





Managers and academics in a centralising sector

The new staffing patterns of UK higher education

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Contents

03
07
09
17
49
73
79
85

Executive summary

Background

UK universities have expanded considerably in the last two decades, which have seen strong growth in numbers of both home and international students. Some universities now enrol over 40,000 students, and numbers in the high 20,000s and 30,000s are widespread among the major research universities and some new universities.

What impact has the transformation of our universities had on their internal operation and particularly staffing patterns and practices? Commentators, including those within academia, the media, and trade unions, have suggested that there may have been substantial changes in the university workforce, with knock-on effects for both their quality and operational efficiency. Yet in-depth analysis of this topic has been lacking until now.

Our research provides new information on staffing trends in the higher education sector and their underlying causes. We address two of the most widely discussed workforce issues – firstly, changes in the nature of non-academic staffing, and secondly, the perceived decline of 'traditional' permanent academic jobs which carry both teaching and research responsibilities, and the consequent growth of part-time and teaching-only academic staff.

Data and methods

A mixed methods approach was used in this research project. Using Higher Education Statistics Agency (HESA) data, we tracked broad staffing trends, and variation within the sector, over a period of some 15 years for a large sample of 117 'generalist' HE institutions (that is excluding small and specialist providers). We also carried out case studies of six HE institutions, covering a number of different university 'types', and including two Scottish and four English institutions.

Main findings

Among non-academic staff, the main area of growth was managers and non-academic professionals. The data also show substantial growth in staff employed to deal with all aspects of the 'student experience', for instance welfare workers and career advisors.

Over the last 20 years the external environment which UK universities face has changed considerably. This has included increasing competition for students, and especially overseas students, which has led universities to expand their marketing departments. There has been a growing preoccupation with improving student services in an effort to boost student satisfaction ratings. The case study evidence supported this interpretation of the data: a potential for improvement in the 'student experience' was often used as justification for new professional services jobs. However, while changes in the external environment underpinned much of the growth of managers and nonacademic professional staff over the last 20 years, aspects of universities' internal organisation also mattered.

Ongoing centralisation of professional services was a strong theme across the case study institutions. Approval of academic posts was also highly and increasingly centralised. In the case of senior professional service posts, senior leadership teams' lack of expertise on professional service matters meant that justifications for these roles tended not to be challenged. Hence institution-wide structural barriers to, and constraints on, upward drift in professional service posts were seldom observed. This was in sharp contrast to the situation with academic posts, where scrutiny was extensive. On our second topic, changes in academic staffing, we found an increase in numbers of more than 80 per cent in teaching-only staff between the academic years 2005/06 and 2018/19, while numbers of 'traditional' teaching and research staff (i.e. lecturers, professors, etc, who both teach students and conduct research) rose by just 16 per cent over the same period. Teaching-only staff tend to be part-time, although the proportion of full-timers was increasing, and had reached about a third by the end of this period.

The increase in numbers of teaching-only staff was particularly apparent among the research-intensive Russell Group universities. These universities had relatively few teaching-only staff among their academic workforces in 2005/06 and there was a general pattern of institutions with low proportions of teaching-only staff in 2005/06 tending to catch up over the years through to 2018/19.

In the case studies we sought explanations for the remarkable growth in teaching-only staff. Perhaps surprisingly, there was no evidence of any deliberate strategy of re-balancing the academic workforce. Growth occurred in a more haphazard way. Universities were focused on research rankings and research excellence, particularly towards optimising performance in the government's 'Research Excellence Framework' (REF) review, for which numbers and percentages of 'research-active' staff are important. Recruitment to permanent academic posts was very closely scrutinised from the centre, and especially in 'research-intensive' universities, research excellence was a key criterion for appointment. So, especially in researchintensive universities, teaching-only appointments were put in place to cover for permanent staff bought out by research commitments or taking up their entitlement to regular sabbaticals. In addition, when academic posts were not filled, or not approved, continuing growth in student numbers ensured that short-term staff, often on teachingonly contracts, were appointed instead.

Implications

While there has been substantial growth in the total numbers of staff on fixed-term and teaching-only contracts, it can be argued that the UK has experienced less of a divisive 'dual labour market' than some other marketised systems, notably the US and Australia. The most plausible explanation for this is the research funding system in the UK, which encourages universities to employ those with both teaching and research capabilities and probably places some limits on the growth of teaching-only staff.

As numbers have increased, so the teaching-only segment of the workforce has become more visible. Some universities have responded, with pressure from unions, by improving working conditions and putting in place promotion pathways for those on teaching-only contracts, as well as better opportunities for moving to 'teaching and research' contracts which do allocate time for research as well as for professional development.

Any concerns over the continuing movement towards more senior managers and non-academic professional staff will be more difficult to address. Such concerns include the markedly reduced autonomy departments have within a university, and the extent to which expensive changes seem to have occurred without being underpinned by a clear strategy.

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Introduction: Higher education in the UK

Recent decades have seen enormous growth in higher education worldwide, including in the UK. As recently as 1970, post-Robbins, and with both the new 'plateglass universities' and the polytechnics in place, only a little over 10% of the age cohort participated in higher education. Today the proportion is a half and still rising, in a pattern common to the world's developed nations.

UK universities enjoy a very high reputation internationally and attract large numbers of international students. As such they have become a major 'export industry', larger in turnover than, for example, pharmaceuticals, and bringing in billions a year not just in fees but also in spending on food, accommodation and leisure. They have also become, individually, far bigger. A successful university such as University College London now has over 40,000 students, twice as many as it had on the eve of the financial crash. Manchester also enrols over 40,000: among the big research universities, enrolments in the 30,000s and high 20,000s are the rule, as indeed they are in successful 'new' institutions such as Sheffield Hallam or Nottingham Trent.

It is plausible that such a transformation, in both size and recruitment patterns, will affect the way universities operate internally, including their staffing patterns and practices. Many UK observers, notably academics, media commentators and staff unions, have indeed argued that there have been major associated changes in the university workforce, with consequences for both quality and efficiency. However, there has until now been little in-depth analysis of these. Our research, generously supported by the Nuffield Foundation, undertook just such an analysis of staffing developments in UK universities since 2000, and provides new information on both numerical trends and their underlying causes. The full results are published by the Policy Institute (Wolf and Jenkins, 2021). In this monograph we highlight the major findings and their implications. Our research focused on the two most discussed workforce issues. The first is changes in the nature of non-academic staffing, where observers have identified a growth in administrative numbers, and the research focused in particular on changes in senior managerial and nonacademic professional posts. The second is the perceived decline of 'traditional' permanent academic jobs which carry both teaching and research responsibilities, and the growing prevalence of part-time and teaching-only academic staff. Our findings confirm major changes in both these areas and indicate that these are driven not only by the changing external environment, but also by the way universities are organised and governed.

How universities are funded

As with most institutions and sectors, it is important to understand how higher education is funded in order to understand how it operates. In recent decades, funding methods and levels have diverged in important respects among the four constituent countries of the United Kingdom. Nonetheless, they retain important similarities, and their workforces have changed in similar ways.

