers are expected to rise (Johnson & Dorrington, 2001; UNAIDS et al., 2004; WHO, UNAIDS, & UNICEF, 2008). Research has indicated that orphaned children are academically vulnerable and are less likely to perform at grade level or be enrolled in school (Ardington & Leibbrandt, 2010; Bicego et al., 2003; Case et al., 2004). This is due in large part to the socioeconomic insecurity and instability in family care which accompany parental death (Case et al., 2004; Case & Ardington, 2006; UNAIDS et al., 2004). Children who have lost both parents (double orphans) have the greatest risk for school delay, and the risk for educational delay is increased for males, children residing in urban areas, and older children (Chuong & Operario, 2012). Double orphans experience heightened vulnerability due to uncertainty in guardianship following parental death. Many double orphans reside with their grandparents; however, the grandparents themselves are vulnerable after losing the support of their sons and daughters (Bicego et al., 2003).

Older, adolescent orphaned children are particularly at risk as they develop greater physical and sexual maturity and increased independence (UNAIDS et al., 2004). They may leave school to financially support the family as the new head of household, reduce their participation in community activities as a result of

economic hardship, and/or exhibit excessive risk taking behaviours such as unsafe sexual practices and substance abuse (ibid.). Additionally, adolescent orphans are burdened with the responsibility of silence. HIV/AIDS is still largely stigmatised and to acknowledge that a parent died from AIDS may result in ostracisation at school, among friends, and at home (Thupayagale-Tshweneagae & Benedict, 2011). Fortunately, for those orphaned children who continue their education, progressive levels of schooling have been shown to lower the risk of HIV infection (Hargreaves et al., 2008). And Chuong and Operario (2012) find that maternal presence is a significant protective factor against negative educational outcomes regardless of orphan status, race, age, and other demographic characteristics.

THEORETICAL FRAMEWORK

"Spatial thinking…cannot only enrich our understanding of almost any subject but has the added potential to extend our practical knowledge into more effective actions aimed at changing the world for the better" (Soja, 2010, p. 2). Through his theory of spatial (in)justice, Edward Soja (2010), a critical human geographer, argues that justice has a consequential geography and rather than serving as the backdrop in which justice and injustice are socially experienced, geography or space has a dynamic role in this process. The search for spatial (in)justice occurs on a geographical spectrum from the local to the global over what theory has termed the "right to the city" (ibid., p. 6). Essentially, the right to the city is linked to global processes of urbanisation and refers to the increasing demand for control over the social production of space. Spatial (in)justice materialises in three interdependent and overlapping arrangements: (1) external, (2) endogenous, and (3) mesogeographical. External spatial (in)justice refers to outside influence over the creation of socio-spatial boundaries; examples include South African apartheid, colonialism, gerrymandering, and private property rights. Endogenous spatial (in)justice references internal efforts which lead to geographic inequalities, such as discriminatory decisions made by individuals, firms, and institutions. Lastly, mesogeogrpahical spatial (in)justice highlights the globalisation of geospatial inequity as a result of uneven development.

Soja (2010) argues that employing a critical spatial perspective can illuminate new sources of insight, uncover innovative practical and theoretical applications, and highlight the interdependent relationship between the social and spatial dimensions of human life (the socio-spatial dialectic). Soja's theory of spatial (in)justice allows for a deeper examination, here utilizing Geographic Information Systems (GIS), of the way social and demographic data is concentrated across South Africa's geography. A link existed in this study between the structures of apartheid which created the social and spatial isolation of Black Africans and how this geographic (in)justice is perpetuated today through more endogenous, though no less systematic, efforts as the literature has indicated. The theory of spatial (in)justice is also used to illustrate how isolation has resulted in the concentration of tertiary education access barriers within Black African communities, which is in itself indicative of mesogeographical

(in)justice or uneven development. The following sections describe the use of GIS in this study as well as how spatial (in)justice is employed to understand tertiary education access inequality across South Africa.

METHODS AND DATA SOURCES

The study's research questions were:

1. Are Black African and White communities socio-spatially isolated from one another across South Africa?
2. Are poverty, indigenous language use, inequity in primary and secondary school, and parental death localised within Black African communities?
3. What is gained from a socio-spatial (in)justice analysis of tertiary education access for Black Africans in post-apartheid South Africa?

The proprietary GIS programme ArcGIS 10 was utilised to map: (a) what percentage of the total population Black Africans and Whites comprised in each of South Africa's 234 municipalities; (b) the percentage of the population in each municipality with an annual household income within approximately 125% of the 2011 South African extreme poverty line (see below for an explanation); (c) the predominant home language spoken by the majority of the population in each municipality; (d) the percentage of the population of each municipality over the age of 20 that had completed matriculation; (e) the percentage of the population in each municipality aged 24 or younger that had experienced parental death; and (f) the percentage of the population of each municipality aged 20 or older that has some form of higher education. The South Africa shapefiles were obtained from Africa Open Data 2011. City data were from ESRI 2010.

All map data were gathered from South Africa's 2011 census available from Statistics South Africa and are shown using a technique called choroplething, which utilises shading or colour to visually depict variable variation across geographic space. Population group proportion was mapped by calculating the percentage of the total population of each municipality that was Black African or White. Poverty data included all households with an annual income of 4,800 Rand (635 U.S. Dollars) or less, in each municipality. The extreme poverty line for South Africa in 2011 was 321 Rand per month; thus, the threshold of 400 Rand per month, or 4,800 Rand annually, is approximately 125% of the extreme poverty line. This is a rather conservative estimate of poverty in South Africa. The predominant language of each municipality was calculated from the eleven official languages of South Africa.[8] A language was deemed to be predominant if more than 50% of the population spoke it as their primary household language, or if the language was spoken by at least a third of the population of the municipality as the primary language and no other language was spoken by at least a third of the population. The percentage of the population aged 24 or younger who had experienced parental death in each municipality was calculated by summing the number of individuals who had lost a mother with the

number of individuals who had lost a father and subtracting out those who had lost both. This result was then divided by the total population of each municipality aged 24 or younger. Statistics South Africa (2011) provided data on matriculation and higher education for each municipality. The data for each map are provided at the municipal level; however, the maps are displayed utilizing provincial boundaries for clarity and better depiction of national trends.

RESULTS

Figures 1 and 2 show the percentage of the population of each municipality that is Black African and White. Findings from the geospatial analysis demonstrate that Black African and White communities in South Africa are, in fact, spatially segregated from one another across South Africa's municipalities. There is a very stark line of division between the northern and southern regions of the country. Black Africans total 80–100% of the population of many municipalities in the northern and eastern provinces (Limpopo, Mpumalanga, KwaZulu-Natal, Eastern Cape, and North West); whereas White South Africans appear to reside chiefly in urban environments (Pretoria, Johannesburg, and Cape Town) and the Western Cape. What is perhaps most significant is not that there are municipalities in which Black Africans make up 80–100% of the population, since they comprise almost 80% of the country's total population, but rather that there are municipalities which have a population that is 20–30% White but less than 20% Black African when Whites comprise only 9% of

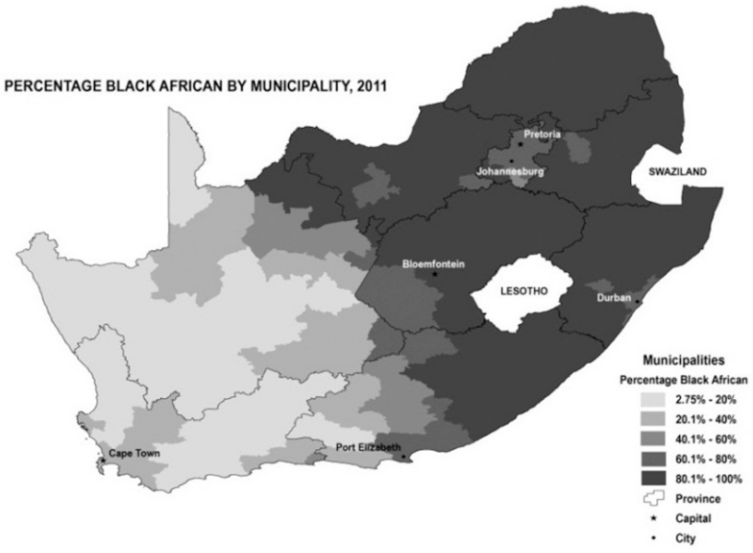

Figure 1. Percentage Black African by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za/

South Africa's total population. This is not only evidence of socio-spatial isolation, but also indicative of continued *de facto* apartheid in the post-apartheid era.

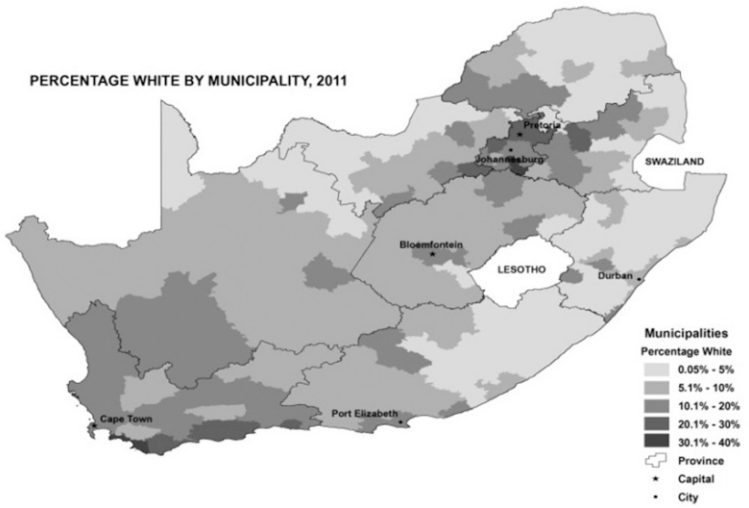

Figure 2. Percentage White by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za/

These findings are aligned with the literature that indicates residential segregation in South Africa continues, despite the dissolution of apartheid segregationist policies. In discussing the socio-spatial dialectic, Soja (2010) argues that spatial (in)justice affects social life just as much as social life impacts the geography of (in)justice. Residential segregation represents an external pattern of spatial (in)justice which influences racially discriminatory practices against Black Africans in public spaces (an endogenous form of social (in)justice). Social (in)justice reinforces spatial (in) justice against Black Africans in informal environments as well. Examples from the literature include homogenous social grouping patterns in recreational and educational spaces.

Soja (2010) suggests that justice has a consequential geography and that space has a dynamic impact on the way injustice is socially experienced. The geographic isolation of Black Africans in South Africa has created a milieu in these communities which is differentiated from that of White communities due to concentrated inequality and this has significant implications for their access to tertiary education. Research indicated that poverty, indigenous language use, inequity in primary and secondary education, and parental death were barriers to postsecondary education, specifically for Black African students. Findings were consistent with the literature and provide visualisation of how these barriers are localised within Black African communities.

Figure 3 depicts the percentage of the population of each municipality with an annual household income within 125% of the 2011 South African extreme poverty line of 321 Rand. This included all households with an annual income of 4,800 Rand or less, which equates to 400 Rand or less per month. This is a conservative estimate of poverty in South Africa. The map indicates that there are municipalities within South Africa in which roughly a quarter of the population is living in or near extreme poverty and these communities are spatially related to the regions of South Africa with a high proportion (80–100%) of Black Africans (the northern and eastern provinces: Limpopo, Mpumalanga, KwaZulu-Natal, Eastern Cape, and North West).

This spatial relationship is indicative of a pattern of geographically isolated, impoverished Black African communities within the northern and eastern regions of South Africa. Together, spatial isolation and poverty lead to the marginalisation of disempowered Black Africans from the institutions and resources frequented by those with privilege, specifically tertiary education, and allow socio-spatial structures to constrain interaction between racial groups so that access to opportunities is inherently unequal.

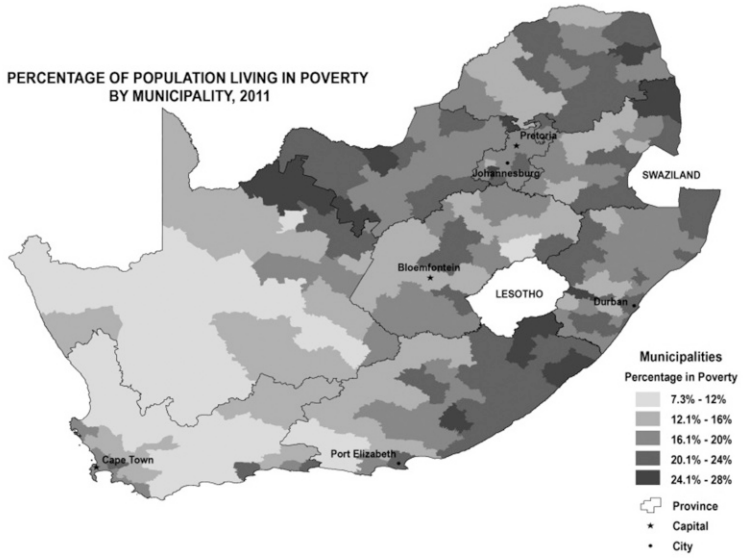

Figure 3. Percentage of population living in poverty by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za

The primary languages of instruction in South African tertiary institutions are Afrikaans and English; however, these are only two of the country's eleven official languages. The other nine official languages are indigenous and, as the literature

indicates, largely spoken among Black Africans. The predominant language of each municipality in South Africa is mapped below (Figure 4). Results affirm the findings of the literature and depict the localisation of indigenous language use within the northern and eastern provinces of South Africa (Limpopo, Mpumalanga, KwaZulu-Natal, Eastern Cape, and North West). This finding is, like poverty, spatially related to the regions of the country in which there are municipalities with high (80–100%) proportions of Black Africans. Since South Africa is a multilingual country, it cannot be inferred from this map that Black Africans do not or cannot speak Afrikaans or English. However, indigenous languages are only the predominant home language in municipalities in which there is a spatial association with high numbers of Black Africans. Thus indigenous language contributes to socio-spatial injustice, relative to postsecondary access, due to its geographic isolation within Black African communities.

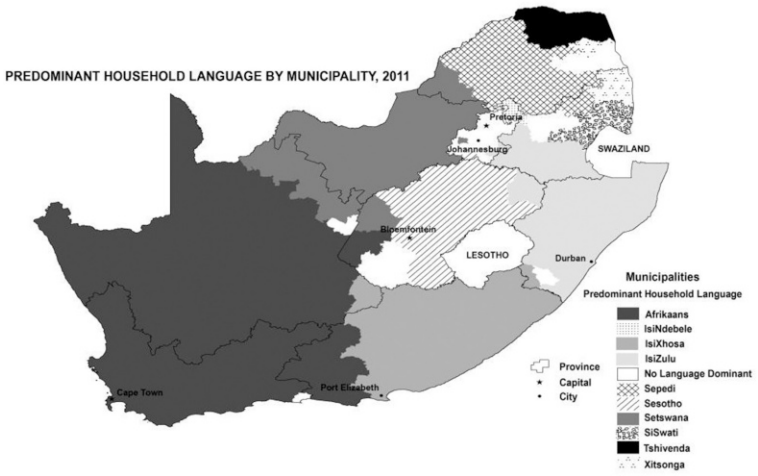

Figure 4. Predominant household language by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za/

For each municipality, Figure 5 shows the percentage of the population over the age of 20 that had completed matriculation as recorded in the 2011 South African census. Results were aligned with the literature and indicated that matriculation rates were reflective of a school system struggling with high student-teacher ratios, poorly qualified teachers, and inadequate funding. In fact, the highest matriculation pass rate for any municipality was only 39%. Yet, similar to poverty and indigenous language use, the concentration of greatest socio-spatial injustice is within Black African communities. The municipalities in the North West and Eastern Cape provinces with matriculation rates between 9.6–15% have populations that are 80–100% Black African. No municipality with a high proportion of Whites has an equally dismal

matriculation completion rate. This is an example of mesogeographical spatial (in) justice in which uneven development (financial inputs in White versus Black African primary and secondary schools) has had a direct impact on social experiences of inequality.

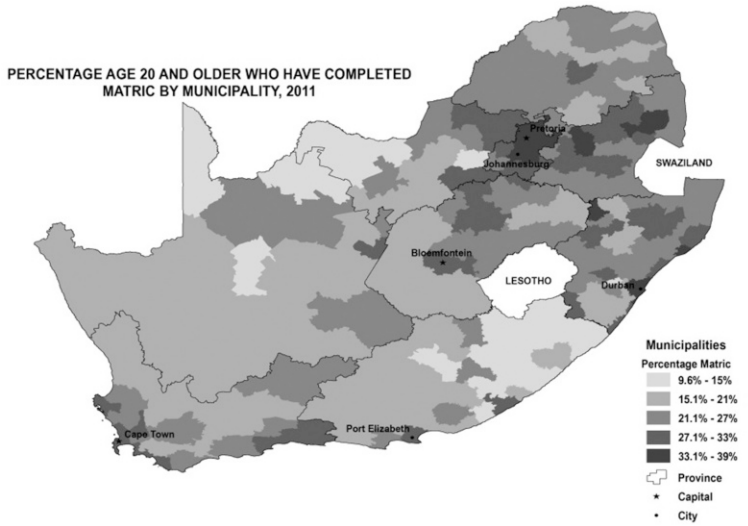

Figure 5. Percentage age 20 and older who have completed matric, by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za/

South Africa has one of the highest HIV/AIDS rates in the world and – as literature has indicated – a significant consequence of the HIV/AIDS epidemic is the rise in orphaned children (Beyers & Hay, 2007). Figure 6 depicts the percentage of the population aged 24 and younger in each municipality that had experienced parental death of one or both parents. Though the literature defines orphaned children as those who are 18 or younger and experience parental death, the age cut off of 24 is used here to include students of tertiary age. The map illustrates that municipalities in Guateng, KwaZulu-Natal, and the Eastern Cape have the highest rates of parental death, 30.1–36%. One municipality in KwaZulu-Natal depicts a parental death rate of 42%. Again, the municipalities with the highest percentages of those who have experienced parental death are also municipalities with populations that are 80–100% Black African. Municipalities with larger White populations do not reflect the same concentration of parental death. Socio-spatial injustice shapes contact with and experience of parental death and demonstrates how this social injustice impacts upon academic continuity and socioeconomic and familial stability.

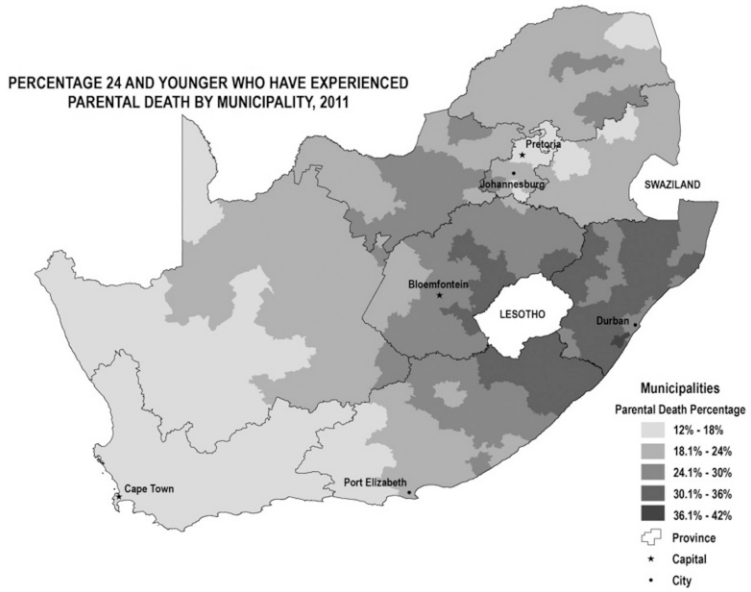

Figure 6. Percentage 24 and younger who have experienced parental death, by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za/

Figure 7 shows the percentage of each municipality aged 20 or older which has completed some postsecondary education. Similar to the map of matriculation rates, South Africa's inability to produce significant outputs from the country's education systems is obvious. The majority of the municipalities in South Africa depict tertiary education rates of only 2.3–8%. However, the highest rates of tertiary education 20.1–24% are in urban environments which boast a larger White population. Though there are municipalities with relatively high tertiary education rates and large Black African populations, the majority of Black Africans aged 20 and older have not accessed postsecondary education. This is likely due to a history of educational marginalisation under apartheid and the current impact of the access barriers discussed in this paper (poverty, indigenous language use, inequity in primary and secondary school, and parental death). The uneven development across geographic spaces populated by Black Africans and Whites (mesogeographical spatial (in) justice) has created the socio-spatial (in)justice experienced as tertiary education access inequality.

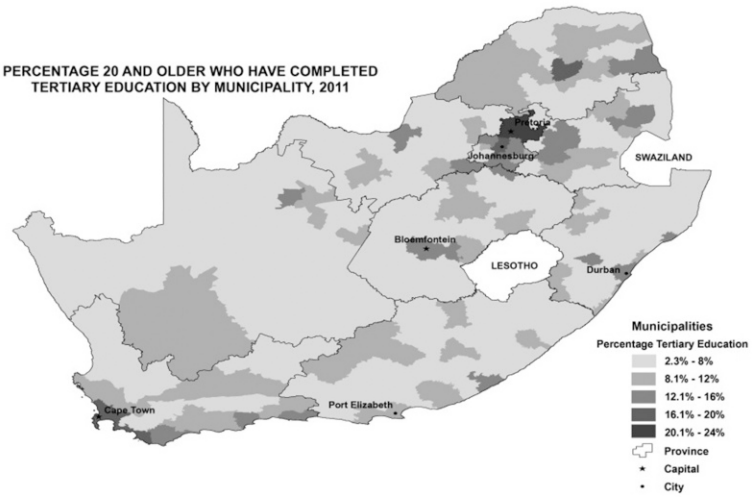

Figure 7. Percentage 20 and older who have completed tertiary education, by municipality, 2011
Source: 2011 South African Census, http://beta2.statssa.gov.za/

DISCUSSION

This paper's research questions sought to find: (1) whether Black African and White communities are socio-spatially isolated from one another across South Africa, (2) whether poverty, indigenous language use, inequity in primary and secondary school; and parental death are localised within Black African communities; and (3) what is gained from a socio-spatial (in)justice analysis of tertiary education access for Black Africans in post-apartheid South Africa? Results of the geospatial analysis indicated that Black African and White communities in South Africa are socio-spatially isolated from one another. Soja (2010) argues that this geographic segregation shapes social life and vice versa. The geographic isolation of Black Africans from Whites has created social experiences dichotomised by race, which for Black Africans has meant the concentration of tertiary education access barriers within their environments. Poverty, indigenous language use, inequity in primary and secondary school, and parental death were all primarily localised within municipalities with populations that were 80–100% Black African. This likely precludes Black African students from accessing postsecondary education at a rate equivalent to their White peers.

This paper sought to weave together multiple bodies of literature on the isolation of Black Africans and tertiary education access barriers in order to visually depict that reduced access to tertiary institutions among Black Africans may be amplified by the socio-spatial isolation of multiple access barriers within Black African communities.

Simply, geographic segregation and the presence of multiple tertiary education access barriers within Black African communities may have a complementary effect that compounds access inequality for Black Africans in a way that might not be experienced were Black Africans exposed to a singular access barrier or only spatial isolation. What is gained from completing an analysis of socio-spatial (in)justice is a more complete picture of the multiple sociological determinants of education that function concurrently to constrain Black African student access to tertiary education; moreover, it shows how geographic space and social life mutually inform one another to create patterns of injustice that have a spatial consequence.

Though this paper presents important findings on the understudied relationship between space and experiences of injustice for Black African students relative to postsecondary education access, limitations to the study exist. Although these data are useful for understanding how socio-spatial isolation shapes postsecondary access for Black African and White students across South Africa, the data cannot provide information about the lived experience of this inequality or within municipality nuances that inevitably exist. Additionally, parental death served as a proxy for the experience of HIV/AIDS as a postsecondary access barrier. Though the two measures are closely related, parental death is a rough estimation of the impact of HIV/AIDS on educational attainment. However, HIV/AIDS data are not publicly available at the municipal level.

CONCLUSION

South Africa's aggressive approach to ameliorating the effects of apartheid within its education system, the country's effort to remain at the forefront of the global conversation on racial reconciliation, and the country's role as the economic engine and education hub of sub-Saharan Africa necessitate that its historically disadvantaged Black African population should be able to access tertiary education in a manner equivalent to their more advantaged White counterparts. Thus, further research on tertiary education access for Black African students is imperative. Studies linking multiple access barriers, both quantitatively and qualitatively, would arguably present the most holistic analysis of what measures the country of South Africa must take in order to ensure that its largest population group becomes one of its best educated. This paper aimed to position itself in the research by beginning to frame how the socio-spatial isolation of Black African communities and the concentrated tertiary education access barriers present within them constrain Black African students' postsecondary attainment and serve to perpetuate an environment in South Africa that privileges Whites and marginalises Black Africans despite the dissolution of the apartheid regime. Yet, this is not only a South African story, nor is it only reflective of conditions in Sub-Saharan Africa. Socio-spatial segregation and its impact on access to resources which promote social mobility, such as education, is an international issue that has been studied among Aboriginal populations in Australia (Atkinson et al., 2010), Scheduled Castes and Scheduled Tribes in India

(Desai & Kulkarni, 2008), Tibetan children in China (Postiglione et al., 2004), and has prompted the term 'American Apartheid' to refer to racial segregation and the creation of the urban underclass in the United States (Massey, 1990).

Future research should utilise comparative frameworks to examine South Africa relative to other countries with historical antecedents of unequal access to tertiary education for indigenous students and students of color. This research should investigate how these countries have attempted to ameliorate this inequality and whether these strategies would be feasible in the South African context. Likely, government policy and development work focused on the social and geographical integration of Black Africans will begin to mitigate the socio-spatial (in)justice that presents obstacles to Black African student tertiary education access and will begin to pave a path to a South Africa that lives out its promise of greater racial equality.

NOTES

[1] According to the 2011 Census, Black Africans comprise 79.2% of the population and Whites 8.9% (Statistics South Africa, 2011).

[2] See Hogrebe & Tate (2012) for an analysis on the use of Geographic Information Systems (GIS) to understand complex relationships among variables across geographic space.

[3] See Soja (2010) for a discussion of critical theory on spatial justice and the relationship between geography and inequality.

[4] South Africa's Gini index was last measured at 65.0 in 2011 by the World Bank. The Gini index is a measure of income inequality which ranges from 0, perfect equality, to 100, perfect inequality. An index score of 65.0 positions South Africa as one of the most unequal countries in the world (Letseka et al., 2009; The World Bank, 2014).

[5] The only tertiary institution in South Africa that provides instruction in a majority of South Africa's official languages is the distance learning university, UNISA.

[6] Matriculation refers to the successful completion of primary and secondary school as well as a passing score on the exams required for admission to postsecondary education in South Africa.

[7] A child is considered orphaned if he or she has lost one or both parents before the age of 18 (UNAIDS et al., 2004).

[8] Census language options, sign language, other, unspecified, and not applicable, were not included in the analysis.

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6. MERIT AND STUDENT SELECTION

Views of Academics at the University of Porto

INTRODUCTION

In Europe, participation in higher education has increased remarkably, from around 1% of the population in 1910 (Ringer, 2004), to approximately 60% in 2007 (UNESCO, 2009). To accommodate the increasing costs of expansion, governments favoured managerial and funding practices stressing market principles, efficiency and competition. Institutions have been increasingly pressured to compete among each other for funding and students (Marginson, 2004, 2010). When competition becomes so influential, a contentious dilemma arises concerning the organisation of admissions, subjecting institutions to conflicting forces between social pressure to guarantee chances of participation for all and, alternatively, the determination to admit the most suitable applicants. This quandary has been epitomised as a tension between competing notions of equality and merit (Goastellec, 2010), equity and merit (Munene, 2002) and meritocracy and fairness (Nahai, 2013). The resolution of this tension, as Goastellec (2010, p. 2) suggests, will become increasingly a responsibility for institutions. However, a central question is how universities can implement selection by merit without ignoring their larger social-oriented goals.

This tension is of particular significance for Portuguese public universities since they lack autonomy to choose their students. In a country where participation increased from around 50,000 students to nearly 400,000 in just forty years, new challenges have emerged in terms of inequalities of access (Magalhães et al., 2009; OECD, 2012; Schnitzer & Middendorf, 2005; Teixeira et al., 2006) and recent studies have raised serious concerns about the fairness of Portuguese admissions because grades (pre-requisites for entering university) have been shown to be improperly inflated within private, and more expensive, schools, proving that admission is influenced by students' economic status (Nata et al., 2014).

The way universities operationalise their criteria for selection varies across different countries, yet in most cases they are predominantly related to academic performance (Cremonini et al., 2011; Edwards et al., 2012). However, past studies lack empirical research exploring how academics view admissions in universities. Killgore (2009) interviewed admission officers in elite American colleges concluding that institutions produce their own concepts of merit in accordance with their market position and organisational goals. However, research on academics' views regarding

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admissions remains unsatisfactory since recent studies (Killgore, 2009; Nahai, 2013) have been focused on universities that select their own students (US, UK), targeting admission officers.

This paper examines how academics in the most sought-after university in Portugal perceive the underlying rationale for admission. It aims to answer the research question: how do academics define merit as it relates to student selection in higher education? The results from this research should address institutions' desire for increased autonomy in admissions, a debate also raised in other European countries (Cremonini et al., 2011).

CONCEPTUAL FRAMEWORK

A Meritocratic Model of Selection

Meritocracy is a system that allocates highly desired but limited social position on the basis of merit. Merit replaces other selection criteria such as wealth, race and gender (Baez, 2006; Goastellec, 2010; Yair, 2011). In this paper, merit is used to refer to individual attributes that are utilised as criteria for admission to undergraduate university programmes. To explain the prominence of meritocracy in the context of university admissions, two rationales (not necessarily mutually exclusive) are given below.

A normative appeal. Selection by merit is strongly pre-conditioned by a normative acceptance of notions such desert and fairness, often used in close association. A meritocratic selection, as an end in itself, must ensure that places are rightfully allocated to the candidates who most deserve them (Breen & Goldthorpe, 2001). This rationale carries an idea of individual entitlement, implying that in a fair society candidates must be rewarded in direct proportion to their compliance with the normative standards of merit: mostly academic (Bollinger, 2005; McLeod, 2013; McNamee, 2009). A homophily principle, presented by Zimdars (2010), provides an explanation for the academics' desire to teach the most intellectually stimulating students; they prefer to teach individuals who share some of their own interests (e.g. research), a factor that can introduce some subliminal personal bias towards admitting highly academic achievers and, hence, defining merit mostly in relation to academic achievement.

Previous studies focused on the views held by academics have consistently given strong support to merit upon admission (McInnis, 1993; Munene, 2002; Nahai, 2013). Munene (2002) examined the attitudes of academics about merit and equity in the context of admissions in Kenya, concluding that academics "gave overwhelming support to the use of merit as an admission criterion in higher education while equity received only slight support" (p. 247). More recently, Nahai (2013) analysed university admissions in the University of Oxford by interviewing academics with recruitment responsibilities. In such an archetypal world-class university, support for

a meritocratic selection was unanimous and so intrinsically crucial that other values such as social justice were considered secondary as the necessity to prise academic excellence was indispensable.

Lastly, since merit has replaced former selection criteria such as wealth or social class, a meritocratic selection has gained extensive support for its alleged transparency and objectivity (Goastellec, 2010). Such an approach "has become, in the public mind, synonymous with fairness" (Nahai, 2013, p. 682), suggesting a general normative acceptance that the best students should be admitted to universities (Killgore, 2009).

A competitive imperative. Meritocratic selection can become more attuned to current trends in higher education; it can be regarded as a means to advance national or institutional goals that go beyond selection per se. It can be operationalized in response to contextual constraints (e.g. financial) or institutional objectives that predominate in an increasingly competitive environment among universities (Bollinger, 2005; Killgore, 2009). Student selection becomes an instrument that allows institutions to increase their status and productivity (Cremoniniet al., 2011) since "the places to be filled are simply too precious to award to persons unlikely to finish or successfully complete the course of study" (Olivas, 1997, p. 463).

When competition becomes so pervasive, performance becomes a central concern for institutions that strive to reach higher status positions, increasingly associated with prestige and capacity to attract resources (Marginson, 2004, 2010). This is evident from the proliferation of rankings and performance-contingent funding that relies on outcome-oriented indicators (e.g., number of publications, graduate output, awards). Therefore, universities strive to recruit the fittest candidates, those perceived as being most capable of contributing to the performance indicators upon which institutions rely. For example, when interviewed about recruitment policies in highly selective American colleges, admission officers admitted that they are pressured towards lower acceptance rates to improve college's classification on national rankings (Killgore, 2009). If we consider the national perspective, the principle remains: selection of the most talented and promising candidates ensures that government investment in education can yield future return by means of graduates' increased productive capacity.

Furthermore, institutions are increasingly constrained by administration reforms led by 'new public management' practices that envision a more professional organisation with a great concern for efficiency (Hood, 1991, p. 4). This trend reinforces a rhetoric stressing the limited resources and, consequently, the limited number of available places in universities, creating a favourable ground for the acceptance of a meritocratic discourse in admissions. The 'efficiency urge' favours selection mechanisms without high administrative and financial costs (e.g., standardised tests, secondary grades) pursuing a trade-off between administrative convenience and predictive validity (McInnis, 1993; Olivas, 1997).

Merit in higher education. The central element of an admission system based on meritocratic principles concerns how universities define the operational criteria of selection as evidence of merit. Baez (2006, p. 1010) offers a clear interpretation of merit in the context of admissions:

> Merit usually is defined, regardless of content, as relating to (1) ability, generally understood as cognitive ability or intelligence, and operationalized by IQ tests and their derivatives, achievement tests; (2) effort, treated as effort in early life and especially, therefore, that made in relation to schooling and operationalized by test scores, grades, and academic and extracurricular activities; (3) educational attainment, which results from ability and effort.

The preponderance of academic credentials in selection all around the world suggests that merit in higher education is deeply associated with higher academic performance, thus, merit is ineluctably used to mean academic merit. This view is supported by the analysis conducted by Edwards, Coates, and Friedman (2012) centering on use of admission tests in thirteen countries. Despite the procedural variations among systems, the use of admissions tests was the norm in all cases, particularly when the number of places in universities had a fixed number (e.g., Portugal, *numerus clausus* policy). However, an entrance examination was not the exclusive criterion of selection. Instead, admissions usually resulted from a weighted balance between achievement in secondary education and performance in entrance examinations. The latter may be centred on the subjects covered during secondary education or, alternatively, on broader abilities and aptitudes such as reasoning, problem solving or critical thinking (Bollinger, 2005; Cremonini et al., 2011; Edwards et al., 2012). Institutions use academic indicators to differentiate and consequently rank candidates, especially when the number of applicants exceeds the available positions.

Universities also rely on academic data for practical reasons; Edwards, Coates, and Friedman (2012) identify several rationales for the adoption of tests during admissions. First, the use of grades and test results is seen as more efficient than interviews or essays since it carries less administrative effort and cost. Second, standardised tests allegedly allow a fair comparison of students with different secondary school experiences (e.g., teachers, curricula). Third, entrance tests allow more precise differentiation between candidates with similar levels of performance. Additionally, tests rely on objective evaluation criteria making them more transparent to public scrutiny. In summary, there is an acceptance that educational attainment and performance in aptitude and/or achievement examinations offer the most valid and efficient proxy to predict students' future performance and success.

Besides the extensive use of academic indicators as the main criterion for admission, several countries rely on non-academic data as supplementary information to support admissions. For instance, the use of interviews, essays, and recommendation letters as happens in the UK, Estonia, the United States, Finland,

and Australia (Cremonini et al., 2011; Edwards et al., 2012). These elements are used more sporadically and often carry less weight than academic credentials. Such approaches target skills such as creativity, motivation, leadership, temperament or extracurricular activities (sports, arts, volunteering and community service) (Camara, 2005). Additionally, they are used to provide further supplementary evidence of merit to improve selection accuracy. The use of these evaluation instruments also addresses the shortcomings of traditional educational achievement measures – frequently criticised for being too narrow in the way students are assessed – since they are mostly focused on how students perform in curricular contexts (indicators that are consistently correlated with students' socio-economic background), but fail to fully evaluate students on a wider range of capacities such as solving complex problems or being creative (Olivas, 1997; Zhang et al., 2012). Nevertheless, the use of interviews and similar instruments to assess students is also prone to criticism; their predictive validity is questioned since they often rely on subjective judgement and less transparent criteria (Nahai, 2013). Finally, universities in some countries (e.g., England) use contextual data upon admission to assess candidates more holistically. Contextual data include information about the cultural, social or financial background in which the student was raised, for example, the list of previous schools that the candidate has attended. The incorporation of this contextual information allows universities to select their students using data that go beyond the traditional, and socially biased, academic indicators, facilitating a more wide-ranging assessment of students by considering more factors that may have influenced students' academic performance (Bridger et al., 2012).