The whole sector depends to a large and increasing extent on international fee-paying students. Until 1981, all overseas students who received a UK university place were funded in the same way (and so received free higher education tuition) as home students (Aldrich ed, 2002). Today, universities can not only recruit as many 'international' students as they wish at all levels, but also decide what to charge them. Since the early 1980s there has been a rapid increase in overseas students and overseas fee income. For example, by 2007-8, 16% of overall teaching and tuition revenue in England derived from international students (Dearden et al, 2012). By 2013/14 this had risen to 24% (HESA). Until this year, EU students were treated as 'home' students for fee-paying purposes: this is no longer the case.

For home students, degree study remained free at the point of use until the late 1990s (Harrison and Hatt, 2012). Continued rapid expansion of places for home students was secured, for many years, by reducing spending per student, and quality declined, and the Dearing Report duly recommended student fees (Dearing, 1997).¹ Fees were introduced by the 1997 Labour government, albeit initially at the very low level of $\pounds 1,000$ a year, with the bulk of funding continuing to come from the government.

In an increasingly devolved UK, the English government has since moved to increase student fees absolutely and as a proportion of universities' overall income. English fees for home (i.e. all EU) undergraduates were increased to a maximum of £9,000 a year in 2012-13, and £9,250 from 2017-18 (and are currently frozen at this level). Students are not required to pay these fees upfront, but instead are eligible for a government-financed income-contingent loan.² Although universities could charge home undergraduates (Wolf, 2016), and home undergraduate fees are effectively uniform. Meanwhile, postgraduate fees for home, as well as international, students have been progressively deregulated, and are now for the most part set directly by the individual institutions. There are currently no limits on related subjects, most notably medicine and nursing. The systems in Wales and Northern Ireland are broadly similar, but Northern Irish residents studying in Northern Ireland pay much lower fees than do other 'home' students.

less than the cap, there is almost no incentive to do so how many students English universities can recruit at either undergraduate or graduate level except for a few health-In Scotland, fee policy has changed a number of times: but currently, resident Scottish undergraduate students do not

2 Recent budget announcements extend this system to include loans for masters and doctoral degrees.

1 What was actually implemented

differed from what

had originally been

recommended by

Dearing - see e.g. Palfreyman and

Tapper (2014) for details.

> pay any tuition fees, and student numbers are controlled at institutional level. Postgraduate students pay fees, and can access student loans in the same way as in England. Students from the rest of the UK pay fees at essentially the

same level as in England. There are no controls on overseas fees and numbers at either undergraduate or graduate level.

While teaching income is the single most important source of funding, research income is also extremely important, especially for 'research-intensive' universities. The research funding system is also, unlike tuition, uniform across the UK. Much research income comes in the form of competitively awarded grants (including from the government-funded UK-wide research councils.) However, the UK government also operates a system of 'dual funding' for universities, which involves block 'Ouality Related' grants made on the basis of UK-wide periodic research quality assessments. These grants are not tied to specific expenditures, but can be treated as general revenue. They are, and always have been, guite highly concentrated and uneven, and their purpose is to ensure that a part of the sector is able to maintain a high quality research infrastructure, in terms of both infrastructure itself and allowing staff time for research.

This funding has been allocated on the basis of, first, the "RAE" (Research Assessment Exercise) and more recently the 'REF' (Research Excellence Framework). Results are widely disseminated, and directly affect an institution's reputation, and attractiveness to students. Performance on the REF is therefore doubly important, as a source of direct funding and because of its wider indirect effects.

A differentiated system

Countries vary greatly in the degree to which higher education is concentrated in universities, and in the degree to which universities are highly differentiated or broadly similar in provision and reputation. The UK is unusual in that almost all its higher education takes place in 'full' universities which are able to award undergraduate, postgraduate taught and research degrees. Its universities are also highly differentiated. This is partly an inevitable result of the uniform formal structure. However the English, and to a somewhat smaller extent, the Scottish system was already, by the late 20th century, highly differentiated by global standards. Today, UK universities are strongly represented in international league tables, with sizeable numbers of institutions in 'top 20', and 'top 50' lists: others are not included at all.

The 117 sizeable UK HE institutions which together recruit the vast majority of undergraduate and graduate students, fall into four broad categories. 'Russell Group' members, are research-intensive and include the largest and most prestigious research universities. Another set of institutions are other 'old' universities: defined as those which were full universities before 1992 and including some of the oldest institutions in the UK. A third grouping is the expolytechnics, which were established in the mid-1960s, and all of which became universities in 1992. Finally, there is a sizeable group of other 'new' (post-92) universities many of which existed in other forms before becoming universities, for example as colleges of art or of 'higher and further education'. Although there are obviously many overlapping characteristics, the data suggest that these four groupings are quite distinct on a number of dimensions, and we have used them in analysing sector trends. We excluded from our analysis institutions which were small, highly specialist or otherwise atypical (e.g., Royal College of Music, Institute of Cancer Research). The Higher Education Statistics Agency does not collect detailed information on so-called 'alternative providers,' (which are not universities but provide higher education) and we therefore excluded them too, due to a lack of data.

Data and methods

The project used a mixed methods approach. The quantitative component of the project drew extensively on administrative data held by the Higher Education Statistics Agency (HESA). Annual data, including information on numbers and types of staff, were used to track staffing trends over the last 15 years and analyse variation within the sector.

We also carried out six case studies of universities' staffing developments and decisions. Senior management team members, and senior members of professional services were interviewed and we also examined financial records in the public domain. Our sample for the case studies consisted of six universities. This was a convenience sample but deliberately included two Scottish universities. Given differences between England and Scotland in terms of funding policies and funding levels for 'home' students, and also the existence of number caps in Scotland, but not England, we aimed to explore what effect, if any, these might differences have on staffing changes. The comparison is made easier by the fact that Scotland is part of the same research funding regime as England and the contribution of international fees to total teaching income is critically important in both.

Findings

Our research confirms that both teaching-only and senior managerial and non-academic professional posts have indeed grown very rapidly in absolute terms and as a proportion of the university workforce. It also makes clear that these developments are in substantial part the result of both changes in the external environment, and of internal university structures. They are not driven by theories, or direct examination, of academic pedagogy or student learning. Most academic commentary, in the UK and elsewhere, has argued that such changes reflect and strengthen worrying shifts in the ethos, objectives and quality of university activity. However, they might also in principle improve teaching, free up academic time, and/or improve the quality of student life and study. Our research was unable to measure the direct impact of these trends on learning or student life. However, it underlined the limited

extent to which these changes are even understood, let alone scrutinised or fully evaluated by senior management teams or, therefore, by the Academic Boards and Senates, or the University Councils and Courts, which have responsibility for governance and academic standards. This should be of concern to the entire university community.

The following pages describe our major findings. Part Two discusses the growth in the numbers and importance of senior managers and non-academic professionals. Part Three examines changes in the academic teaching workforce. Part Four concludes.



The rise of the senior manager, and the decline of the academic department

It is a curious fact that in both the academic and the policy discussion of universities, half of their staff are almost entirely ignored. As Figure 1 demonstrates, slightly over half of all university staff are 'non-academic', even in this age of out-sourcing. Yet extremely little is written about them. This is true for the academic literature, for the policy writing that most directly informs government thinking, and of education journalism. Vice-chancellors figure, and there are occasional comments on the salaries of senior management teams. Otherwise the focus is on academics and researchers. The rest are invisible.

FIGURE 1: Non-academic staff per 100 academic staff for UK universities, 2005/06 to 2018/19. Sample is 117 generalist universities.



If you look at the public face of a university, namely its website, much the same applies. You will find enormous detail about academic departmental and faculty structures, and almost nothing about how anything else works. This might be understandable if universities were run more or less entirely by academics, with non-academic or 'professional services' staff acting as dutiful administrative hewers of wood and drawers of water. But while 'Supporting the work of the faculties and academic departments' is indeed the public mission statement of university professional services that paints a very partial picture of how universities operate.

Modern universities are, as noted in the Introduction, huge organisations, with multi-million pound turnovers. Indeed, as a sector, they rank in size with legal services and ahead of pharmaceuticals. No-one would analyse the performance of a multi-national manufacturing company while ignoring entirely its finance department or its marketing and sales. And anyone who wants to understand how an organisation works, including whether and why it is succeeding or failing, will look not just at formal titles but at budgets, budgetary control, access to the CEO, committee memberships, and who inhabits the executive suite (and rates their own PA).

The same advice applies to understanding a university, and to understanding how and why universities have changed, in Britain and across the world.

An international trend?

Although there has been relatively little formal research into the non-academic half of the university workforce, such data and literature as exist paints a fairly consistent international picture. In principle, one might have predicted a significant fall in the ratio of administrative to academic staff in recent decades, for two reasons First, the past decades have been a period when out-sourcing of functions (e.g., cleaning, catering) has been common, and so the number of direct employees will have been reduced accordingly. Second, advances in IT might have been expected to reduce significantly the number of administrative staff because of greater efficiency in a range of activities, including finance, space allocation, and all basic clerical tasks.

However, most countries where data exist seem to have experienced higher growth in non-academic than in academic staff numbers. At the same time, all seem to have undergone major and similar change in the structure of the non-academic workforce, with big increases in the size of senior management and the numbers of highly-paid 'administrative' professionals.

One of the earliest studies to map these changes examined four major Norwegian universities – Bergen, Oslo, Trondheim, Tromso – in the late 20th century, a period of rapid growth. Student numbers rose by some 85%, academic staff numbers grew by 56%, while total administrative staff grew by 66%. However, the overall figure masked a difference between the clerical staff where numbers actually fell and higher administrative staff where numbers more than doubled (Gornitzka and Larsen 2004).

For the Netherlands, Kallenberg (2015) reports that 'the additional spending on education in the last 20 years has been entirely spent on overhead. Average expenditure per student fell by 30 to 40% over the period but the overhead expenses of university education increased by a third.' There was both an increase in the percentage of non-academics in overall staff numbers and growth in the number of highly specialised administrative functions within the domain of non-academics.

Krücken, Blümel and Kloke (2013) conducted a careful empirical study of German universities in the period 1992-2007: also a period of growth. Here, total academic staffing grew more rapidly than administrative/managerial staffing but the proportion of permanently employed and statefunded academics decreased. Change was strongly related to the intensification of third-party research funding at German universities and many of the new academic positions seem to have been at doctoral and post-doctoral level, rather than full teaching or teaching-and-research positions. Within the administration there was again a strong trend towards more senior staff and fewer in lower administrative and clerical positions, partly due to out-sourcing.

Ginsberg (2011) produced evidence of the rapid growth in numbers of managers and administrators in American universities, noting that in 1975, 'America's colleges actually employed more professors (i.e. academics: Ed) than administrators'. However between 1975 and 2005, as the number of full-time academic staff 'increased slightly more than 50 percent – a percentage comparable to the growth in student enrolments during the same time period - the number of administrators and administrative staffers employed by those schools increased by an astonishing 85 percent and 240 percent respectively' (Ginsberg, 2011: 25). In France, academics such as Christine Musselin (2019) observe a growing formal managerialism and a downgrading of the faculties. Australian academics chart the rise of the 'Managerial University' (Coleman ed., 2019). Our work on UK universities shows that this country is no exception to these general trends.

Are these changes simply and directly a result of growth, and its resulting need for bureaucracy? All large organisations are bureaucratic because the core characteristic of bureaucracy is that it provides continuity as individuals come and go, in large numbers. The existence of procedures, rules and files means that their successors can pick up where they left off, and that core knowledge necessary to run an institution does not vanish with each departure. So our huge modern universities are indeed, and inevitably, bureaucratic.

But the basic move from a small quite informal organisation to a bureaucratic one took place, for modern universities, a good many decades ago. On its own, it cannot explain the recent changes in the workforce, or the failure to realise the economies that we might have expected in a digital age. In the following pages we both discuss in some depth the specific changes that have characterised the UK university sector in the last 15 years, and provide some possible explanations, drawing on visits to a range of UK universities. But before turning to these, it is important to summarise some important characteristics of UK universities and how they are run.

A curiously bifurcated workforce

British universities today (and especially English universities) are in many ways like commercial organisations. They are concerned with growth and profit (or, more accurately, financial surplus). Academic departments earn money, from fees, research and 'third stream' activity, and it is overwhelmingly from these 'customer' or client-facing parts of the organisation that income is derived, some of which is used to pay for administrative and support activities, capital projects, debt interest etc.³ Separate capital funding for English universities has been cut massively since 2010, and so building programmes must be serviced from surplus funds or loans. There are no owners or shareholders, since they are charities, but university councils hold ultimate decision making power, including appointment of the Vice-Chancellor (CEO).

These councils have become, under government pressure, increasingly like the boards of listed companies. (Shattock and Horvath, 2021) Their independent members (the equivalent of 'non-execs') often have rather limited knowledge of how a contemporary university operates, and this may have reduced challenges to, or interrogation of, developments in the sector. But non-execs in the private sector also tend to be either fairly or highly ignorant of institutional developments, as is probably inevitable for large organisations, and as becomes obvious every time something goes seriously wrong (Higgs, 2003).

3 Very few UK universities have substantial endowments. Conference/ rental income is substantial but a small proportion of total receipts. However, when compared with large private-sector businesses, the way that university staffing is organised appears curious. Universities operate on the basis of a division into two parallel workforces of very much the same size, and this is a fundamental, structural feature of the entire HE sector. Higher education is also, as far as we know, unique in dividing its main permanent workforce in such a rigid binary way.