Merit, a complex construct. The above examples demonstrate that admissions rely on a diverse number of indicators illustrating the complexity of operationalizing merit. Killgore (2009) examined the admissions practices in highly selective American private colleges to study how institutions deal with the tension between pursuing admission goals more focused on students (e.g., selecting the best candidates) in contrast with institutional goals (e.g., surviving in highly competitive environments). Admission officers operationalized merit using a broad number of elements including candidates' potential to achieve in both academic and non-academic terms. Still, academic achievement stood out as the most significant admission criterion, even though other elements also influenced selection. For example, extracurricular activities (e.g., community service, arts and athletics) were described as proxies for assessing candidates' merit, attesting features such as dedication or leadership. Nonetheless, larger institutional goals forced admission officers to develop wider conceptualisations of merit: "They often divulged a rationalisation that transformed organisationally desirable student characteristics into merit" (ibid., p. 480) and admission officers were aware of the tension resulting from a selection pressure that had to accommodate conflicting objectives. For example, sometimes applicants were admitted at least partly on the basis of their athletic potential because sports are vital for a college's prestige.

Admissions in Portuguese Universities

Access to Portuguese universities follows a centralised process organised by the Ministry of Education that annually sets a fixed number of vacancies for each programme. Candidates enter an annual competition to enrol in university. They are ranked according to their entrance classification that derives from a weighted average between grades from secondary education (at least 50%) and the results from national examinations in core disciplines (at least 35%) – thus the involvement of universities in admissions is almost non-existent.

Although this system has been used in the last 15 years, recent research has exposed noteworthy flaws. Fonseca, Dias, Sá and Amaral (2014) questioned the consequences of *numerus clausus* policy by describing the "wave of dissatisfaction" that characterises an admission system "based on the assumption that there is a positive correlation between the aptitude of students to master a certain subject… and their application grades." (p. 146). They argued that since programmes have limited vacancies, those that cannot enter the most desirable ones (candidates with high grades) enrol in "second-line" options, reducing the chances to enter these courses for other students who had aspired to them in the first place. The consequence of this admission puzzle is an increasing number of unmotivated students in certain programmes. Recently, Nata, Pereira and Neves (2014) published a seminal paper describing an evaluation of grades from Portuguese secondary education schools over a period of 11 years (discriminating between results for public and private settings) and concluded that

> independent private schools inflate their students' scores when compared to both public and government-dependent private schools. It is also plain that this discrepancy is not uniformly distributed across grades: rather, it is higher where scores matter most in the competition for the scarce places available in public higher education. (p. 18)

Their study provided strong evidence that to enter Portuguese universities, students do not compete with the same chances of admission because those that can afford private education have their grades exaggerated, increasing their chances to enrol in the most attractive programmes.

METHODOLOGY

Research data were drawn from 12 semi-structured interviews with academics from the most sought-after university in Portugal, University of Porto. A purposive sample was selected in collaboration with the Pedagogic Councils from seven out of the fourteen faculties within the University (Table 1).

Eight participants held the position of Programme Director, three were Presidents of the Pedagogic Council of their respective Faculties, and one was a member of

the General Board of the University. All interviewees had extensive experience of teaching, research and/or administrative roles. Particularly, this purposive sample favoured the inclusion of Programme Directors. By statutory regulation, each undergraduate programme has a Programme Director responsible for overseeing all curricular, scientific and organisational affairs.

Although the sample came from a single institution, this was not necessarily a disadvantage: the reduced number of interviewees allowed a deeper analysis that would be impossible to conduct in a larger scale study. Furthermore, individuals from diverse disciplinary fields and academic ranks were selected.

The interview included 12 open-ended questions covering themes such as admission goals, criteria and instruments. To check the relevance and validity of each question, the interview guide was tested on two Master's candidates in the field of higher education studies and one professor. Interviews were conducted in a relaxed and conversational environment to build trust and rapport (Kvale, 2008).

Table 1. List of interviewees

Code	*Gender*	*Disciplinary field*	*Faculty*	*Academic rank*
1A	m	Natural and health sciences	A	Full professor
2A	f	Natural and health sciences	A	Full professor
3B	m	Engineering sciences and technology	B	Full professor
4B	m	Engineering sciences and technology	B	Associate professor
5C	f	Natural and health sciences	C	Associate professor
6D	f	Social sciences	D	Full professor
7D	f	Social sciences	D	Associate professor
8E	m	Social sciences	E	Assistant professor
9F	m	Humanities and arts	F	Assistant professor
10G	f	Humanities and arts	G	Associate professor
11F	m	Humanities and arts	F	Assistant professor
12G	f	Humanities and arts	G	Full professor

Data analysis consisted of integral reading of all transcripts to produce themes. Successive readings allowed continuous refinement of data in search of recurring units of significance that could be structured thematically. The QSR International's NVivo 10 qualitative data analysis software was used to improve the quality and reliability of the coding process. This process culminated with a coding system (see Table 2) organised in main and sub-categories that summarised the views of academics towards admissions in public universities.

Table 2. Thematic areas of analysis

Selection goals	*Selection criteria*
Student perspective	Academic achievement
Process perspective	Attitudes
Inclusion	*Motivation*
Equal treatment	*Vocation*
Transparency	*Work capacity*
Organisation perspective	Cognitive capacities
	Intellectual aptitude
	Thinking skills
	Soft skills
	Contextual data

FINDINGS

Selection Goals

Academics expressed three distinct perspectives regarding the goals that an admission system needs to guarantee.

Student perspective. This category was centred on the required quality standards that candidates should meet. All interviewees agreed the following: selection needs to guarantee that applicants meet basic quality standards attesting their preparedness to enrol in University.

> I think one thing is inevitable, they have to start out from a basic level of knowledge … what makes a student is not just his/her level of knowledge, though that is [still] fundamental. So there should exist some way to try to assess accurately the student's level of knowledge – the minimum baseline – even to grant him/her equality of opportunity to advance along with the other [students]. (5C)

Process perspective. This category concerned the selection procedures per se, and included three sub-categories. First, nine academics showed a concern for social justice and inclusion advocating an admission system that provides enough opportunities to individuals who face disadvantageous circumstances (e.g. economic) and consequently have fewer chances to be admitted.

> First of all, a university should take into consideration… whether there is a balance in the social origin of their students. Countries like the US have that

> sensitivity. If the social origin is highly selective, corresponding to an economic and professional elite, … such education systems contribute to widen the gap between the more advantaged and less advantaged classes. (1A)

Some interviewees justified their social concern by having a perception that students from certain social classes were under-represented in the more desirable courses. Economic hardship or membership of families with lower levels of education were considered causes that hindered participation opportunities:

> It is obvious that selection of candidates should always look to social justice; it cannot simply take what students show us with their average [grade], without considering the school that generates that average, including the school's ranking… [and] the socio-economic, family and ethnic backgrounds of the students. Because, obviously, we cannot forget that people who come from less advantaged origins may have a very high potential; it is very easy for us forget that, and it is very easy for people [candidates] to remain in the shadows, ignored in automatic selection processes. (11F)

Second, more than half of the participants prioritised an admission system that provides "equal treatment for all participants" as one academic said, "I should look at them impartially" (4B). Respondents supported the need to have a "universal" and "impartial" system ensuring that candidates from the whole country could compete fairly for the available vacancies. Finally, a few respondents argued that the system should be transparent and adopt objective criteria, since Portuguese culture, as frequently mentioned in the interviews, makes fraud and nepotism a potential risk in the process of selection.

Organisation perspective. A few academics argued that admissions need to be organised in line with the mission of the University, stating that candidates must have competences in critical thinking, motivation to learn continuously, willingness and capacity to do research: "instead of relying on national access, universities should have access [organised] through each institution, where they could have a selection process based on their objectives, their mission." (12G).

Selection Criteria

Academics expressed four distinct categories regarding the selection criteria that should be used in admission procedures.

Academic achievement. All interviewees agreed that the procedure should rely on a component encompassing what students have formally learned before admission, in order to ensure that they "have some basic knowledge" (12G) in their target area; as one person remarked:

> I won't accept that a student comes to medicine without having a good foundation in biology, I won't accept that he doesn't have a good foundation in chemistry, a bit of physics, some capacity to think mathematically. (2A)

Interestingly, however, 7 out of 12 participants explicitly questioned the dominance of grades "…[which] do not always reflect students' competences" (4B). One academic (7D) voiced the concern of many others: "I think that the best student… [is] not the student who has the highest average [grades]", claiming that students become very effective when performing in admission exams, but that their high results do not mean that they have the necessary skills and qualities to become a "good university student".

Data from interviews indicate that academics were more concerned with broader competences and attitudes, not necessarily related to the curricular content of previous education.

Attitudes. All but one interviewee expressed the desire to consider candidates' attitudes upon admission. In this category three sub-categories were identified. The first, and most noteworthy result, was how eleven of the twelve academics emphasised motivation as a crucial admission criterion:

> I think it is fundamental, because if people have motivation to learn, even if they enter university with a 10 [grades range from 0 to 20], they *will* achieve and they will develop the necessary competences, because they have a strong determination to be admitted… But if they do not come motivated…if they enrol because that was the place where there were vacancies…we won't have good professionals. (6D)

The huge support for motivation was explained by academics' expectations of working with pro-active and committed students, those having a "desire to learn" and a deliberate aspiration to pursue the degree for which they had enrolled. Motivation was seen as a positive enabler of students' performance and success: "It has to clearly exist – a desire, a curiosity. A university student has to be a curious person in order to be willing to learn throughout his whole life" (10G). More than one third of the academics also related motivation to an interest in research.

Besides motivation, two thirds of the interviewees (including all those coming from the Arts and Humanities) addressed vocational aptitude (i.e., a particular predisposition for a specific career) as a criterion to consider:

> …a student's motivation, his [her] vocation is very important for any kind of profession…being a doctor, a professor, a lawyer, an architect, someone devoted to the arts. But also other professions – more technical,in the area of engineering for example – need vocational commitment. (10G)

Lastly, one third of the participants also indicated that prospective students should be willing to work hard (despite showing reservations about how to assess such a characteristic).

Cognitive capacities. Ten academics indicated that universities should consider, upon selection, broader cognitive competences that do not necessarily emerge from curricula; as one academic stated, "besides the exams related to knowledge and content acquisition" universities should use "tests about diverse cognitive capacities" (1A). Three sub-categories were identified. First, some academics argued for assessment of candidates' "intellectual aptitude", i.e., more general capacities, not necessarily in the specific areas of the degree,such as intellectual dexterity to be assessed by an aptitude test targeting thinking skills such as reasoning, interpretation, analysis and synthesis, in order to go beyond testing candidate's "memorisation capacity" and instead, gauge other characteristics such as "spatial intelligence, interpretative capacity, capacity to make diverse cultural correlations" (1A).

Secondly, respondents also stressed the importance of selecting students with certain "thinking skills" they thought that selection should go beyond choosing intelligent students, and considered it necessary to screen candidates with a certain "way of thinking" since "the capacity to think defines the higher education student" (7D). Therefore, they should be proficient thinkers, "capable of reading and interpreting a text, reflecting on it, raising questions about it, having an inquiring attitude in the sense that s/he seeks to know more, being capable of relating that knowledge to another discipline from any area" (7D).

Thirdly, a minority of participants mentioned that some weight should be given to extracurricular involvement during selection to attest students' possession of soft skills (leadership, interpersonal skills).

Contextual data. A few participants suggested the use of contextual data (i.e., socio-economic information) in admissions. However, only one third of respondents clearly supported their use:

> I would say that students' personal circumstances should be considered if they may cause exclusion in the sense that they should be remedied. So universities should have an inclusive policy that considers the disadvantage caused by a student's contingencies…everything that could be viewed as inequality of opportunity. (7D)

Another third also admitted the use of contextual data – however expressing doubts about how to implement such measures. The remaining four academics were opposed to the use of any element beyond a student's competences:

> That's very controversial, because we know that there are always students who come from adverse social backgrounds but are good students in university.

> There are plenty of cases to prove that. We also have the contrary cases. We know that we have students who come from environments with all the pre-conditions to study and have good results, but they don't achieve them. So, I believe that it is controversial, very controversial to consider that factor. (10G)

DISCUSSION AND CONCLUSION

Academics' View on Merit

There are common elements that characterize how academics define merit in the context of admission. First, all candidates should have a basic level of knowledge in the core disciplines associated with their target academic programme (e.g., engineering candidates need a 'solid knowledge' of maths) to demonstrate their preparedness to succeed in university. However, this is neither the only requirement nor even the most important. It is interesting to note that more than half of the participants consider academic credentials an insufficient indicator of candidates' academic potential. Instead, academics support an admission system that targets certain competences and attitudes that do not necessarily relate to disciplinary content. Second, academics highly prize students' motivation to study in university and in a few cases this permanent inquisitiveness and desire to learn is considered more important than academic credentials. Third, academics largely agree that candidates should have a set of general cognitive capacities that go beyond knowledge and disciplinary content, namely skills that can corroborate the capacity to reason and to think critically – skills that are deemed fundamental for a university candidate.

These results can be explained by a homophily principle (Zimdars, 2010) which argues that academics have particular interest in teaching students who share their own interests (e.g. inquiring attitudes). This idea recurred in the interviews where academics explicitly expressed the need to prioritize a specific profile of candidates – those that manifest a great motivation to engage in their studies. This preference for inquiring attitudes also shows that academics connect the goals of admission to safeguarding the mission of the university as a research institution (Goastellec, 2010).

The way academics operationalized merit can be explained by an Aristotelian teleological argumentation suggesting that scarce, contested resources should be distributed in strict accordance with their purpose (*telos*). Following Sandel's (2010, p. 188) example, if flutes were to be distributed, the best flute players should be rewarded since the purpose of a flute is to be well played. Analogously, academics endorse an allocation of places in universities to those most capable of fully engaging in the fundamental activities of academic endeavour, as considered in Barnett's (1990, p. 202). *Idea of Higher Education*:

> '[H]igher education' is essentially a matter of the development of the mind of the individual student. It is not just any kind of development that the idea points

> to. An educational process can be termed higher education when the student is carried on to levels of reasoning which make possible critical reflection on his or her experiences, whether consisting of propositional knowledge or of knowledge through action. These levels of reasoning and reflection are 'higher', because they enable the student to take a view (from above, as it were) of what has been learned. Simply, 'higher education' resides in the higher-order states of mind.

In addition, academics' great concern for students' motivation (or rather, lack of it) corroborates previous work from Fonseca, Dias, Sá and Amaral (2014); this has demonstrated a 'wave of dissatisfaction' in numerous programmes in Portugal, where many candidates are unhappy with their university course. However, one question is whether motivation can be truly assessed since it is a complex social construct that can follow different individual determinations. Most academics addressed motivation with a scholarly connotation, in relation to a desire to learn. However, it is not clear whether assessment of motivation upon admission can, or even *should*, try to distinguish between more instrumental motivation, such as seeking a programme that will lead to a high salary; or, alternatively, a motivation more attuned to academic values. Despite its importance, motivation poses complex questions since a display of motivation upon selection does not guarantee that students will retain it after enrolling (the logic sometimes works inversely). Moreover, while academics lay upon students the 'responsibility' of being motivated, studies from Tavares (2013) and Fonseca, Dias, Sá and Amaral (2014) have shown that the problem also lies in the organisational adequacy of the admission system. Finally, students are not the only ones who can be blamed for lacking motivation and commitment during university; academics also have the duty to prepare their lectures and activities in a way that incentivises – or at least does not discourage – student commitment.

Furthermore, when asked directly about the their opinion concerning the Portuguese admission system, some academics expressed the view that not all candidates are intrinsically suitable to study in university because they lack the necessary ability, or even interest, to purse a university degree. Accordingly, to address the 'unsuitability' of some individuals to proceed to university, the educational system should provide better alternative paths, for example, more technical and professionally oriented tracks that do not even necessarily need to culminate with a higher education degree. Without this diversity, some academics argued, many high school students lack appropriate alternatives to university and, henceforth, the majority of students are led to seek a university degree, creating abnormal social pressure for enrolment. As Tavares (2013) has shown, students' choices to enrol in higher education are influenced by their expectation of "gain[ing] competitive advantage in the struggle for jobs" (p. 106), and universities are still the preferred choice for most of the students. Nevertheless, the consistency of the argument – i.e., that not all students are fit to enrol in university – is questionable

since, as it was stressed recurrently in the interviews, the Portuguese educational system suffers from critical problems. Firstly, it has serious imbalances between the public and private sector, where the latter has been proved to inflate students grades unfairly (Nata et al., 2014). Secondly, academics were highly critical of previous levels of education for being overly focused on memorisation and preparation for the entrance exams, and failing to inculcate in students the capacity to become critical thinkers and deep learners. Therefore, it has to be asked if it is true that only a segment of the student population has the necessary competences, intellectual attributes or potential to proceed to the higher learning level that characterizes university; or, alternatively, does the problem lie rather in the fact that most students lack an appropriate educational experience that allows them to develop the necessary competences, talents and attitudes to progress to university? Still, the point that not all students want to proceed to university is valid, as is the concept of an educational system with diverse options to accommodate students' diverse motivations and preferences.

The Equity Divide

Findings corroborate the existence of an on-going ideological debate between a selection that stresses opportunity for traditionally underrepresented groups and, alternatively, a selection that treats all candidates as equals, aiming to select the best applicants. Even though all academics clearly want selection to be based on candidates' attributes, and not upon any ascribed trait, there is a marked difference between their views on fairness and equity, and on how social justice can ultimately be achieved.

An inclusive view. The majority of academics explicitly support an admission system that pays great attention to groups of students that may be at risk of exclusion from university. At the root of this inclusive perspective is the perception that large social inequalities undermine the chances of social mobility for candidates from certain economic and social backgrounds. Although academics' concern for merit is vital, they recognize that some students have fewer chances to progress throughout the educational system, making these students less capable of achieving as well as other candidates with fewer life challenges. Therefore, mechanisms should be considered to level the field, not aiming to reduce quality standards of admission, but to take into consideration that many candidates may have higher potential to become good university students, despite their (often lower and culturally biased) academic credentials.

The use of contextual data and positive discrimination is therefore seen as a possible way of tackling educational inequalities and imbalances of opportunities. Compensatory mechanisms are seen as a way to view candidates' merit within a fairer perspective, i.e., one that considers the context of their academic and personal progress; yet many academics have some degree of scepticism about the

implementation of such measures. A system concerned with equity is one that seeks to guarantee that everyone can have a chance to be selected.

An impartial view. Alternatively, some academics prioritize the need to have an admission system that does not discriminate against anyone. Thus, the process of admission should treat all candidates equally, regardless of their personal circumstances. Merit is seen in absolute terms: candidates either have it or not, and how candidates reach their academic credentials is not the critical element. Instead, the most crucial element is that applicants fulfil the entrance requirements.

Academics' support for an impartial admission system is sustained by their belief that candidates' adequacy for university should be manifested upon selection, even if they come from more disadvantaged backgrounds, since favouring students on the basis of class or economic background would generate an unfair situation. Moreover, as admissions require selection of candidates from different parts of the country, academics argue, the objectivity and transparency of the admission criteria are fundamental to assure that all candidates are treated equally. A system concerned with equity is one that ensures that everyone faces the same admissions criteria.

Findings also showed an agreement that the national exams are not an adequate proxy, either for selection, or for the educational development of students. This conviction was translated into a desire to increase the freedom of universities to select their own students. However, this idea needs to be analysed with caution, since logistic and technical requirements are not in place to assure a rigorous and effective process, capable of serving all students in the country. Moreover, there was a concern that if universities do their own selection, some could lower the standards of admission to tackle the increasing difficulties of attracting students. A key policy priority should be to increase coordination between secondary and higher education. In so doing, some key issues such as the adequacy of high-stakes national examinations could be discussed, and also the university preference for evaluation methods more focused on critical thinking than on memorisation.

Final Remarks

This qualitative study examined the views of academics concerning student selection in public universities. Due to the small sample, these results need to be interpreted with caution in terms of generalisation. Still, the small number of respondents made possible an in-depth analysis of academics' rationales concerning admissions in universities (Killgore, 2009).

In most cases, the support for an admission system that uses merit as the central selection criterion did not exclude the necessity of treating candidates as fairly as possible – also a crucial priority for academics. Nonetheless, they showed distinctive notions of fairness: one in relation to inclusion comprised an explicit concern for

candidates at risk of being excluded from university; and the other manifested a determination that admission systems should treat all candidates equally and impartially, upholding academic merit as the only selection criterion. Academics also expressed dissatisfaction with Portuguese universities' very limited capacity to influence admissions; and they expressed quite pejorative views about the quality of pre-tertiary education and national entrance exams, arguing that they undermine students' capacity to become critical and purposeful learners.

Taken together, these findings contribute to the current on-going debate centred on organisation of student selection in higher education by confirming challenges that remain to be solved. Thus, before trying to find a solution, it is crucial to clearly define and agree with the extension of the current problem, which, it is argued, includes two dimensions.

First, admission systems need to consider that selection by merit cannot ignore the circumstances in which the student has achieved academic credentials or another commensurable performance. In the absence of such effort, universities promote a distorted meritocratic selection that takes academic performance as an absolute manifestation of the candidates' qualities; it has no awareness of whether such performance is a manifestation of academic potential or a result of socio-economic privilege (Baez, 2006; Bridger et al., 2012; Nata et al., 2014).

Second, an admission system that tries to narrow down merit to a small number of indicators such as grades, or results in standardized tests,exposes universities to the danger of an inaccurate selection, incapable of targeting the most suitable candidates. As suggested by this study, many academics consider that academic credentials are often devoid of meaning. Instead they attribute more value to motivation, inquisitiveness and critical thinking. However, these dimensions require a more comprehensive assessment of candidates' academic potential, and consequently, are more difficult to assess.

To conclude, a key policy priority in the Portuguese access system should include the reform of a wasteful admission system that leaves many programmes full of unmotivated candidates. Without the necessary sharpness to discover academic potential, and the sensitiveness to be socially inclusive, the system of access to public universities risks perpetuating a process incapable of finding candidates with the necessary capacity to solve the complex problems of our days: facilitate progress in the sciences, culture and arts, and, ultimately, promote a democratic society – as is the prerogative of the university.

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7. WHY THE STATUS QUO ISN'T GOOD ENOUGH – EXAMINING STUDENT SUCCESS FOR DIVERSE POPULATIONS IN THE UNITED STATES

INTRODUCTION

Attending college and earning a degree remain key to improving one's life chances and social mobility. In fact, in the early 21st century we have entered an era in which attending higher education and obtaining a degree are now in many countries the minimum threshold for entry into the middle class (Carnevale et al., 2010; Rothwell, 2012). Thus it is not surprising that demand for tertiary education continues to rise. Between 1990 and 2006, total world enrolment more than doubled from 68.7 million to 139.4 million. Eastern Asia witnessed the largest growth over this period with enrolments increasing from 10.6 million in 1990 to 36.7 million in 2006, an astounding growth rate of 346% (OECD, 2008).

And yet, even with universal access to higher education for students seeking admittance to the U.S. system and elsewhere, there has not been a concurrent increase in educational attainment (Roksa, 2011) nor a decrease in societal inequality (Dwyer et al., 2013). In fact, in recent decades and exacerbated after the great recession in 2007, social inequality has been increasing in the U.S. and other major economies such as Germany, France, and the UK (Grusky et al., 2011; OECD, 2014).

Despite this, higher education institutions are often held up as sites that are equitable and in which stratification differences are ameliorated rather than perpetuated (Astin & Oseguera, 2004). However, scholars and policy makers argue that despite increases in access to higher education by underrepresented groups, the *type* of access remains highly stratified, with high socioeconomic status students gaining disproportionate access to the most selective institutions (Astin & Oseguera, 2004; Kozol, 2005). And these qualitative differences in access have increased in recent decades (Posselt et al., 2012). Given the gaps in preparation and continuing gaps in retention and degree completion, it has become important to understand whether higher education institutions are contributing to societal inequality through their policies and current practices. Specifically, it is pivotal to examine whether students from families with higher socioeconomic status (SES) have an advantage over their peers that may result in higher success and degree completion rates.

Given these overarching trends and a dearth of studies that focus on the impact of socioeconomic factors on student success (Chen & Des Jardins, 2010; Goldrick-Rab

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 109–131.

et al., 2009), this chapter examines six-year degree completion by income groups. In particular, the model seeks to examine what student and institutional characteristics influence the likelihood of graduating from a 4-year institution in the U.S. At the student level, in addition to family income, wealth, and other social and cultural capital measures, this study incorporates socio-demographic characteristics, pre-college and college experiences, sources of financial support, and level of academic preparation. At the institutional level, the model seeks to analyse how institutional context, particularly structural-demographic characteristics, campus climate, and organizational behaviour affect students' chances of obtaining a degree.

LITERATURE REVIEW

Over the past decades, student success in postsecondary education, particularly persistence and degree completion, has been of interest to scholars from various disciplinary fields. To study these outcomes, higher education researchers have often resorted to interactionist theory and Tinto's (1993) model of student departure. However, other conceptual frameworks have been applied successfully to explain persistence decisions that can lead to degree attainment, for instance the student attrition model (Bean, 1980) and the student/institution engagement model (Nora, 2004).

Drawing mostly on human capital theory (Becker, 1980) and price response theory (Heller, 1997; Leslie & Brinkman, 1987), economists have focused on financial aspects of student college-going behaviour. However, scholarly attention has centred mostly on aspects of student access to postsecondary education and institutional choice, less on persistence and degree completion (Chen, 2008; St. John et al., 2000). Sociologists have also contributed immensely to our understanding of student persistence and college departure, for instance through status attainment theory (Blau & Duncan, 1967) and Bourdieu's (1986) social and cultural capital theory. More recently, organizational theorists started to investigate in more detail how the college environment can impact on student behaviour and various outcome measures. To examine potentially influential factors, scholars have focused on aspects of institutional behaviour (Berger & Milem, 2000; Bolman & Deal, 2008), student/peer climate (Hurtado & Carter, 1997; Oseguera & Rhee, 2009), and, most recently, resource-dependency of institutions (Pfeffer & Salancik, 2003).

Despite these various approaches across academic disciplines and the advance in our understanding of factors that influence student success in higher education, there is much we still need to comprehend. As Chen (2008) and St. John, Cabrera, Nora, and Asker (2000) note, the bulk of research has focused on individual persistence decisions and student departure. The specific factors and processes that can impact on *degree completion*, however, have received considerably less attention. To improve our understanding and overcome limitations in the literature, this study draws from the *heterogeneous research approach* to study degree attainment for students across income/SES groups (Chen, 2008; Franke, 2014). This approach builds on earlier

studies examining student behaviour differentiated by socioeconomic groups and assumes that student success is best understood when using multiple theoretical perspectives (Perna, 2006).

Taking account of Chen's (2008) and Franke's (2014) work, the present chapter draws upon several models in sociology, economics, organisational theory and persistence studies in higher education. From sociology, it draws from status attainment theory and incorporates elements to capture social and cultural capital effects (Bourdieu, 1986; McDonough, 1997). To study economic effects, it invokes human capital theory (Becker, 1980); to conceptualise institutional influences, we draw from organizational impact theory (Berger & Milem, 2000). In accordance with the heterogeneous research approach, hypothesised influences are integrated into the general conceptual framework, which also builds on theoretical models and empirical evidence on student success (Nora, 2004; Nora & Cabrera, 1996; Tinto, 1993).

CONCEPTUAL MODEL

For the organization of the conceptual model, the chapter draws from Titus's (2006) and Franke's (2014) multilevel approach and conceptualises student-level and institutional-level influences on six-year degree attainment (see Figure 1).

Student-level characteristics and experiences hypothesised to impact upon the individual's probability of degree completion are displayed in the top section of Figure 1, whereas institutional-level influences are shown in the bottom part. Drawing from conceptualizations in Tinto (1993) and Nora (2004), student-level influences are organised temporally to better reflect the trajectory of students from secondary into postsecondary education. The model incorporates three main phases: pre-college phase, transition from high school to higher education, and college attendance phase. Pre-college characteristics and experiences, and influences during college have been conceptualised in most theoretical/empirical models on persistence and student departure (Bean, 1980; Nora, 2004; Tinto, 1993). The transition phase, in contrast, has not been explicitly theorised; educational commitments and goals have been used to 'link' pre-college and college constructs. Using a process-oriented perspective and drawing from the conceptualisation of intertemporal linkages in the literature (Franke, 2014; Paulson & St. John, 2002), the transition phase is included to better model influences and decisions during this crucial (re)orientation-phase for individuals.

Each of the phases contains multiple variable blocks, representing characteristics, influences, and experiences specific to the individual phase that are hypothesised to affect degree attainment. In addition, each phase incorporates pull factors, hypothesised to negatively impact degree completion, in extension of Bean's (1980) and Nora's (2004) work. Furthermore, each phase contains economic/financial factors in a separate variable block. Since the institutional context only influences the *average* likelihood of degree completion at an HEI, there is no *direct* influence

on the individual's chances of graduating: hence the separation of individual and institutional blocks.

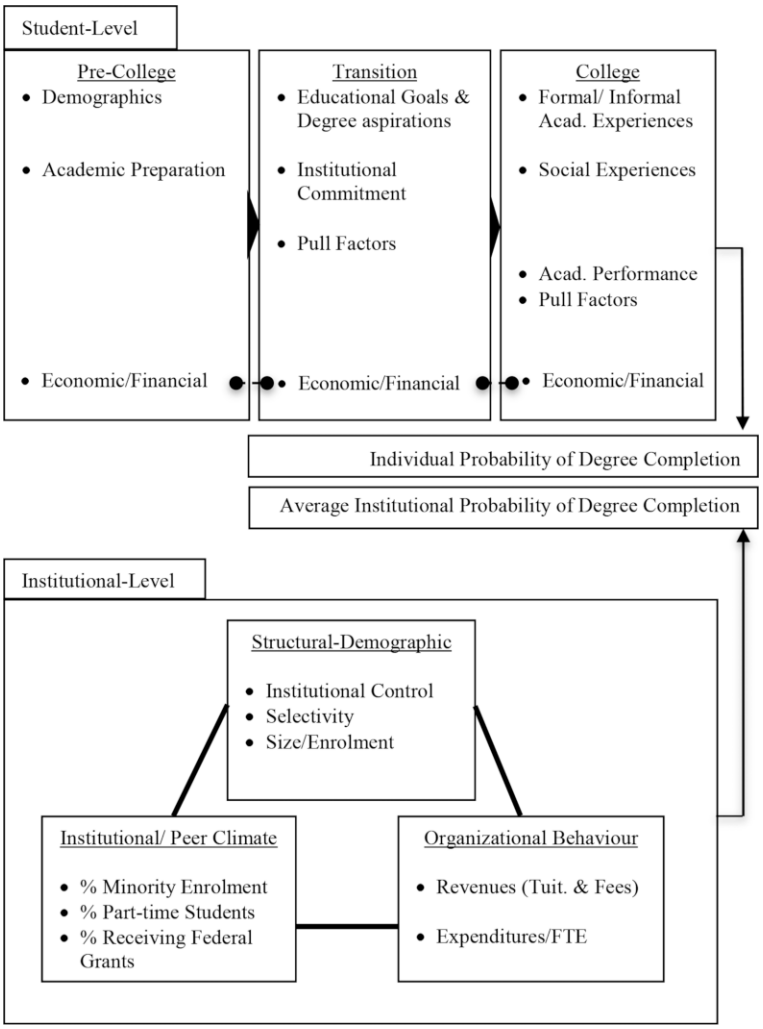

Figure 1. Conceptual model

The second main section (bottom part) of the conceptual model shows institutional-level influences on student degree completion. Drawing from organizational impact theory (Berger & Milem, 2000) and conceptual models in the literature (Oseguera & Rhee, 2009; Titus, 2006), incorporated measures are hypothesised to impact the average institutional probability of degree attainment in three sectors. In contrast to

the student level, sectors are not ordered temporally, as measures and characteristics represent different influential aspects of the normative context that are not causally or temporally linked.

Drawing from previous work, the model seeks to account for contextual effects, such as institutional control (public or private), selectivity, and size (measured through total enrolment). These characteristics are incorporated into the structural-demographic sector. Building upon Berger and Milem's (2000) organizational impact model and the literature on peer group effects and peer climate (Astin, 1993), it focuses on two additional sectors: institutional context & climate, and organizational behaviour. Measures in the institutional context and climate block seek to capture the effects on student degree attainment resulting from shared patterns of organizational life and individuals' perceptions of these patterns. For this, we include measures of part-time students, share of minority students, and proxies for institutional income/SES, such as proportion of students receiving federal grants. Measures for institutional revenue (tuition and fees) and expenditure (core expenditure per full-time student) are incorporated to test the influence of organizational behaviour.

METHODOLOGY

This study examines student-level and institutional-level influences on six-year degree attainment at 4-year colleges and universities in the U.S. In particular, the model examines how socioeconomic status and related measures affect students' likelihood of obtaining a baccalaureate degree. To better account for the nested data structure, this study employs a multilevel modelling approach.

The main research questions guiding this study are:

- What background characteristics, pre-college and college experiences influence six-year degree completion for dependent, full-time students at 4-year institutions in the U.S.?
- To what extent does socioeconomic status affect the potential for obtaining a degree, after controlling for student- and institutional-level influences?
- Accounting for individual-level characteristics, which institutional-level factors influence students' likelihood of degree attainment?

Data Source, Sample, and Dependent Variable

For this study, three primary data sources are used. Student level data are drawn from the latest version of the Beginning Postsecondary Students survey (BPS: 04/09), a national dataset collected by the National Center for Education Statistics (NCES). The BPS: 04/09 is a longitudinal, nationally representative database containing detailed persistence and degree attainment data and information on a variety of individual-level aspects such as students' background, educational goals, and academic and social experiences in college. Institutional level data are drawn from

the Integrated Postsecondary Education Data System and the Delta Cost Project, also NCES datasets.

The full BPS: 04/09 dataset comprises 16,680 students with broad educational and occupational pathways, for instance first-time beginners in postsecondary education starting at 2-year or 4-year institutions, studying part-time or full-time. The sample for this study is restricted to full-time, dependent students who enrolled in Bachelor's granting degree programs at 4-year institutions in 2003–04. Due to significant differences in financial aid awards, analyses were further limited to U.S. citizens and permanent residents; student athletes have been excluded. The final analytical sample in this study encompasses N = 6,561 students attending N = 651 four-year colleges and universities in the U.S.

The dependent variable is degree attainment status six years after initial enrolment and coded (1) for students who received a four-year degree at the initial institution of enrolment, and (0) for students who did not.

Analytic Approach

To estimate effects, this study uses Hierarchical Generalised Linear Modelling (HGLM) to examine factors impacting upon degree completion at the student and institutional level and better account for the nested data structure (Raudenbush et al., 2004). For the analyses, adjustments for complex survey designs are incorporated through the Taylor series linearization procedure in MPlus 7 (Levy & Lemeshow, 2008).

Prior research examining persistence and degree completion has frequently ignored the nested structure of students within institutions (Chen, 2008; Hossler et al., 2009). Only in recent years and through the proliferation of advanced statistical techniques, such as Hierarchical Linear Modelling, have scholars begun to account for student-level and institutional-level influences on these crucial student outcomes (Oseguera & Rhee, 2009; Titus, 2006).

Hierarchical Linear Modelling (HLM), or Multilevel Modelling, is an appropriate statistical technique to analyse clustered data. The approach provides a statistical model that allows examination of the distinct effects of individual/student-level and institutional-level variables. For this, HLM separates variance occurring at the different levels in the analysis to produce more reliable estimations of predictors and standard errors. Given the binary outcome variable in this study, Hierarchical Generalised Linear Modelling is used. HGLM, also known as generalised linear mixed models, is a special case of HLM that allows examination of a binary dependent variable, using a Bernoulli sampling distribution.

At the student level, variable blocks included in the model represent characteristics and experiences at the three main phases of the empirical model: pre-college and background characteristics, measurements on the transition from secondary to postsecondary education, and college experiences. The latter also incorporate various financial aid measures. The variables included in the institutional-level describe how

the context at 4-year colleges and universities affects the student's average likelihood of completing a Bachelor's degree within six years. These variables include structural-demographic, institutional context/climate, and organisational behaviour measures, and are sequentially entered into the analysis. For ease of interpretation, results will be reported as delta-P statistics (d-P) (Cruce, 2009; Petersen, 1985).

FINDINGS

Descriptive Statistics

The overall six-year degree completion rate for dependent, full-time students enrolled in a Bachelor's degree program at a 4-year institution in 2003–04 was 59.8%. Thus less than two thirds of the students in the U.S. obtain a baccalaureate degree within six years at their initial institution of enrolment. This aggregate statistic masks an important underlying trend. When assessing degree attainment rates across income groups (see Table 1), the data show that only 46.0% of the students coming from low-income backgrounds obtain a degree within this timeframe. This compares with 55.6% for lower-middle-income students, 62.1% for upper-middle-income students, and 70.2% for their high-income peers.

The data also show that more women attend 4-year institutions as full-time, dependent students. Women are more strongly represented among low-income and lower-middle income students with 57.8% and 59.5%, respectively. Gender distribution among upper-middle and high-income students is somewhat more balanced, with 55.4% and 53.2%, respectively.

Table 1. Selected descriptive statistics – full-time, dependent students enrolled at 4-year institutions in the United States (Percent)

	All Students	*Income Groups*			
		Low	*Lower Middle*	*Upper Middle*	*High*
Variable	(N=6,561)	(N=1,342)	(N=1,575)	(N=1,665)	(N=1,979)
Six-year degree completion (DV)	59.8	46.0	55.6	62.1	70.2
Gender: Female	56.2	57.8	59.5	55.4	53.2
White	70.3	41.2	68.5	79.5	83.2
African American	8.6	20.5	9.4	5.3	2.7
Latino/a or Hispanic	10.1	22.6	10.6	6.0	5.0
Asian	5.8	10.5	5.8	3.9	4.3
Other race/ethnicity	5.2	5.1	5.7	5.3	4.7
English is primary language	90.0	74.5	89.7	95.2	96.1

With regard to race/ethnicity, more than three-fifths (70.3%) of the population are White, compared to 8.6% African American, 10.1% Latino/a or Hispanic, 5.8% Asian, and 5.2% students identifying as other race/ethnicity. African American, Latino/a, and Asian students are more concentrated in the low and lower-middle income groups. Generally, representation declines for these racial/ethnic groups as income increases; from 20.5% to 2.7% for African Americans, 22.6% to 5.0% for Latino/as and Hispanics, and 10.5% to 4.3% for Asian students across the four income groups.

Student-Level Influences

It was hypothesised that various measures and characteristics during the pre-college, transition, and college attendance phase would predict the outcome variable. In the final model, fourteen student-level (level-1) variables are statistically significant in addition to four financial aid-related measures; seven pre-college, two transition, and five college experience measures. All results are reported in Table 2 and will be discussed in the following section.

Pre-college phase. Among students' background characteristics, age (whether students are 19 years or older) shows a significant negative association with degree completion. Students older than 18 are 4.93% ($p < .01$) less likely to obtain a degree when compared to their younger peers. Thus, individuals delaying entry into higher education or deciding to attend college or university after pursuing other post-high school options have a higher risk of not completing their degree within six years.

Gender is also found to be a significant predictor of degree attainment, with women being 5.3% ($p < .01$) more likely to graduate than men. This confirms general findings in the literature about the success of women in postsecondary education (Pascarella & Terenzini, 2005) and shows that women not only access higher education in greater numbers in the U.S.; they also have higher chances of obtaining a baccalaureate degree.

Interestingly, with regard to race/ethnicity none of the included groups was found to differ significantly when compared to their white peers. Once pre-college, transition, and college attendance characteristics and experiences are taken into account, a student's racial/ethnic background does not seem to influence the likelihood of degree attainment within six years.

Also parental education was not found to affect the likelihood of obtaining a degree, a result that is somewhat surprising. However, as this study sought to test the independent effects of family income and parental education – in contrast to an aggregated measure for socioeconomic status (Sewell et al., 1969) – results for this cohort suggest that the former (income) may influence student degree attainment to a much larger degree than the latter (education, see below).

It has been hypothesised that parental family status exerts an influence on student success in higher education. Results reported in Table 2 show that, compared to

Table 2. HGLM model results predicting six-year bachelor's degree completion

	Final model (N = 6,430)				
	C	*S.E.*	*p*		*d-P*
Student-level variables (Level 1)					
Pre-college					
Demographic					
Age: 19+ years	–0.204	0.068	0.003	**	–4.93
Gender: Female	0.220	0.076	0.004	**	5.30
African American (White)	–0.160	0.164	0.330		
Latino/a or Hispanic (White)	–0.120	0.152	0.427		
Asian (White)	–0.188	0.170	0.270		
Other race/ethnicity (White)	–0.168	0.151	0.265		
English is primary language	–0.204	0.158	0.197		
Parental educ.: High school or less (BA)	–0.038	0.103	0.711		
Parental educ.: AA degree (BA)	–0.165	0.099	0.094		
Parental educ.: MA or higher (BA)	–0.030	0.094	0.748		
Parents: Single parent (Married)	–0.544	0.239	0.023	*	–13.40
Parents: Div./separated/wid. (Married)	–0.135	0.091	0.137		
Academic preparation					
Admission test scores	0.032	0.029	0.257		
High school GPA	0.194	0.045	0.000	***	4.56
Private high school attended	0.080	0.091	0.380		
Economic/financial factors					
Low income (<$32k) (High)	–0.489	0.153	0.001	**	–11.70
Low-mid income ($32–$59k) (High)	–0.288	0.116	0.013	*	–6.79
Up-mid income ($60–$91k) (High)	–0.172	0.095	0.069		
Parents own investment >$10k	0.174	0.074	0.019	*	4.15
Transition					
Educ. goals & institutional commitment					
Master's degree aspiration (BA)	0.148	0.085	0.083		
Doctorate aspiration (BA)	0.132	0.105	0.209		
Prof. degree aspiration (BA)	0.067	0.126	0.593		
Chose institution b/c of reputation	0.194	0.076	0.011	*	4.69
Chose institution b/c of location	0.108	0.082	0.185		
Plan to transfer	–1.089	0.099	0.000	***	–26.57

(Continued)

Table 2. (Continued)

	Final model (N = 6,430)				
	C	*S.E.*	*p*		*d-P*
Pull factors					
Chose institution for pers./family reasons	–0.008	0.072	0.912		
Parents expected to get a job	0.015	0.102	0.883		
Economic/financial factors					
Chose inst. for financial reason	0.082	0.076	0.282		
College					
Academic and social experiences					
Live on campus	0.680	0.093	0.000	***	16.54
Academic integration index	0.001	0.010	0.918		
Social integration index	0.023	0.008	0.003	**	0.55
1–10 hrs volunteering (no volunt.)	–0.018	0.079	0.820		
11–20 hrs volunteering (no volunt.)	–0.129	0.149	0.385		
20+ hrs volunteering (no volunt.)	–0.090	0.145	0.533		
Major declared	0.063	0.081	0.440		
GPA in first year	0.091	0.006	0.000	***	2.17
Pull factors					
1–10 hrs working (not working)	–0.070	0.113	0.533		
11–20 hrs working (not working)	–0.133	0.113	0.239		
20+ hrs working (not working)	–0.458	0.132	0.001	**	–11.19
Distance from home	–0.098	0.028	0.000	***	–2.38
Economic/financial factors					
Federal need-based grants	0.053	0.034	0.118		
State need-based grants	0.000	0.037	0.995		
Institutional need-based grants	0.033	0.012	0.006	**	0.79
Institutional merit grants	0.026	0.012	0.033	*	0.62
Federal subsidised loans	0.014	0.025	0.556		
Federal unsubsidised loans	–0.070	0.031	0.025	*	–1.69
Unmet financial need	0.022	0.008	0.004	**	0.53
Institutional-level variables (Level 2)					
Structural-demographic					
Control: Private	–0.145	0.112	0.195		
High selectivity (Mod. selectivity)	0.135	0.104	0.196		

(Continued)

Table 2. (Continued)

	Final model (N = 6,430)				
	C	*S.E.*	*p*		*d-P*
Low selectivity (Mod. selectivity)	–0.309	0.132	0.019	*	–7.63
Other selectivity (Mod. selectivity)	–0.052	0.185	0.780		
Size/enrolment	0.066	0.050	0.185		
Institutional context and climate					
Pct. minority enrolment	0.007	0.003	0.025	*	0.17
Pct. of part-time enrolment	–0.009	0.004	0.023	*	–0.22
Pct. receiving federal grants	–0.015	0.005	0.003	**	–0.36
Organisational behaviour					
Tuition & fees as pct. of core revenue	–0.003	0.003	0.399		
Core expenditures per FTE	–0.020	0.143	0.890		
Variance component	0.157	0.051	0.002	**	
Loglikelihood	–3349.9	17.91			
Explained variance at Level-2[+]	0.822				

** p < .05, ** p < .01, *** p < .001*

[+] Based on calculation using unconditional model variance component; 0.881, p < .001

Notes: Reference groups are displayed in parentheses.
Analysis of BPS:04/09. Sample includes N=6,561 students attending N=651 institutions.
Student and institutional-level data weighted by disaggregated WTA000 weight.

married parents, students coming from single parent households are noticeably less likely to finish college successfully. Examining effects in the final model, these students are 13.4% ($p < .05$) less likely to obtain a degree within six years. However, students whose parents are either divorced, separated, or where one parent has passed away, are no more or less likely to graduate, when compared to their peers with married parents.

Pre-college academic preparation has been found influential on student persistence and degree completion in much of the literature (Astin, 1993; Pascarella & Terenzini, 2005), thus was included in this study. Results confirm that high school GPA is a significant and positive predictor of degree completion.

Final estimates show that for every one-unit increase in high school GPA, students are 4.56% ($p < .001$) more likely to graduate. This generally shows the importance of the elementary and secondary school system and confirms that prior academic achievement and adequate preparation at the high school level are highly predictive of success in postsecondary education. Results further show, however, that admissions test scores – such as ACT or SAT[1] – and private/public control of the

high school attended are less predictive of degree completion, once other student and institutional level characteristics have been incorporated.

Family income, a central measure in this study, has been found influential on student persistence and degree completion in the literature; significant effects also occur here. Results show that, after controlling for all student- and institutional-level variables, low-income and lower-middle income students are significantly less likely to obtain a degree than their high-income peers. More specifically, individuals from the lowest income strata are 11.7% ($p < .01$) less likely to graduate – this is the second largest effect among background characteristics. Lower-middle income students are also found to have significantly lower chances of obtaining a degree (6.79%, $p < .05$), when compared to their high-income peers. No statistically significant effect is found for upper-middle income students, although a negative association is also found.

A less examined relationship in the literature on persistence and degree completion is the impact of family wealth. Wealth in this study is incorporated through a variable indicating whether students' parents owned investment greater than $10,000. Interestingly, this measure shows significant, positive results in the estimation. In the final model, data show that students whose parents owned such investments are 4.15% ($p < .05$) more likely to obtain a degree within six years. This confirms the hypothesised independent impact of family wealth on degree attainment that has also been reported in recent studies (Jez, 2010; Pfeffer, 2011).

Transition. During this phase, multiple variables were entered into the analysis to capture students' educational goals, institutional commitment, and economic/financial influences.

Educational aspirations and goals have been found influential on student outcomes such as persistence and degree completion (Walpole, 2007). Given the importance of these motivational aspects, four aspiration indicators were included in the model with the reference group being aspiration towards a Bachelor's degree. When examining results, however, none of the included measures remain significant, indicating that once all student, institutional and financial aid measures have been incorporated, degree aspirations may play a less important role in degree attainment.

To capture students' institutional commitment (or lack thereof) and assess the impact of potential pull factors based on previous findings in the literature (Nora, 2004; Nora et al., 2005; Tinto, 1993), five measures were tested in the model. Variables included measures for the process of school choice that are hypothesised to influence persistence and degree completion (students choose institution because of reputation, location, or personal/family reasons) and pull factors (initial plan to transfer and parents' expectation of getting a job while in college). Of the variables entered in this block, two measures showed significant results. Data in Table 2 show that students who choose a particular college because of its reputation are 4.69% ($p < .05$) more likely to obtain a degree from this institution within six years.

Results for initial transfer plans, particularly the magnitude of the effect, are astounding and generally confirm the negative influence on degree attainment that has been previously found in the literature (DeAngelo et al., 2011; Oseguera & Rhee, 2009). Data show that students who entered a college or university already with the intention of transferring are 26.57% ($p < .001$) less likely to graduate within six years. Using t-estimates to assess the strength of the effect (not reported here), this is the second most influential predictor overall, and largest negative predictor of six-year degree attainment. This underscores the importance of the institutional selection and college choice process for students, and may have far-reaching consequences for campus administrators and policy makers seeking to improve persistence and degree completion from a campus perspective. Although the measure used in this study does not provide any information on the reason for students' transfer intentions or alternative plans (transfer to another 4-year institution, transfer to a 2-year or other institution, or departure from higher education entirely), the finding in this study underscores the importance of measuring students' initial goals and commitments.

Lastly, based on St. John, Cabrera, Nora, and Askers' (1996) work, the model sought to establish whether students chose the institution they attended for financial reasons. However, results show no significant effect for this measure.

College experience. Based on the conceptual framework, three variable blocks were simultaneously inserted at this phase – measures seeking to capture students' academic and social experiences, pull factors, and financial aid measures.

Students' academic and social experiences during college affect college impact, persistence, and degree completion: they are key elements upon which we draw for the present study. Based on early conceptualizations (Bean, 1980; Tinto, 1993), we incorporated six measures for the social and academic integration dimension. In particular, an effort was made to estimate the effects from students' living arrangements, formal academic interactions, social integration and volunteering, choice of major and academic performance in the first year.

Consistently, students' living arrangements have been found influential on student success (Adelman, 2006; Astin, 1993; Tinto, 1993). Examining the effect on six-year degree completion in this study, results show that living on campus is also one of the strongest predictors of success in this analysis. Students who live on campus, opposed to off-campus housing, are 16.54% ($p < .001$) more likely to graduate with a Bachelor's degree. This finding highlights the important role that living on-campus can play in integrating students into collegiate life. It also indicates that institutions primarily attended by commuting students, and unable to provide on-campus housing opportunities, should consider alternative ways to improve student integration and, subsequently, persistence and degree completion.

Based on Tinto's (1993) work, aspects of students' academic and social integration were examined through two composite measures in the dataset. Results show that, in accordance with previous findings (Braxton & Lee, 2005), the degree to which students are integrated *academically* does not influence six-year degree

attainment. However, *social* integration – a measure capturing multiple dimensions of students' social interaction on campus – is found to positively predict completion of a Bachelor's degree. Results in the final model show that for every 1/10th increase in the social integration index, students are 0.55% ($p < .01$) more likely to graduate within six years. This finding is consistent with the literature (Braxton & Lee, 2005; Pascarella & Terenzini, 2005) and underscores the importance of considering factors such as peer interaction, informal faculty interaction, and validation. It also shows that institutions, in addition to providing on-campus living for their students, can increase degree completion rates, for instance through institutionally provided social activities and other strategies that strengthen informal interaction with fellow students.

Student volunteering, also hypothesised to positively influence the outcome measure (Astin, 1993), failed to produce significant results. With regard to students' chosen academic discipline, this study examined the effect of a dichotomous measure indicating whether students had declared a major in their first year. However, this measure was also found to be non-significant in influencing degree completion.

Academic performance, often expressed through students' grade point average, is another key measure in student persistence and degree attainment. Results in Table 2 underscore the importance of this positive predictor of degree attainment and show that, in the final model, for every one-tenth increase in college GPA, students are 2.17% ($p < .001$) more likely to graduate. Thus, for a full digit increase in GPA (measured on a 4-point scale), students are 21.70% more likely to obtain a Bachelor's degree within six years.

Using t-statistics (not reported), college GPA in the first year is the strongest predictor of six-year degree completion. This finding substantiates the importance of academic performance during the freshman year – a time when students get acquainted with their new environment – for long-term college success. Assessing one's own potential to succeed and, subsequently, weighing the likelihood of obtaining a Bachelor's degree at the chosen institution appears to be the single most influential determinant of overall degree attainment. Thus, supporting students in this evaluation process may provide an avenue for institutions to increase persistence and completion rates.

The model sought to test the effect of working on the labour market while enrolled in college (reference group 'not working') and the distance the institution is located away from a student's home. Consistent with findings in the literature (Cuccaro-Alamin & Choy, 1998; Titus, 2006), results show that students spending (or having to spend) more than 20 hours working while enrolled full-time in college are significantly less likely to graduate. Data show that individuals working so many hours are 11.19% ($p < .01$) less likely to obtain a Bachelor's degree, compared to students who were not gainfully employed. Although fewer work hours also show a negative association in the estimated parameters, results were not statistically significant. Also distance from home is found influential on six-year degree attainment. Results show that for every percent increase in the distance between the

college attended and a student's home, individuals are 2.38% ($p < .001$) less likely to obtain a degree.

Table 2 lists the estimated influence of various forms of financial aid on six-year degree attainment. Results show, institutional need-based aid and merit aid increase the likelihood of degree completion, whereas unsubsidised, federal Stafford loans[2] lower chances of obtaining a degree. In particular, for every $1,000 increase in institutional grants, a student's chance of degree attainment increases by 0.79% ($p < .01$) for need-based and 0.62%, $p < .05$) for merit aid. Interestingly, grant aid from federal and state sources is not found to significantly affect six-year degree completion. However, results ought to be interpreted with caution as previous research has shown that estimations of financial aid effects may suffer from endogeneity and selection bias, thereby underestimating effects, particularly for low-income students (Cellini, 2008; Dowd, 2008).

Beyond grant aid, the model also tested the effects of loans on degree completion. Data in Table 2 show, federal subsidised loans are not found to significantly affect the outcome measure. However, unsubsidised loans appear to negatively impact chances to graduate by 1.69% ($p < .05$) for every additional $1,000 borrowed during the first year. Given the dramatically rising cost of attending college and subsequent increasing amounts that individuals borrow to finance their education, this is an interesting finding. Particularly the effect size for loans, compared to either not significant or noticeably smaller positive effects for other forms of financial aid, shows that unsubsidised loans may be detrimental to overall student success.

Institutional-Level Influences

In addition to student characteristics and experiences, the model also tested institutional influences, grouped in three variable blocks. Based on previous research, three structural-demographic measures were tested in the first variable block: institutional control (public or private), selectivity, and size of the college, measured in overall enrolment. Results in Table 2 show that attending a private institution does not influence the average likelihood of degree attainment in six years. Although positive effects for private institutions have been documented in the literature on four-year degree attainment, the results provide support for more recent findings showing less impact on six-year completion rates (Oseguera & Rhee, 2009; Titus, 2004, 2006).

Institutional selectivity, in contrast, is found to significantly influence student degree attainment. Estimates show, individuals attending high selectivity institutions – initially hypothesised to support degree attainment – are not significantly more likely to graduate when compared to students attending moderately selective institutions. However, students at low selectivity colleges and universities are 7.63% ($p < .05$) less likely to graduate within six years. Generally, this confirms scholarly work that finds selectivity (in general) influential on students' likelihood of degree completion (Oseguera & Rhee, 2009; Titus, 2004). Results reported in this study,

however, paint a more nuanced picture of institutional influence. When compared to moderately selective institutions, high selectivity colleges and universities do not increase chances of graduating, but low selectivity institutions significantly lower students' chances of degree attainment.

To capture effects of institutional context and peer climate, the model incorporates three measures in the second variable block. Results show, the share of minority students attending a particular institution exerts the only positive impact on the average likelihood of degree attainment. For every one percent increase in the share of minority students on campus, average chances of degree completion increase by 0.17% ($p < .05$). This finding confirms the positive influence that a more diverse learning environment can have on student success (Laden et al., 2000; Rhee, 2008). In light of the continued discussion of the benefits that diversity can have on student learning and outcomes (Hurtado et al., 2003; Hurtado et al., 1997) and renewed discussion of affirmative action policies in higher education (Allen, 2005), this provides further evidence of the overall benefits of more inclusive college and university environments.

Results further show that both the share of students that are enrolled part-time and the share of students receiving federal need-based grants on campus negatively impact student degree attainment. Results remain significant in the final model, showing that for every percent increase in the share of part-time students on campus, the average likelihood of degree completion decreases by 0.22% ($p < .05$). The effect for the share of students receiving federal grants on campus is even larger, as with every one percent increase in the share of recipients the average probability of obtaining a Bachelor's degree decreases by 0.36% ($p < .01$). Although not necessarily surprising conceptually, these results are interesting. After controlling at the student level for financial and socioeconomic measures such as family income, wealth, education and financial aid, aggregated social and cultural capital (or lack thereof) from the student body appears to create a contextualised negative effect on the average likelihood of degree completion. In other words, attending an institution with more low-income and part-time students significantly lowers chances to graduate above and beyond individual-level influences. It could be argued that these effects might be influenced by the financial strength of an institution. However, negative effects remain significant even after revenue and expenditure measures are incorporated in the final model. Although the model employed here is limited to two measures found influential in previous research and no significant results were found for either revenue or expenditure measures, contextual effects for structural-demographic and institutional context remain significant.

DISCUSSION

This study examines student-level and institutional influences on six-year degree attainment. In addition to pre-college, transition, and college experience measures, the paper particularly focuses on the effect of family income and related socioeconomic

factors on a student's potential to obtain a degree at his or her initial institution of enrolment. At the institutional-level, the impact of structural-demographic characteristics, institutional context and climate measures, and organizational behaviour are studied.

One of the salient findings of this study is the support for notions of social reproduction theory and the impact of social and cultural capital (Blau & Duncan, 1967; Bourdieu, 1986; Sewell et al., 1969). When compared to their high-income peers, students from the lowest two income backgrounds are 11.7% and 6.79%, respectively, less likely to graduate within six years with a Bachelor's degree. This difference in the probability of degree attainment is even more compelling, as the estimation accounts for such important influences as student high school background, academic performance, educational aspirations, and college experience.

At the same time, family wealth positively influences degree completion, independent of income. Although the measure used in this study does not represent entire family wealth (which is often difficult to assess), results show that students whose parents own investments larger than $10,000 are 4.15% more likely to graduate within six years – even after controlling for family income. This finding certainly necessitates further inquiry. However, it confirms recent results in the literature where wealth appears to exert an independent influence on student success, beyond traditional measures of income.

Scholars who found similar negative effects for low-income students on degree completion and related outcome measures provide various explanations, and frequently cite lower academic preparation as a contributing factor. For economists, lower preparation can result in higher psychological costs, which refer to the strain and frustration from having to sit through lectures and reading hard-to-comprehend materials: they are hypothesised to contribute to student attrition. However, this study explicitly controls for multiple measures of academic preparation at the high school level, and includes academic performance in the first year of college. Although these measures cannot assess students' true level of strain and frustration, or their full academic capabilities, they allow us to compare effects on degree completion for students with similar characteristics. Results show that even after controlling for all student-level and institutional-level characteristics – including academic measures – low- and lower-middle income students are significantly less likely to obtain a baccalaureate degree.

An alternative explanation draws upon Bourdieu's concept of habitus and its crucial role for higher education access and success. For low-income students, he hypothesised that their habitus is less likely to include the knowledge and skills necessary to navigate the college environment successfully. Also these students may experience a disconnect between their own low-SES habitus and the perceived middle to high-SES habitus of the college environment. This disconnect can increase the difficulty for such students in adjusting to the college or university attended and, subsequently, lower their chances of persisting and graduating. This notion is supported by the effects for income and wealth found in this study.

Beyond individual characteristics and experiences, the results at the institutional-level provide additional support for social reproduction theory and tangible effects of social and cultural capital for individuals attending various types of colleges and universities. Both the share of part-time students and the share of students receiving federal need-based grants significantly reduce chances of graduating within six years by 0.22% and 0.36%, respectively. Particularly the negative effect for the share of students receiving federal grant aid – a proxy for the average income of students on campus – is very intriguing. In addition to the detrimental effects for low- and lower-middle income students reported in the previous section, the importance of finances and socioeconomic factors also arises at the institutional level. As colleges and universities have been characterised as primary socializing organizations for adults in society, attending an institution with more low-income students who may lack the habitus to succeed in higher education appears to have a contextual, detrimental effect on student development and their chances of obtaining a baccalaureate degree. Thus, coming from a low-income background and attending a college with more low-income and part-time students significantly reduces one's chances of graduating – above and beyond the already lower chances based on individual characteristics. This further highlights the pivotal impact of socioeconomic factors, both at the student and institutional level.

Beyond these findings, various measures have been found significant at the student level. Mostly confirming previous research, results in this study show that women are more likely (5.3%) to graduate with a Bachelor's degree than men. With regard to race/ethnicity, none of the variables display significance in the final model. Thus, once pre-college, transition, and college experience measures are accounted for, a student's racial/ethnic background does not influence the likelyhood of degree completion. Also confirming findings in the literature, older students have a lower chance of degree attainment (–4.93%). Students from single parents also face significant obstacles, as their likelihood of completing a baccalaureate degree reduced by 13.4%.

Traditionally, academic performance has been one of the strongest predictors of student persistence and degree completion. This study also finds highly significant measures for academic preparation in high school and academic performance in college. In fact, first-year college GPA is the strongest predictor of six-year degree attainment. For every one-tenth increase in a student's GPA, his or her chances of completing a degree increase by 2.17%. Not surprisingly, once college GPA is entered into the analysis, the effect of prior academic performance, measured through high school GPA, is reduced. However, high school GPA remains significant throughout the estimation and results show that students' chances of obtaining a degree increase by 4.56% for every unit-increase in high school academic performance.

Interestingly, none of the degree aspiration measures showed significant results in the present study. However, in regard to institutional commitment, results show that students who entered with the intention of transferring very likely did so, as

their chances of graduating were reduced by more than one fourth (26.57%). Also confirming previous findings in the literature, present results show that living on campus noticeably increases chances of graduating (16.54%), whereas gainful employment of more than 20 hours a week while enrolled for full-time study is highly detrimental to students' success (–11.19%). Building on early research on student retention, the present study also finds that social integration into college can increase chances of completing a degree within six years by 0.55%. However, the distance an institution is located from a student's home lowers chances of graduating. Although students may choose to transfer to another four-year institution and graduate within the same time period simply to be closer to home, this study finds that for every one-percent increase in distance, students are 2.38% less likely to obtain a degree. More research is needed to explore possible causes and explanations, as this result could be indicative, for instance, of higher student mobility in the positive case or students having more difficulties integrating into college life when moving farther away.

With regard to the institutional level, it was hypothesised that structural-demographic characteristics would have a strong influence on six-year degree attainment, because some of the variables have emerged as significant in previous studies. However, results reported in this study only partially confirm hypothesised relationships. Institutional control (private) is not found influential on student degree completion, although positive effects of attending a private institution have been documented in the literature. This provides support, however, for recent findings showing that attending a private college or university may be beneficial for degree completion within four years, but may not affect the likelihood of graduating within six years. Thus, students attending a public institution are not more or less likely to graduate with a baccalaureate degree within six years when compared to their peers attending a private college or university.

Institutional selectivity, in contrast, appears to significantly affect student degree attainment. Generally, this confirms previous findings, yet paints a more nuanced picture. The findings in this study show that students attending highly selective institutions are no more or less likely to graduate within six years, when compared to their peers enrolled in moderately selective institutions. Attending a low selectivity college or university, in contrast, is detrimental to one's chances of obtaining a Bachelor's degree within six years (–7.63%). This finding may have implications for policy and campus administrators. It shows that simply becoming more selective in the admission process for already moderately selective institutions does not produce more graduates, as these colleges and universities are not significantly different in their impact on degree attainment compared to their highly selective counterparts. However, providing additional resources and tackling the obstacles for students enrolled in low selectivity and open admission institutions – who mostly are low-income, minority, or first-generation students – may prove effective in raising overall degree attainment rates.

With measures of institutional context and climate, this study sought to capture contextual influences that are less tangible, yet are hypothesised to be highly influential on student persistence and degree completion. Interestingly, the measure for student diversity on campus (share of minority students) is found to impact positively on six-year degree attainment. Results show that for every one percent increase in student diversity, chances of graduating increase by 0.17%. This finding generally aligns with previous research affirming that cohort diversity and supportive campus climates influence student persistence. However, when incorporated as institutional characteristics, the majority of previous work found either no effects or negative effects for this measure. Only recently, Arellano (2011) reported a similar positive effect on six-year Latino/a degree attainment in a national study. The positive effects of student diversity on degree attainment found in the present chapter provide further proof of the benefits of diverse learning environments for student success, elaborated elsewhere in the literature.

CONCLUSION

Educational attainment is important both at the individual and societal level. For the individual, obtaining a baccalaureate degree increasingly becomes a necessity for personal advancement and upward mobility. Among other things, Bachelor's degree holders have access to a much broader job market and enjoy significantly higher lifetime earnings. At the same time, educational attainment is a pivotal element for economic advancement; and both advanced and developing economies rely on colleges and universities to inculcate the knowledge that workers need to remain competitive in a globalised world.

Though higher education institutions are often held up as sites that ameliorate stratification and class differences, results in this study provide further evidence that current policies and institutional practices contribute to existing inequities. Not only are students from the lower income spectrum found to be significantly less likely to obtain a Bachelor's degree than their high-income peers, regardless of institution attended. Their chances to graduate are further reduced through attending less selective institutions or those that enrol proportionately larger numbers of part-time students and individuals receiving federal financial aid.

Given the complexities, there cannot be a one-size-fits-all approach to remedy existing disparities in education access and success. However, this study shows that administrators, faculty, and policy makers, for instance can provide multiple avenues to reduce persistent gaps in educational attainment; they can do this through measures that increase social integration on campus, reduce the need for gainful employment while studying, provide adequate financial aid, or increase intellectual stimulus through diversity on campus. Thus, actively engaging with current realities and developing strategies that fit both the institutional need and student body served may help overcome the status quo in an era of ever increasing demand for post-secondary education.

NOTES

[1] The SAT and ACT are standardised tests widely used in college admissions in the United States.

[2] A Stafford loan is a student loan issued by the federal government and offered to eligible students enrolled in accredited American institutions. A basic form to distinguish Stafford loans is according to their subsidy status, subsidised and unsubsidised, with the latter incurring higher costs to the individual borrower.

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8. IMPROVING ACCESS TO POSTGRADUATE STUDY IN ENGLAND

INTRODUCTION

In 2010 England was on the brink of one of the most significant changes in funding for universities in a generation. The introduction of fees of up to £9,000 (€11,500, $14,400) for undergraduates and a new system of income contingent government backed loans which accompanied the new higher fee filled the news media bringing concerns about the impact higher fees may have on wide social participation in universities. Less demanding of public attention was the question of postgraduate study. In England taught programmes are typically divided into a three year (six semester) full time undergraduate degree with the possibility of progressing to complete a one year (two semester) Master's degree as a separate award. Master's degree entry typically requires a Bachelor in the same or a closely related field. Although England has some discipline areas where the undergraduate degrees are four year degrees with a Master's level exit award (i.e. MEng, MLang) most divide into a three year undergraduate degree and a separate one year taught Master's degree with a dissertation. UK and EU students wishing to study in England can obtain government loans for their undergraduate fees and living costs but not for postgraduate study.

For many EU countries, the creation of a separate Master's degree in the period since 1999 has constituted a significant innovation as part of the Bologna Process. The European University Association reported (Sursock & Smidt, 2010) that in those countries in which long, integrated qualifications were traditional (e.g. in Germany and Italy) and in which the new three-cycle structure had yet to be firmly embedded, most students still opted to proceed from a Bachelor's to the Master's degree, as the labour market still questioned the value of a Bachelor's degree alone. Traditional European universities may expect more than 80% of their Bachelor's graduates to progress immediately to a Master's degree. English progression rates are closer to 25% and falling. The number of UK domiciled and other EU (UK/EU) applications for postgraduate taught study places in England had risen year on year until 2009–10 and then applications fell in 2010–11 and again in 2011–12. Applications submitted by UK/EU applicants for postgraduate taught programmes decreased by 15% over the two years (Department for Business, Innovation and Skills [BIS], 2013.) As UK/EU student demand for Master's places in England faltered it was increasingly clear that only those students who could self-fund their academic ambitions could

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pursue higher level study (Milburn, 2012.) With many considering the key question of accessing university *at all* given higher undergraduate fee levels, concerns about increased debt and an absence of finance for Master's courses (which were gateways to the professions) were ignored.

Concerns about lower progression rates in England to taught Master's degrees have also raised academic questions about the relevance of the Bachelor/Master structure, but any change requires applicants and principally the professions to agree to an increase in the number of four year integrated awards which would be 3+1 rather than 3+2 in length. In the meantime, lower progression rates to postgraduate taught study in England remain a concern. As the three cycle structure is implemented across Europe the English struggle with progression rates between Bachelor's and Master's may be interesting to observe.

Further, those who believe in the power of education as a force for social mobility based on merit will also be concerned to ensure that opportunities are available for all those with the ability and ambition to progress their studies. If access to higher education is unequal by income, and income differentials are education related, then social mobility becomes a myth. The term 'widening participation' (WP) refers to people from backgrounds under-represented at university. Those targeted under such policies can vary by country and can include an indigenous ethnic, religious or migrant group, for example, dependent on the national context. In England the groups of people targeted at undergraduate level by widening participation measures include young people from low-income backgrounds, those living in neighbourhoods with a low participation rate in higher education, those whose parents did not go to university, young people in care or leaving care, living with a disability or returning to learning as mature students. Widening participation initiatives in England at undergraduate level seek to address disparities in the relative representation of these groups. At the same time as increased fees and loans were introduced for undergraduates, the Office for Fair Access (OFFA) was created to ensure universities attended to and reported on participation in undergraduate education. No similar understanding of the meaning of widening participation existed for postgraduates and nor were they put within the protection and regulatory scope of the newly formed OFFA. England is familiar with a narrative of undergraduate widening participation, understood in highly codified ways, but does not extend this narrative to postgraduate study.

The English higher education sector lacked a detailed understanding of what motivated United Kingdom and European Union graduates with a Bachelor's degree to further study, what the underlying demand or aspiration was among potential students, what advice and guidance works and why some institutions were more successful than others in recruiting graduates to their programmes, or how universities could act together to conceive widening participation indicators suitable for progressing postgraduates. Policy makers in England are now reaching for funding solutions for postgraduate study which will ensure the best of our graduates are not priced out of postgraduate study. In the absence of a clear and effective national policy in England to deal with falling registrations to postgraduate taught study by

UK domiciled and EU students a major project involving six universities sought to assess demand for postgraduate study from graduates with widening participation characteristics and to make evidence based policy recommendations. It is intended to describe this major project aimed at addressing this developing postgraduate deficit, show how the problem is being approached in policy making, probe the reasons why graduates might (or might not) undertake further study (alumni survey and Futuretrack), describe the approaches to WP at postgraduate level (including how the HEIs conceptualise it) and describe a postgraduate scholarship programme intended to achieve WP. Finally, the proposed national policy solutions are contested.

NATIONAL REPORTS SET A CONTEXT

The "Independent Review of Higher Education Funding and Student Finance" (Browne, 2010) by Lord Browne, recommended lifting the cap on undergraduate fees (then at £3,290 per year (€4,200, $5,300)) leading the government to implement a new higher fee cap in England of 9,000£ (€11,500, $14,400) per year and to introduce a government backed loan scheme for undergraduate fees, offered to all students and to be repaid only when graduates were earning over £21,000 (€26,700, $33,600). The Browne report advised that participation in higher education be monitored to discover whether the cost of undergraduate education had an impact on the proportion entering postgraduate study. The failure of Lord Browne to address postgraduate funding left fears that postgraduates could become an endangered species and that they needed to become the object of concern. "One Step Beyond: making the most of postgraduate education" (Department for Business, Innovation and Skills, 2010) by Adrian Smith highlighted the importance of postgraduate study to economic growth and international competitiveness and recommended that access to postgraduate study be investigated further and that the impact of financial barriers to access be highlighted.

The nascent national campaign began to focus on fair access with a report on "The Social Composition and Future Earnings of Postgraduates" (Sutton Trust, 2010) which found that 30% of university students educated at private schools were in postgraduate education six months after graduating, compared with 23% of state educated pupils. "Higher Education: the Fair Access Challenge" (Social Mobility & Child Poverty Commission, 2013) chaired by Alan Milburn, showed that postgraduate courses were increasingly common as a required entry route into the professions and that there was no system of financial support similar to that for undergraduate entry. "Transition to Higher Degrees across the UK: An Analysis of National, International and Individual Differences" (Wakeling & Hampden-Thompson, 2013) reported that there are inequalities in transition to postgraduate study. We also learnt through "Behavioural Approaches to Understanding Student Choice" (Higher Education Academy/National Union of Students [NUS], 2013) that clear, concise and accessible information and advice delivered in a range of contexts was key to decision making for prospective students.

"Exploring Student Demand for Postgraduate Study" (Department for Business, Innovation and Skills, 2013) told us that the recent growth in postgraduates registering in the UK had been driven by large numbers of students from outside the EU with over half of full time postgraduates at 'Russell Group' universities (among the most prestigious) coming from outside the UK/EU (see Table 1). Applications from UK/EU students had substantially reduced. There was a perceived threat to widening participation in postgraduate study for those from more disadvantaged socio-economic backgrounds. The economic benefits of postgraduate study were increasingly evident and postgraduates enjoyed higher earning outcomes than those with a first degree only (Department for Business, Innovation and Skills, 2010). The lifetime wage premium has been estimated at £200,000 for a postgraduate Degree (Milburn, 2012). A growing number of professions expect applicants to hold a postgraduate qualification (Panel on Fair Access to the Professions, 2009). Consequently, questions of how access to postgraduate study and the related issues of equity, social justice and social mobility have become politically prominent, with Alan Milburn, the UK government's adviser on social mobility, stating that "lack of access to postgraduate study is in danger of becoming a social mobility time bomb" (Higher Education Commission [HEC], 2012).

THE POSTGRADUATE SUPPORT SCHEME

In December 2013, the Higher Education Funding Council for England (HEFCE) announced the launch of the Postgraduate Support Scheme, a £25 million (€32 million $51 million) publicly-funded competitive programme to assist postgraduate students. The scheme intended to test ways of supporting progression into taught postgraduate education and aimed, by working with universities and employers, to stimulate participation by students who would not otherwise progress to postgraduate level. Twenty pilot projects were funded, covering a range of activities including financial and pastoral support, mentoring and networking, curricula change, funded studentships, work placements and a variety of bursary and loan schemes. The pilot projects were concerned only with postgraduate taught (PGT) programmes leading to award of a Master's degree or an equivalent qualification and did not address postgraduate research (PGR) programmes leading to a Doctoral degree.