At the heart of any university are academic staff with teaching responsibilities, who may have 'teaching only'

or 'teaching and research' contracts. Alongside them are large numbers of 'professional services' staff, ranging from chief operating officers downwards. There are also, especially in research-intensive universities, large numbers of academic 'research-only staff'. Research-only staff typically work on specific projects funded through grants and contracts, and are typically employed on fixed-term contracts tied to a specific project. They are also quite distinctive in that the creation of their roles is the result of someone (normally an academic with a permanent contract) obtaining the contract or grant. These positions are not established by, or controlled by, the main university hierarchy: and academic investigators will normally make the hiring decisions for all the posts covered by research funding, whether they are academic or administrative. They are not further discussed here (but see OECD (2021) for a recent discussion of the precarity of these staff).

For the vast majority of university positions – academics with teaching responsibilities and professional services staff – there exist two completely distinct but organisation-wide appointment processes and reporting structures: one for academic posts and the other for non-academic professional services posts. The overwhelming majority of the latter, whether or not they are based in academic departments or working to support academic activities, do not report formally to any academic staff.⁴ Rather they are part of a completely separate hierarchy with its own authority structures.

4 In practice, of course, the ability of e.g., a dean to have some impact on professional services activity in their faculty is quite large, but always contingent on relationships with senior professional services officers (and, in some cases, the unions).

Of course, any large organisation has internal 'service' departments such as HR, Finance, and IT, which carry out work for others, and have their own internal structures. But in most sectors, groups which are expected to function as teams will normally all answer to the same team head. To private sector employees, and to heads of schools and further education colleges, it seems extraordinary that someone running a sizeable activity, such as a university faculty, or indeed department, would have no formal authority over large parts of the relevant workforce. The central civil service operates a highly centralised system in which ministers have no formal role in appointments or supervision of civil service 'officials': but the civil service structure is unified. Hospitals are the closest to universities, but have a different form of complexity, with constantly changing work groups and substantial autonomy for different professional medical groups.

This distinctive binary organisation means that a large part of the organisation, and its most visible one – notably those departments concerned with the core 'income earning' activities of teaching and research – contain two separate workforces, who work alongside each other. Other nonacademic departments and functions are staffed entirely, or almost entirely, with administrative and managerial staff. At national level, and across institutions, these two workforces – 'academic' and 'professional services' – are of similar total size,⁵ but their hierarchies meet only at chief executive (Vice-Chancellor) level. Moreover, in most universities there is no single budget, other than at wholeinstitution level, where overt trade-offs between academic and professional services can be or are routinely examined.

- 5 In 2018/19 British universities employed 217,000 academic staff and 223,000 nonacademic staff (HESA). <u>https://</u> www.hesa.ac.uk/ <u>data-and-analysis/</u> staff/table-3
- 6 For more detailed data, using 11 categories, see Wolf & Jenkins 2021 Tables 25 and 26

This distinctive form of staffing has existed for as long as anyone currently in university management can remember. It is important because it drives the way in which staffing decisions are made, and changes emerge.

The UK in the 21st century: a changing workforce structure

As explained above, our main source of data in examining workforce change has been the extremely detailed administrative data collected by the Higher Education Statistics Agency. (HESA). In order to examine changes within the overall body of non-academic staff, we have grouped data on non-academic employees into seven functionally distinct categories.⁶ We have been able to create (at least approximately) consistent categories across the entire period 2005-19 but have been unable to separate out the very top cadre of senior managers. Instead, we have to examine a single larger group of managers and non-academic professionals – MNAPs – because many posts were re-classified from one side of the 'Manager – Non-Academic Professional' boundary to the other as part of a major HESA re-classification exercise that took effect from 2012/13 onwards.⁷ Non-academic professional posts would include senior staff engaged in running activities such as quality assurance, student support, marketing, IT or recreational facilities.

Table 1 shows absolute numbers of non-academic staff employed in each of the 7 categories for UK universities in 2005/6 and again in 2017/18, and also what proportion of non-academic staff were employed in each of these categories. Overall, numbers grew by 16% but there were very marked differences between sub-groups.

The largest absolute growth was in the numbers of managers and non-academic professionals. As highlighted in the table they rose from just under 32,000 in the academic year 2005/06 to almost 51,000 by 2017/18, an increase of some 60 per cent over 12 years. They also grew the most in terms of representation: they comprised less than a fifth of all nonacademic staff in 2005/06 but more than a quarter of them by 2017/18.

This is consistent with the international trends noted earlier. Staff classified as 'Marketing and media' grew even faster, though the absolute numbers are smaller. This growth is obviously consistent with the sector's rising levels of 'marketisation', in the sense of open competition for home students (in England) and international students (throughout the UK): and of course, managerial and MNAP staff working in this area are likely to have grown in numbers too.

Another development during this period was a growing preoccupation in the sector with student services and

7 From 2019/20. it was no longer mandatory for HE providers to return information about non-academic staff to HESA, seriously undermining the possibility of making long-term comparisons at sector level for these staff. About a third of the HE institutions which had returned data up to 2018/19 chose to opt out of providing such data for 2019/20.

their contribution to 'student satisfaction' (especially as measured on the government-mandated National Student Survey). Certainly, as Table 1 shows, associate professional level employees dealing with the 'student experience', including welfare workers and career advisors, more than doubled their numbers 2005-17. Whereas changes in – and a perception of growth in – administrators is remarked upon by university observers in a range of countries, this development appears to be of particular significance in the UK. OECD data suggest that the UK spends an unusually high proportion of tertiary funds on 'ancillary' services as opposed to core education delivery. (OECD 2020)

By contrast, the number of secretaries, typists and receptionists (also highlighted) declined by more than 50% and fell from 10% of non-academic staff to 4%. This fall, compared to the growth of 'student services', encapsulates the relative decline of the academic department as the focus of decision-making and activity within universities: by the end of this period a number of key activities such as admissions had been moved largely or entirely from individual departments to central offices. Our case studies, discussed below, confirm that more generally there has been a sharp reduction in direct secretarial and administrative support for academics, with commensurate falls in secretarial numbers.

Another group which fell in absolute numbers was the final group of 'primary and skilled trade' occupations. This covers a large number of occupations, but the majority of individuals are cleaners, catering assistants, security officers, porters and maintenance workers and this is where the decline in numbers is found. However, this latter group covers many of the areas in which outsourcing has been most evident. Compared to the huge fall in numbers of 'secretaries, typists, receptionists and telephonists', these changes seem to have less to do with real changes in how work within the university sector is organised.

TABLE 1: Non-academic staffing (pre-2012/13 occupational categories).Numbers and percentages for 117 UK universities.

	2005/06	2005/06	2017/18	2017/18
Managers and non-academic professionals (MNAPs)	31,820	18.4	50,857	25.3
Laboratory, Engineering, Building, IT and Medical Technicians (including Nurses)	24,780	14.3	20,702	10.3
Student Welfare Workers, Careers Advisors, Vocational Training Instructors, Personnel and Planning Officers	7,485	4.3	15,467	7.7
Artistic, Media, Public Relations, Marketing and Sports Occupations	4,250	2.5	10,231	5.1
Library Assistants, Clerks and General Administrative Assistants	45,025	26.1	56,052	27.9
Secretaries, Typists, Receptionists and Telephonists	17,545	10.2	8,258	4.1
Primary occupations and skilled trades	41,805	24.2	39,306	19.6
All non-academic	172,710	100.0	200,873	100.0

Finally, technician numbers also fell, in absolute as well as relative terms (and so, therefore, did the technician: academic ratio). This is rather surprising, given the growth in research activity, as well as in the sector overall, over the period, and the growing importance of IT and therefore of IT technical support. But the group consisting of lab, IT and other technicians shrank by about 16% to just over 20,000 employees by 2017/18, and fell from 14% to 10% of the non-academic workforce.