The largest of these projects, led by the University of Sheffield, was a consortium of six selective, research intensive, English, Russell Group institutions (Leeds, Manchester, Newcastle, Sheffield, Warwick and York) which together received £2.9 million (€3.7 million $4.6 million) from HEFCE and along with matching funds provided by the participating institutions had a combined fund of over 5 million£. The majority of these funds (>70%) would directly benefit students and test the demand for postgraduate study. The project used experimental interventions to propose solutions to important issues associated with postgraduate demand for places and fair access to postgraduate taught (PGT) study. The institutions were motivated to respond to recent reports voicing concerns about the state and long

term future of PGT study: the impact of current finance routes, the additional impact of reforms to undergraduate funding, a documented decline in the market for UK/EU PGT students, employers' concerns around access to the professions, general skills and social mobility constraints leading to access defined by affordability (1994 Group, 2012; British Academy, 2012; HEC, 2012; HEFCE, 2013a; National Union of Students, 2012).

The six participating institutions had distinct missions, visions and strategies. There were, however, common institutional, regional and economic interests and challenges which meant the success of this project was central to all the participating universities' institutional strategies. Each was committed to fairness and equity of access to education based on merit – regardless of background, characteristics or ability to self-fund – and to sustaining and growing postgraduate taught student numbers. The group had some geographical coherence, large postgraduate taught cohorts (see Table 1), belonged to the same (arguably elite) 'Russell Group' and was prepared to act in common cause on widening access while valuing academic excellence. Graduates from more selective institutions have been identified as more likely to progress to postgraduate study (Wakeling & Hampden-Thompson, 2013).

Table 1. New full-time PGT registrations in 2012/13

Institution	*UK / EU PGT students*	*Students from outside the EU*	*Proportion outside the EU*
Newcastle	836	1,703	67%
Sheffield	1,183	2,079	64%
Warwick	1,148	1,835	62%
Manchester	1,635	2,561	61%
Leeds	975	1,486	60%
York	861	1,051	55%
Other Russell Group	22,257	24,127	52%
Other Sector	60,750	52,602	46%
All	89,645	87,444	49%

Source: HESA 2012/13

Almost half the PGT students registered are now from outside the EU demonstrating clearly the international diversity which comes with the globalisation of higher education. The numbers may be a concern though for two reasons; if international students come to Europe (or the UK) for a European (or UK) higher education experience and find themselves in an environment where their own or another non-EU national group dominates, they may not find the student experience they sought. Secondly, the absence of UK/EU students may lead to the lack of a sustained

supply of skills to the domestic economy as non-UK/EU students tend to return to their country of origin.

The University of Sheffield was awarded the HEFCE funds and had an agreement in place with the other consortium partners. Each institution nominated a lead person for the project; the themes were each led by one institution on behalf of the group and each institution committed to delivering the whole project scope, with the author of the present chapter leading the consortium. This shared study involved better understanding the student through survey activity; the consortium developed, implemented and evaluated a pilot scholarship scheme, offered at greater scale than any institution could achieve by itself, to test the demand for and to improve take-up of taught postgraduate programmes by UK/EU students, particularly among under-represented groups with recognised WP backgrounds. The consortium, (together representing about 10% of UK and EU PGT student numbers outside of London) designed and piloted products in a study which launched from January 2014, including:

- Exploration of new financial support packages for postgraduates with banks, benefactors and employers.
- New academic innovations in programme design and curriculum offer to encourage and enable graduates to enter postgraduate taught study, with a focus on higher-level skills and the professions.
- Targeted interventions including information, advice and guidance (IAG) to promote these products and facilitate entry to postgraduate study.
- Activity to inform and support evaluation of the above; establishing an evidence-based understanding of which groups are under-represented in postgraduate study.

This collaboration between higher education providers was challenging in the marketised, competitive system of higher education that has been introduced in England (Brown with Cassaro, 2013). Consumer orientated market norms meant that the notion of collaboration between providers to solve common problems could appear to be anti-competitive unless preventative measures were taken. However, collaboration which harnessed the strength of the consortium to face common societal challenges remained a strong imperative. The institutions did not share PGT target, pricing or admissions information, for example, and had to put data sharing agreements in place to allow research. Seeking to correct demand and supply side problems, especially when addressing those presently excluded by the price mechanism of that market, was problematised by the competitive context.

EXPLORING PATHWAYS BEYOND GRADUATION

Perhaps not surprisingly given the focus of policy attention in the UK and elsewhere directed toward undergraduate widening participation, there has been little research concerned with postgraduate populations (Knight, 1997; Wakeling & Kyriacou, 2010). This is the case across a range of areas so we had gaps in knowledge, including

the aspirations of graduates as they consider the importance of postgraduate education for career entry and career progression, change of subject and institution at the graduate level and how personal factors like the impact of family and work commitments and social background influence choice and possibilities. A testable argument existed that once students graduated from a good university they could no longer be considered disadvantaged, so widening participation effort should properly be aimed only at school leavers making the transition into higher education. The counter factual argument that postgraduate widening participation was being ignored, leaving large numbers unable to progress needed to be evidenced.

An existing survey of more than 4,000 undergraduates carried out by the National Union of Students for the British Academy (NUS Services, 2013) found that 19% of undergraduates indicated their desire to continue with a postgraduate degree following graduation, with a further 7% highlighting that they would like to do a postgraduate degree eventually. The report went on to suggest that students were, however, not well-informed about how to pay for postgraduate study. More than 40% of those surveyed by NUS intended to fund their postgraduate study through a studentship or scholarship. Other recent research noted that most postgraduate students do not enrol immediately following their undergraduate degree (Wakeling & Hampden-Thompson, 2013). However, we knew relatively little about graduates' activities in the years between undergraduate and postgraduate study; and less still about those graduates who did not return to postgraduate study.

The alumni survey. The consortium commissioned an alumni survey from the University of York to operate across the six Universities in order to gain new insights into those who might enter postgraduate study, which was not well understood. The survey, for 2009 and 2012 undergraduate alumni of the six participating universities (Wakeling et al., 2014), captured individuals' activities since graduating, including employment and participation in further study. Of particular value, this survey explored graduates' intentions to pursue postgraduate study and their perceptions of barriers to doing this. The consortium alumni survey attracted an overall response rate across the six institutions of 8.7% (n = 2,970). The University of Sheffield attained the fifth highest response rate across the six surveys (7.2%) with a range of 6.1% to 17.3% achieved across the consortium members. The majority of the University of Sheffield alumni who responded stated their current main activity to be employment, which was the highest percentage reported across the consortium (78.3%). Some 39.9% of the University of Sheffield graduates were currently or had previously been enrolled in postgraduate study, which was within the range reported across the consortium. Current postgraduates appeared to be career-minded, with the University of Sheffield alumni most commonly citing 'to progress career' (49.1%) and 'to enter a profession' (47.2%) as motivating reasons for undertaking postgraduate study. Personal savings (25.0%) and gift from family (22.4%) were the most commonly cited sources of tuition fee provision and this pattern was broadly consistent across the consortium institutions. Income from a job played the

most important role in funding the living costs of previous postgraduate students (45.7%). Of those stating they would not consider postgraduate study in the future, the most commonly cited deterrent was 'currently in employment' (78.1%), which may imply preference or lack of choice; 48.4% considered postgraduate study to be 'too expensive', while around a third stated that they lacked the financial means for postgraduate study (31.3%.) These findings suggested that access to or progression within a career are the most significant reasons that applicants have for aspiring to PGT study and that most use their personal savings or family gifts or employment to pursue that goal. This is a rational risk based choice being exercised by those with access to the resources required to consider their best options (Hesketh & Knight, 1999). A significant minority are, however, excluded from this rational choice-making by their lack of financial means.

The futuretrack survey. A separate study (called Futuretrack) was conducted by the Institute for Employment Research (IER), University of Warwick and The Higher Education Careers Service Unit. It surveyed all University and College Admissions Service (UCAS) applicants in 2005–06 and tracked them in a longitudinal study through their undergraduate studies and beyond. UCAS provides a single national application service across the range of undergraduate subject areas and modes of study for all UK higher education providers. The consortium specially commissioned IER researchers to investigate early intentions of graduates for and actual progression to postgraduate study. The analysis focussed on around 10,000 graduates from English HEIs, which included around 1,300 who had subsequently undertaken a postgraduate Master's degree. It was reported to the consortium universities (Ellison & Purcell, 2014) that around three-quarters of respondents who went on to do a postgraduate Master's degree were self-funded, supporting our own alumni survey findings described above; further, that graduates from lower socio-economic backgrounds were more likely than those from higher socio-economic backgrounds to intend to do a Master's degree but less likely actually to do so. This corroborated evidence from other sources – students from low participation neighbourhoods in HEFCE's Intentions after Graduation Survey were more likely to plan postgraduate study. However, such students were less likely actually to do so (Wakeling & Hampden-Thompson, 2013; HEFCE, 2013b.)

The Futuretrack data also indicated that students from a lower socio-economic background whose undergraduate degree was undertaken in a pre-1992 HEI (older, more "classical" HEIs) had a higher inclination to Master's study than those at post-1992 HEIs (the former polytechnics upgraded in 1992), and the consortium and their local comparator HEIs conformed to this pattern. The Further and Higher Education Act 1992 allowed all polytechnics to become universities and award their own degrees and it is perhaps not surprising that progression intentions are lower at these new universities given their lower concentration of postgraduate students and lower proportions of staff with PhDs (Tight, 2012). Almost a third of graduates who had repayable debt agreed with the statement: "I would like to do a postgraduate course,

but I don't want to add to my debts." There was some evidence that graduates with very high debt levels (£ >20,000) were less likely than those with lower debt levels to realise their intention to undertake a Master's degree. The Futuretrack results also showed that Master's degrees improved the employability of graduates, especially for those initially in a non-graduate job. While 63% of jobs undertaken between undergraduate and postgraduate courses were at non-graduate level, this reduced to 39% after a taught Master's, even within a very short period of labour market entry. Based on these findings a universal state backed loan scheme as offered to undergraduates could be inefficient as it would offer subsidised lending to large numbers of people who did not need this help and currently self-financed. Graduates from lower socio-economic backgrounds were less likely to self-fund than those from higher socio-economic backgrounds and more likely to have taken out a loan for the purpose – which may make state backed loans seem attractive – but those from lower socio-economic groups are less likely to want to add to their existing undergraduate debt burden.

WIDENING PARTICIPATION THROUGH TAUGHT POSTGRADUATE SCHOLARSHIPS

While graduates had responded in a survey expressing intentions to undertake further study and expressing financial barriers to that aspiration it was still important to test that qualifying demand, to see whether the reported intentions could be turned into current applications for study for particular programmes. The six institutions co-operated in offering 350 funded scholarships typically of 10,000£ (€12,800, $16,000) based on widening participation criteria. Initial eligibility criteria had to be set by the institutions as none existed. It was not known whether the recent loss of Home PGT numbers was due to lack of demand, lack of opportunity or an absence of programmes that prospective students wanted to study. The survey suggested demand existed and the first cohort of undergraduate students paying the higher fee levels graduated in 2015 and so solving the fair progression issue to postgraduate study had become urgent in terms of the time imperative (1994 Group, 2012).

To be eligible for a scholarship applicants had to intend to study at one of the six institutions on a one-year full-time or two-year part-time taught postgraduate programme beginning September 2014, leading to an MA, MBA, MEd, MMus, MPH, MRes, MSc or LLM qualification. They must if selected subsequently take up a place and remain on one of these eligible programmes. Further they should be UK or EU students paying academic fees at the UK/EU rate. These awards were not open to applicants applying for deferred entry given the short term nature of the funding, or to those intending to study for a PGCE (Postgraduate Certificate in Education), postgraduate research degree or an integrated Master's degree, or those already holding a qualification at Master's or doctoral level or those being funded by an employer or another public body. None of the institutions entertained merit based selection criteria and did not set a lower contextual offer based on

the applicant's circumstances; so applicants were required to hold a first or upper second class UK honours degree (or equivalent) by July 2014. No conflict was created between excellence and diversity through the absence of any consideration of contextual offers. It was these eligibility rules that permitted an application to be further considered against widening participation criteria. Ascribing criteria to the group perceived as endangered helped to define the object of that concern and focus the campaign to save that group from under representation or future extinction.

Encouragingly common factors on how to measure widening participation emerged, although no institution used the whole of the WP criteria list. Even where two institutions shared the same factor, the qualifying measure they used differed. This showed that in the absence of further evidence to institutions no common view existed on the best way to measure widening participation at postgraduate level. Some of the measures of sources of inequality that institutions might have wanted to use were unverifiable or were not available to them: for example, the educational level of parents, those from migrant family backgrounds, access to family capital or levels of social engagement. The objective was not to discover the innate ability of the graduates through controlling for social factors or looking for past educational disadvantages overcome, but to objectively select those with the academic prerequisites who faced barriers to academic progression as measured by their circumstances. Each institution which participated in the scholarship offer developed its set of widening participation criteria for selection (see Table 2). Some institutions replicated existing understood notions of widening participation used for undergraduates (e.g. first member of the family to go to university), others translated the undergraduate criteria to the new population (e.g. in receipt of State benefit in place of a means tested bursary as an undergraduate) and some were experimental innovations (e.g. graduates who had been out of HE study for more than two years.) A debate took place about the independence of postgraduate applicants from their parents and the extent to which any original disadvantage they may have experienced had been removed on their graduation with a Bachelor's degree.

The Indices of Deprivation were published by Department for Communities and Local Government and measured poverty using different dimensions by locality. The data were based on indicators across income, employment levels, health and disability, education, housing, crime and living environment. It was seen as a useful way of targeting funding towards those who lived in the most deprived areas of the country. POLAR (Participation of Local Areas) was a classification of geographical areas across the UK published by HEFCE showing the different participation rates of young people in higher education.

All institutions considered the necessity for tie breakers. In some cases priority was given to students who could demonstrate that they satisfied more than one of the criteria outlined, in others to students with the highest academic qualifications or

Table 2. Widening participation criteria

Criterion	*Measures*	*Number of institutions using the criterion*
Financial status	Some institutions looked at the applicant's previous undergraduate status. For example, was the applicant in receipt of a full fee waiver as an undergraduate or in receipt of a maintenance grant from the Student Loan Company or in receipt of a means tested bursary as an undergraduate? Other institutions looked at the applicant's current financial status, for example, in receipt of income support (Job Seekers Allowance, Housing Benefit, Council Tax Benefit, Universal Credit etc.)	6
Deprivation	Measured either by the Indices of Deprivation or POLAR (living in a low participation neighbourhood based on postcode) which are described further below.	6
School achievement	The institutions agreed the applicants had to have the prerequisite qualification for the academic programme to which they were applying, so contextual offers to PGT study were not considered. School achievement data for the year in which the applicants sat their GCSEs or equivalent, compared with the national average for that year were used by one of the institutions in combination with deprivation data (i.e. Indices of Deprivation postcode data).	1
First generation applicant	First member of the family to go to University.	2
Socio-economic classification	UK National Statistics Socio-economic Classification (NS-SEC) categories for parent/guardian one or parent/guardian two, at the point when the applicant was aged 14.	1

(Continued)

Table 2. (Continued)

Criterion	*Measures*	*Number of institutions using the criterion*
Local authority care background	In most cases this background was an automatic qualifier for the scholarship being awarded, for example, applicant had to have been in local authority care for at least 13 weeks and under the age of 25 on the course start date.	6
Out of HE	Students who have been out of HE study for more than two years.	1
Disability	Receipt of DSA (Disabled Students' Allowances) as an undergraduate student or currently receiving DLA (Disability Living Allowance), Attendance Allowance or a PIP (Personal Independence Payment).	4
Under-representation	Including for example women in science or engineering or ethnic minorities in arts and humanities. These factors caused debate about the line, if indeed one exists, between widening participation, fair access and broader equality goals.	3
Carer	Carer for an ill or disabled family member.	2

the most relevant experience in their field and in others to those judged by a panel to benefit the most, given their circumstances based on textual statements provided with the application. It was not always clear that the formal definitions used by the institutions captured the stories of disadvantage told by the applicants in the textual statements and this further problematized formal identification of the endangered population.

The choice of value of the award varied: £10,000 cash paid in instalments over the duration of a one-year full-time or two-year part-time eligible qualification was typical, to be used for fees or living costs.

In the context of falling numbers of UK and EU applications and registrations to postgraduate study in the UK and uncertainty over the strict eligibility rules and WP criteria some concern existed about whether (despite the survey evidence) there would be enough demand from well qualified people. Individuals with aspiration who met the WP criteria may not have existed and the scholarship places may have gone unfilled. In the event, the response was overwhelming (see Table 3).

Table 3. Demand for widening participation scholarships

*Institution**	*Number of scholarships originally offered*	*Number of scholarships awarded*	*Number of eligible applications***
Sheffield	90	99	304
B	60	68	360
C	50	70	302
D	40	50	239
E	50	79	177
F	60	68	344
Total	350	434	1,726

* *Institutions except Sheffield are represented with the letters B–F. The consortium data sharing agreement permits the publication of data from the other consortium members as long as each is anonymised by using letters in place of the institution's name.*

** *As at 13 August 2014.*

Despite the strict eligibility and WP criteria described above the consortium received some five times more complete and eligible applications (which met at least one of the WP criteria) than it had WP scholarships to offer. In the face of this demand more money was found by the institutions and 434 scholarships were actually awarded against an originally advertised 350 funded places.

The total number of applications was 2,344 compared to the 1,726 shown in Table 3 who were eligible and met at least one of the WP criteria and so would have been entitled to a scholarship had more funds been available.

Table 4 shows that given the level of demand most of the successful applicants typically had to qualify under multiple headings, and a single criterion would not have discriminated sufficiently. This meant that the institutional differences in the precise measures used became less relevant. Where scholarship awards were made to applicants meeting only one of the criteria, this was because it was one of the automatic qualifying criteria; for several of the schemes, care leavers automatically received a scholarship irrespective of the number of other criteria they met. Also, some decisions were dependent on the amount of match funding available for each subject of study; and personal statements added different weighting to the criteria.

Looking at the distribution of the criteria met, it was apparent that a large group existed which faced the greatest barriers to further study and were absent from PG study because they lacked the financial means, not because they lacked the ability or ambition (see Table 5). Of the 434 scholarships offered, 416 students registered and commenced their studies in 2014. The scholarship holders were selected by the institutions using set criteria; but to get to that stage the applicants had themselves to decide to pursue postgraduate study, select a university and a programme, find the scholarship scheme and apply. It was clear that information, advice and guidance

Table 4. Number of criteria met by successful individual applicants, by university

	Number of criteria met					
Institution	1	2	3	4	5+	Total
Sheffield	49	39	11	0	0	99
B	1	3	18	31	15	68
C	0	0	57	12	1	70
D	0	6	38	5	1	50
E	55	22	2	0	0	79
F	22	22	23	1	0	68
Total	127	92	149	49	17	434

to support that choice and ensure registration were important parts of the process (Hutchinson & Jackson, 2007).

This distribution of criteria met by the eligible applicants clearly showed that a disadvantaged socio-economic situation was the main obstacle to postgraduate participation for the majority of those who aspire to, but cannot proceed to study for a higher degree. In 2014 when home student numbers were falling it was not clear in advance that applicants would be found who met the eligibility and WP criteria and who saw benefit in further study. It is unlikely that those who met the eligibility criteria but did not get the scholarship would still enrol given the gap between their financial status as measured and the resources required for fees and living costs.

Table 5. Number of applicants meeting the individual criterion

Criteria	*Sheffield*	*B*	*Institution C*	*D*	*E*	*F*	*Total*
Financial status (6)*	255	340	287	205	54	180	1321
Deprivation (6)	131	152	116	55	16	83	553
School achievement (1)	–	87	–	–	–	–	87
First generation applicant (2)	–	253	–	–	–	241	494
Socio-economic class (1)	–	–	–	–	0	–	0
Care background (6)	4	3	1	1	1	1	11
Out of HE (1)	–	104	–	–	–	–	104
Disability (4)	42	–	–	30	10	50	132
Carer (2)	5	–	–	1	–	–	6
Under- representation (3)	12	–	5	–	25	–	42
Exceptional circumstances (1)	–	–	10	–	–	–	10

* *The number in brackets show the number of institutions using the criterion, so '–'represents non-use and a zero represents usage with no applicant meeting the criteria.*

FINDINGS

It was found that the aspiration to higher level study existed but that the opportunities were not the same between different socio-economic groups. UK domiciled and EU PGT students faced barriers to participation. Potential PGT students who had the ambition and merit but not the financial resources to proceed with their education required targeted help, if society was to benefit from their talents and commitment. More specifically the study found:

- Universities can develop the criteria, launch and operate a postgraduate taught scholarship scheme in a timely way.
- Universities are prepared to match fund (and seek additional benefactor funding against) a state contribution to deliver postgraduate taught scholarships.
- Widening participation criteria for postgraduate study are possible to develop and can be operated successfully to target and select students for awards.
- Graduates from lower socio-economic backgrounds were more likely than those from higher socio-economic backgrounds to intend to go on to postgraduate study but less likely to actually do so.
- Master's degrees improved the employability of graduates, especially for those initially in a non-graduate job, even within a very short period of labour market entry.
- There was overwhelming demand from eligible applicants for an appropriately promoted postgraduate scholarship scheme using widening participation criteria.
- Most graduates fund postgraduate study from personal savings, gifts from family or employment during study and so a state loan scheme would displace the private resources of those who presently can and do pay.
- Almost a third of graduates who had repayable debt agreed with the statement: "I would like to do a postgraduate course, but I don't want to add to my debts." There was some evidence that graduates with very high debt levels (£ >20,000) were less likely than those with lower debt levels to realise their intention to undertake postgraduate study.

CONCLUDING REMARKS

Having shown through survey data that a disadvantaged socio-economic situation is the main obstacle to intended postgraduate participation we have found that appropriate, well-advertised access to scholarship funding for disadvantaged groups produces demand for postgraduate study. The falling postgraduate applications and registrations are due to identifiable barriers not lack of ambition or merit or interest in the programmes on offer. Universities, benefactors and employers should be motivated to engage in helping to solve these problems, and universities have shown they can create innovations their scholarship and academic offer in a way which is effective.

The Institute of Public Policy Research's (IPPR) Commission on the Future of Higher Education in England (CFHE, 2013) proposed that the government should create a new postgraduate loans scheme to enable fairer and wider access to postgraduate courses. The UK Chancellor in his Autumn Statement (HM Treasury, 2014) announced the introduction from 2016–17 of new income contingent loans for English domiciled and EU students studying at English universities who were under 30 years old and who wished to undertake a postgraduate taught Master's in any subject. These loans, of up to 10,000£, are planned to be repaid concurrently with undergraduate loans. Concurrent repayment means graduates will be paying back their PG loan alongside their UG loan rather than enjoying a consecutive repayment mechanism for each debt. The Institute of Fiscal Studies (IFS) briefing on the Autumn Statement (Johnson, 2014) said that under this system postgraduates in work would face a 50% tax rate: 20% income tax, 12% National Insurance, a 9% repayment of their undergraduate loan plus a 9% repayment of their postgraduate loan. The 2016–17 implementation date means the postgraduate loans will not be available to the first cohort of students graduating with higher fees and debts in 2015.

The Autumn Statement continued:

> To support students until these loans are in place, the Higher Education Funding Council for England (HEFCE) will allocate 50 million £in 2015–16 to universities to offer bursaries on a match funded basis. These will be 10,000£ each and will benefit 10,000 students. (HM Treasury, 2014)

It is argued here that the evidence suggests that extending the recently introduced undergraduate state backed and income contingent loan scheme to postgraduates will be less effective given debt adversity than utilising any available government subsidy alongside matching institutional funding to create a new national PGT scholarship scheme, supported by the provision of guidelines on the widening participation (WP), to provide targeted help to overcome the barriers some students face. Targeted bursaries need to be part of the longer term solution.

Australia and the US have postgraduate loan schemes. The UK government does currently provide an information portal to professional and career development loans (www.gov.uk/career-development-loans/overview) offered by some banks but the high interest rates, non-income contingent payback terms and the need for a good credit record mean that they are not suitable for many. The government pays the interest which accrues during study and for one month after the approved course finishes, but after that the loan operates as a normal bank debt.

It may be premature for England to celebrate the recent announcement by its government that it will extend state lending to postgraduates. If the goal of the proposed state funding mechanism is fairer access rather than the state sharing the risk on future earnings with those students who can already pay (by delaying their payments until they are earning) then government may not have reached for the best social solution. The Institute for Public Policy Research proposed

that all students studying for a postgraduate course should be eligible for a loan from the government, repayable on an income contingent basis (Muir, 2014) However, indications from this study suggest that, in the absence of a state loan scheme, most can and do pay their fees from personal savings, family, employer sponsorship or employment during study. Our findings on current sources of funding suggest a state-backed income-dependent loan scheme for postgraduates may be inefficient and end up costing more than required as lending would simply displace these private resources and employer sponsorship of those students who currently pay. Further, students from lower socio-economic groups who currently do not participate in further study are unlikely to want to add to their existing undergraduate debt burden so the beneficiaries of the new loan scheme will be more affluent students who are not averse to more debt. Universities supported by benefactors and employers are interested in securing fair access and higher level skills using carefully targeted scholarships but need continued match funding, rather than stop-gap funding, from government to make these schemes work. A targeted national postgraduate scholarship scheme, administered by institutions and based on appropriate criteria, would have an audience and help in ensuring fair access to study and the professions and this may be a better, more effective use of public funding. Universities are making innovations to their postgraduate offer, to sustain or increase demand, by thinking about the attractiveness and accessibility of their postgraduate taught programmes. State funding could be utilised to match universities' additional scholarship funds (provided from their own or benefactor sources) to create a larger scholarship fund.

The first cohort of UK/EU undergraduate students paying the higher English fee levels will graduate in 2015, hence solving the issue of sustained and fair progression to postgraduate study remains urgent. With booming international demand from outside the EU for the excellent postgraduate programme offer in England it is alarming that UK domiciled and EU student registrations in England are falling. It is contended here that the aspiration to higher level study exists but the opportunity to act on that aspiration is dependent on socio-economic background, and some UK/EU students face barriers to participation. It is important our professionals come from all walks of life and we should all hope that talented graduates who otherwise would not have the option to proceed with their education are helped to find a way so we can all benefit from their talents and commitment. To give able graduates from disadvantaged backgrounds a social lift through pursuing higher education, the system has to be accessible to them; otherwise privilege will continue to be enforced by affordability.

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9. INSTITUTIONAL DIVERSITY AND GRADUATE EMPLOYABILITY

The Bulgarian Case

INTRODUCTION

Recently the aim of enhancing graduate employability has been constantly on the European agenda and has been defined as one of the priorities of higher education (London Communiqué, 2007; Bucharest Communiqué, 2012). Higher education institutions (HEIs) have not only been urged to ensure that they train 'employable' graduates, but some governments have introduced a performance indicator based on graduates' employment-related outcomes in order to measure HEIs' performance (Smith et al., 2000; Moreau & Leathwood, 2006). During the last two decades the context of graduates' employment has significantly changed due to expansion of higher education (HE) and transformation of the labour market (LM), caused by economic globalisation and the knowledge economy. Reforms have penetrated the life of HEIs everywhere and all HE systems have undergone enormous change. However, the systems of HE in different countries are embedded in different historical, social and institutional contexts. That is why, although there are some common trends in the developments of HE across countries, the speed and implementation of changes remain country-specific. Thus, institutional differentiation in HE is realised at three levels – institutional, national and supranational. The various national HE systems could be characterised with regard to criteria such as stratification, coordination mechanism and standardisation (Jacob & Weiss, 2008). In addition, the HEIs existing in a given country could have different institutional profiles depending on their academic orientation and specialisation, their prestige and institutional environment.

Against this background, the present chapter explores the influence of HEIs' institutional characteristics on employability of their graduates. More specifically, it addresses the following research question: *What is the influence of institutional profiles of HEIs on graduate employability?* The study has two major aims. First, to contribute to the literature of school-to-work transitions by exploring the impact of HEI institutional profile on early employment history. Second, to contribute to the discussions on graduate employability, especially in the context of HE expansion and differentiation. By developing an understanding of the HEI profile and using Bulgaria as a case study, we argue that institutional characteristics have a strong impact on the employability of their graduates. In other words, we claim that the

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institutions and the institutional approach are important for understanding graduates' professional prospects.

Three main reasons may be suggested why Bulgaria provides an interesting case for research on graduate employability. First, until now it has not been included in the major comparative studies on school-to-work transitions (e.g. Kogan et al., 2011) and graduate employment (e.g. Schomburg & Teichler, 2006; Teichler, 2007; Allen & van der Velden, 2011). Second, the institutional development of the Bulgarian HE system has a clear specificity. Until the 'velvet revolution' in 1989, the Bulgarian HE system was dominated by the model of specialised higher education schools that were closely linked to the socialist labour market (Boyadjieva, 2007). During the last two decades, this model has been gradually transformed into a more academically oriented unified HE system. Third, as a rule, Bulgarian HEIs do not have research units doing institutional research and studying the professional success of their students.

The chapter combines macro-level data from the Bulgarian Universities Ranking System and national representative surveys among students, academic staff and employers with individual-level data from the National Social Security Institute in Bulgaria to explore the influence of institutional HEI profiles on the employability of Bulgarian graduates. In so doing we apply multilevel analysis. We first review the relevant literature on graduate employability and present our theoretical framework. This is followed by a brief account of the Bulgarian HE system, presentation of the methodology, outline of the main results and discussion of the findings. Finally, the chapter concludes by summarising patterns identified within the study and outlining directions for further research.

THEORETICAL FRAMEWORK

The meaning of employability in literature is far from being unanimously defined (Gazier, 1998; Tomlinson, 2012). It has been conceptualised in absolute (Hillage & Pollard, 1998) and relative terms (Brown et al., 2003; Brown et al., 2004), as well as in terms of the identity perspective (Holmes, 2001; Hinchliffe & Jolly, 2011). All these approaches to employability enormously enriched the debate about employment outcomes. However, in our opinion they miss an important point – the different institutional settings in which graduate employability unfolds. Thus, one strand of studies (Berggren, 2011; van de Werfhorst, 2011a, b; van der Velden & Wolbers, 2007) has demonstrated that variations in the mechanisms which explain the impact of education on the LM outcomes may exist not only between countries, but may also depend on characteristics of the LM in the same country, such as those of the public/private sectors or different industries. There is also another strand of studies which provides evidence that the variation in LM outcomes depends on differences in the capacity of the educational system to structure them, i.e., on institutional arrangements of different education systems. This set of studies refers to secondary and post-secondary vocational education and consists mainly of comparative studies

that focus on the way stratification, standardisation and diversification of educational system determine how people are matched to jobs (Allmendinger, 1989; Maurice et al., 1986; Kerckhoff, 2001; Shavit & Müller, 1998). Some studies concentrating on participation and returns to tertiary education have also been published (Arum et al., 2007; Schomburg & Teichler, 2006; Jacob & Weiss, 2008). However as a rule, they refer to HE as a 'degree', i.e., as a level of education acquired by individuals, and do not take into account the variety of institutional profiles in which HE has been acquired.

Only recently, different authors have started to pay greater attention to the importance of the HE institutional structure for understanding the transition patterns from HE to the LM (van de Werfhorst, 2004; Leuze, 2011; Noelke et al., 2012). By comparing the cases of the Netherlands and Great Britain, Tholen's study (2014) provided evidence that the institutional characteristics of the HE system have a great impact on the way students think about competition for jobs and their own employability. The study findings imply that the national educational context does not merely provide information about what is, or will be, of value in the graduate LM but helps to define the general rules of competition (Tholen, 2014, p. 14). Graduate employability has also been explored in literature by using study programme characteristics that capture the HE quality dimension (see Støren & Aamodt, 2010).

Given this, we built on the understanding of employability as related to one's ability to be employed: i.e., to gain initial employment, maintain employment and obtain new employment if required (Hillage & Pollard, 1998). However, we view graduate employability as *related not simply to graduates' abilities to find employment but also to graduates' abilities to find employment of a specific quality* (regarding payment, required level of education and career opportunities). These abilities have two sides: subjective and objective. The first side is connected with graduates' knowledge, skills, attitudes, identities and values. In contrast, the second side refers to the more general social conditions and the position of graduates on the LM. Furthermore, this side reflects the state of the LM which depends on the development of the economy and the state of HE (HEI structure, level of massification, nature of graduate body). Therefore, in order to understand graduate employability we should regard it as embedded in different institutional arrangements such as HE system, labour market and political regimes that are usually nationally specific.

In this chapter we analyse graduate employability in relation to institutional HE arrangements, more specifically, within the institutional profile of a given HEI and professional field.[2] Taking into account previous research, we develop a theoretical understanding of the HEI institutional profile and try to test it by using different measures of graduate employability. We assume that *the institutional profile of a given HEI is a complex phenomenon* which is created as a combination of its different dimensions according to three modes of differentiation: *structural, quality-related* and *symbolic*. The *structural one* refers to different types of HEIs based on the following elements: i) status (public/private), ii) character of the HEI (university, specialised HEI, college), iii) degrees offered (Professional Bachelor/Bachelor/

Master/PhD) and iv) programme orientation. The *quality-related mode* reflects the differences between institutionally similar HEIs and degree programmes according to the quality of education they offer, their research output and their resources. The *symbolic mode* reflects the differences in prestige between institutionally similar HEIs or degree programmes. We also assume that there is an interdependence between the three different modes (for example between the quality-related and the symbolic ones) and between different dimensions within one and the same mode (for example between quality of teaching and quality of academic staff). Nevertheless, all three differentiation modes and their dimensions reflect HEI characteristics (see Table 1).

We have formulated five *hypotheses* regarding the influence of the institutional profile on graduate employability.

- H1: Graduates who have graduated from private HEIs are less employable than those who graduated from public HEIs.
- H2: Graduate employability varies across professional fields depending on what the HE graduates have studied.
- H3: Graduates who have acquired a higher level degree (Master's) are more employable than those with a lower level degree (Bachelor's or Professional Bachelor's).
- H4: The better the quality of education offered in a given professional field in a given HEI, the better the graduate employability.
- H5: The higher the symbolic significance of the HEI and professional field, the better the graduate employability.

These hypotheses are tested in the following sections using Bulgaria as a case study.

CONTEXT AND METHODOLOGY

Higher Education in Bulgaria

Bulgaria currently has 51 accredited HEIs, 14 of which are private.[3] About 85% of all students are in the public sector of HE. The first private HEIs emerged in 1991, i.e., in the very first years after the "velvet revolution" of 1989. Public HEIs are subsidised by the state, whereas private HEIs do not receive any finance from the state except funds for competition-based projects. Private HEIs have greater autonomy in relation to their management compared with public HEIs; however, the number of study places in private ones is determined by the Council of Ministers taking into account the proposal prepared by the Ministry of Education and Science (Boyadjieva & Slantcheva, 2007). The main criteria for defining the number of study places at a given HEI are its institutional capacity and the results obtained from its institutional and programme accreditation. According to their type, the existing HEIs in Bulgaria include: 12 universities, 13 specialised universities (among them three Technical

Universities, the University of Chemical Technology and Metallurgy, the University of Mining and Geology, the University of Economics, the Agricultural University, the Medical University, and even a University of Forestry), 16 specialised HEIs and seven independent colleges. The Bulgarian HEIs offer education in a variety of majors that are grouped into 52 professional fields.

The Analysis Undertaken

The analysis presented in this chapter is based on data taken from the Bulgarian Universities Ranking System, the National Social Security Institute (NSSI) in Bulgaria and national representative surveys among students, academic staff and employers.[4] The data from the National Social Security Institute pertain to August 2013 and provide rich information on graduates' professional characteristics such as income, unemployment and occupation. To test our hypotheses we needed data on the employability of those student cohorts for which we had also HEI profile data. That is why we restricted the analysis to the graduates who had graduated between 2010 and 2012. Furthermore, we limited the data only to those graduates aged between 21 and 34 years, so that the analysis corresponds to the age interval used for the new EU 2020 benchmark on employability, which applies to 20-to 34-year-old graduates. The survey among students was conducted in the period from 26 April to 15 June 2010. Two different self-administered questionnaires were used, one for Bachelor and the other for Master students. In total, 10,003 persons were surveyed, selected by using a two-stage sampling procedure with the professional fields as clusters. The surveys of academic staff and employers were carried out in the period October–November 2013. The sample size of the first survey was 1359, whereas the second survey was carried out among 714 employers.

From these datasets we have selected only these indicators which in our opinion reflect the HEI profiles in accordance with our theoretical understanding of their different modes of differentiation. The *structural mode* is our basic mode, because we wish to analyse graduate employability as embedded in different institutional contexts. This mode reflects the differences between HEIs in the following respects: a) status (public/private); b) horizontal (content orientation of educational programmes); c) vertical (Professional Bachelor/Bachelor/Master degrees).

As regards the *quality-related differentiation mode* we relate it to differences in the quality of teaching process, research activity of academic staff and available learning resources (library, career centre, computer labs). We selected both subjective and objective indicators to measure these qualities – thus we used students' subjective assessment to measure quality of teaching process and of available learning resources, whereas we measured quality of staff research activity with publication data. In order to capture different aspects of the *symbolic differentiation mode* we have chosen indicators such as HEIs' prestige among professors and employers (measured by subjective assessment of professors and employers), the average value of the secondary education diploma for a particular professional field at a given HEI,

and the proportion of people with high socio-economic background[5] (at least one parent with HE degree) in a particular professional field at a given HEI.

After that we used principal component analysis for the indicators in the quality-related and symbolic modes, in order to check their consistency. The analysis refers to 15 professional fields out of 52 in Bulgaria. These fields were selected on the basis of the following two criteria: i) homogeneity of the specialties included in the professional fields; and ii) the availability of sufficient data on different indicators. Thus, for example, we did not select economics, because the largest HEI offers 50 Bachelor programmes in this field, whereas the other HEIs offer between five and ten, or just one. The selected professional fields are: teacher training with subject specialisation, history and archaeology, psychology, social work, law, biology, mathematics, mechanical engineering, electronics and automation, communication and computer technology, transport, shipping navigation and aviation, general engineering, plant breeding, medicine, and public health. Thus, due to lack of data for certain indicators, some HEIs were excluded from the analysis and in the end we retained only 92 combinations between professional fields and HEIs. Thus, the analytical micro-data file contains 41,295 cases of graduates nested in these 92 units.

As a result of the principal component analysis, we identified five factors, which we designated as follows (Table 1 – two columns on the right).

The present chapter uses descriptive statistics and multilevel modelling for the data analysis.

Following our definition of employability, for the *descriptive analyses* we measure graduate employability with the following *three indicators:* average value of graduates' income, proportion of unemployed, proportion of those who are employed in a job that was not commensurate with their level of education in a particular professional field in a given HEI as of August 2013. In fact, income is one of the important LM outcomes of HE which may be used as an indicator for the quality of graduate employment. According to human capital theory, the more people invest in education, the higher the benefits they receive. However, we are interested in how this income varies among people with the same level of education, and the extent to which the HE institutional profile influences the graduates' income. The vertical education-job mismatch is only one of the possible forms of qualification mismatch that may be observed in relation to the position of graduates in the LM. More specifically, it "refers to the lack of correspondence between the level of the education acquired and the level required in the job" (Støren & Arnesen, 2011, p. 200). Another possible form of education-job mismatch – defined as the most severe one – is graduate unemployment which is also of interest to us.

The Variables Employed

We use *three dependent variables* in our *multilevel analyses*. They reflect some of the main dimensions of graduate employability as we understand it in this study. The first one is *graduates' income* and is measured in Bulgarian leva (BGN). The second

Table 1. Dimensions of the institutional profile of a given higher education institution/professional field

Structural differentiation mode	*Quality differentiation mode*	*Symbolic differentiation mode*
1.1. Status • Public • Private	*2.1. Teaching process* 2.1.1. Theoretical knowledge 2.1.2. Level of practical skills acquired 2.1.3. Topicality of the learning programme 2.1.4. Teaching 2.1.5. Evaluation	*3.1. Prestige* 3.1.1. HEI's prestige among employers 3.1.2. HEI's prestige among professors
1.2. Type of degrees offered • Professional bachelor • Bachelor • Master	*2.2. Research/quality of academic staff* 2.2.1. Citation index by scientific area (Scopus) 2.2.2. Citation index by scientific area (Web of Knowledge) 2.2.3. Citation index by scientific area, excluding self-citations (Scopus) 2.2.4. Articles in scientific journals (Scopus) 2.2.5. Articles in scientific journals (Web of Knowledge)	*3.2. Selectivity (Academic/ social criteria)* 3.2.1. The average grade of the secondary education diploma 3.2.2. The proportion of people with high socioeconomic background (at least one parent with HE)
1.3. Programme orientation • Fields of studies/ professional fields	*2.3. (HEI) resources* 2.3.1. Assessment of material resources and infrastructure 2.3.2. Assessment of the administration 2.3.3. Library stock assessment 2.3.4. Career center	

one is a dummy variable indicating *whether a graduate is vertically mismatched* rather than being employed in a job commensurate with his/her level of education for a particular professional field in a given HEI. The third one is a dummy variable indicating *being unemployed* as against being employed. All these variables are as of August 2013.

As *independent variables we use the five factors* which we have identified through the principal component analysis and which refer to the dimensions of the quality-related and the symbolic modes of differentiation. We constructed a scale for each factor and tried to estimate their influence on graduate employability. More specifically, these five variables were standardised and entered in our analysis, being mean-centred and having a standard deviation of one. Furthermore, in order to account for the status of the HEIs we include a dummy variable distinguishing whether the professional field is offered in a *public* or *private HEI*. Table 2 presents the bivariate Pearson correlations between each combination of these macro-level independent variables. Of the various variables, we identified correlations between some of them but none of these is adequately explained through the other variables. Furthermore, the correlation coefficients are not higher than 0.60 which means that there is no reason to doubt the results on grounds of multicollinearity. This means that we can include all these variables in the same model.

Table 2. Bivariate correlation coefficients between macro-level independent variables used for analyses of graduate employability

	1.	*2.*	*3.*	*4.*	*5.*	*6.*
1. Academic staff	1					
2. Teaching process	–0.19^{+}	1				
3. Resources	–0.23*	0.60**	1			
4. Prestige	0.55**	–0.26*	–0.24*	1		
5. Selectivity	0.35**	–0.27**	–0.26**	0.37**	1	
6. Status	–0.14	0.02	0.22*	–0.16	0.15	1

Source: Bulgarian Universities Ranking System (2011; 2013), (own calculations).
Note: N (combinations of professional fields and HEIs) = 92
Significance: $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$

We also include as an independent variable, a variable indicating *the degree attained*. Specifically, we distinguish three degree programmes which are offered in Bulgaria: Professional Bachelor, Bachelor and Master. Our statistical models also control for *gender* and *year of graduation*. Gender is included as a dummy variable distinguishing men and women. We also distinguish whether students graduated in 2010, 2011 or 2012.

Models

Our main analysis employs multilevel models to predict graduate employability. These models are useful especially in handling clustered data (see Rabe-Hesketh & Skrondal, 2012). They also allow us to break down the total variance within the

response variable (in our case – different measures of graduate employability) into variance components – specifically, between-cluster variance and within-cluster variance. Furthermore, they allow simultaneous modelling of individual-level (level 1) and cluster-level (level 2) characteristics. These models are estimated using micro-data from the National Social Security Institute in Bulgaria.

For the analysis of graduates' income, three models are estimated. Model 0 is the baseline model which contains the intercept only. Model 1 includes all covariates at the level of graduates. Model 2 extends Model 1 by adding the covariates measured at the level of combinations of professional field and HEI. For the analysis of being vertically mismatched and for the analysis of being unemployed, the same three models have been estimated, respectively. However, different types of multilevel models are applied depending on the specificity of the dependent variable used in the models. In the case of the graduates' income which is a continuous variable a two-level random-intercept linear model is used. In contrast, being vertically mismatched and being unemployed are binary responses. This is why we used two-level random-intercept logistic models for their analyses.

RESULTS

The descriptive statistics reveal that the average income among graduates as of August 2013 is 867 leva (about €435). The lowest average value of graduates' income of 549 leva (about €275) is received by graduates from the professional field 'teacher training with subject specialisation' who graduated from the Academy of Music, Dance and Fine Arts in Plovdiv, whereas the highest average income (1527 leva) (about €765) is received by graduates who have studied mathematics in Sofia University "St. Kliment Ohridski" located in the capital of Bulgaria. As regards the vertical education-job mismatch we also observe huge differences. Thus, the lowest proportion of people who are employed in a job which is not commensurate with their level of education is among graduates who studied medicine in the Medical University in Pleven (1.5%). The highest proportion of graduates who are employed in a job which is not commensurate with their level of education is observed among people who studied general engineering in "Todor Kableshkov" University of Transport in the capital city (91%). The average proportion of vertical education-job mismatch for all 92 combinations is 61%. The average proportion of unemployment for these 92 combinations is 4.6%. However, this indicator varies significantly. Actually, none of the people who graduated between 2010 and 2012 from Medical Universities in Varna, Pleven and Plovdiv was unemployed as of August 2013. In contrast, the highest level of unemployment is reached by graduates who studied in the professional field of biology in "Konstantin Preslavski" University in Shumen (12%).

We then turn to multilevel models, which test the impact of the institutional profiles on graduate employability. For the analysis of graduates' income, three models have been estimated (Table 3). We start with an empty random-intercept

model for graduates' income (Model 0) which results in an unconditional intraclass correlation of 0.143. This means that more than 14% of the variation in graduates' income stems from variation between professional fields and HEIs. This shows that a multilevel model is needed.[6]

Table 3. Results of multilevel linear regression models of graduates' income

Fixed parameters	*Model 0 Coeff.*	*Model 1 Coeff.*	*Model 2 Coeff.*
Gender: Ref. Male			
Female		–168.6**	–169.0**
Year of graduation: Ref. 2010			
2011		–43.61**	–43.57**
2012		–99.94**	–99.56**
Degree: Ref. Prof. Bachelor			
Bachelor		142.1**	140.0**
Master		333.6**	331.1**
Status: Ref. Public			
Private			–3.224
Academic staff			63.91**
Teaching process			–31.50
Resources			26.31
Prestige			33.82^{+}
Selectivity			10.84
Constant	869.4**	758.2**	759.5**
Random parameters			
Sigma_u (groups)	208.3**	180.3**	152.6**
Sigma_e (individuals)	509.4**	495.9**	495.9**
R-squared		0.081	0.111
Explained individual level variance		0.052	0.052
Explained group level variance		0.251	0.463
Intraclass correlation	0.143	0.117	0.087

Source: Bulgarian Universities Ranking System (2011; 2013), Survey among Bachelor and Master Students (2010) and NSSI data (2013) provided by Open Society Institute (Sofia) (own calculations).

Note: N (individual level) = 27,404, N (groups) = 92

*Significance: $^{+}p<0.10$, * $p< 0.05$, ** $p< 0.01$*

As a second step, we include in the models our individual level variables (Model 1). The estimates reveal that a graduate with a Professional Bachelor's degree earns significantly less than a graduate with a Bachelor's or Master's degree. Our individual controls also have significant influence on graduates' income. Thus, although the proportion of women who attain degrees in HE in Bulgaria is higher than the proportion of men, Model 1 estimates reveal that a woman with a tertiary degree earns less than a man with such a degree, adjusting for the other covariates. Consistent with previous research, most recently graduated young people earn significantly less in comparison to those who graduated in 2010. These results are substantively similar to those of Model 2, where we add the different aspects of institutional profiles. The estimates reveal that the only factors which have a significant influence on graduates' income are the quality of academic staff and prestige. Specifically, as the quality of academic staff and selectivity rise, the graduates' income also increases. This model explains about 5% of the individual variance and approximately half (46%) of the variance at the level of the 92 combinations of professional fields and HEIs.

Table 4 presents the results of two-level random-intercept logistic regression models analysing the likelihood of being vertically mismatched. Following Rabe-Hesketh & Skrondal (2012), we interpret the odds ratios, conditionally on the random intercepts in the models. The baseline model for vertical education-job mismatch (Model 0) results in an unconditional intraclass correlation of 0.264. This shows that there is a significant variation at the level of professional field-HEI combinations: more than 26% of variation in the likelihood of being vertically mismatched is due to differences between different combinations of professional fields and HEIs.

In Model 1, the individual level characteristics are added. The conditional odds ratios of being vertically mismatched are respectively 90% and 65% lower for a graduate with a Master's degree and a Bachelor's than for a Professional Bachelor. There are also significant differences in the chances of experiencing vertical education-job mismatch by gender. The odds of being vertically mismatched are estimated to be 38% higher for a female graduate than for a male, given the random intercept and the covariates[7]. The estimates also show that the odds of being vertically mismatched for a person who graduated in 2011 or 2012 are respectively 1.2 and 1.7 times greater than for one who graduated in 2010.

In Model 2 we add the characteristics of the institutional profile. Despite this, the estimates for the characteristics at the individual level are consistent with those in Model 1. Specifically, Model 2 estimates show that the better the quality of the academic staff, the higher the quality of the teaching process, and the more selective is the professional field in a given HEI, the lower are the graduates' chances of being vertically mismatched. In contrast, if the quality of HEI resources increases by one standard deviation, then the odds of being vertically mismatched increase by 43%.

Table 4. Results of multilevel binary logistic regression models of graduates being vertically mismatched

Fixed parameters	*Model 0 OR*	*Model 1 OR*	*Model 2 OR*
Gender: Ref. Male			
Female		1.378**	1.384**
Year of graduation: Ref. 2010			
2011		1.195**	1.194**
2012		1.738**	1.735**
Degree: Ref. Prof. Bachelor			
Bachelor		0.346**	0.347**
Master		0.101**	0.102**
Status: Ref. Public			
Private			1.107
Academic staff			0.677**
Teaching process			0.744**
Resources			1.431**
Prestige			1.071
Selectivity			0.752**
Constant	1.515**	5.542**	5.455**
Random parameters			
Sigma_u (groups)	1.085	0954	0.719**
Intraclass correlation	0.264	0.217	0.136
Total residual variance	4.467	4.200	3.808
Log likelihood	–14695.5	–13862.4	–13838.2

Source: Bulgarian Universities Ranking System (2011; 2013), Survey among Bachelor and Master Students (2010) & NSSI data (2013) provided by Open Society Institute (Sofia) (own calculations).
Note: OR – Exponentiated coefficients; N (individual level) = 24,400, N (groups) = 92
*Significance: $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$*

Table 5 displays the results of two-level random-intercept logistic regression models analysing the likelihood of being unemployed. Again, the interpretation refers to the conditional, or the so-called, subject-specific odds. The null model (Model 0) results in an unconditional intraclass correlation of 0.09. It shows that about 9% of the variation in the likelihood of being unemployed stems from variation between professional fields and HEI combinations. By adding individual level covariates and group level covariates, Models 1 and 2 explain part of this variation.

Table 5. Results of multilevel binary logistic regression models of graduates being unemployed

Fixed parameters	*Model 0 OR*	*Model 1 OR*	*Model 2 OR*
Gender: Ref. Male			
Female		1.697**	1.715**
Year of graduation: Ref. 2010			
2011		1.139^{+}	1.140^{+}
2012		1.659**	1.654**
Degree: Ref. Prof. Bachelor			
Bachelor		1.054	1.076
Master		0.750	0.767
Status: Ref. Public			
Private			1.031
Academic staff			0.663**
Teaching process			1.091
Resources			1.012
Prestige			1.039
Selectivity			1.022
Constant	0.041**	0.027**	0.026**
Random parameters			
Sigma_u (groups)	0.570**	0.507**	0.381**
Intraclass correlation	0.090	0.072	0.042
Total residual variance	3.615	3.547	3.435
Log likelihood	–7233.3	–7132.7	–7112.8

Source: Bulgarian Universities Ranking System (2011; 2013), Survey among Bachelor and Master Students (2010) & NSSI data (2013) provided by Open Society Institute (Sofia) (own calculations).

Note: OR – Exponentiated coefficients; N (individual level) = 41,295, N (groups) = 92

*Significance: $^{+}p<0.10$, * $p< 0.05$, ** $p< 0.01$*

Model 1 shows that the conditional odds of being unemployed for someone who graduated in 2012 are significantly higher than the odds for a person who graduated in 2010. The same may be said for a graduate who received his/her degree in 2011. This indicates that the more recently people have graduated, the greater are their odds of being unemployed. This model does not identify any significant differences in the graduates' odds of being unemployed depending on the degree attained.

Model 1 shows that the odds of being unemployed are 70% higher for a female graduate than for a male, given the random intercept and the other covariates.

Model 2 demonstrates that these coefficients are relatively stable, even if we add characteristics of the institutional profiles. Among these characteristics, though, only quality of academic staff has an effect on the likelihood of graduates being unemployed. Specifically, as the quality of the academic staff increases by one standard deviation, the graduates' odds of being unemployed decrease by 34%.

DISCUSSION OF THE FINDINGS

The research outline has addressed the question: *What is the influence of institutional profiles of HEIs on graduate employability?* We conceive the HEIs' institutional profiles as consisting of three different modes of differentiation: structural, quality-related and symbolic. Using Bulgaria as a case study and by applying multilevel analysis, we tested this theoretical understanding by exploring the relationship between the institutional profiles of HEIs and the employability of their graduates.

The empirical evidence allowed us to corroborate most of our hypotheses. More specifically, we found that:

- Graduates from private HEIs are not less employable than those who graduated from public HEIs. Thus, we rejected our first hypothesis.
- Graduate employability varies considerably across professional fields and universities. Thus, we found evidence which supports H2. For instance, about 14% of the variation in graduates' income stems from variation between professional fields and HEIs. Furthermore, our results clearly show that there are remarkable differences in graduate employability of people who studied in the same courses but in different HEIs.
- The higher the degree level attained, the better the employability, measured by graduates' income and vertical education-job mismatch. This finding provides only partial support for H3. It is not confirmed for graduate unemployment.
- The influence of the quality-related mode on graduate employability turns out to be more complex than we hypothesised (H4) insofar as it varies for different employability and quality measures. Thus, quality of academic staff has a significant influence on all employability measures and results in better employability. However, the quality of teaching process has a positive effect on graduate employability only in the case of vertical education-job mismatch; in addition, some of our findings, for example that if the quality of resources increases, the odds of graduates being employed in a job which is below their level of education also increase, are difficult to explain and contradict our expectations.
- We found only partial support for H5. The symbolic mode proves to be a complex phenomenon which includes two dimensions, prestige and selectivity, which

influence employability in different ways. For example, for vertical mismatch we found that the higher the selectivity of the academic programme, the better the employability of its graduates. We identified that there is a relationship between prestige and employability based only on the analysis of direct correlations between these variables. Most likely, this is due to the correlation between prestige and quality of academic staff, which possibly absorbs part of the influence of prestige. We observe significant positive influence of prestige only on graduates' income, but we do not observe such influence in the case of graduate unemployment and vertical education-job mismatch.

The results obtained should be discussed taking into account the specificity of data used for different indicators. Thus, our finding that the quality of teaching process and resources do not always have a significant and positive effect on graduate employability may be explained by the fact that we measured quality of teaching process and resources using students' subjective assessment. It turned out that students at more prestigious HEIs were more critical in assessing the quality of teaching at their HEIs.

Our results are in line with the conclusions from a recent comparative study on school-to-work transitions (Kogan et al., 2011), which shows that:

1. treating tertiary graduates as a homogeneous group on the LM is not appropriate in expanded and diversified systems;
2. stratification of HE effectively contributes to social reproduction;
3. HE differentiation has introduced new forms of social (LM) inequality, which call for differentiated analyses.

Consistent with previous research, our findings suggest that as graduates gain experience their chances of being employed in jobs which do not correspond to their level of education gradually decrease (Purcell & Elias, 2004; Teichler, 2007). Furthermore, our findings pose questions regarding the graduate employability of women. These questions are related to one specific expansion pattern of Bulgarian higher education whereby HE absorbs more women and, as we see, they are in less advantaged positions on the LM than men.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

To sum up, the present study has demonstrated the importance of studying the influence of the institutional profiles on graduate employability. It provides evidence that institutional diversity in HE *does* matter for graduate employability. In this regard, we think that only by grasping and taking into account the specificity of different HEIs' institutional profiles we could fully understand their functions and could develop adequate policies in the sphere of HE. In so saying we do not claim that the only factors that matter as regards graduate employability are related to HE. As the models have shown, much of the variance in graduate employability

(both *between* combinations of professional fields and HEIs and *within* these combinations) remains unexplained.

Our analysis focuses on the embeddedness of graduate employability in a given HEI and professional field. However, as we already pointed out, graduate employability is embedded in different institutional arrangements: HE system, labour market and political regimes. These arrangements do not exist separately, one next to the other; instead, they are mutually related and interwoven. That is why it is a fruitful direction for future research to study how the impact of some institutional features depends on the characteristics of other institutional arrangements. For example, it is worth studying how the institutional profile interacts with the structure of the graduate body, the LM conditions and the state of the economy in different regions. It will be relevant especially in the context of the huge regional disparities in Bulgaria (Eurostat, 2014). It will be important to further examine how other individual characteristics of graduates, such as socioeconomic background, influence graduate employability. Another direction for future research is to analyse the reverse relationship – the influence of the graduate employability on the institutional profiles, i.e. what happens when the unemployment rate among graduates from a particular field in a given HEI is high: whether the HEI removes such a programme, changes it or improves its quality.

In this chapter we have not covered all, theoretically outlined, dimensions of the institutional profile of HEIs, or all professional fields. Our ambition is to expand the analysis by referring to other fields and using new data – for example data about the specificity of HEI and other aspects of HEI resources. Furthermore, we believe our theoretical understanding of the institutional profiles of HEIs is relevant for the analysis of the influence of the HE institutional characteristics on employability in other countries. Thus, the challenge is to go beyond the boundaries of the Bulgarian HE system and to compare it with other countries. In so doing, we can see how our approach could work with respect to other HE systems, and whether it is applicable in cross-national analysis. One of the main problems that we envisage in this regard, however, is related to finding reliable data – subjective, objective and longitudinal. As Tholen's (2014) study has demonstrated, we could start with a small number of countries and focus only on selected aspects. National and international ranking systems could be good sources of information in this respect.

To a considerable extent our study offers an analytical-inventory analysis which uncovers how the institutional profiles of HEIs influence graduate employability for the case of Bulgaria. It is a matter for further research, however, to develop an explanatory analysis, i.e. to explain why the institutional profiles do matter in understanding graduate employability and why they matter in the way our findings have shown. Our assumption is that none of the prevailing theories – human capital and credential theories – by themselves provide persuasive explanations of this state of affairs. In conditions of diversification and massification of HE on the one hand,

and of quick change and transformation of the labour market on the other, we need a new combined theoretical framework which takes into account the importance of both the individual who possesses different capabilities (including agency), and the structures in which the relationship between HE and LM operate.

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NOTES

1 The authors have made equal contributions and are listed in alphabetic order.

2 In Bulgarian higher education a professional field is a bigger category than an academic programme. All programmes are grouped into 52 professional fields. For example, the professional field "general engineering" includes 35 different academic programmes such as industrial management, industrial engineering, agricultural engineering, water technology, etc.; the professional field "history and archaeology" includes 50 academic programmes. Each HEI offers different numbers of academic programmes from one professional field.

3 For more information and analysis of the main characteristics and recent developments of Bulgarian HE see Boyadjieva, 2007; Ilieva-Trichkova, 2013.

4 The Bulgarian Universities Ranking System contains information on the accredited universities in Bulgaria (in total 51), which offer education in a variety of majors grouped into 52 professional fields. Specifically, it compiles rich data on different indicators that measure different aspects of university activities, including teaching and learning, university environment, welfare and administrative services, science and research, prestige, career development and relevance to the labour market. The indicators have been developed on the basis of statistical data collected from different sources, including sociological surveys. We use only the releases of the ranking system from 2011 (available as a brochure only) and 2013 (available also online at http://rsvu.mon.bg). The national representative surveys were carried out by the market agency MBMD. The data from the surveys as well as the NSSI data are provided by the Open Society Institute (Sofia).

5 Previous research has shown that socio-economic background has an impact on access to different fields of studies (Ilieva-Trichkova & Boyadjieva, 2014).

6 Additionally, the likelihood-ratio test for this model and for the null models in Tables 4 and 5 is significant, which means there are random intercepts in these models. This confirms that the random-intercept model is preferable to an ordinary regression.

7 It might be due to HE but also to discrimination against women in the LM. Thus, there are studies which suggest that educational segregation by gender plays a significant role in shaping gender segregation within the labour market and that the main mechanism for reproducing gender inequalities in the labour market is related to the field of study which men or women choose and not so much to the level of education they attain (Iannelli & Smyth, 2008; Smyth & Steinmetz, 2008). However, it is beyond the scope of this chapter to explain these differences.

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PART 3

IMPACT OF CHANGES ON THE FUNCTIONING OF INSTITUTIONS

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10. MULTI-TASKING TALENTS? ROLES AND COMPETENCIES OF MIDDLE-LEVEL MANAGER-ACADEMICS AT TWO AUSTRIAN HIGHER EDUCATION INSTITUTIONS

INTRODUCTION

In the last 20 years Higher Education Institutions (henceforth HEIs) experienced major challenges in developing operational and organisational structures and decision making processes. Against this backdrop, modern HEIs have to manage manifold issues of leadership development. Middle-level 'manager-academics' defined as "academics who take on management roles in higher education institutions, whether temporarily or permanently" (Deem & Brehony, 2005, p. 232) play a vital role within HEIs and their management structures. Given that they are situated at the "centre of universities' management procedures" (Floyd & Dimmock, 2011, p. 388), they operate as the main intermediaries "between the strategic apex and the organisation's operating core" (De Boer et al., 2010, p. 231). Further, manager-academics are essential for top management, since they support and implement strategic objectives and decisions on the one hand (Jones, 2011), and represent and defend the interests of their department/institute/faculty within the HEI on the other hand (Bryman, 2007a; Smith, 2005). Accordingly, their position involves the potentiality to cause stasis as well as to facilitate development. As Jones (2011, p. 281) states "there is no way in which the university's expectations will be realised if HODs [head of departments] as 'middle managers' are unable or unwilling to put them into action." Furthermore, de Boer et al. (2010) point to the ability of middle managers to make use of their powerful 'sandwich' position for promoting their own interests and agendas.

The concept of 'manager-academics' seems to be vital for the higher education leadership and management discourse, even more so as "academics continue to lead academics" (Smith & Adams, 2008, p. 348). Manager-academics are expected to feature both academic excellence and management capacities (De Boer et al., 2010). In fact, even though manager-academics provide leadership and management to faculty, fulfil representational duties (Smith, 2002) and play an increasingly important strategic role (Floyd & Dimmock, 2011), their academic reputation is still a crucial ingredient for legitimacy as leaders (De Boer et al., 2010; Hancock, 2007).

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 175–200.

Despite their vital role, literature on middle-level manager-academics is relatively scarce, with only a few studies (e.g. Floyd & Wooldridge, 1997; Currie & Procter, 2005) pointing to their relevance in higher education leadership and management. Existing research is heavily "western-biased" (Nguyen, 2013, p. 1) with the majority of studies coming from Australia, UK and the United States. This is all the more remarkable in view of the assumption that context and tradition are pivotal for structural and executive elements as well as for facets of leadership and management (De Boer et al., 2010).

In line with other studies conducted in other national contexts (e.g. Nguyen, 2013; Castro & Tomas, 2011; Meek et al., 2010), this contribution discusses an investigation into middle-level manager-academics of two Austrian HEIs, namely, a university of applied sciences (henceforth UAS), a historically young type of HEI in Austria, and a traditional, classical university. The study focused on heads of study programme (henceforth HOSP) at the UAS and heads of department (henceforth HOD) at the classical university, both comparably positioned in the hierarchy structure of their institution. The overall objective was to derive crucial competencies and skills essential for the areas of responsibility that HODs/HOSPs have to assume in their particular institutional environment.

Some may argue that HODs/HOSPs cannot typically be defined as 'middle-managers' since they are situated on a lower level of HE management, especially compared to deans (De Boer et al., 2010). However, as Pechar (2010, p. 19) emphasises "there is no clear-cut definition of academic middle managers at Austrian universities" – a contention that is reinforced by this study. For terminological clarity the terms of HODs/HOSPs have been incorporated into the concept of 'middle-level manager-academics'.

THEORETICAL AND EMPIRICAL BACKGROUND

Duties and Requirements of Middle-Level Manager-Academics

The requirement of specific competences and skills largely depends on the tasks and roles a person has to fulfil. For a better understanding of the conditions, tensions and challenges inherent in a middle-level management position in higher education, it is vital to shed light on its duties and responsibilities. Nguyen (2013) analysed several empirical studies[1] conducted in the United States and Australia, and identified six groups of tasks that manager-academics in middle-level positions have to perform: department governance, programme management, human resource management, budget and resource management, external communication and office management.

In line with these studies, Smith (2002) compared the roles and tasks of HODs in two different British HEI types, namely 'chartered' or 'traditional' universities and 'statutory' or 'post-1992' (Floyd & Dimmock, 2011) universities, terms which refer to the former polytechnics. A follow-up case study (Smith, 2005, p. 454) comparing two departments in one chartered and one statutory university revealed that "the

different emphases on research and teaching in the two departments are reflected in almost every aspect of the way in which they are organized". These analyses are particularly fruitful for the current study, as the former polytechnics bear a distinct resemblance to the UAS under investigation.

Further preliminary work was carried out by Hancock (2007, p. 306) "to look deeper into the various functions typically associated with [the] department chair to find [some] possibility of a better design [of this role]". The author considered that taking on the position of department chair and increasing one's administrative workload mostly damages teaching and research productivity and is therefore perceived as career disruption by academics. It was also emphasised that department chairs often assume tasks which do not require any academic expertise and therefore could be delegated to administrative staff, whose position in contrast needs to be upgraded. Finally, Hancock argued that by delegating excessive administrative work, the attractiveness of the department chair position will be enhanced.

Leadership

One specific aspect of the role of manager-academics is leadership. Bolden et al. (2008) claimed that transformational leadership with its compelling vision and supportive behaviours within top management teams could make academic leadership work in practice. As Carmeli and Waldman (2010) and Waldman et al. (2001) stated, it shapes a behavioural context with a high level of charisma, trust and open communication. Thus, the paradigm of transformational leadership emphasises how exceptionally effective leaders communicate and interact with others in a manner that inspires them to higher levels of performance and commitment to the leader and/or organisation (Bass, 1990).

Competencies and Professional Development

Competencies of manager-academics play a crucial role for the fulfilment of the various tasks in higher education. The terms 'competencies' and 'competency' have been broadly and variously defined in literature. Moore et al. (2002, p. 316) postulate that "the term competencies reflects the recognition of the level of competence for a professional deriving from their possessing a number of relevant attributes such as knowledge, skill and attitudes." They also define competency as "the behaviour(s) supporting an area of work" (ibid., p. 315) and competencies as "the attributes underpinning a behaviour" for successful professional performance (ibid., p. 315). To narrow down the terminological diversity we take the term 'competencies' as a base understanding for this research. Competencies are strongly related to human resource management concepts, in particular in terms of assessment, performance management, training, development and reward management (Vakola et al., 2007).

Over recent years, a shift from collegial to more corporate/entrepreneurial (or managerial) approaches has been taking place in the structural foundations of HEIs

(Bolden et al., 2008). Already twenty years ago, Eley (1994) pointed to both the increasing demand for managerial competences of leaders in higher education and corresponding training and development needs. Scott et al. (2008) revealed that the most critical training needs for manager-academics are related to generic and role-specific competencies, including general management skills and knowledge about their roles. Therefore, manager-academics' training needs were identified as both context- and competency-based.

NATIONAL AND INSTITUTIONAL CONTEXT

Comparable to other binary higher education systems such as Switzerland or Germany, Austria possesses a tertiary education sector that is divided into 'classical' universities[2] and universities of applied sciences (Bruenner & Koenigsberger, 2013). To foster a better understanding of the two investigated types of HEIs, Table 1 illustrates some of the main characteristics and distinctive differences between "classical" universities and universities of applied sciences relevant for this study.

Universities of Applied Sciences

The Austrian universities of applied sciences sector, which places a strong focus on a vocational orientation and a clearly defined duration of studies, was established at the beginning of 1990s to counterbalance 'classical' universities which were struggling with an ever-increasing student intake. Furthermore, policy makers aimed for an increasing social mobility and a further federalisation of the tertiary education sector (Pechar, 2013). Although not all intended objectives have been fulfilled, about twenty years later the UAS type seems to be widely perceived as an HEI with different, yet equivalent values and a pronounced emphasis on teaching and applied research (Bruenner & Koenigsberger, 2013).

External governance structures. Organisational reforms of HEIs in terms of governance and management structures were not intended from the beginning. However, these aspects have gradually come to the fore during the initial negotiation processes for the legislative foundation of this new type of HEI, when experts and policy makers agreed on a governance model which differs considerably from that of 'classical' universities. First, they are not public but legal entities under private law with public shareholders (often limited liability companies); second, they are funded by state as well as local authorities or private entities; and third, the decisions for new institutions and study programmes are made with due consideration of vocational requirements (Pechar, 2013).

Internal governance structures. Since the establishment of universities of applied sciences, internal steering mechanisms have been prevalent. Similar to universities, their faculties are self-organised to some extent with particular self-governing bodies.

Table 1. Comparison of two Austrian types of higher education institutions

	'Classical' university	*University of applied sciences*
Number of HEIs	22	21
Number of students	292,321	16,011
Number of study courses offered	1063	372
Principles of teaching	Research-driven academic education in a specific academic discipline	Vocationally oriented academic education/training in a specific vocational field
Degrees (Bologna)	Bachelor, Master and PhD	Bachelor and Master
Research	Basic research, applied research & development, prototyping and innovation	Applied research & development, prototyping and innovation
Legal form of organisation	Legal entities under public law	Legal entities under private law
Management	Rector (vice chancellor)	Managing director or president
Responsible bodies/ authorities	Rectorate, academic senate, university council, deans or heads of school, heads of department	Steering board, academic board, deans' board and faculty board (incl. all heads of study programme)
Development impetus	Basic research translates into teaching, bottom-up	Applied research in line with industrial requirements, top down
Funding/ financing	Lump sum funding	State funds a competitively assigned number of student places

Source: Adopted from Pichl (2012); data from Winter Term 2011

However, given the legal structure, the appointed president and administration staff have always been powerful entities with management functions (Nickel, 2011). Additionally, universities of applied sciences have strong ties to industry and its relevant vocational fields. Leitner (2006, n.p.) describes this 'market-based model' in more detail, as follows.

> The curricula are worked out in collaboration between academics and potential employers. Vocationally oriented academic training is thus being offered in close cooperation with industries. Each … program includes a practical-work semester. Undergraduate theses are usually designed in close cooperation with research and development projects of economic enterprises.

Recent developments. Recently, however, 'academic drift' (Bruenner & Koenigsberger, 2013; Nickel, 2011) has become observable at universities of applied sciences. This notion describes the increasing significance of research activities and an empowerment of academic self-administration.

'Classical' Universities

The period since the emergence of the UAS sector has also been marked by changes for "classical" universities. Reforms of legislation in the early 1990s (University Organisation Act of 1993) entailed what Pechar and Pellert (1998, p. 144) called a kind of 'soft managerialism' which points to first steps towards institutional autonomy in terms of empowering rectors and deans (Pechar, 2010). The 2002 reform legislation then instigated major reforms which Kehm and Lanzendorf (2007, p. 158) characterised as a "managerial revolution".

External governance structures. While Austrian universities used to be fully dependent on the government, owing to 2002 reforms they became independent legal entities under public law with lump sum funding, based on performance agreements between university and ministry. Internally, their structures are now defined by statutes, written by the academic senate, instead of law (Pechar, 2010). External guidance was introduced by implementing a university council consisting of "past or present holders of responsible positions in academic, cultural or business life, but not from within the university or from politics" (Kehm & Lanzendorf, 2007, p. 159).

Interestingly, fundamental legislative changes only moderately embedded the governance dimension of competition into university structures (e.g., there is no "performance-related remuneration of academic staff" (ibid., p. 160). Pechar (2010, p. 17) judged this as remarkable, especially in light of the fact that "increased competition – as a means to increase performance – is the ultimate rationale of the NPM [New Public Management] model." There is one specific field, however – the acquisition of research grants – where competition increased significantly in line with the number of applications, which resulted in a highly competitive research climate (Kehm & Lanzendorf, 2007).

Internal governance structures. Internal steering-mechanisms changed in such away that managerial self-governance was strengthened at the top-level (rector) while the authority of the academic senate was narrowed down to teaching and examination issues (ibid.). Although this internal 'managerial shift' also affected heads of decentralised units to a certain extent (nowadays they have to conclude performance agreements, define strategic goals or distribute funding), Pechar (2010, p. 19) identified a decreasing impact of the new university management concept on the lower hierarchical levels and stated that

> the management concept is by and large confined to the top management of the institution (rector and vice-rectors). Below that level, the traditional academic concepts more or less prevail. Deans or heads of institutes/departments are rarely referred to as managers. In fact, the actual work of middle managers is much less affected by the new governance model; the formal status at the middle level has changed less than that of the top management.

Recent developments. In terms of teaching, Bruenner and Koeningsberger (2013, p. 82) identify what they call a 'vocational drift' at Austrian universities. Thereby, they refer to the increasing importance of student-orientation and graduate employability which have become central topics across Europe.

METHODOLOGY AND RESEARCH DESIGN

Purpose and Aim of Research

This comparative empirical study aimed to gain insight into current practices and perceptions of leadership, roles and skills of manager-academics of two Austrian HEIs. We explicitly include the Austrian binary system in our research, to find out if and to what extent challenges and working practices differ within these two kinds of HEIs. Using the background of the 'classical' Johannes Kepler University (henceforth JKU) in contrast to the relatively young University of Applied Sciences Upper Austria (henceforth UAS UA) we would like to explore different aspects of their middle-level leadership and management practices.