As discussed in the introduction the last 15 years have seen very different academic staffing trajectories for different institutional 'groups'. Student enrolments in the Russell Group in particular grew much faster than the sector average, while both Russell Group and other 'pre-92' universities recruited a much higher proportion of their intake internationally than did the rest of the sector.⁸ Much of the absolute growth in non-academic staff numbers has also been concentrated in the Russell Group. By contrast gross numbers for the former polytechnics actually fell slightly.

8 Much of this difference between the Russell Group and others was accounted for by patterns of postgraduate recruitment. However, trends within each of the groups are broadly similar as shown by the ratios and percentages. Tables 2 to 4 show non-academic employee numbers for each of the four HE sectors separately. Table 2 shows the average student to academic staff ratios in the four institutional groupings in 2005/6 compared to 2017/18. Totals have remained quite stable: and both in 2005/6 and in 2017/18, Russell Group institutions were employing more than twice as many non-academic staff relative to the student body as were the former polytechnics.

by university type 2000/0 and 2011/10			
	2005/6	2017/18	
Russell Group	6.1	6.3	
Other pre-92	7.8	8.9	
Former polytechnics	13.2	13.5	
Other post-92	12.3	11.8	

TABLE 2: Ratio of students to non-academic staff (total) by university type 2005/6 and 2017/18

Table 3 shows secretaries as a percentage of all nonacademic staff for the main large university groupings; and Table 4 does the same for MNAPs. The pre-92 institutions had, in 2005/6, much higher proportions of employees listed as secretaries (probably reflecting more support for academics within departments), whereas both post-92 groupings had a much larger share of employees in the 'Student Welfare Workers' grouping. While in 2018 there were still relatively more secretaries in Russell Group and other pre-92 institutions, the falls were also much sharper here, suggesting that academics in these parts of the sector will likely have experienced greater changes in levels of administrative support, and that the sector became more homogeneous on this particular indicator. (It is also worth noting that technician numbers actually fell more sharply, as a percentage of the whole, in the Russell Group than in the other university groupings, although actual numbers fell only slightly.)9

9 Conversely, the proportion of staff in the student welfare category grew considerably faster than the sector average though from a lower base. See Tables 28-31 in Wolf and Jenkins (2021). **TABLE 3:** Secretaries and receptionists as a percentage ofnon-academic staff (total) by university type 2005/6 and2017/18

	2005/6	2017/18
Russell Group	12.6	4.5
Other pre-92	12.2	5.0
Former polytechnics	5.5	2.9
Other post-92	5.7	2.6

Table 4 confirms that all types of university have also moved in similar directions with respect to MNAP employment. The gap between the Russell Group and the 'Other post-92' universities has widened, but otherwise the sector is fairly uniform.

TABLE 4: Managers and non-academic professionals
(MNAPs) as a percentage of non-academic staff (total) by
university type 2005/6 and 2017/18

	2005/6	2017/18
Russell Group	19.8	27.5
Other pre-92	16.8	24.1
Former polytechnics	18.8	24.2
Other post-92	15.3	19.8

However, it is also important to note the very large variations within each grouping, as well as within the sector overall. Figure 2 shows this quite clearly using a slightly different indicator: namely the number of MNAP staff per 100 academic staff. There has been a general increase in the size of this senior (and relatively highly-paid) category, but a great deal of difference among institutions.



Why has this happened?

UK research on non-academic staffing has up to now been overwhelmingly qualitative. A rare exception is the paper by Hogan (2014) which provides mainly cross-sectional information based on HESA data for 2012/13 and identifies the same growth in managerial and professional staff as we have discussed here. He comments that:

There have also been different rates of growth with staff and student facilities (sports, welfare, careers and the like) growing at by far the fastest rate (64%). This may well reflect the growing attention to the 'student experience' arising in part from higher fees in much of UK HE (Hogan, 2014, p 83).

Other commentators have suggested that the administrative costs of modern research have risen because of the demands of funding agencies, and that this has affected the nature of HE administration. Increasing regulation by governments is another possible factor. (See e.g. Macfarlane, 2011; Whitchurch, 2008) More broadly, the management literature suggests that, in some contexts, size provides 'back-office' economies of scale, while in others, it creates dis-economies.

A different perspective on the growth of non-academic staffing is offered by some critics who advance what is in effect a 'public choice theory' analysis, and argue that bureaucrats and managers are self-interested 'rent-seekers'. The argument is that the university sector exploits a position of increasing and quasi-monopolistic importance in a credential-based economy to increase fees and income, and that, within individual universities, powerful managers then divert much of the gain to increasing their own salaries and departments. This position can be summarised as an argument that in times of plenty, colleges and universities 'chose not to spend it on expanding their instructional resources i.e. faculty. They chose, instead, to enhance their administrative and staff resources' (Ginsberg, 2011, pp 26-7).

Some of these arguments are impossible to test directly with administrative data. However, we used regression analyses to see whether changes in the proportion of senior managers could be explained by changes in some other quantitative variables which have been advanced as relevant, notably size (student population) and levels of research activity. Research grant income was, rather surprisingly, not statistically significant: in other words, research intensity and increases in the attached bureaucracy and regulation do not seem to be key drivers of management numbers. Nor was aggregate real income a significant independent variable – so size does not appear important in itself.

However, there was some evidence that change in real income per student (measured in '000s of pounds) was positively associated with change in the proportion of MNAP staff (p < 0.05). Over this period, income per student grew unevenly (in particular because of differential success in the international market). Universities which saw the largest increases in income per student tended also to see faster increases in the proportion of MNAP staff.

How large was the 'effect' size? A £1,000 increase in real income would lead, the model implies, to an increase in the proportion of MNAP staff (relative to academics) of approximately 0.39. Across the whole sector, the median increase between 2005/06 and 2016/17 in the number of Managers and Non-academics Professionals for every 100 academics was 3.4 (though considerably more in the pre-92 universities). Hence an extra £1,000 per student would explain about 11.5% of such a change. (The mean change was 4.6.) This could be regarded as a modest, but not insubstantial, 'effect' size: and readers should note that some institutions, over this period, registered changes in real income per student well in advance of £1,000.¹⁰

These analyses highlight trends, and their correlates, and are consistent with critics' 'public choice' argument that, when senior managers can afford to increase the numbers and proportions of senior administrative staff, they do so. But they are far from demonstrating that this indeed what is happening: they do not explain how these changes would actually occur, year on year, or, therefore, give much indication of whether they are likely to continue, or reverse. Moreover, while the overall sectoral trend was very clear, there was also enormous variability in whether, and how fast, change occurred. Clearly, this is not an inevitable trend.