As stated in the introduction, we identified a gap in the current literature on higher education leadership and management insofar as there seems to be lacking insight into roles, tasks and requirements of manager-academics in Austria. We focused on two research questions:

- first, how do manager-academics perceive their key roles and tasks in higher education and their underlying understanding of leadership?
- second, which set of competencies is required for professional higher education management to assume leadership?

To address our research question with rich, multi-level insights into work practices of manager-academics, we opted for an exploratory qualitative approach (Bryman, 2012). In keeping with this line of reasoning, Smith et al. (2010) suggest that qualitative methods are appropriate for researching leadership as a social process within organisations.

Data Collection

In our interviews we encouraged participants to elaborate on their experiences of HE leadership, the nature of their work and activities it involves. All in all, 42 in-depth

semi-structured face-to-face interviews were carried out with respondents from the UAS UA and the JKU. At the UAS UA, 24 interviews comprising 20 heads of study programme (HOSPs) and 4 managing directors were conducted. At JKU, we carried out 18 interviews with 13 heads of department (HODs) and the top management team consisting of 5 persons.

Although interviews were conducted in accordance with an interview guide, questions were adjusted as appropriate to identify and follow-up new topics and perspectives (Bryman, 2012). Field research was performed from July 2012 to March 2013 and the interviews lasted between 30 and 90 minutes each. Informants were selected by means of a purposeful sampling strategy (Patton, 2002) so as to obtain a rich data set. In the course of the selection process, we were careful to strike a balance between academic disciplines (hard and soft sciences) (Kelle & Kluge, 2010).

About the Participants

There are some distinctive differences between the two investigated groups of manager-academics, namely HOSPs and HODs. HOSPs from UAS UA hold a permanent position and usually already have experience of management. They are statutorily responsible for their entire study programme in terms of teaching and several research activities, even though not all research activities of UAS UA are directly related to a study programme. Furthermore, the findings section will stress that there are intra-organisational differences relating to the emphasis HOSPs put on research. By contrast, HODs from JKU are temporarily elected department chairs, responsible for the departments' research activities but only in charge of specific teaching fields in different study programmes. The top management from UAS UA include managing directors equivalent to the top management from JKU covering the rector and vice-rectors.

Data Analysis

All interviews were tape-recorded and transcribed. Qualitative data were analysed by computer-based software (MAXQDA) and in compliance with qualitative content analysis (Gläser & Laudel, 2010). As a first step, codes were deduced from the interview guidelines and cross-referenced with additional data arising from the interviews to inductively build further synoptic labels. The texts were analysed by extracting information in a systematic procedure by means of an analysis grid. Relevant passages were then assigned to the category system (compiled by deductive and inductive procedures) and coded. To ensure investigator triangulation, coding and interpretation were successively done by three members of the research team. Data processing and analysis encompassed structuring and summarising the contents as well as an in-depth analysis of cases and cross-case interrelations.

FINDINGS AND DISCUSSION

Key Duties and Requirements of Heads of Study Programmes and Heads of Departments

The interviews conducted in this research revealed a great variety of multi-faceted duties and requirements assumed by HODs and HOSPs. Figure 1 shows the generic areas of responsibilities.

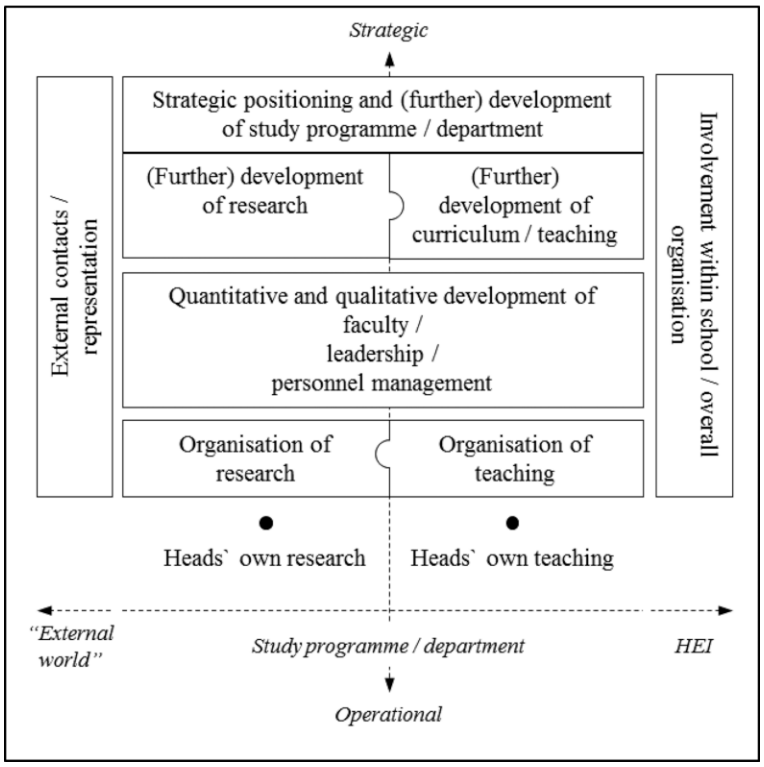

Figure 1. Key tasks of heads of study programmes and heads of departments

The duties of HODs/HOSPs illustrated in Figure 1 share a number of similarities with the groups of tasks revealed by Nguyen's (2013) comparison of previous studies from Australia and the US: department governance, programme management, human resource management, budget and resource management, external communication and office management. However Figure 1 additionally highlights that the manager-academics assume different functions: internally, as strategic leader and operational manager, and externally, as intermediary between

their organisational unit and the 'external world' on the one hand and the faculty and overall organisation on the other hand.

Within the study programme or department, HODs/HOSPs take on both strategic responsibilities and more operational duties, or what Nguyen (2013, p. 13), in reference to Scott et al. (2008), defines as "a leader's and a manager's role":

> While a manager's role is defined as more operational (i.e., stronger focus on day-to-day matters such as human resources and facilities), a leader's role appears to be more strategic and focuses more on the future. In addition, while a manager puts major emphasis on ensuring that the unit functions efficiently and effectively, a leader has to set the vision for the future navigation of the unit.

The findings that manager-academics on departmental level are responsible for both leadership and management confirm previous evidence. For instance, Middlehurst (1993, p. 123) found that "at the institutional level, the leadership and management functions are often sharply delineated while at the departmental level, the two functions are typically closely integrated."

In terms of external relations, several respondents from both organisations highlighted the important functions that HODs/HOSPs as representative of the department or study programme assume when dealing with partners from industry, policy makers and other external stakeholders. This clearly points to the requirements for specific capabilities among middle-level manager-academics.

Additional to their leadership and management position, however, it is essential to point out that HODs/HOSPs also operate to some extent as researchers and teachers. The 'additional burden' of a management position was found to be the cause of the most frequently described role conflict. In other words, many respondents stressed that the different roles are in competition with each other, especially in terms of time resources.

> Doing research during the semester is increasingly difficult due to time-constraints, because of the HOD's position on the one hand and owing to the rising time-demands of administration and student support in Bachelor and Master programmes on the other hand. I do research primarily in the evening, at the weekend and during the holiday season. (JKU15–14)

This was reinforced by several respondents from JKU who stated that taking over a management position within university is not desirable for research associates, since such an effort would be at the expense of academic productivity. Consequently, this appears problematic because academic performance is described by several informants as the key factor for a successful academic career. These findings are in line with previous results in literature on higher education leadership and management (e.g. Hancock, 2007; Castro & Tomas, 2011; Nguyen, 2013; Floyd & Dimmock, 2011).

Differences between the organisations. Though both respondents from JKU and UAS UA mentioned the fields of duty illustrated in Figure 1, differences in assessment and emphasis were identified. Table 2 describes the responsibilities in more detail and gives information about those discovered (or not discovered) among HODs and HOSPs.

This inter-organisational variety predominantly originates from two different principles: first, the differing focus on research or teaching and the formal responsibilities of HODs/HOSPs in programme management, and second, the unequal level of market-orientation and the degree of cooperation with external partners, mainly from the industry.

Distinctive emphases on research and teaching (including student-orientation) became particularly apparent when comparing strategic objectives and efficacy of HODs/HOSPs. HOSPs feel responsible for strategic development of both teaching and research. By contrast, even though a few HODs stated some basic teaching objectives, like improving student-orientation within their department, their perception of teaching-oriented tasks is primarily administrative. In comparison, HODs report a high degree of autonomy as to their strategic research position within the department. One head of a technical department described this as follows:

> As head of department … in teaching you are more an employee who carries out some duty, whereas in research you actually have to run the department like a company. (JKU16–36)

The great significance attached to either teaching- or research-orientation supports the outcomes of Smith (2005) who found that this difference is crucial for the distinctive structural, management and leadership structures at ‘statutory’ and ‘chartered’ universities in UK.

A second reason for certain inter-organisational distinctions is the different assessment of industrial influences on research (and teaching). Analysis of many statements revealed that industrial influences are accepted at UAS UA to a larger extent than at classical HEIs. One HOSP clarified that this does not mean that demands are adapted to research or teaching in an unreflecting manner. Rather, knowing the necessities of the vocational field and cooperating closely in applied research projects is regarded as essential by HODs to ensure the quality of teaching and research at a UAS.

These results are in line with previous findings of Baaken and Davey (2012) who concluded that European universities of applied sciences cooperate to a higher extent with companies than do traditional universities. By contrast, Davey et al. (2013) found that university-business cooperation is under-developed in Austria compared to the European average and claimed that

> an explanation could be found in the commitment in German-speaking countries to the principles of the *Akademische Freiheit* [academic freedom] and the Humboldt Model of education which reinforces a focus on independence

Table 2. Inter-organisational differences in heads of study programmes and heads of departments fields of duties

	Heads of department from JKU	**Heads of study programme from UAS UA**
External contacts / representation		
Prospective students	Some HODs, specially heads of technical departments, sensed competition for prospective students and therefore reported certain marketing activities such as writing press releases about prominent research activities.	The majority of HOSPs mentioned their contact with prospective students, either indirectly by initiating and supporting marketing activities, or directly during recruitment interviews.
Industry / vocational field	The majority of HODs drew attention to the increasing importance of contacts with companies, primarily referring to cooperation in research and third-party funding. Only two respondents mentioned the importance of cooperation in student projects.	All HOSPs mentioned their contact with organisations in the vocational field relevant to their study programme. These contacts are described as essential to gain information about its requirements (need for research activities and graduate qualifications), and additionally to recruit competent lecturers and part-time students.
Other universities	Several HOSPs mentioned connections with other universities in context of research cooperation, academic exchange or cooperative study programmes.	Several HOSPs highlighted contacts with other universities relating to either student and academic exchange, cooperative study programmes or research cooperation.
Strategic positioning and (further) development of study programme/department in research and teaching		
Research	The most commonly approached strategic HOD question concerns striking a balance between basic and applied research.	Statements of several HOSPs revealed that the strategic question is not whether to conduct basic or applied research (applied research is taken for granted), but to what extent research is undertaken within a study programme at all.
Teaching	Several HODs describe some tasks which can be subsumed under the heading "teaching development" but less extensively and as more reactively. One point which was addressed several times is the increasing importance of student-orientation.	HOSPs are responsible for the curriculum of their study programme and therefore promote its content-related and pedagogical development. The majority of informants point to three different responsibilities: qualitative improvement of course delivery to students; orientation of content towards industrial demands; and better integration of teaching and research.
Quantitative and qualitative development of faculty / leadership / personnel management		
	Both HODs/HOSPs stated that they are responsible for this area and they state comparable duties. However, there are some obvious differences relating to the perception of their leadership role. Please find further elaboration of this topic in the leadership section of this paper.	
Organisation of research / teaching		
Research	Manager-academics of both HEIs pointed to equal tasks in operational management of research activities, which basically range from the acquisition of research projects to supervising and counselling, the exploitation of research results and the allocation of disposable funds.	
Teaching	Even though most of the HODs mentioned executive tasks in the field of teaching (e.g. coordination and devolution of courses within teams), their statements are not comparable to the HOSPs in the range and prioritisation of such tasks.	UAS UA does not receive lump sum funding but financial funding is available from the Ministry for a limited number of students. Hence, attaining student intake targets is essential for winning financial resources. For this reason selection and recruitment of prospective students were revealed as key tasks. Furthermore all HOSPs implicitly or explicitly highlighted the priority of teaching and student-orientation as the main Unique Selling Point (USP) of the UAS. Therefore they pay attention the smooth organisation of their courses.
Involvement within school / overall organisation		
	In both HEIs, several informants reported that they take on tasks within the faculty and overall organisation (e.g. being a member of an academic self-administration body). However, the interviews brought to the fore a high intra-organisational variance in that involvement.	

> of teaching and research rather than on the universities' "third mission." (in addition to research and teaching to do with community engagement) (ibid., p. 2)

Differences within the organisations. In addition to the inter-organisational distinctions, findings revealed some flexibility in fulfilling one's role as HOD/HOSP within the organisation. It became apparent that task prioritisation depends on a number of different factors:

- period in the academic year (JKU, UAS UA: e.g., focus on teaching during the semester and on research during the holiday season),
- 'lifecycle' or 'state of maturity' of the study programme or department (UAS UA: e.g., developmental vs. well-established),
- characteristics of a department or study programme (UAS UA: e.g., many applicants vs. few applicants; JKU: e.g., high vs. low percentage of third-party funding),
- composition of the team (JKU, UAS UA: e.g., junior researchers vs. senior professors), and
- individual priorities of HODs/HOSPs.

This flexibility does not mean that certain tasks are not performed, but that HODs/HOSPs put emphasis on different aspects in different situations and/or delegate certain duties, especially administrative ones, to academic or non-academic team members. These results correspond to the finding of Nguyen (2013, p. 12) according to which each "HOD seemed to focus on different management areas depending on their strengths and interest."

Several respondents from UAS UA examined the implications of this flexibility more thoroughly by mentioning that there is no clear and explicit definition of the role of HOSPs. On the one hand, this lack of definition leads to some insecurity when taking over the position, but on the other hand,it allows for individual interpretation of the role. They highlight the possibility of customised 'role-making' as an important motivating factor. Findings additionally uncovered that this flexibility is one reason for differences in workload, as the following two contrasting statements illustrate.

> Even though I am head of study programme now, I nevertheless use seventy to eighty percent of my time for personal research and teaching activities. (UAS19–26)

> I am a young head of study programme, I have to manage research projects and I am part of the *Kollegium* [academic self-administration body]. I don't have any time left. (UAS1–27)

Moreover, at UAS UA, it was found that when it comes to involvement within School or overall organisation, tasks were always allocated to the same person. That reinforces time-constraints of those individuals involved.

Leadership

In terms of their understanding of leadership, various informants of both HEIs placed emphasis on consensus-orientation, a joint process of defining the strategy, flat hierarchies, balance between participation and efficient decision making processes, professional autonomy,trust in co-workers and respectful interaction across all levels of hierarchy. These statements with regard to their perceived ideal leadership styles were clustered and could be grouped under the category of 'cooperative' leadership. Such aspects of cooperative leadership, reported by the vast majority of respondents from both HEIs, mirror the findings of a literature review conducted by Bryman (2007b) which illustrates main leadership behaviours associated with effectiveness at the departmental level. In particular, congruence was identified in terms of the following aspects of leader behaviour (ibid., p. 697): clear sense of direction/strategic vision, being considerate, treating academic staff with fairness and integrity, being trustworthy, providing the opportunity to participate in key decision processes/encouraging open communication, acting as a role model and creating a positive/collegial work atmosphere in the department.

Strikingly, evidence suggests that facets of 'transformational leadership' are becoming increasingly visible, especially at the UAS UA. Indications for this specific leadership approach (as manifested in the data) point to individual leadership behaviour that is described as manifesting enthusiasm, having charisma, creating values, motivating staff intrinsically, inspiring staff and trust in them and establishing commitment "move in the same direction" (UAS6–11, UAS5–46). In this respect, two out of four transformational leadership dimensions as identified by Bass and Avolio (1994), namely '*intellectual stimulation'* and '*individualised consideration'* became visible within UAS UA. '*Intellectual stimulation'* was identified through statements motivating academic staff to look at problems from many different angles and differing perspectives, granting access to academic community, involving staff in terms of task optimisation and granting them the freedom to enthusiastically engage in tasks they are passionate about. *'Individualised consideration'* was reflected by HOSPs in that they treated staff individually, respected their differing needs and abilities and helped fellow-workers to promote their strengths and self-development (e.g., by enabling conference visits).

In addition, analysis of the data revealed that certain individual characteristics of manager-academics are most crucial for their leadership behaviour. This was highlighted by a substantial majority of the respondents. Specific traits such as personal integrity, the ability to motivate, self-awareness and reflection were stressed by a lot of informants, especially when outlining the required and ideal competencies of leaders in higher education (consonant with Bolden & Gosling, 2006). A lot of manager-academics from both HEIs reported that the ability to create a common value set for the team and the ability to motivate faculty are crucial ingredients within their professional role proficiency. Moreover, a few respondents emphasised

that these characteristics are important to achieve corporate identification and to increase performance:

> If the team heads in the same direction and identifies with the vision and values, it becomes self-sustaining. I do not have to motivate a non performing team member or struggle to motivate personnel; rather we have the same vision of the future and share workload. (UAS5–46)

By contrast, it was found that leadership at JKU is more based on professional and academic competences within a perceived expert organisation. This seems to be the norm in more traditional universities (e.g., Yielder & Codling, 2004) where leadership in higher education is originally based on personal authority and expertise, discipline knowledge, experience as well as peer and professional recognition. At JKU there appears to be a stronger focus on the personal academic career with a particular eye on promoting success in academic competition.

Table 3. Leadership approaches at two Austrian higher education institutions

JKU *Task-orientation*	*UAS UA* *People-orientation*
• Focus on performance • Stronger focus on academic freedom • Enthusiasm and passion about research are a pre-requisite; extrinsic motivation provides an additional incentive • Focus on individual striving,initiative and performance: "The academic career is based on individual initiative and performance, a kind of individual fighting." (JKU15–46) • Tendency towards harsh competition: "If I solely concentrate on myself and my academic success, I do not reflect my leadership style any more. And this is just the current trend" (JKU1–66)	• Support and encourage staff • Work independently • Promote intrinsic motivation by self-determination • Focus on cooperation and community/ social cohesion (efforts towards forming teams,understanding others, solidarity,empathy) • Human Resource Development: "(…) it is simply vital to visualise each individual's characteristics and skills and to promote prospects that allow for further development" (UAS10–28)

In other words, the understanding of leadership was found to be slightly different at the two HEIs. Based on a great number of interviewees' assertions,Table 3 shows that while at the UAS UA the most dominant approach is one of people-orientation (leadership approach), manager-academics at the JKU seem to rely more on task-orientation (management approach). Table 3 provides an overview of the two dominant leadership approaches at JKU and UAS UA.

Although this table certainly illustrates two opposite positions on a continuum of possible answers and depends on situational and contextual aspects, it still provides some interesting insights into two different Austrian HEIs.

The present findings suggest that '*leadership through values'* is on the rise at both investigated HEIs. Key values identified by a remarkable number of respondents are illustrated in Figure 2.

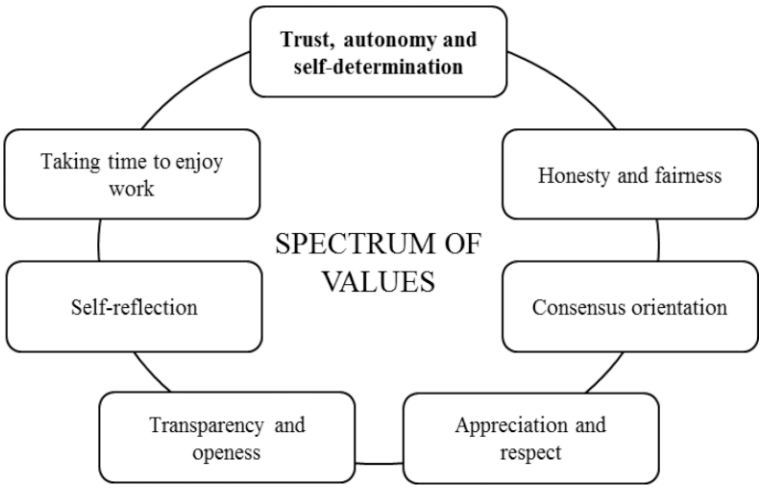

Figure 2. Spectrum of values at two Austrian higher education institutions

Interestingly, the focus on values appears to be much stronger at the UAS UA than at JKU with 185 codes assigned to the UAS UA and 76 to JKU. Nevertheless, in terms of reported values (see Figure 2) respondents of both HEIs gave similar and comparable answers. They point to the necessity of shared values to increase commitment, identification, performance, success and motivation. Notably, leadership at the UAS UA seems to be more strongly related to a specific set of values such as trust in fellow employees, their competencies and team solidarity. This is in line with Bryman (2004) who identified trust as a crucial aspect for effective leadership.

Despite the variety of values identified at both HEIs, present research seeks to focus on only one cluster, namely trust, autonomy and self-determination. The reason for this is two-fold: first, they were the most strongly highlighted and second, they appear to be most typical of this higher education setting. It was found at both HEIs that the degree of autonomy and self-determination that manager-academics are granted is most highly appreciated. Additionally, and most probably because of that, they also grant autonomy to their subordinates. Interestingly, the focus on (academic) autonomy of manager-academics was reported to be stronger by JKU informants.

Furthermore, various respondents from both HEIs indicated that autonomy/ self-determination, trust and a positive approach towards work are closely linked to each other and result in higher motivation and workplace satisfaction. A good

example of this interconnectivity is provided in the following vignette that points to the relationship between trust, self-determination/freedom and motivation of staff in terms of leadership.

> The more freedom I grant to staff, the less I am able to control them. This is based on values. And this is one of the most important aspects of new leadership styles – that I trust the personnel. Find out what their motivation is and trust them. (UAS20–56)

On a more negative note, several interviewees of both HEIs revealed that aspects which seem to have an adverse effect on motivation are bureaucracy, limited participation possibilities, a research topic that attracts little interest and the leadership style itself. Despite a strong emphasis on freedom, autonomy and self-determination in relation to leadership, manager-academics critically noted that at a certain level of responsibility leaders actively need to intervene in sensitive issues by linking activities to the overall strategy/aims of the study programme and/or to the whole organisation to determine the direction by distributed leadership.

Set of Skills and Competencies of Manager-Academics in the Two Austrian HEIs

In the context of the previously outlined requirements and tasks of manager-academics, this research identified a set of crucial competences. Owing to the two-fold functions of HODs/HOSPs – being an academic and a manager – they need on the one hand professional and academic skills as well as teaching competencies and on the other hand leadership skills (including social skills and particular personal traits) and management skills as well as organisational knowledge (see Figure 3). Irrespective of the institution it was found that these are crucial competencies for manager-academics in general. This is in line with Bolden et al. (2008, p. 31) who found that middle-level academic leaders need to be "good managers of people, good managers of finances, good internal and external communicators, offer academic and strategic leadership and have innovative ideas"

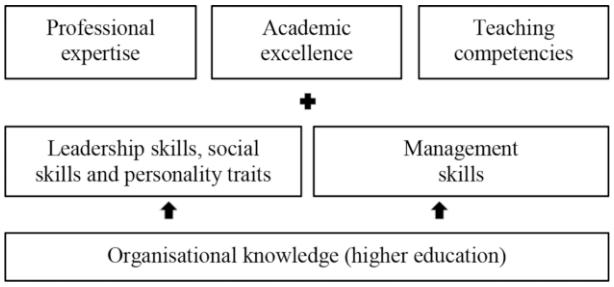

Figure 3. Set of skills and competencies for professional higher education leadership and management in Austrian higher education institutions

Table 4 provides an overview of the skills and competencies mentioned equally by the respondents from both HEIs.

Table 4. Skills and competencies of manager-academics at two Austrian higher education institutions

Competencies	*Elements (both HEIs)*
Academic excellence	• Proficiency in applying academic methods • Publication of findings • Being up-to-date in the related academic field • Reputation • Active involvement in the academic community and disposal of a network
Professional expertise	• In-depth knowledge in the related professional field
Leadership and social skills	• Ability to trust in staff members and their skills;capacity to delegate • Empathy • Assertiveness • Ability to confront and to deal with conflicts (consensus-orientation, constructive dialogue and capacity to solve problems) • Communication skills: to inspire, motivate and win people over • Decision making competencies: to actively take decisions and put them into practice • Team working and trust in staff members • Open mind about actively approaching people and accepting their diversity
Personality traits	• Leaders should be mature and possess stable personalities with the following characteristics: determination, assertiveness, patience and general willingness for change
Management skills	• Strategic thinking • Know-how in marketing, finance, project management and external representation • Organisational development • Self-organisation (time management) and smooth organisation of study programmes, including operative and strategic planning
Organisational knowledge	• Detailed knowledge of distinctive organisational structures and practices of academic institutions

In the following section differences between the two HEIs and the most significant findings are described.

Academic excellence. What is interesting is that JKU respondents tend to place slightly more emphasis on academic practices and visibility in the international community, and are more concerned with reputation and publication track record than interviewees from UAS UA. Manager-academics from JKU additionally indicated experiences derived from previous academic work, and knowledge of recent developments in professional higher education, as decisive factors of success.

Professional expertise. Professional expertise is rated high at both HEIs. However, in the related vocational field it was found to be a distinctive factor which was particularly outlined by the respondents of the UAS UA. This comes as no surprise, since the UAS UA has a pronounced focus on applied research and vocational education. In this context, professional excellence is the key to being recognised by colleagues, students and external stakeholders (local industry and political bodies) – as stressed by the vast majority of interviewees from UAS UA.

Leadership skills and experience.[3] Findings demonstrate that pre-existing leadership experience is urgently required and highly rated at both HEIs. What is particularly evident is that especially at the JKU such expert knowledge is taken for granted and implicitly pre-supposed. Further evidence implies that leadership expertise and experience tend to be based on progressive step-by-step development which may gradually lead to a top management position – as a member of the UAS UA senior management team asserted.

Management skills.[4] Owing to the afore-mentioned increase of marketisation and external representation of departments and fields of study, marketing and representation skills were reported to have gained relevance. Logically, management skills and entrepreneurial spirit become even more significant at the level of deans and rectors. Comparing UAS UA and JKU,it was reported that management and marketing activities are perceived as more demanding (resulting in an increased need for training) for the traditional university JKU than for the more market-oriented UAS UA. HOSPs as well as members of the top management most frequently possess extensive experience from industry and are familiar with strategic topics such as market positioning. In the judgement of some informants it is likely that some manager-academics feel that their academic freedom is shrinking due to current trends towards professionalisation, increasing demand for marketing and keen academic competition. Further, by drawing on the statements of various respondents from both HEIs it emerged that a balanced combination of managerial and academic skills contributes to the success of professional higher education management.

Leadership and management skills are perceived as ever more important by manager-academics from both HEIs. However, on account of increasing academic

competition (e.g. evaluation/rankings) both professional and academic skills are predominant in the daily lives of HODs/HOSPs. Hence, leadership and management skills do not receive corresponding emphasis in manager-academics' daily working lives.

Organisational knowledge. The vast majority of informants agree that an external manager who manages an academic institution would explicitly need an academic qualification and research career as well as insider knowledge of the functioning of an HEI so as to be accepted within his or her institution:

> A manager in higher education should be an organisation person and have an academic background in order to be accepted. A manager definitely must have absolute understanding of studies' organisation because this is our main business. (UAS7–46)

This is consistent with findings of Smith and Adams (2008) and Hancock (2007, p. 312) who underlined that "academia does indeed need academics in leading roles. Others with less grasp of discipline, faculty and research issues would simply not be effective."

Further Education and Professional Development (Human Resource Development)

When confronted with possibilities of further education and development for HODs/HOSPs, respondents of both HEIs revealed a remarkably wide variety of development possibilities (see Figure 4).

Performing research projects (including publications and attending conferences) is widely seen as a means for further qualification and development of academic expertise. In addition, specifically at UAS UA, cooperation with companies (enhancing up-to-date knowledge) contributes to professional development. Furthermore, there is evidence to suggest that formal (traditional) forms of continuing professional development (e.g., seminars or workshops) alone are insufficient to meet the requirements of professional development for manager-academics. This may be due to perceived time constraints caused by the manifold duties and tasks in teaching, research, administration and management. Derived from several statements by the HODs and HOSPs, it appears to be more beneficial to combine different modes of continuing professional development. Although (management) seminars and workshops impart fresh knowledge and new methods for leaders – as manager-academics reported their experiences – personal development requires other additional input and training, for example institutionalised and complementary coaching and mentoring models intended to strengthen the capability for self-reflection. This is fully in line with the findings of Scott et al. (2008, p. 17)where leaders expressed "an overwhelming preference for role-specific, practice-based, peer-supported and self-managed learning, rather than the more usual one-off, formal and generic workshop-based types of professional learning."

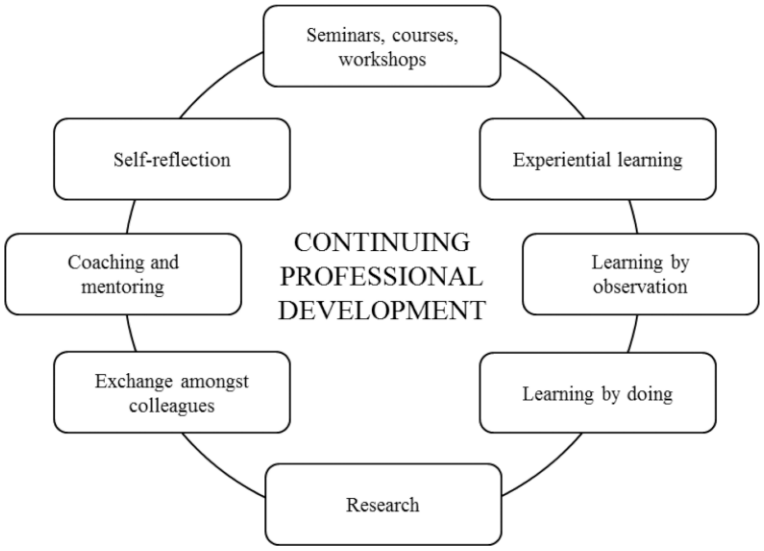

Figure 4. Pool of ideas for further qualification and development

In addition, it was found that informal exchange, coaching and mentoring amongst colleagues and supervisors act as a beneficial source of learning for HOSPs/HODs. This is in accordance with Scott et al. (2008) who rate informal mentoring as an effective method of learning leadership and Bolden et al. (2008) who see mentoring as a key process in helping leaders to reflect on their practices and behaviours.

Manager-academics from both HEIs highlight similar domains for further professional development: they underline development in three particular fields that embrace human resources, finance and administration and social skills.

- Human resource development: a substantial need was identified for effective methods concerning motivation of personnel, non-monetary incentives, handling of recruitment processes and fostering of staff leadership competencies,
- Finance and administration: support in the establishment of financial resources (project proposals) and financial administration,
- Social skills training: communication and conflict solving competences.

CONCLUSION

The present paper sheds light on the current situation of middle-level manager-academics in two different Austrian HEIs (Johannes Kepler University and University of Applied Sciences Upper Austria). A comparative analysis of the respondents' statements revealed different perceptions and self-images with respect to the roles and tasks of manager-academics in these HEIs. As the descriptions of the

roles and tasks showed, the HODs/HOSPs have to face a large variety of different responsibilities which include both strategic and operational tasks as well as ones which are internally and externally oriented. Taken together, these findings imply that manager-academics are challenged by manifold and multi-faceted duties and requirements in their daily professional lives. The analysis additionally showed that they differ substantially in their role perception which could be linked to the tradition of the two HEIs. While manager-academics from JKU rely more on task-orientation (management approach), manager-academics from UAS UA tend more to practise people-orientation (leadership approach). Accordingly, a wide variety of different essential competencies and skills seems to be a decisive success factor for HODs/HOSPs in these institutions. Against this backdrop, leadership and management skills are perceived as very important. Nevertheless, it is notable that owing to an increasingly competitive situation in science and the fact that most of the manager-academics are elected (HODs) or appointed (HOSPs) because of their professional and academic skills, these kinds of competencies are still predominant. Considering the current demands of marketisation and the differences between core missions of the two HEIs, several respondents of the 'traditional' university noted more frequently than their UAS colleagues that they are ever more challenged by management tasks and therefore require more specific training in this area.

These observations have some important implications for human resource development and recruitment as well as for the optimisation of organisational processes within HEIs:

- Firstly, recruiting practices still focus on professional and academic skills, whereas leadership and management skills are implicitly pre-supposed and considered as a desirable add-on. As a consequence, there is a need for more predictable manager career plans and it might therefore be advisable to create appointment processes which focus both on professional academic skills and leadership competencies,
- secondly, human development for manager-academics should include balanced, tailored internal or external in-service training opportunities especially when the special needs of the target group, such as confidentiality and discretion, are considered,
- finally, evidence from this study implies that certain necessary skills for manager-academics (e.g., personal traits, organisational culture) cannot be imparted by formal training. These findings point to the significance of alternative professional development approaches, such as institutionalised mentoring and coaching programmes, in order to promote leadership competencies.

LIMITATIONS AND FURTHER RESEARCH

This qualitative study was conducted in order to shed light on different HEI leadership situations. The case study revealed interesting differences between the role perceptions, the task orientation and the multi-faceted challenges of

manager-academics and offered an insight into leader- and manager-development systems of both JKU and UAS UA. Due to the highly specific context of the research it has to be pointed out that there are limitations to the extent to which the findings can be applied generally. To clarify if the identified dissimilarities are typical of the different types of HEIs, a broader research scope would be appropriate. Nevertheless, the literature review especially revealed evidence of similar challenges for HEI human resource and leadership development in Austria generally and within the HE landscape in Europe as well.

Against this backdrop and in order to enhance the utility of the findings and derive conclusions for a broader audience, future research could be expanded to a wider regional, national or international scope. Moreover, the alignment of the external higher education quality assurance system in 2013 (before this study) for all Austrian HEIs could have further implications for research. Given that these developments strengthen the convergence of the two HEI systems, future studies could address management positioning strategies to define a distinctive organisational USP.

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NOTES

[1] Nguyen (2013) analysed studies of McLaughlin et al., 1975; Wolverton et al., 1999; Wolverton et al., 2005; Caroll & Gmelch, 1994; Tucker, 1992; Creswell et al., 1990; Gmelch & Miskin, 1993; Leaming, 2006; Montez et al., 2003.

[2] Commonly the binary HE system is divided into universities and universities of applied sciences. In this article the term "classical" is added to highlight the notional distinction.

[3] "*Tomanage* means to accomplish activities and master routines, whereas *to lead* means to influence others and create visions for change." (Northouse, 2010, p. 11)

[4] See footnote 3.

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11. ACADEMIC MIDDLE MANAGERS SHAPING THE LANDSCAPE BETWEEN POLICY AND PRACTICE

INTRODUCTION

Higher education institutions (HEIs) operate in a dynamic and competitive environment. They compete for subsidies from external funding and from the European framework programs; they attempt to win students from the national and international educational market, and they put a lot of effort into attracting and appointing the most talented researchers and teachers. Lastly, they are faced with an increasing necessity to improve the quality assurance and the design of governance structures. This dynamic and competitive environment gives HEIs an important and necessary incentive to reconsider the way in which they respond to their surroundings. Nowadays it is an open environment in which universities attempt to realise their objectives in a complex field that includes a wide range of stakeholders such as clients (students), competitors (other universities), employees, government and external parties (like corporations) (van Vught, 2001; Rowley et al., 1998; Taylor & De Lourdes Machado, 2006).

By means of strategic innovation, HEIs strive in a focused manner to position themselves with respect to their environment in a different (and improved) position. Strategic innovation is the development provided for a major new or significantly improved product, service, process or condition. For example: increasing the offer by starting new programs or specialisations; adapting the pedagogical approach by changing the educational concept; or by arranging the structures of the organisation more efficiently ('doing more with less'). In addition, terminating programs or specialisations can also be prompted by strategic reasons. This all occurs because HEIs are becoming providers of services and are developing themselves into a 'brand'.

The ability to anticipate the continuously changing environment in an adaptive and pro-active manner demands a lot from the HEI management levels. They have to think and act strategically. This, however, is not an easy thing to do. HEIs have a complex organisational structure in which the various organisational components have differing cultures and interests. The numerous management levels do not always know exactly what is happening within the other levels of the organisation. Strategic innovation processes are often influenced by a stubborn force field of involved actors, and as a result they not infrequently advance slowly or sluggishly. Therefore, the implementation of strategic innovations often proceeds laboriously

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and does not always lead to the desired result (Leonard-Barton, 1992; Dougherty & Hardy, 1996; Floyd & Wooldridge, 1996). In other words, and popularly said: Changing a university is like moving a graveyard. Not entirely impossible, but don't expect any cooperation from within.

Being able to adapt to a constantly changing environment, and being able to anticipate the changes, demands the ability to think and act at a strategic level. This is based not only on the perceptions, values and competences of the top level managers but also – and possibly even more so – on those of the (academic) middle managers.

There are a significant number of scholars who suggest that middle managers make a worthwhile contribution to the strategic innovation of an organisation (Schilit, 1987; Nonaka & Takeuchi, 1995; Earley, 1998; Fenton-O'Creevy, 2000). These researchers draw their conclusions based on research in Business Administration. Whether and to what extent middle managers in HEIs also contribute to strategic innovation has barely been the object of research. Although the attention to academic middle management has increased in the last decade (Hellawell & Hancock, 2001; Hancock & Hellawell, 2003; Gallos, 2002; Smith, 2002, 2003; Clegg & McAuley, 2005; Ehrich et al., 2005; Santiago et al., 2006; Kallenberg, 2007; Mercer, 2009; Fitzgerald, 2009; Meek et al., 2010; Saengaloun, 2012), still no specific research has been carried out that focuses on which roles academic middle managers fulfil during strategic innovations. The present chapter does focus on that question. It subsequently deals with the position and perceptions of academic middle managers, the results of the survey for the roles of academic middle managers and the choices for the strategic innovations. Finally, the article will be rounded off with a discussion and conclusion.

STATE OF THE ART OF ACADEMIC MIDDLE MANAGERS

Because the expected role and the position of a middle manager are unclear, it is difficult to provide an exact stable definition of the term 'middle manager'. It is unclear what or where the limits of the middle manager are to be found. Furthermore there are many different types of middle managers. The lexical item 'middle manager' can therefore be seen as an umbrella term that can be applied to different officials. Higher education middle managers can be divided into administrative middle managers and academic middle managers.

The main focus of the administrator type is of a managerial nature, while the main focus of the academic type is teaching and research. Administrative middle managers are the directors and coordinators of staff departments dealing with educational support processes, and are not part of the present research. Academic middle managers are responsible for managing groups of academics and operate within the academic faculties. These are for example university professors who temporarily and possibly part-time take on this role, in addition to their role as researcher/teacher. There are various designations in the relevant literature for this type of function: academic Dean (Wolverton et al., 2001; Vieira da Motta & Bolan, 2008), academic

manager (Mercer, 2009), mid-level academic manager (Inman, 2007; Larsen et al., 2009; Nguyen, 2013), manager academics (Deem & Brehony, 2005; Castro & Tomàs, 2011), academic director (Kallenberg, 2013), or head of study (Harboe, 2013). In this chapter the academic middle manager is defined as the functionary who has overall responsibility for the curriculum of the degree program(s) within the boundaries of the organisation's central management (Kallenberg, 2007).

Position of Academic Middle Managers

Academic middle managers hold a complicated position in the HE organisation and have to deal with tensions between initiative and focus, functions, interest and control (ibid.). They are hierarchically positioned between the strategic and operational level. Due to this, academic middle managers balance various conflicting interests, for example the stability that academics strive to attain on the one hand and the desire for change that is preached at the strategic level on the other hand. Academic middle managers seek synergy to ensure that both levels better understand each other's interests and connect more effectively. They see to it that the degree program runs as smoothly as possible on an operational level, and focus on strategic issues for which they are responsible in terms of implementation. A second perspective specific to the role of academic middle managers is their position at the interface of the academic and the administrative zones. These zones have their own spheres of influence (academic zone: teaching and research; administrative zone: bureaucratic rationality) and they try to influence each other both formally and informally (Hanson, 2001). In this regard, some authors claim that we are observing the development of new professionals within the university (Whitchurch, 2004, 2008; Klumpp & Teichler, 2008). These new professionals are working in hybrid or blended positions and can neither be seen as part of the routine administration nor do they belong to the academic staff. Schneijderberg and Merkator (2012) describe an overlap between the administrative and academic roles, functions and tasks. Thirdly, academic middle managers are confronted with the distinction in importance between education and research. In principle, academic middle managers are responsible for educational programs and the way in which academics function in those programs. However, their faculty members are mainly evaluated on the basis of their research results, and hardly on their educational results. This imbalance by definition puts them in a difficult position to discharge their roles fully. In the fourth and final perspective academic middle managers have to find a smooth balance between hierarchy and collegiality. They have to find a balance between the temporary hierarchy of their administrative position and the on-going collegiality with their peers (Hellawell & Hancock, 2001; Hancock & Hellawell, 2003). Or as Meek, Goedegebuure, Santiago and Carvalho (2010, p. v) claim:

> [M]iddle-level academic managers are caught in the invidious position of merely occupying the no-man's land between implementing the edicts of their

executive managers and protecting the interests of their academic colleagues and placating their demands.

To conclude, the academic middle manager is placed in a paradoxical in-between position. Or, as an academic middle manager regularly told me: "You're damned if you do, and you're damned if you don't." and "You're in the line of fire, whether you want it or not." It should be noted that such a position is also characterised by a high risk, and a continuously increasing risk, of stress and burn-out (Gmelch et al., 1999).

The main characteristic of academic middle managers is that they are part of various information flows, all streaming in different directions: top-down, bottom-up, horizontal and diagonal. They are confronted with several constraints: they are hemmed in by various processes; there is an imbalance in role expectations and freedom of action; they are held accountable, but have no power; and leadership is expected, but they have to attain managerial targets. On the other hand, academic middle managers have a lot of possibilities. For instance: as a result of the information flows they know very well what is going on within their organisation (tacit knowledge). Middle management is the traditional level at which university policies and strategies are effectively translated into practices and concrete actions. This provides academic middle managers with a great starting point to influence the strategic innovations within an organisation.

In order to meet the set expectations, there are many competencies which academic middle managers have to display. For instance, they have to be able to switch quickly from one role to another (from managerial to subordinate or co-worker; from generalist to specialist), they have to be able to speak more than one 'language' because they have to translate abstract and strategic language into concrete and operational language. Academic middle managers must be able to take a seat at the negotiating table and in addition must be able to discuss an academic subject with their colleagues. They gain insight into the strategy of top management, as well as an understanding of the needs of the academics. They have to keep an eye on the outside world (new social and economic developments) as well as the organisation (the academic layer, asking for peace and stability). Finally, because they work in a largely public organisation, academic middle managers should – in addition to efficiency, quality, flexibility and innovative capacity – also display openness, honesty and integrity.

In short, the academic middle managers' position and the manner in which they carry out the functions of their position – the role that they play – offers them the opportunity to exert influence on the strategic innovations. After all, academic middle managers are quite close to the 'front line' and are able to see the opportunities for synergy where the various practices and skills can reinforce one another. They are able to connect the academic and administrative domains. Especially during the implementation of strategic innovations in the organisation, academic middle managers can potentially play a central role. By being aware of their binding or hinge function, they can use their (tacit) knowledge of what is happening in the

organisation and interpret it within the organisation. This strategic dealing with information, and the way in which they use this linking or hinge function, is called the prism-effect of the academic middle manager (Kallenberg, 2013). To ensure an efficacious prism effect, it is of vital importance that academic middle managers carry out their role adequately.

Perceptions of the Roles of Academic Middle Managers

The role and function of academic middle managers in HE have changed over time. Up to the 1990s, they were perceived as senior teachers/professors who also happened to engage in routine administrative processes. They conceived their role often as a temporary side-task alongside their actual tasks on education and research, and had an internally oriented focus (Tucker & Bryan, 1988).

Table 1. Trends in the perceptions of the roles of academic middle managers

Character	*Professionalism*	*Managerialism*
Focus	Internal orientation and control	Management of external relations
Ambition	Leaders with own academic career	Leaders with managerial driving force
Appointment	Temporary part time position	Permanent full time position
Decision making	Garbage can models	Rationalist approach
Interconnection	Loosely coupled systems Collegiality	Tight and controlled Competitive
Focus on	Student learning Academic values Professional autonomy	Efficiency of students; success rate Effectivity of learning processes Common output
Output	Quality driven	Quality and quantity driven (‘publish or perish’)
Governance	Democratic model	Hierarchic professional model/ integral management
Quality assurance	Emerging peer-review	Necessity to prove quality

Since the new millennium the role of the higher education academic middle manager has drastically changed; it now focuses on efficiency of programs rather than on professional autonomy of students and as a result of external changes (social, economic, political, etc.), academic middle managers shifted from academic leaders to institutional managers. There was a noticeable shift from the model of professionalism based on education, the focus on student learning, attention to academic values and professional autonomy, to a model of managerial planning

based on corporate values, student performance and attention to efficiency and effectiveness (Clegg & McAuley, 2005; Wolverton et al., 2005; Verhoeven, 2007). This trend was evident in many countries under the prevailing term New Public Management. It focused on severe academic managerialism whereby 'professional' managers were specifically appointed and as a result replaced the academics in their former role as leader (Santiago et al., 2006; Vieira da Motta & Bolan, 2008; Meek, 2003; Gmelch, 2002; Middlehurst, 2004; Meek et al., 2010). Table 1 illustrates this trend regarding the views of the roles of academic middle managers.

This shift towards a more managerial perspective brought about a visible change in perspective regarding what is expected of this sector and begs an answer to the question of what these trends in literature on education management currently mean for it.

Activities of Academic Middle Managers

When we view the specific academic management literature, we can distinguish four types of activities in which academic middle managers are involved, namely:

1. *administrative activities* – managing the work of a team or of colleagues; monitoring and controlling structures and processes; curriculum planning; evaluating teachers and programs, etc. (Tucker, 1992; Bennett & Figuli, 1990; Gold, 1998; Gunter & Rutherford, 2000; Boyko & Jones, 2010);
2. *relational activities* – based on the substantive discourse of meetings and building trust among colleagues (Meek et al., 2010; Boyko & Jones, 2010);
3. *intervening activities* – where the relationship and diplomacy between expectations of the central management and the academic values are to be established (Meek et al., 2010; Boyko & Jones, 2010);
4. *result oriented activities* – attending to student performance, efficiency and effectiveness (Clegg & McAuley, 2005; Wolverton et al., 2005; Verhoeven, 2007).

In order to find out to what extent these activities represent roles, further research has been carried out in the survey.

RESEARCH

In order to be able to answer the question as to which roles academic middle managers fulfil during strategic innovations, an empirical research study was carried out among such staff employed at Dutch HEIs.[1] In 2009, 750 randomly selected academic middle managers received a structured survey which 304 respondents filled out. The raw dataset was analysed and tested on aspects such as normality, the relationship between the research variables, missing values and outliers. This led to the removal of a number of respondents and the survey produced a dataset (N = 246) in which respondents from all Dutch HEIs are represented. These respondents stem from the various areas of study, disciplines, institutes etc. This

dataset is therefore representative of the academic middle managers from Dutch HEIs. The survey contained questions about the roles that academic middle managers fulfil. In addition, respondents were asked to provide an example of a strategic innovation with which they had been involved. After that, the roles of academic middle managers were compared with the types of strategic innovations that they indicated. Based on logistic regression analyses an insight will be given into these relations.[2]

Roles of Academic Middle Managers

In order to determine whether activities can be assigned to roles, Quinn and Rohrbauch's Competing Values Model (1983) is used in the survey. Their test comprises 36 items with 8 subscales that indicate the degree to which a manager fulfils a particular role; they claim that managers should be able to fulfil all roles in order to be effective. These 36 items represent the activities that are derived from the great 20th century management theories. The theoretical concept of Quinn and Rohrbauch is regularly used for all kinds of organisations, including HEIs (De Boer et al., 2010; Meek et al., 2010; Ngo, 2013; Geraki, 2014).

Based on this research it appears that the original eight roles of the Competing Values Model do not match with this population. The results of the data analysis (including factor analysis, pattern and structure matrices, reliability and scree plot criterion) suggest that something is amiss with the validity and reliability of the Competing Values Model within the population of academic middle managers. Only four factors, rather than eight, emerged. On basis of these data I distinguished four new roles. Although, theoretically speaking, they fit well with Quinn and Rohrbauch's Competing Values Model, these are not the same roles. For that reason other names were given to these roles, in order to avoid potential confusion with the Quinn and Rohrbauch roles. These new roles were checked on communalities, and the sample adequacy for a principal component analysis (PCA) has been tested using the Kaiser-Meyer-Olkin (KMO) system. The common KMO value was 0.888, which makes the data very suitable for the PCA that has been performed. The appendix shows an overview of the eigenvalues and the explained variance of the components (Table a) and the communalities extraction (Table b) indicating that the variance per role is more than sufficient.

The following table illustrates how the new roles relate to both the types of activities (as mentioned in §2.3), the reliability per role (Cronbach's alpha) and the average score in the extent to which the academic middle manager fulfils that role.

These four roles can subsequently be described as follows:

Guard – Guards run a tight show and ensure that all the tasks are properly implemented. They establish an atmosphere of order and reconciliation within the organisation. They are involved in educational support processes (scheduling, etc.) and the preservation of the status quo. They are the cultural guard, one that searches for fixed values, processes and procedures.

Table 2. Roles of academic middle managers linked with types of activities

Roles	*Comparison with the types of activities*	*Cronbach's alpha*	*Mean (scale 1–7)*
Guard focuses on keeping the organisation running	Administrative activities	0.728	4.86
Guide focuses on introducing and maintaining cohesion and the development of the employees in the organisation	Relationship focused activities	0.779	5.61
Diplomat focuses on searching in a creative manner for opportunities and means to realise his/her vision	Intervening activities	0.806	5.75
Constructor focuses on achieving goals	Results oriented activities	0.918	5.58

Source: Kallenberg, 2013

Guide – Guides develop and maintain the relationship with their employees. They are focused on implementing cohesion, teamwork and staff development. They are aware of the atmosphere and they focus on aspects such as a rewarding system and the experience of success. They communicate well and are easy for their staff to approach. They are focused on organisation, integration and cooperation by means of consultation and the building of trust.

Diplomat – Diplomats explore ways to realise their vision, purpose and strategy by obtaining and maintaining legitimacy, image, reputation and resources. They propose new ideas on the topic of education and educational processes. Their vision is inspiring and based on substantive arguments. They offer room for adjustments and changes. They are politically sensitive and have powers of persuasion. They act both as liaison persons and as spokespersons.

Constructor – Constructors (henceforth architects) have set a clear goal, based on a clear vision and the willpower to reach these objectives. They combine this with strong leadership based on lucid agreements. They have a functional ambition, are results-oriented, productive and professional.

The survey results show that academic middle managers fulfil the four roles fairly equally. The differences in the extent to which they fulfil those four roles are not

extreme. The role of Guard (M = 4.86) is the least strongly fulfilled, while the role of Diplomat (M = 5.75) is the most strongly fulfilled. One has to take into account that questions about the fulfilment of these roles were asked in the perspective of strategic innovation.

Strategic Innovations

The central question of this article is which role academic middle managers fulfil during strategic innovations.

Strategic innovation is defined as the intended development of an important new or significantly improved product, service, process or condition with which an organisation positions itself in relation to its environment in a different (improved) position (Kallenberg, 2013). Strategic innovations can differ from each other with respect to nature, type, size, and so on. In order to be able to characterise the differences in types of strategic innovations, the value-position-matrix developed by Brockhoff and van Rijn (2006) is used. Accordingly, organisations are trying to improve their value (in relation to their products) and/or their position (compared to other organisations) during strategic innovations (ibid., p. 22). By considering the value and the position as two dimensions it creates a concrete, general reference framework, where each quadrant represents an overall strategic direction, namely: exploring, transforming, revitalising and rationalising.

- exploring stands for 'starting new things.' It is about building and strengthening its strategic position. For example: an institution starting a new study program.
- transforming stands for 'customising existing things for a changing environment.' For example: when a study program (course) needs to refresh its curriculum. Transforming is more about educational changes.
- revitalising stands for 'ensuring that existing things work better.' For example: when student pass rates are too low for a long time, it results that the HEI should spend more effort to bring students to their degrees. This is associated with higher costs, while at the same time the HEI receives less revenue due to the low success rate. Revitalising therefore focuses mainly on improving the economic value.
- rationalising stands for 'stopping existing things.' For example: when student success rates are low and the influx of new students is low too, this will lead to lower financial resources and the emerging necessity to stop a study program.

The respondents were asked to provide an example of a strategic innovation in which they were recently involved. These examples are classified into one of the types of strategic innovation. A team of four scholars executed the process to classify the strategic innovation types. Based on their answers and interpretations, the following format appears.

Table 3. Frequencies of mentioned types of strategic innovations

Type	*N*	*Percentage*
Rationalising	2	0.9
Revitalising	70	30.4
Transforming	97	42.2
Exploring	61	26.5
Total	230	100.0

Source: Kallenberg, 2013

From the above table it is obvious that Rationalising as a type of strategic innovation is hardly mentioned. This is noteworthy, but can be explained due to the fact that it is not common to terminate (parts of) organisations in the public domain. For example when a course has only a few students and a large staff, then there is a disturbed financial balance. In this case, Moore (1995) speaks of a 'bleeder', which is a heavy loss component of an organisation, and according to him, the analysis of bleeders would be less likely to take place in the public domain. In HE, no one is eager to mention bleeders because they can have a negative impact on the image of the institution.

Roles and Strategic Innovations

As stated earlier in this chapter, academic middle managers play an important role in translating the strategy of the Executive Board to the workplace. So if a particular type of strategic innovation is pushed by the organisation, it is also relevant and important to have an academic middle manager who can give and wants to give a positive contribution to it. Organisations can benefit from identifying the preferences of academic middle managers for a particular type of strategic innovation.

Using logistic regression analysis we try to predict what an increase in '1' on a variable means for increasing the likelihood that someone mentions a particular type of strategic innovation. With logistic regression analysis we try to show everything alongside a linear equation. In other words: what is the effect of an increase on one variable with regard to another variable. The following tables list the results of the logistic regression analyses on the three strategic innovations: revitalise, transform and explore.

When we compare the roles of academic middle managers with the three types of strategic innovation, we can name some interesting links.

For the Guide it means that his/her role is not significantly related to a particular type of strategic innovation. This can possibly be explained by the fact that this role is people-oriented rather than results-oriented (neither substantive nor business

Table 4. Findings of logistic regression analysis of academic middle manager roles on types of strategic innovations

Revitalise					
	B	Wald	Exp(B)	Lower	Upper
Guide	–0.103	0.191	0.902	0.569	1.431
Guard	**0.444	4.353	1.559	1.027	2.367
Diplomat	0.192	0.524	1.212	0.720	2.040
Architect	**-0.629	4.842	0.533	0.304	0.934
Transform					
Guide	–0.032	0.021	0.968	0.629	1.491
Guard	–0.233	1.568	0.792	0.550	1.141
Diplomat	***–0.664	6.981	0.515	0.315	0.843
Architect	**0.507	3.279	1.661	0.959	2.877
Explore					
Guide	0.141	0.260	1.151	0.671	1.975
Guard	–0.341	2.501	0.711	0.466	1.085
Diplomat	**0.741	5.313	2.097	1.117	3.937
Architect	0.318	0.819	1.375	0.690	2.740

**** $p < .01$, ** $p < .05$, * $p < .10$*
Source: Kallenberg, 2013

related). Guides will be especially committed to their staff in all three types of strategic innovation and they therefore will perform similarly in all types.

Guards have a significantly positive relationship with Revitalise (0.444). This clearly shows the preference of Guards for the structuring of the organisation. This in contrast to Architects, who have a significantly negative cohesion with Revitalise (-0.629). If academic middle managers are acting more like Architects, they will have less preference for Revitalise. Architects have a positive affinity with the Transform (0.507), while Diplomats have a negative affinity with Transform (-0.664) and a positive affinity with Explore (0.741).

DISCUSSION AND CONCLUSIONS

Pivotal for this study were views on the position and roles of academic middle managers.

Regarding their position it can be said that they occupy an in-between position with some limitations and significant advantages. These are called limitations

because there are often unclear and shifting responsibilities and the academic middle managers must deal with an imbalance between role-expectations and freedom of action. Their position is located at the interface between demanding stakeholders in the organisation. This leads to important benefits, because academic middle managers have a lot of tacit knowledge which they can use in the organisation. Academic middle managers select, interpret, and synthesise this information in a congruent or divergent way, and then use this information in a different way in the organisation. In this way, they influence the landscape between policy and educational practice.

Mainly because academic middle managers have ample opportunity to make use of their position at the intersection of policy and practice; their role fulfilment and the associated prism-effect are of vital importance for the course of the strategic innovation. Needless to say, the prism-effect displays a different image for each role. That is to say, a Diplomat will cross the border between academics and administrators, or an organisation and the workplace, more frequently than a Guard.

A conclusion can be drawn from the relationship between roles of academic middle managers and types of strategic innovations: there is a clear preference per role for a particular type of strategic innovation. The Guard revitalises, the Architect transforms and the Diplomat explores. With regard to the role of the Guide it should be noted that there is no affinity with any of the strategic innovation types. This is essential knowledge because having the right person in the right place during strategic innovations is of vital importance for smooth implementation. As previously noted, academic middle managers have an important position within the organisation. They are also able to use the prism effect both consciously and unconsciously. It is therefore important for the Executive Board to know with what type of academic middle manager they are dealing. For example, suppose that the Board wants to start a new program: if the department's academic middle manager is a Guard, chances are that it will be a troublesome innovative process. In this case it would be better to replace the Guard with a Diplomat. In other words, depending on the type of strategic innovation the Executive Board pursues, it is relevant to have a fitting style of academic middle manager. In practice it happens regularly that an Executive Board conducts a review (based on certain management style theories) among the management levels, but that they are not aware of the relationship between the review and the strategic innovation. This is exemplified by the example below which is given by one of the respondents (Kallenberg, 2013, p. 166):

> …At the arrival of the new Executive Board we went all into a review. The colour theory was used, but nothing happened. There was so much resistance from the managers and too little pressure from the Executive Board, with the result that this line was not continued. In addition, I did not have the impression that the Executive Board used the review based on a vision of the future… I think they just wanted to pull the power toward themselves…

The challenge is to link the preferred style of the academic middle manager and the strategic innovation type that is pursued. In addition, it is important that they –

precisely because of their in-between position – actually receive the opportunities (money and resources) to carry out a strategic innovation.

Thus, when there is a mismatch between the academic middle manager and the type of strategic innovation pursued, it is also evident that there will be – in addition to a troublesome innovation process – complaints from different quarters within the organisation about the functioning of the academic middle management levels. HEIs would be over-managed and academics would have to be freed of the types of managers that focus too much on productivity (for example, student success rates) and their coercive managing. My interpretation is that this criticism also arises when there is a mismatch between the fulfilment of the role of an academic middle manager and the intended strategic innovation: for instance in the above mentioned example of starting up a new program, in which a Guard tries to control the organisation, while academics are pursuing renewal and change. This leads to a negative prism effect, in which the Guard slows down the innovation process and (sometimes) brings it to a halt. The Guard has that opportunity because top management is generally primarily focused on the initiation and the decision-making process, and s/he leaves the implementation and realisation to others. In addition, academics are generally mainly focused on their education and research agenda and are not primarily focused on management duties or on the strategic innovation. As a consequence there is a blank space between the domains of academics and administrators. Academic middle managers can link these two domains and thus achieve an important influence on strategic innovation. The interpretation of the role of academic middle managers is therefore a crucial factor in the success of the strategic innovation.

NOTES

[1] The Dutch higher educational system knows two types of organisations, i.e., universities of applied sciences (HBO) and universities. The differences between these two institutions fall outside the scope of this article and will therefore not be discussed.

[2] For more data and analysis of the results, see: leidenuniv.academia.edu/TonKallenberg. Then click: bijlage bij Prisma van de verandering? De rollen van academische middenmanagers bij strategische innovatie in het hoger onderwijs (in Dutch).

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APPENDIX

Table a. Own values and explained variance components

Inititial Eigen values		*Extraction sums of squared loadings*			*Rotation sums of squared loadings*[a]		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	9.521	34.005	34.005	9.521	34.005	34.005	7.968
2	2.542	9.077	43.082	2.542	9.077	43.082	5.146
3	2.044	7.301	50.383	2.044	7.301	50.383	4.854
4	1.716	6.130	56.513	1.716	6.130	56.513	3.235

Extraction method: Principal component analysis.

a. When components are correlated, sums of squared loads cannot be added to obtain a total variance.

Table b. Communalities – extraction

Guide	Initial	Extraction	*Diplomat*	Initial	Extraction
Average communality:		0.553	Average communality:		0.543
Guard	Initial	Extraction	*Constructor*	Initial	Extraction
Average communality:		0.549	Average communality:		0.592

Overall average = 0.565 Extraction Method: Principal Component Analysis.

NORBERT SABIC

12. GOVERNANCE THROUGH TRANSPARENCY TOOLS

The Case of Romanian Higher Education Reforms

INTRODUCTION

In 2007, the Romanian government started an ambitious higher education reform. The reform was largely inspired by European policy narratives that emphasized the importance of higher education in a future knowledge economy and more precisely the significance of higher education diversification as means to achieve better overall performance quality (Miroiu & Vlasceanu, 2012). Consequently, Romania became one of the few Eastern European countries to introduce a diversification policy based primarily on the classification of universities and ranking of study programmes. Rather than merely providing comparable information about the performance of each individual institution and study programme the policy sought to utilize these transparency tools as instruments of governance and link them to the allocation of publicly funded study places and other financial incentives. In this respect, the Romanian reform represents a unique case since it was one of the first attempts in Europe to actually use a classification and ranking exercise for such broad purposes. While the implementation of this particular policy has eased following a change in the national government in 2012 the distinctive endeavour by Romanian policy makers to use transparency tools for steering higher education proves to be a noteworthy case to study.

As it will be argued in this paper, the reforms initiated in Romania sought to go beyond providing comparable information to relevant stakeholders about the performance of universities and represented an effort to change the existing governance of higher education. This argument is supported with qualitative data gathered from October 2013 to May 2014 by interviewing eleven policy makers in Romania and reviewing related policy documents. Among the interviewees were several members of the Presidential Commission for the Analysis and Elaboration of Education and Research Policies,[1] heads of various national agencies dealing with higher education matters, and a number of experts who were involved in the design of the methodology for institutional and programme assessment. In addition, five relevant policy documents have been analysed, which are listed in the table below.

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 217–230.

Table 1. List of analysed policy documents

Name of policy document	*Type of document*	*Issuer*	*Year*
Research in Romania, Innovation in Romania	Report	Presidential Commission for the Analysis and Elaboration of Education and Research Policies	2007
National Pact for Education	Agreement	President of Romania	2008
Education and Research for a Knowledge Society	Strategy	Presidential Commission for the Analysis and Elaboration of Education and Research Policies	2008
Law of National Education	Law	Government of Romania	2011
OMECTS nr. 4174/13.05.2011	Ministerial order	Ministry of Education, Research, Youth and Sport	2011

The qualitative data served as the basis for analysing changes regarding the authority and autonomy of actors to steer higher education processes. Thus, the analysis was conducted by contrasting the evidence with the theoretical approaches to different models of governance in higher education.

HIGHER EDUCATION GOVERNANCE

Governance is a general concept that refers to the approaches governments use to control and influence specific public sectors such as higher education (Gornitzka & Maassen, 2000). It embodies both the rules that define how actors interact with each other, and the rules that regulate the context within which higher education institutions operate (Gornitzka, 1999). Therefore, every time we refer to governance change in higher education systems we imply that a new set of rules is overriding the previous ones to influence the behaviour of higher education institutions or its members (Maassen, 2003). The starting point of many governance changes is an agreement among stakeholders that the traditional arrangements are not sufficient to steer higher education institutions in such a way that specific political, social, or economic goals can be achieved (ibid.). Depending on how this agreement is reached and negotiated, we can speak of three different analytical approaches to governance.

1. Commonly, higher education literature distinguishes between two, mutually exclusive, models of governance. These are the *rational planning and control model* and the *self-regulation model* (van Vught, 1989). In the first case the government is confident that it knows how higher education institutions should behave and it imposes control mechanisms accordingly. In the second model

the government rarely controls institutions directly; instead it observes, and if necessary changes, the rules which govern institutional behaviour (Gornitzka & Maassen, 2000). These models are also known as the state-control and the state-supervision models (Neave & van Vught, 1991). In the past the dominant tendency has been to shift to the latter model. State supervision often involves the assumption that higher education institutions can operate on the same principles as other private entities in a market, which could help overcome inefficiencies in service provision. It embodies the withdrawal of the state from controlling and influencing higher education directly and instead stimulates competition among autonomous and flexible institutions. Thus, traditional public regulatory mechanisms are replaced with market-type mechanisms (Amaral & Magalhães, 2002).

2. Rather than viewing governance as the continuum between direct and indirect state control, the 'Triangle of Coordination' offers a more complex explanation of the nature of relationships embedded in any governance structure (Clark, 1983). This analytical tool distinguishes between three centres of authority in higher education governance: the state, the academic oligarchy, and the market. In each case, different coordination mechanisms are at work. State authority relies on bureaucratic coordination exercised through a hierarchically arranged administrative structure. The academic oligarchy imposes professional coordination where authority is earned within a collegial environment. The market provides coordination through the interaction of different actors on different markets (labour market, student market, etc.) where supply and demand are negotiated. This model portrays three different forms of 'logic of regulation' (i.e. bureaucratically-based rules, professionally-based norms, and market based contracts) depending on where authority lies; it also allows for their mutual combination in a single governance structure (Amaral et al., 2002).
3. Another conceptualization is offered by Olsen (1988) who distinguishes four models of governance. These models are based on different perceptions of the role of the state, the university and the public but are not considered as being mutually exclusive (Olsen, 1988; Gornitzka, 1999):

   - Sovereign state
   - Institutional state
   - Corporate-pluralist state
   - Classical liberal state (state supermarket model).

The sovereign state model builds on an instrumentalist view of higher education institutions, whereby each institution is accountable for achieving a set of externally defined social or economic objectives. The model is characterized by limited institutional autonomy and tight governmental control over what universities should do and how they should do it.

Within the institutional state model universities are seen as autonomous institutions responsible for upholding their traditions and values without much interference from

the state or other stakeholders. Consequently, universities are the agents of their own change.

The corporate-pluralist state model highlights that there are several legitimate centres of authority, which have a right to influence the development of higher education. The model is characterised by segmented interest groups and dispersed authority among them.

The state supermarket model stresses the importance of the market in steering higher education institutions towards better performance. The role of the state (and of the academic community for that matter) is very limited, as change is attributed to the ability of individual institutions to compete and adapt to variations in market demand.

In sum, all three theoretical approaches to higher education governance – van Vught, Clark, Olsen – highlight the explanatory importance of the concepts of 'authority' and 'autonomy'. When perceptions about the role and purpose of higher education change, the ability of different actors to enforce or discard external claims for change becomes crucial. Therefore, the analysis of the recent higher education reforms in Romania is going to be guided by looking at the changing power relationships between dominant actors and their ability to influence higher education. In particular, the governance models described by Olsen will be used. Since the reforms in Romania were short-lived and never fully implemented,due to a change in national legislation put forward by the new government, some of the findings in this paper are suppositional to their planned outcomes.

HIGHER EDUCATION REFORMS IN ROMANIA

Romanian higher education experienced a sudden growth in student enrolment rates after the political changes at the end of 1989. Between 1990 and 2010 student numbers (ISCED 5 and 6) rose by 608% (Dragoescu, 2013, p. 30). This increase was partially sustained by allowing public higher education institutions to charge tuition fees that did not exist before. However, since the number of students who wanted to enter higher education exceeded the available places at public institutions,several private universities were established. Many of these were private for-profit institutions that operated for several years in the absence of any legal regulation about private higher education (Andreescu et al., 2012; Mihailescu & Vlasceanu, 1994; Nicolescu, 2002). By 2010 the total number of higher education institutions increased from 56 to 107 and nearly 45% of all enrolled students were studying at private universities (Dragoescu, 2013, p. 32). The unrestrained growth of higher education in Romania (especially private institutions) questioned whether quality can be maintained under such conditions, which became the mantra of almost all policy reforms that followed.

Since 1998 the Romanian government addressed several policy concerns, among which were the regulation of private higher education, the re-establishment of institutional autonomy, the modernization of public funding and institutional

management, along with the introduction of the Bologna structure. However, the principles which had been established during the past twenty years gradually started to be perceived by many policy makers as outdated, as not being fit for the European reality of the Romanian higher education system. This concern led to a new wave of reforms after 2007.

> Things even became contradictory and there was no vision for higher education. Therefore, it was absolutely necessary to come up with a new view on ways in which higher education needs to change. (Interviewee: M01)

Between 2004 and 2012 five different governments were formed and a surprisingly high number of ministers responsible for higher education appointed (12 in total). Despite the turbulent political environment the ideas that guided the reforms proved to be reasonably consistent – a fact that can likely be attributed to a coherent policy formulation process and to the key individuals who directed its development and implementation throughout the changing political landscape.

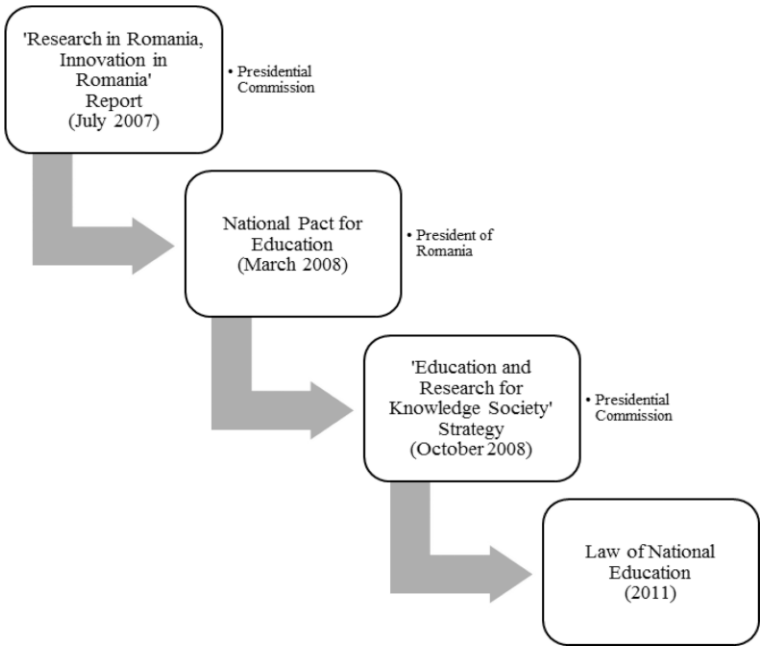

Figure 1. The process of policy formulation in Romania
Source: The author

The new Romanian higher education policy was formulated over several years and in several steps. In 2006, Mircea Miclea, the former Minister of Education, was appointed as the chairman of the Presidential Commission for the Analysis and

Elaboration of Education and Research Policies. The work of the Commission was crucial for establishing the up-and-coming higher education policy and managing all of its stages. As a result of the Commission's continuous work in 2011 the Romanian government adopted the Law of National Education. This law initiated some important measures with a clear objective of making Romanian higher education more competitive on a global scale. One of these measures was a classification and ranking exercise that was supposed to diversify the higher education system by providing incentives for institutions to recognize and develop their own distinctive missions.

From the beginning, this measure was confronted by criticism. One of the reasons for its unpopularity was the alleged intention of the Romanian government to link the results of the classification and ranking exercises to public financing. Before the new law was introduced, the relationship between universities and the government of Romania could be characterized as one which relied on negotiations between the two parties. A large part of the core financing for public universities was calculated through a per capita formula: that is, following the number of students eligible by law for state financing. Hence, institutional leadership was focusing on filling state defined quotas that would guarantee the flow of resources; thus institutional effectiveness and efficiency were determined by the institutions' ability to uphold the level of input. In the light of government's reform intentions this model became criticized for hampering the quality of teaching and research because it failed to provide sufficient impetus for institutions to perform better, especially in the area of research. Rankings and classifications were chosen as the main instruments to provide transparent information to the government and society at large about the performance of institutions. Accordingly, evaluations of institutional outputs and competition by comparison have been endorsed as the main elements of the new governance arrangement.

In 2008, the Presidential Commission for the Analysis and Elaboration of Education and Research Policies published a strategy for the development of education. Within it, the Commission stated that

> the Romanian higher education system is not differentiated according to quality criteria, a fact that does not allow a concentration of human, material and financial resources in top universities: an essential condition for attaining an excellence level. (Presidential Commission, 2008, p. 28)

The document highlighted that the distribution of public funding should give greater priority to institutions, programmes and departments demonstrating high quality in performance while also stressing that "academic mediocrity can no longer be supported with public money" (ibid., p. 29). This explanation sees differentiation of universities as a pre-condition for the concentration of resources (financial, material, and human), which is to be achieved by the implementation of transparency tools. Three specific actions have been identified in this regard:

- Evaluation and classification of all public and private higher education institutions;
- Evaluation and ranking of study programmes;
- Evaluation and classification of departments/chairs.

The first action argues that the purpose of the evaluation should be to differentiate and classify universities according to the quality of their outputs and processes. It also asserts that the results of the evaluations should be made public and should inform future government decisions. While the strategy does not specify what kind of decisions these would be, it does mention some consequences for universities that do not satisfy the minimum evaluation criteria. Hence, public universities that fail to do so should no longer receive state funding and should either file for bankruptcy or merge with a more competitive institution. Private universities that do not perform at the minimum level should lose the state's recognition of their diplomas. On the other hand, the best performing universities (either public or private) ought to have access to a special institutional development fund to boost their performance. Similarly, the result of ranking study programmes would allow the best placed programmes to receive priority in allocating publicly financed study places. In contrast, low ranked programmes could receive less or no public support. The third action relates to the evaluation and classification of departments or Chairs. As stated in the strategy, universities would be responsible for carrying out the evaluation according to the methodology established by the Ministry of Education, Research, Youth, and Sports. In addition, Rectors would be accountable for allocating institutional resources to the most competitive departments and Chairs. Those which are considered low performers will be subject to a rigorous monitoring for two years, following which they will either improve their performance or be dismantled.