To examine some of the other possible drivers of change, such as the prioritising of 'the student experience', and to understand how changes actually occur, we turned to qualitative case-study evidence. In addition to examining administrative data, we also, as discussed above, carried out case-studies of six universities – 4 English, 2 Scottish, 2 Russell Group, 2 'pre-92' and 2 'post 92', interviewing a range of senior staff, mostly based in central offices, but also in some cases in individual faculties. These provide some clear evidence on the internal dynamics of recent changes.

10 See Appendix Table 1 for the detailed results of this modelling.

Centralisation in UK higher education

Our case studies suggest strongly that changes in professional services staffing are currently driven largely, if not overwhelmingly, by central management, against a background of more general centralisation of staffing decisions. Although a strong recent trend towards further centralisation is not universal – in addition to Oxford and Cambridge, our interviewees mentioned one or two universities where this had not happened – it is very common, and characterised all of our case studies. These staffing decisions, which are producing sectoral trends but also a large amount of inter-institution variability, are not being made randomly. But it is at the centre that, increasingly, they occur.

Centralisation has been a trend within higher education for some time, and is most obvious in the older 'pre-92' universities because they have moved from a more decentralised point of origin. (The post-92 universities include the polytechnics who, when they became independent of local authorities, under the 1992 Higher and Further Education Act, were given a centralised governance structure with very limited powers for the academic body.) Selective research funding, which is of enormous financial and reputational importance to the pre-92 institutions, gave centralisation an initial impetus, creating what Burton Clark (1998) described as a 'central steering core'. However, in the 1990s as universities grew in size, and developed more intermediate management layers, a good many hiring and personnel decisions resided at intermediate level (Shattock and Horvath 2020).

This is no longer the case, for either academic or administrative posts. Regular reorganisation and re-reorganisation of departments, schools and faculties continues, but key spending decisions have increasingly moved to the centre.

I worked here in the 2000s, then moved away, then came back – and it's a total transformation. Before there was much more faculty autonomy (Faculty operations manager, Russell Group) All power here now rests with the Central Management Group (Senior manager in central services, ex-faculty-Registrar: pre-92)

Professional services are almost completely centralised. If we want more support, we put in a submission to the planning group, articulating a need. (Russell Group Dean)

Every single recruitment case in the university goes to the SMT now on a weekly basis (pre-92: senior accountant, Finance Dept)

Anything to do with changes in professional services posts comes through me (Centrally-based Professional Services Manager, People Services: post-92 institution)

In some cases Deans and holders of professional services budgets may have some autonomy – within a centrally set Professional Services budget – to rejig posts. But senior PS posts are centrally controlled in all the institutions we visited.

Levels of centralisation had increased markedly in all the case study universities. For example, many posts which were originally 'departmental' or 'faculty' posts are now located within and managed by central departments, even when their holders spend much of their time physically located in the departments or faculties which they service. This applies, in all our case studies, to many posts which deliver 'core' professional services functions such as HR or marketing or careers. IT services have also generally been centralised:

Our IT Director said 'Give me the money centrally and I can be more efficient'. So we did. (Planning director, Pre-92 university)

In addition, there has been, in some cases, a move to centralise 'programme officers': that is, the administrative staff who organise and provide direct support for degree programmes such as an undergraduate or Masters degree. These posts are traditionally based in academic departments, where each degree programme will have one or more dedicated programme officers, who work with the academic team who teach on the programme (and especially with the programme director) and are also a direct point of contact for students on it.

However, seen from an HR and SLT perspective, the functions of these posts are generic, not departmentspecific, and there is, in many cases, a conviction that they will therefore be carried out more efficiently if they are centralised, with officers responding to requests and needs across a whole range of programmes. Two of the case-study institutions have carried out a large-scale centralisation of programme officers on this basis, in one case relocating them physically, with programme-related tasks carried out by whichever member of a team is free when the relevant activity is required. In two others there has been a partial move in this direction, with programme officers grouped and sharing responsibilities, but still within a faculty or department.

Programme Officers report through the Head of Business Support to the University Registrar. There is no formal mechanism by which I can make a case if I think I have too many or too few Programme Officers. I just send an email to someone. (Academic Dean, post-92 institution)

Centralisation and reorganisation of programme officers are extremely unpopular with academics in the institutions where the process has progressed most – possibly even more so than the progressive loss of secretarial back-up for academics which is manifest in the rapidly shrinking 'secretarial' workforce (see tables 1 and 2). We interviewed a few senior professional managers who have a specific faculty role and they were also sceptical about the supposed 'efficiency gains' that this process brings (though we only spoke to a very few).

The faculty managers who work in one of the universities which had carried out campus-wide reorganisation consider

that specialised knowledge is lost, and that this reduces efficiency; that it now is often very hard to find out whether something has been done by anyone and who is, or should be, taking responsibility, and that academics' workloads are increased, while overall quality diminishes. The (again few) academics we interviewed strongly agree. It is very hard to know whether quality has actually declined: there are no data available on any of the few indicators (e.g. number of exam board errors, staff turnover) which might allow one to judge. But the centralising trend is clear, and the rationale is a cost-cutting one.¹¹

We aim to 100% centralise all budgetary control and line management for professional services (Director, Business Intelligence and Planning, pre-92)

More generally, 'efficiency gains' seem, from our interviews, to be a constant preoccupation of central teams. This might seem at odds with the big growth in managers and professional staff described above: but secretarial and receptionist numbers have, as we have seen, more than halved in the period under study. At the same time, a range of new activities are seen as necessary (because of the regulatory environment) or potentially productive (e.g. enhanced international marketing or on-line programmes). In one university, we were told that year-on-year efficiencies were the rule:

All our professional services budget holders have been told that they must take 2½% out of their previous year's budgets, year on year, and adjusting for inflation, when submitting their annual proposals. (Pre-92 university, SMT member)

However, this same institution had added a sizeable number of new functions and new budgets:

We've invested in quite a few – a property office, Compliance and Assurance, a formal Legal Services team.

Long-standing staff tended to a certain cynicism:

11 We only came across one example of reversal – in one university, most technical support, including, crucially, audio-visual support for teaching, had been returned to the faculties after a period of full centralisation.
We've been trying to reduce professional services costs for ever. (Deputy Finance Director, Russell Group)

Somehow or other, a few years later, numbers are back where they were. (Senior Finance manager, pre-92)

The changing regulatory environment of higher education is characterised by Shattock and Horvath (2020) as involving a shift from a self-governed to a centrally regulated system. The latter makes the interface between senior management and regulatory agencies of huge importance to the institution and strengthens the case for a larger, more powerful centre. In very large institutions – as many UK universities now are – the processes and the people involved in regulatory activities are, inevitably, well removed from the academic departments: indeed, in many urban universities, most academic staff have no physical access to the relevant offices (because of electronic access systems) and often would not even know where many of them are.

In some areas there have been major technology-driven changes, notably admissions, where the move to on-line applications provided a clear vehicle for centralisation of decision-making as well as processes.¹² But technology is not an adequate explanation of why the balance has tipped quite so clearly towards central control of appointments, even when these are for professional services staff who will be based in departments and faculties.

One crucial change is that British universities have all moved away from a world in which governmentally controlled 'home' numbers, allocated to institutions and broad subject areas, accounted for the overwhelming majority of students. Since these numbers fed through to faculties directly, central management had relatively little control over student numbers – faculties had guaranteed intakes. Today, active recruitment is central to an institution's financial health. In the Scottish universities, home numbers are still controlled, and we hypothesized that their internal dynamics might

12 In some institutions. there is a clear difference between undergraduate and post-graduate programmes in the degree of academic involvement in admissions. The less generic/ more specialized requirements for Masters admissions means that. especially where entry is competitive. academics have been able to retain more control, and the smaller size of the programmes also mean that teaching staff on them are more highly motivated to do so. Specialised institutions (e.g. conservatories) and Oxbridge are general exceptions to the trend to centralise admissions decisions.

also be different. However, these universities are at least as preoccupied with international recruitment as are their English counterparts, if not more so, since they have experienced a period of cumulative reduction in home funding per-student. Active and competitive recruitment means that marketing has become a central activity in a way that it was not even 25 years ago.

There is also a cultural change which – though we cannot document it precisely – seems to have altered the way in which the centre views the faculties. It may well result from the factors described above, but it pervaded many of our interviews with senior professional services staff. They – the centre – are, in their own view, about efficiency, which is why professional services staff located in departments and schools are now often referred to as 'Business Partners'. The academic departments, by contrast, are seen as just wanting to spend more and resist guidance.¹³

It's an outdated view that academic units 'give' money to professional services and therefore they should have a view on how money should be spent. We're all trying to do the best we can for the institution. (Deputy Finance Officer, Russell Group)

We used to have two silos – professional services in the faculties versus professional services centrally. Now that we've centralised everything we just have different silos. (Pro Vice Chancellor, previously a Dean, Russell Group)

As we have emphasised, the growth is MNAP numbers and proportions is far from uniform, across the sector or within university groupings. It is associated with income growth, which is itself highest on average in the Russell Group, but MNAP growth is far from perfectly predicted by this, or any other factor (including research intensiveness). And the within sector and within group variability are both very high (although the general direction of travel is uniform). All universities have strong incentives to recruit overseas

13 As noted above, Scotland did not seem to be significantly different in this respect. students. All have experienced a growth in regulatory oversight, including but by no means confined to the National Student Survey. All benefit from the growing importance of formal credentials in society, and growing university participation levels, and from the possibility this offers for 'rent extraction'. But these are developments which underpin and can help explain sector-wide shifts, but do not, clearly, explain variability. It is possible to have high growth in income and research measures and relatively low growth in MNAP numbers and vice versa.

In carrying out our case-studies we therefore tried to tease out the way in which staffing decisions were made, individually and in terms of overarching processes and strategies. Our interviews, and our analysis of institutionlevel data, underlines a number of factors, common to all universities, which seem important in explaining how sectorwide trends have developed. Explaining variability proves harder and we return to this below.

In understanding how non-academic staffing has changed in the way it has, without any formal commitment to such development, the following factors are key, as well as common to all UK universities:

- There are no clear quantifiable metrics for professional services performance at either functional or individual level, unlike for academic positions
- Professional service functions are not easily amenable to being enlarged/reduced in size at the margin
- Decisions are taken, commonly, by fewer people than is the case for academic hiring, and in a more hierarchical 'top-down' way
- The professional services structure is very complex: it is normal for the Chief Operating Officer or their equivalent to have between 12 and 17 direct reports.

These factors help explain why, in all the universities we visited, administrative staff (both very senior, and at lower

but still senior managerial level) described constant and repeated efforts to cut professional services headcounts and described specific examples of this happening – even though, over the last 15 years, their staffing had been more or less strongly in line with national trends.

They're always looking for savings and professional services is the first place they look. In the past, we used to basically say 'well doing this costs this much' and transfer the budgets to the faculties and they then managed their own finances. Now there's no flex for them at all. We're supposed to be saving millions of pounds over the next couple of years by rethinking jobs and systems. (Deputy Finance Officer Russell Group)

Although several of our case studies had set financial targets for efficiencies, this was not universal. In one Russell Group university, the current strategy to close an expected deficit involves a move to worse staff-student ratios, a commitment to increasing research income, but no formal targets at all for professional services (although this institution is also working to reduce numbers of professional services staff located in faculties, and the average grade of professional services staff).

The case study evidence generally suggests that the internal structure of universities, and the way approval processes operate, make it much easier to allow a steady upward movement in highly paid professional services jobs than is the case with academic ones – or perhaps more accurately, much harder to create institution-wide structural barriers to and constraints on such drift. Institutions whose top management do not very explicitly and repeatedly oppose this drift will experience it – and will also find it harder to cut numbers back.

This is especially true when the institution is not, overall, under immediate financial pressure, as has generally been the case in the last 15 years. In every case, over the period we examined, the proportion of university level expenditure allocated to central services has increased. And in the two case-study universities which had experienced major financial problems, both as a result of internal leadership failures, senior posts had been cut back, but more slowly than academic ones: and afterwards the 'trend to the top' reasserted itself. Why and how this can occur is clear if we describe (A) how new senior positions are created; (B) how professional services get reorganised; and (C) where decision-making takes place.

(A) Justifying new positions

Growth of the type we are describing involved frequent creation of new positions. These must always be justified and approved. But on what basis? Academic positions can be and are tied quite clearly to student recruitment – intended and actual. And, as we will discuss further in the next section, individual academic appointments are tied very closely to quantifiable sections of individuals' CVs. For professional services appointments – especially at more senior levels – this is much less easy.

How does one judge whether an applicant for a senior marketing job is excellent? They will have worked within a team; the success of the institution at which they currently work will have had only a small amount to do with active marketing activity. What does it mean to be a great leader of a Legal Services team? How do we know? And how, above all, do we know when we need more of these people, and at what levels of seniority?

The point here is not the difficulty of judging individual performance – on which there is a vast literature – but the very different nature of institutional decisions on creating new professional services posts: of which, as we have seen, many have been created, notably at MNAP level.

In the institutions we visited, the creation of new senior professional services positions was, uniformly, the subject of centralised decisions, as it was for academic posts. But the balance of decision-making seemed to be quite clearly different. The case for an individual new professional services post at a 'MNAP' level would be put forward by, typically, a Chief Operating Officer or University Secretary who was a member of the central executive group. It would not be discussed in terms of trade-offs – 'Should we go for another post in Engineering? Wouldn't it be better to go with the case from Health Sciences?'. There was not, and could not be, the requirement to show individual pay-offs in terms of student numbers, or teaching requirements.