These three actions provided the basis for the classification and ranking exercise that followed after the adoption of the Law of National Education (2011). As described by the strategy the exercise was intended to measure performance at three levels, namely at institutional level (action 1), at the level of study programmes (action 2), and at the level of departments/Chairs (action 3). Considering the first level of assessment, Romanian universities were classified into three classes following an extensive data collection process (Law of National Education, 2011, article 193, §4):

- Education oriented universities (A class);
- Education and research/art universities (B class);
- Universities with advanced research and educational programs (C class).

Institutions in each class were expected to develop distinctive institutional missions focusing their resources on specific levels of education. That is, institutions classified as 'Education oriented universities' were envisaged as delivering mainly undergraduate study programmes, institutions in the second class as conducting both undergraduate and Master's level study programmes, while 'universities with advanced research and educational programmes' could focus primarily on strengthening their PhD level education and research activities.

In addition to the classes, the 2011 law paved the way for establishing a ranking of study programmes within disciplinary fields. It was developed in such a way as to provide information to potential beneficiaries about the level of academic quality in the areas of teaching and research. The exact methodology of this ranking was defined by the Ministry of Education and involved five levels ranging from A (excellent) to E (poor).

*Table 2. Criteria for university evaluation in Romania**

CRITERIA I. *Teaching and learning*	*CRITERIA II.* *Research*	*CRITERIA III.* *University relations with external environment*
Standard 1.1. Human resources Standard 1.2. Curriculum and qualifications	Standard 2.1. Results of academic research/artistic creation Standard 2.2. Availability of adequate resources for academic research/artistic creation	Standard 3.1. Social-economic relations Standard 3.2. Internationalization Standard 3.3. Social and cultural involvement of the university
CRITERIA IV. Institutional capacity		
Standard 4.1. The universities' capacity to support teaching and learning	Standard 4.2. The universities' capacity to support research	Standard 4.3. The universities' capacity to support services to society
Standard 4.4. The management of the university		

** The author's own translation based on the criteria described in the Ministerial order OMECTS nr. 4174/13.05.2011*

Internal classification of departments was also a mandatory requirement to be carried out by each university every five years (Law of National Education, 2011, article 195). This classification was supposed to rank departments on five levels based on their research performance and the results would allow institutions to close or reorganize any poorly performing departments. Despite the fact that departmental classification was explicitly mentioned in the law, higher education institutions never applied it in practice.

From a policy perspective the categories of the classification were considered as nominal cases, without any hierarchy between them. It essentially meant that the quality of the institution was not supposed to be reflected by the class to which it belonged, although performance was a main criterion to allocate institutions into classes. In theory, each institution could have excelled in its own class, but would be denied public funding for activities that are not considered as the priority of the class to which it belonged (such as research for institutions classified as education oriented). Rather, quality was supposed to be reflected by the programme ranking

that compared and hierarchically arranged study programmes based on their performance. Moreover, the results of the classification and ranking exercise were not supposed to be fixed. Institutions, departments and study programmes could seek to improve their positions or change classes. In this regard, an interviewee stated the following:

> … within the disciplines you can move up in the ranking if you improve your outputs, but also within classes, provided that several of your disciplines prove to be very good. So the classification was considered mainly as an orientation for institutions. You may be part of one class, but that doesn't mean that all your disciplines are at the top level (…) We were particularly keen on saying these were not frozen categories. (Interviewee: M09)

To identify which university belongs to which class, as well to rank educational programmes, the law required a nation-wide assessment to be conducted and periodically repeated (Law of National Education, 2011, article 193, §1 & §3). The exercise was carried out between May and July 2011 according to the methodology proposed by the Ministry of Education, Research, Youth, and Sports and approved by a government decision. The results of the first assessment were published in October 2011 but never repeated thereafter, as a result of a change of government.

TRANSPARENCY TOOLS AS INSTRUMENTS OF GOVERNANCE

Based on the design of the classification and ranking exercise it is evident that the purpose of these policy instruments went beyond simple measurement and assessment of higher education institutions, and constituted a tool through which the government sought to influence and control the behaviour of higher education institutions.

> Why should you evaluate if you don't use the [results of such evaluations]. I mean assessment is not a purpose in itself. We made assessments in order to improve things. Otherwise, what for? (Interviewee: M04, explanation added)

> So that was the idea in our exercise, to have some policy consequences related to [the results of the evaluation exercise], not just as a transparency tool. (Interviewee: M05, explanation added)

> And then, there were the consequences, especially for the public universities. For the private, in fact there were no other consequences, except that people knew about this. But for the public universities there were consequences. (Interviewee: M01)

The new policy was geared towards in centivizing universities to perform better, but at the same time it tried to prevent some universities from performing in certain areas. Universities that were classified as teaching-only institutions lost public funding for their PhD programmes and the possibility of obtaining national grants

for research projects. In this sense, transparency tools were utilized to make the existing differences between higher education institutions more visible and thereby justify different levels of funding, favouring especially those universities that could be more competitive on a global scale (i.e. universities classified as research-intensive institutions).

> But the policy makers, those who devised the law, they were aware that in fact there were huge differences between well-established universities – traditional universities, like the University of Bucharest – and new-born universities that lacked financial means, human resources or capacity but wanted to call themselves universities and had big research ambitions. And in fact, they wanted to segregate them and say okay, there are well placed universities who focus on research and its development and there are other universities that don't have the means to compete with the first lot on research, but they should set themselves other objectives, like doing more education, doing programmes with the local or regional employers, or developing study programmes that are necessary for the labour market and so on. (Interviewee: M05)

The late massification of Romanian higher education created unfavourable incentives for institutional isomorphism and at the same time contributed to an overall decrease of quality in terms of education and research. Newly established universities sought to imitate the traditional model of universities in order to attract more students. Moreover, increased student demand failed to reward the best universities since many students preferred to study at less demanding institutions. Thus, institutions which were very similar in terms of their mission started lowering their educational quality to remain competitive.

> So this institutional isomorphism was coupled with a lot of diversification on the axis of quality and by the fact that those who lowered quality were the most competitive [could attract more students] while the others were confronted with a lot of difficulties in coping with the financial burden or pressure of increasing staff salaries. (Interviewee: M09, explanation added)

The above quote highlights that the higher education market failed to encourage institutions to recognise and build upon distinctive missions and also wasn't capable of addressing the problem of low quality. Neither did the existing system of public financing of higher education institutions acknowledge such qualitative differences. This model was described by one of the interviewees in the following way:

> … the more programmes you have the more money you get, the more students you have the more money you get, the more research you do the more money and prestige you get. (Interviewee: M05)

Since all the institutions followed similar incentives they were more likely to adopt similar missions, despite the fact that there were large differences in their competitive positions. This led to the emergence of so called 'fake research universities' that

didn't have the capacity to engage in serious research but still defined themselves as universities (Interviewee: M05). Therefore, one of the expectations from the new policy was to annihilate some of the weak performing universities and/or study programmes (Interviewee: M04).

Another intention of the policy was to use transparency tools in order to promote competition among higher education institutions. Competition was to be ensured by the fact that universities and their study programmes would be periodically re-evaluated. The best universities would try to maintain their position, while the weaker institutions would try to improve.

> [I]f you are re-evaluated then you can lose your position and lose money. If you improve, then you receive more money. So that was the idea. The better you become, the more money you receive. (Interviewee: M04)

In traditional markets, smaller organisations try to differentiate their products in order to gain a competitive advantage. In the Romanian case the classification and ranking exercise rewarded those institutions that could demonstrate high quality research. Trying alternative routes, like excellence in teaching,was not nearly as rewarding as improving research output, at least in terms of public funding. Universities classified as research intensive were supposed to receive additional public support, enabling them to maintain or improve their position, while institutions classified differently would be denied a portion of their public income, making it harder for them to improve research activities. These rules would have acted as barriers to competition in Romanian higher education.

CONCLUSION

When the underlying idea changes about what higher education institutions are, or should be, the likelihood of governance change increases. More than ever, higher education is seen today as an economic asset whose proper functioning is necessary to achieve excellent economic performance. No country can afford to have mediocre higher education, or to finance mediocrity. These ideas guided Romanian policy makers who felt an obligation to increase the efficiency of their national higher education system. They found a source of inspiration in European narratives that stress the importance of higher education diversification and advocate the use of transparency tools. Consequently, in 2011 Romania introduced a national classification and ranking exercise. While the policy was rather short-lived, due to a sudden change of government, it presented an effort to align public funding to institutional performance and ensure higher education institutions deliver high quality. Although such motifs resemble governance shifts observed in other parts of the world, the form of governance advocated by the Romanian government was a rather unique one, especially considering its extensive reliance on transparency tools. Therefore, it is reasonable to ask how these changes in Romania supplement our understanding of traditional models of governance.

It follows from van Vught's (1989) distinction between the two models of governance that we should look at how the role of the state as a controlling body changed. The higher education reform in Romania indeed planned to strengthen the influence of the state over higher education matters. The emerging governance model would have relied on a sophisticated system of transparency tools that could direct institutional behaviour according to centrally set performance criteria. It reaffirms an instrumentalist view of higher education where tight control mechanisms are replaced by precise rules for reward and punishment. Academic decision-making is demoted because the criteria for quality and efficiency are externally defined and assessed through a national comparison. This represents a shift from substantive institutional autonomy towards procedural autonomy. Hence, contrary to some perceptions, transparency tools sought to strengthen the steering power of the Romanian government while at the same time narrowing down the autonomy of academics. Since state control was to be exercised indirectly and only over certain aspects of higher education, it would be problematic to interpret these changes purely as a form of a rational planning model, although a shift in this direction is rather apparent.

Based on Clark's 'Triangle of Coordination' we can explore how regulation and coordination of the sector was supposed to change. As the previous governance model failed to deliver the expected qualitative improvements in Romanian higher education,the government introduced specific rules to incentivise institutions to perform better. That is, control over performance would have been exercised through a bureaucratic instrument containing rigid indicators (transparency tools) undermining the role of academic norms or market demand in shaping the activities of higher education institutions. For instance, student demand for a specific study programme or the academic tradition of a specific field of science were side-tracked by the evaluation exercise that favoured centrally defined and more-or-less universal performance criteria instead.

The increasing power of the state to exercise control over the appropriate mission of higher education institutions and the way this control was to be exercised reassemble the characteristics of the 'sovereign state model' described by Olsen (1988). While it is still possible to interpret the current reforms as a move towards a minimalist state involvement, it would be a misleading view. As many of the interviewees outlined, the current shift actually represented a more intense state control. This occurred in two ways: first, institutions' performance would be assessed more frequently and in a more transparent manner, enabling the government to take immediate action against low performing institutions, but also justifying resource concentration in a few institutions. Secondly, it sought to evaluate institutional performance against indicators that were set by the government, and not necessarily by academics or other stakeholders such as students or regional authorities. These indicators were developed within a national context, but they also reflected international developments. The definition of indicators followed global examples of such instruments, and universities had to

conform to global expectations concerning the quality of research and teaching. Thus, performance was assessed nationally, but according to rules and criteria that originate from outside (but are legitimized by the national government). In this regard, the adoption of transparency tools as instruments of governance not only just strengthens the influence of the state, but also places the definition of performance in an international context.

In sum, the introduction of transparency tools would have enabled the Romanian government to reassert its role as a governing body. As such, it could have further harnessed universities for national political goals where research and education are increasingly seen as factors of production within a globalized higher education market. Instead of controlling the activities of higher education institutions in a top-down fashion, transparency tools offer control through comparative performance measurement. Hence, each institution is a direct competitor to the other. Looking at this model as a purely market driven one would be an overstatement. Again, the power of the government is restored by its ability to draw the lines between success and failure. The government can also define the set of parameters within which competition is expected to take place, reducing the freedom of institutions to excel in other areas or in alternative forms. This form of competition is more rigid than what we can expect in open markets since institutions are locked into a national grid of classes and ranks.

The argument in this paper affirms that transparency tools can be utilized by policy makers not just as instruments that provide comparable information about the performance of universities, but also as instruments that legitimize governance change in higher education. In the case of Romania the introduction of transparency tools facilitated a move towards a sovereign state governance model that sought to strengthen the role of the state as a governing body.

NOTE

[1] The Presidential Commission for the Analysis and Elaboration of Education and Research Policies was established in 2007 by the President of Romania at that time.

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13. CAN PERFORMANCE-BASED FUNDING ENHANCE DIVERSITY IN HIGHER EDUCATION INSTITUTIONS?

INTRODUCTION

In addition to producing knowledge through research activities, higher education systems and their institutions are shaped by the socio-political task of guaranteeing the transfer of knowledge via academic teaching. Some recent developments have led to the discussion of ways to more thoughtfully address a diverse (potential) student population: The anticipated shortage of skilled labour intensifies discussions about teaching in the areas of science, politics and higher education research. This discussion suggests that to an ever-increasing degree, students with varying conceptual backgrounds, individual objectives, qualifications and capabilities will be entering higher education institutions (HEIs) (cf. Krempkow & Dohmen, 2014). Consequently, any discussion of these developments implies at least two questions: First, provided that not every HEI can meet the specific needs of each and every student, do we expect that different types of institutions, e.g., universities and universities of applied sciences, or other variations between of HEIs will serve the specific target groups? Second, what effects can be expected of a particular institutional design on the successful graduation of students from specific HEIs?

In this paper,[1] we present a possible way to assess the institutional diversity of higher education by means of performance rating. In the first section, we explain the underlying concept of diversity and illustrate the setting of the various types of HEIs, particularly universities and universities of applied sciences (*Fachhochschulen*). Furthermore, we illustrate the diversity of the German higher education system with differences according to students' social origin. In the second section, we introduce a model that has been in use for more than a decade in Australia but has rarely been adopted in Europe,[2] i.e., recording differences among HEIs by using a performance indicator-based statistical balancing method that considers the composition of the student body. A calculation example shows that universities with many students from low socio-economic backgrounds (SEB) can reach performance levels that are almost the same as those of universities with many students from more comfortable backgrounds and actually produce greater "added value" in relation to their initial conditions. Accordingly, we conclude that these HEIs should be supported (financially) to enable them to react adequately to the specific needs of their students, so that students can be successful in their studies regardless of

R. M. O. Pritchard et al. (Eds.), Diversity and Excellence in Higher Education, 231–244.

their individual circumstances (DETYA, 1998). Finally, in section three, we weigh the pros and cons of the added-value approach and discuss its potential use in the German system.

DIVERSITY IN THE GERMAN HIGHER EDUCATION SYSTEM

Modes of Diversity

The two approaches to describing the variety of HEIs and the subsequent procedures for distributing funds, which are discussed in this paper, are both based on the assumption that modern higher education systems need to fulfil a multitude of needs for different target groups. Therefore, varied higher education institutional types have been developed, which constitute systems characterized by a more or less extensive institutional diversity.

Institutional or other kinds of external diversity in a higher education system are in contrast to intra-institutional diversity, and the differences might vary at a specific point in time from that at other times (cf. van Vught, 1996, p. 44; van Vught et al., 2010, p. 11). Diversity may be achieved via measures aimed at diversification (Goedegebuure et al., 1996, p. 5). The institutions may vary according to aspects such as the organizational structure, procedural aspects such as the execution of teaching and research, differences in the organizational culture or the orientation towards different target groups (Zechlin, 2014, p. 227; van Vught, 2009, p. 1). Diversity among HEIs might be horizontal, i.e., according to objectives and their implementation. There may be differences as well among the higher education institutions in terms of performance and reputation – this might be called vertical diversity (Teichler, 2005, pp. 65, 99); this has been recently promoted in Germany by the Excellence Initiative (Neidhardt, 2010, p. 57; see also Gaehtgens in the present volume). The advantages of an institutionally diversified higher education system have been summarized as follows: "Diversified higher education systems are believed to produce higher levels of client-orientation (both regarding the needs of students and of the labour market), social mobility, effectiveness, flexibility, innovativeness, and stability" (van Vught et al., 2010, p. 12; cf. also van Vught, 1996).

Institutional diversity in a higher education system is, at least implicitly, expected to have an integrative effect as far as the students are concerned. If HEIs vary according to teaching profiles and study programs, a system can be expected to meet better the specific needs of the diversity of the student body (van Vught, 2009, pp. 4–6). Against this backdrop, we will illustrate some links between type of HEIs and the composition of the student body.

Differences between Universities and Universities of Applied Sciences

The politically reinforced differences between universities and universities of applied sciences may be considered a central component in the movement toward institutional

diversity in Germany. In the late 1960s, a new institutional type, the universities of applied sciences (*Fachhochschulen* (FHs)), was introduced to supplement the existing universities. This was meant to help accommodate the increasing numbers of students seeking enrolment, when the higher education transformed into a mass system. The FHs had the major objective of providing students with job-oriented academic training as opposed to the research- and teaching-oriented focus of the traditional universities.[3]

Since the end of the 1980s, we have witnessed a trend towards further differentiation in the higher education system in Germany. While university students increasingly called for more practice-oriented study programmes, the FHs moved towards the fostering of research skills and from an applied emphasis increasingly towards basic research as well. With the conversion of the study programmes towards a modular structure, the similarity of teaching at these two types of institutions grew further (ibid., pp. 446–449). Additionally, universities of applied sciences got involved as well in the training of young academics, particularly by cooperating with universities in the supervision of doctoral dissertations, though they are not entitled to award doctoral degrees themselves. In the wake of the formal decrease of differences, other (informal) criteria for differentiation are gaining importance: the universities remain the only doctoral degree-awarding institutions;[4] teaching thrusts remain different; and only the universities are entitled to apply for funds in the framework of "future concepts" within the Excellence Initiative (ibid.; cf. also Wissenschaftsrat, 2010, pp. 22–24).

Diversity, however, is challenged by the fact that many HEIs lean towards the model of a research and/or "Excellence University." They try to excel in terms of global rankings, because the respective criteria are known (cf. van der Wende & Westerheijden, 2009, p. 71), and success in this regard contributes to higher reputation in the academic community. This is supported by performance-based incentive and funding systems (PBFs), which often regard research success more highly than teaching performance (cf. König, 2011). Consequently, if all institutions head toward success in terms of research in a similar way, the diversity among HEIs might shrink. As opposed to this development, the German *Wissenschaftsrat* (2010, pp. 66–67) recommended, in contrast to these developments, to foster diversity beyond two existing institutional types by reinforcing a wide variety of institutional objectives, organization types and tasks.

There has been a trend as well in Germany towards further formal diversification beyond the two major types. The academies of cooperative education (*Berufsakademien*), which combine vocational training and study, though traditionally not considered to be higher education institutions, could become competitors of the established HEIs (Krempkow & Pastohr, 2009). Actually, the eight *Berufsakademien* in Baden-Württemberg merged in 2009, and the new *Duale Hochschule Baden-Württemberg*, DHBW, are now formally upgraded to an HEI (BMBF, 2010, p. 66).

Diversity of the Students According to Institutional Type

The extent to which the major types of higher education vary in the composition of the study body can be illustrated by the most recent so-called "social survey" of the German National Association for Student Affairs (*Deutsches Studentenwerk*; see BMBF, 2013). Accordingly 96% of university students had a general university entrance qualification (*Abitur*) in contrast to only 57% of students at *Fachhochschulen*. In reverse, the proportion of students, who had accomplished vocational training, was higher at the latter (42%) than at the former institutions (13%); 55% of the first-degree university students had at least one parent with a university degree as compared to 38% of first-degree FH students. According to another student survey, regularly conducted by the Higher Education Research working group (AG *Hochschulforschung*) of Konstanz University, the respective figures were 58% and 40% in 2010 (Multrus et al., 2011). In the framework of the former survey, the educational background status is classified into four categories (BMBF, 2013, pp. 88–95). Accordingly, 27% of university students come from the upper social origin group, 29% from the upper middle group, 37% from the middle group and 7% from the lower group. The respective figures for FH students are 13%, 25%, 50% and 12%.

In sum, *Fachhochschulen* are viewed as being more open for students from social strata who had not previously been in touch with academia. In contrast, universities still have in part the image of institutions targeting the traditional elite, as was certainly true until the 1960s.[5]

Differences in the Composition of Students between Individual Institutions

Only a few studies provide information about the differences in the composition of the student body according to other criteria of diversity: do the universities traditionally strong in research attract more "elite" students, while institutions with a strong regional emphasis have fewer traditional students? For example, a recent study has demonstrated that composition of study in the German "elite" universities, i.e., the winners in the German Excellence Initiative, is clearly different on average from that at other universities (Kamm & Krempkow, 2010, 2013).

This study also examined whether the success rates differed according to this institutional characteristic. Prior analyses in various countries had shown that success rates – or completion rates according to the OECD definition (cf. Krempkow, 2010, 2008, 2007) vary to some extent according to the students' socio-economic backgrounds (cf. Dill, 2009; Dill & Soo, 2005). Dill (2009) as well as Kuh and Pascarella (2004), however, observed that selectivity at admissions is not a strong predictor of study success. In an earlier study, however, Dill and Soo (2005) analysed the validity of measures used in the commercial league tables in Australia, Canada, the UK, and the US and showed that these rankings are heavily biased toward measures of research performance including financial resources, numbers of faculty

and research activity, student selectivity, as well as university reputation. We provide evidence in regression analyses undertaken in Germany (Kamm & Krempkow, 2010, p. 75) that HEIs with more traditional students have higher success ratios, even if controlled by factors such as university entrance qualifications and study quality.

We conclude that greater diversity in this context can only be in the interest of the university leaders, if the differences in the student body in the future will *not* incur financially negative consequences.[6] Therefore, we will discuss the added-value approach for adjusted indicators, which can potentially solve this problem, in the following section.

THE ADDED-VALUE APPROACH: ADJUSTED INDICATORS FOR DIFFERENT INITIAL CONDITIONS

As explained above, research orientation has the best reputation in the academic community, and performance-based funding systems (PBF systems) mostly rate research success higher than the completion of teaching tasks. PBF may include a multitude of different indicators[7] for various areas of institutional performance areas and can be used as a basis for separating the allocation of funds in so-called multi-circle models via the afore-mentioned types of higher education institutions.[8] At present, however, the different initial conditions of HEIs in institutionally differentiated systems have rarely been considered when calculating performance indicators in Germany.

The Australian model of adjusted indicators, which was introduced in 1998 for the performance-oriented allocation of funds from the Learning and Teaching Performance Fund, provides a different picture. The model was based on the following considerations: "The simplistic use of performance indicators can produce misleading impressions of institutional performance. Institutions have diverse missions, backgrounds, course offerings and students" (DETYA, 1998, p. 70).[9] Therefore, a method was developed to balance the effects of various factors. Regression analyses were conducted, and the significant influential factors were considered for the adjustment at the institutional level. These factors actually comprise age, gender, non-English speaking background (NESB), indigenous Australian status, socio-economic status, rural status, isolated status, broad field of study, level of course, entry qualification and type of enrolment (ibid.). In France, CÉREQ (2009) conducted regression analyses and a simulation of a similar PBF procedure to that of DETYA, and in Germany Kamm and Krempkow (2010) did it. The influencing factors in Germany were gender, broad field of study, socio-economic status, and type of enrolment (cf., ibid.; Kamm & Krempkow, 2013, 2010). Essentially, this approach compares institutional performance with features of the composition of the student body. This approach would be transferable to German HEIs, if respective data are available (see Krempkow & Kamm, 2012). A first calculation on that basis suggested that the social origin of students is a salient issue.

Selected Differences between Higher Education Institutions in Germany as Regards the Composition of the Student Body

The institutional diversity of higher education institutions in Germany can be illustrated with the help of various features of the student body composition.[10] As can be shown with the help of a secondary analysis of available survey data (Bargel et al., 2011), the share of students whose parents have no university degree[11] varies among the universities for which information is available, from approximately 65% (Kassel, Duisburg-Essen, Oldenburg, Bochum) to 40% (Freiburg, TU Berlin, LMU Munich, Leipzig). The differences are only in part due to the composition of students by field of study students with lower social background often choose fields like social sciences or business administration, while those with higher social background often opt for medicine. That other factors play a role as well can be demonstrated by respective institutional differences within individual fields. For example, the share of sociology students whose parents are not university graduates ranges from approximately 70% (Kassel, Duisburg-Essen, Rostock, Bochum) to approximately 40% (Freiburg, followed by TU Berlin, Potsdam, Leipzig).

The proportion of part-time students differs to a similar extent. It ranges from approximately 15% (Freiburg, followed by TU Dresden, Karlsruhe) to 35% (Duisburg-Essen, Frankfurt/Main, Hamburg). In the field of sociology, this proportion ranges even from 19% (TU Dresden) to 60% (Frankfurt/Main). Again, the differences across all fields of study can be explained only in part on the basis of the students' composition according to field of study. Altogether, these select findings support the view that the transfer of the Australian model to Germany is worth considering.

The Four Essential Steps of the Calculation Method within the Model

The character of the model might best be explained by showing its four essential steps and using two fictitious HEIs as examples (similarly in DETYA, 1998, p. 71).[12] As Table 1 illustrates, institution 1 has a small share of students with a low socio-economic background (20%) in contrast to institution 2 (70%). Table 2 shows a higher uncorrected success ratio for institution 1 than institution 2, whereby the assumption is made students with low socio-economic backgrounds have lower success ratios than other students. In Table 3, the calculation of the expected success ratio of both institutions is presented, whereby the different initial conditions are taken into consideration. Given the national set of performance data and the composition of the student body, institution 1 should have a success ratio of 85% which would exceed the 82% initially assumed. Therefore, the difference in the crude and expected success ratios ("adjusted performance") is calculated as the fourth step (see Table 4). The adjusted performance, which looks more favourable for institutions with disadvantageous initial conditions, actually shows the "value added".

Table 1. Initial conditions: Share of students with low socio-economic background status (SEB) versus others by institution

	Institution 1	*Institution 2*	*Total*
Low SEB	20%	70%	45%
Other SEB	80%	30%	55%

Table 2. Success ratio as of students by institutions and socio-economic background status

	Institution 1	*Institution 2*	*Total*
Low SEB	70%	75%	74%
Other SEB	85%	95%	88%
Total	82%	81%	81.5%

Table 3. Expected success ratio (Exp. SR) for Institution 1 by performance and socio-economic background status

Exp.SR=	Low SEB share1 *	Low SEB perf. +	Other SEB share1 *	Other SEB perf.
Exp.SR=	20% *	74% +	80% *	88%
Exp.SR= 85%				

Table 4. Adjusted performance indicator showing the difference between the initial crude and the expected success ratios

	Institution 1	*Institution 2*	*Total*
Total Exp. SR	85%	78%	81.5%
Diff. cr.- Exp. SR = adj. perf.	82 –85 = – 3%	81 – 78 = + 3%	0%

The "adjusted performance" values resulting from the above calculation (see Table 4) help to show the effect of the decision to employ more than one variable. If only the "low SEB" proportions were considered influential factors for the adjustment, Institution 1 which clearly has fewer low-SEB students, would have a negative value (–3) because of the higher expected success ratio, while Institution 2 would have a positive value (+3) because of the lower expected success ratio.

The model calculation shows that even for large differences in the SEB distribution, the adjusted performance values remain in the range of single-digit percentages. Because the intent was to adjust the existing performance rating and

incentive systems and not to create new incentives to change the composition of the student body, short-term changes in the student body composition would have less of an effect than changes in the success ratios. Major changes resulting from a different student body composition might result from adjustments only when locations simultaneously showed clearly less favourable initial conditions compared with the rest of the country.

The Australian model calculated initially eleven factors in addition to SEB. Subsequently, only four influential factors were employed, but this led to almost identical results. On the basis of a calculation undertaken for 43 HEIs in Australia, some institutions, despite less favourable initial conditions, received higher-than-average funds in accordance with higher-than-expected success ratios. This is the core of the approach according to which HEIs are rewarded for adding value. There is of course the interesting and pedagogically fascinating question: how did the HEIs achieve this? Actually, several institutions suffered minor losses, but for many institutions, there were hardly any differences in funding (see DETYA, 1998; Krempkow, 2010).

External Reviews of the Model

The Australian model of adjusted indicators underwent an external review in 2005. While the suitability of some performance indicators was sharply criticized and the use of alternative indicators was recommended, the overall concept indeed was assessed positively:

> Access Economics found that the overall concept (…) attempting to create a 'level playing field' by removing differences in university performance due to exogenous factors (such as the age and gender mix of students) is a sensible and fair approach. The set of exogenous variables used is also sensible and covers a good range of social and demographic factors that are beyond the control of the institutions. [It] has also been careful to exclude any factors that are within the control of a university. (Access Economics, 2005, p. 4)[13]

Another analysis of the model resulted in the conclusion that even if the distributed amounts are comparatively small, the model – with its indicators and their relative weights – still has the potential to develop strong incentives for the institutions' policy – inter alia as a consequence of public debates about varying performance (Harris, 2007, p. 69).

DISCUSSION AND PROSPECTS: IS IT WORTHWHILE TO ADAPT THE AUSTRALIAN MODEL TO GERMANY?

This contribution is based on the argument that systems of recording and rating university performance and of providing respective incentives have an influence on institutional diversity and in this framework on varying compositions of the student

body. Although rankings do not counterbalance the fact that indicators not originally designed for that purpose will be considered directly in the PBF, it seems rational for individual institutions to follow the example of successful institutions to secure their future. As argued in Section 1, this state of affairs could lead to a reduction in institutional diversity, if all HEIs strive to become universities excelling in research and consequently disregard the diversity of the student body. In contrast, institutional diversity would be reinforced, if additional student characteristics are considered in performance ratings and if individual institutions are encouraged to focus on certain groups of students and to adjust their teaching contents and organizational offerings to these students' demands. This actually holds true, for example, for non-traditional students being considered in HEI performance ratings in the UK.[14]

At present, there are no models accepted in Germany which take into consideration the very different initial conditions of the individual institutions. This might be attributed to the fact that PBF experiences relatively low acceptance and has many unintended effects. Respective research has shown that PBF funding achieves its objectives only to a limited extent (cf. some contributions in Grande et al., 2013; Wilkesmann & Schmid, 2012; Winter & Würmann, 2012). This limitation even applies under relatively comfortable conditions for PBF in academia, as in the case of university medical departments in Germany (cf. Krempkow et al., 2013). Therefore, the author of this paper suggests considering the application of the Australian model. It has the potential to increase the acceptance of performance ratings, and it avoids possible classification problems by referring each institution's performance to its initial conditions without having to group the HEIs in advance.[15] It would lead to a higher degree of transparency and would take the "added value" of higher education into consideration in the performance rating and the PBF. Value would be added if HEIs with a student body composition that is not conducive to high success ratios have better-than-expected success ratios.[16] Higher-than-expected success might be achieved via an improved quality of courses and the promotion of subject specific and social competence of graduates (cf. the respective empirical findings discussed in Krempkow et al., 2010, p. 57; Kamm & Krempkow, 2010, p. 76; Krempkow, 2008). Improved quality of teaching and the enhancement of competencies are key objectives of the Bologna process, and these objectives have been given a stronger weight recently in Germany in the framework of the federal government's most recent Bologna summits and by the provision of respective funds (such as the 2 billion € spent to improve the quality of teaching and learning in the framework of the Higher Education Pact 2020). An adjustment of the *Länder* PBF according to the above discussed Australian model could help achieve the objectives of improving course delivery quality and enhancing competencies.

There are certainly opportunities but also risks associated with the added-value approach which may raise some concerns. Moreover, can such an approach gain acceptance via the illustration of the relevant statistical calculation methods? Finally, one hope to find ways of combining approaches such as the classification approach

and the added-value approach in a way that positive effects can be expected from diverse university profiles.

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NOTES

[1] This article is based on a previously prepared text (Krempkow & Kamm, 2011) that has been revised and updated.

[2] There exists another option for recording institutional diversity developed in the European context: the so called "U-Map classification" of European HEIs, according to the Carnegie Classification in which HEIs are classified in different classes and/or types, following certain criteria (cf. Carnegie Foundation, 2014; Wissenschaftsrat, 2010). ("U" is an abbreviation for "university" in the German context, "U" also stands for universities of applied sciences.) For further information, see Mahat et al. (2014); see Krempkow and Kamm (2014) as regards strengths and weaknesses of the classification approach compared to the added-value approach.

[3] Universities of art and music (mostly called "*Akademien*" in Germany) and universities of teacher education ("*Pädagogische Hochschulen*", still existing in Baden-Württemberg), are additional HE types in Germany; however, their impact is negligible because of their small size. Universities of technology, which had been a separate institutional type in the past, are included in the category of universities (see Enders, 2010).

[4] For example, the UAS7 association of seven German universities of applied sciences, which welcomed the German Council for the Sciences and Humanities' recommendation (Wissenschaftsrat, 2010) to support the further differentiation of the higher education system and to grant some universities of applied sciences the right to award doctorates.

[5] Additionally, the two major types of HEIs in Germany differ, for example in terms of gender, students with or without children, and students with or without a migration background (BMBF, 2010, 2013).

[6] Dill (2009) reminds us that a national study of the US researchers at the Rand Corporation (Brewer et al., 2002) discovered that many institutions are attempting to alter their standings in university rankings by "cream skimming" the student market.

[7] In the PBF systems in the German *Länder* in recent years up to 11 indicators were used, including the number of graduates, or the number of graduates in relation to the number of study beginners (as success ratio similar to the OECD completion rate). Although the weightings for single indicators of research performance were often higher than the indicators of teaching performance, the indicator weighting for graduates or success ratios were relatively high (11% up to 50% in PBF models with only few indicators) (cf. Dohmen et al., 2015).

[8] In recent years, there has been a PBF system in almost every Land (cf. König, 2011; Dohmen et al., 2015).

[9] Finland, which offers *boni* for schools in socially underprivileged areas, and the UK, which provides "special funding for 'high-risk' students with a statistically high propensity to drop out" (Sörlin, 2007, p. 422), are exceptions. Some years ago, the UK also used the term "non-traditional students". The most recent Berlin system of performance-based university funding is an exception in the German higher education system. Here, diversity is considered explicitly, for example, by crediting higher education institutions an additional 10,000€ for each new student who has a migration background

or who comes from an applicant group without the typical entry qualification(Senatsverwaltung für Bildung, Wissenschaft und Forschung Berlin, 2011).

[10] In Germany, the influence of the social and educational background on the results of the PISA surveys and similar studies has long been discussed. Many publications show a strong relationship between both aspects and indicate that they are under the control of other influencing factors (cf. OECD, 2013, p. 40; Lehmann, & Lenkeit, 2008, p. 42). These findings have led to a calculation of adjusted mean performance (after taking socio-economic status into account). Our paper addresses a very similar issue: What would be the average performance if all students had the same socio-economic status? OECD (2013, p. 42) shows that some countries, i.e., Portugal, Turkey and Vietnam), perform much better in the adjusted condition.

[11] The proportion of students whose parents are not university graduates was calculated using the variable "father's educational degree combined with vocational qualification" in Bargel, Multrus, and Ramm (2011). The calculation was based on the last four waves of a survey conducted at 17 universities and ten universities of applied sciences throughout the Federal Republic of Germany. Information about educational origin was available for 33,175 students, including 665 sociology students.

[12] The example is not based on real HEIs, but it illustrates the basic function of the approach. Therefore, institution 1 and institution 2 in this calculation example have an equal size.

[13] The issue has been discussed for a long time which influencing factors must be incorporated into outcome comparisons in studies on quality and the output/outcome of teaching and learning. The Access Economic report represents the main features of a typical meta-analysis in this domain arguing that only "external" influences independent of teaching and learning should be considered in outcome comparisons. At the same time, conditions that can be influenced by actors should not be regarded as potentially distorting "bias variables" and should therefore not be incorporated into the indicator adjustment calculation. The multitude of studies on this subject cannot be addressed in detail in this paper (for a detailed discussion, cf., Krempkow, 2007, p. 145).

[14] Here is a potential risk of "gaming by numbers": If the necessary data consist of soft information (e.g., parents' school degrees), university administrations might have an incentive to inflate the numbers of this group of students. To our knowledge, no misuse of data has been reported to date in the UK. Nevertheless, to avoid potential misuse, the indicator adjustment should combine multiple aspects (as the Australian model does).

[15] The German PBF usually distributes money only to universities and universities of applied sciences (because of different research shares). Consequently, adapting an Australian scheme would not automatically merge the 2-tier German system into one tier.

[16] Of course, it is not possible to solve other problems that are pertain to the performance rating just by means of indicator adjustment. In particular, we refer to the possible unintended effects of PBF systems with few indicators that may be easily manipulated, are highly oriented towards quantity, and offer little incentive for promoting or at least securing quality (cf., Krempkow, 2007). To process this problem, either a stronger quality assurance measure or indicators that are supposed to more accurately record the quality of the provided performance were introduced in nations with a longer PBF experience. For the latter objective, both the Australian experience and the Swiss indicator developments based on graduate studies may be helpful for continuing the discussion (cf., Krempkow, 2009, p. 49 et seq.). For some subjects who have taken exams that are the same throughout a state or even throughout the Federal Republic, examination marks may be worth discussing. In the long run, recordings of university graduates' skills may be used as a tool that offers the potential for better quality recordings (cf. the international AHELO project).

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