Rather, the case would be made in terms of overall institutional pressures and the wider environment, such as the pressing need to improve overseas recruitment. The argument for such new positions will often include a supposed financial pay-off, often presented in terms of a rate of return on investment. However, as far as we could tell, none of these formal KPIs were ever actually monitored in the relevant future years.

In every institution, our interviewees agreed that making the case for a new post in terms of positive impact on 'the student experience' was always a winner. This is not something that can actually be measured, but senior management teams are all currently highly preoccupied with National Student Survey scores and student satisfaction. If the case for a positive impact on 'the student experience' could be argued plausibly, the post would almost always be approved.

We have put more and more money into student services because the NSS is really important for us. All the pressures are of the sort 'We must care more', 'We must throw money at student satisfaction'. (PVC, Russell Group)

We're all very focused on the NSS (Director of Strategy & Planning, post-92)

"The student experience" is the buzzword here – and has nothing to do with what academics do. Say "it's about improving the student experience" and they'll go 'Yes, spend the money' (Senior manager in central services, pre-92)

The difficulty of evaluating either candidate quality or the impact of the post also means that professional services hiring is highly susceptible to the argument that 'we must be competitive'. Translated, this means that posts must be advertised at a high point on the salary scale in order to attract good candidates: there is no equivalent to the 'Lecturer/Senior lecturer' or 'Reader/Professor' advertisement common in academic hiring which allow for an appointment to be made at more than one possible level.

Obviously, higher salaries attract more, and hopefully better, candidates. The problem for university officers who want to control costs is that, especially for new posts, it is hard to gauge which salary point will attract people they want to hire: and supporters of the new position will argue strongly that it is demanding, necessary, needs a 'really high quality incumbent', and should carry a 'competitive' (sic) salary.

We've had to hire recently because of GDPR. We need people who are data analysts, who can deal with data futures. We're competing with UK plc for them – it's not like that with academics. (Pre-92 university planning director)

We're taking on a new head of student recruitment. That will cost a lot. We're looking at six-figure salaries for a good number of professional services roles. (Russell Group planning director)

During the period of financial difficulty we artificially suppressed gradings and got big job turnover because we weren't paying enough (Pre-92, PVC)

This also explains why, in a number of our case study universities, interviewees remarked on the number of 'managers' they had accumulated who had only one or two people to manage.

The Deans come in and complain 'I'm making a 50% contribution – and you're spending it all'. They think it's huge and it's not, if you look at all the costs. And here, we're on a burning platform – central activity is rigorously controlled. That said, I'm looking through the figures at the moment and we have huge numbers of high-cost 'Directors' on £80-£100,000 who are doing quite small and simple jobs – more than in many similar universities. We need to tackle that. (Newly-arrived COO, post-92)

This can be done. In the one case-study institution which had significantly reduced the ratio of MNAP posts to academic ones in recent years, re-grading was at the heart of the strategy: and was achieved without senior managers feeling that there had been any decline in the quality of provision.

On technical services we took out £500k in staff costs – but post-reorganisation, our headcount was only down by 3. (PVC Russell Group)

But it requires very active management, because the default position is that:

When someone leaves, if a manager just asks to replace like with like, it's pretty automatic. (Planning Director, post-92)

Taken together, these factors make it very hard to monitor and steer professional services employment in any coherent or strategic way. The contrast with academic appointments is extremely marked.

Overall, what our case studies suggest is that without constant monitoring, it is very easy for an institution to end up with serious and expensive 'grade creep' in professional services – far more so than in academic posts, and the more so, the better the overall financial position. This creep operates at the point of hiring (since re-grading in professional services is rare, whereas academics can be promoted) but at that point there are powerful forces behind it.

(B) Reconfiguring professional services

Some US-based authors have argued that cutbacks affect academic staffing more than administrative/managerial. Administrative staff are less likely to be fired if income falls, and any reduction of administrative staffing levels is problematic and tends only to occur in times of crisis. Zemsky and Massy (1990) developed the notion of an 'administrative lattice' with the implication that cutting back on administrative and managerial staff would be very difficult. Ginsberg (2011) maintains that administrators show their true colours most clearly in times of economic crisis – such as in US in 2009/10 when cutbacks had to be made. In response to budgetary problems most universities responded by cutting academic programs and faculty recruitment. However, the evidence produced in these studies is (very) anecdotal, and these scholars appear to be strongly 'anti-administrator' in their approach.

We used UK data at individual university level to consider whether this pattern is evident in the UK. We examine the extent of correspondence between changes in academic staff numbers and changes in the numbers of managers and non-academic professional staff. Do administrative staffing numbers ever decline when academic staffing is increasing, or vice versa? Do universities seem more likely to cut back on academic or non-academic staff?

We look at data over the period 2005/06 to 2017/18 as a whole; also for the sub-periods 2005/06 to 2012/13 and 2012/13 to 2017/18. This shows that:¹⁴

14 For detailed results by institution see Wolf and Jenkins (2021). • In the Russell Group, the most rapidly growing grouping during this period, almost all the universities there have seen increases in both academic and nonacademic staffing. The only university where there was any substantial decrease in staff was at Manchester which was involved in a merger with UMIST in the early 2000s.

- Among the other pre-92 universities several have trimmed back their staffing numbers during the years for which we have data. Overall, there are 7 'other pre-92' institutions where academic numbers fell while MNAP numbers rose; 3 such institutions where the opposite occurred; and 6 where both fell. However, only two delivered substantial (>50) cuts in MNAP staff, while 10 delivered sizeable reductions in the number of academics.
- Among the former polytechnics there have also been a sizeable number of cuts. Here, there are a few instances where managerial and non-academic professional staffing has been cut, at least a little, whilst academic staffing numbers rose. We discern this pattern at three ex-polys, and the reverse in another two. In another three, there were substantial reductions in the number of academics but only small decreases in MNAP staffing. One university in this group was in crisis for some of the period, and saw large-scale reductions in both academic and MNAP staff.
- The 'new' part of the post-92 university sector i.e. institutions which were not ex-polytechnics – also mostly experienced growth during this period and very few saw any substantial reduction in either academic or managerial/non-academic professional staff.

Overall, these results do seem to indicate that, as suggested by US authors, it is easier (or more attractive) to cut academic numbers than the number of MNAP staff. This could reflect administrative self-interest. But is there a structural issue?

If a senior management team wants to cut headcount substantially in professional services they will generally have to reconfigure large numbers of jobs, rather than simply lopping off a set of activities. This may seem illogical, given that posts were generally added by accretion – but once in post, senior professional services staff often work as teams and, as noted above, are often defined as 'managers' in order to justify their salaries. This then means they have to have people to manage – even if it is only a couple of them. And you cannot simply close down an administrative function the way you can, in extremis, close an entire academic department. The latter are largely self-contained in what they do; the former are part of an institution-wide 'administrative lattice'.

The professional services posts which can be sliced away easily are usually at lower levels. Thus department secretaries can be removed, and have been (and academics do much more of their own administrative work than they used to, helped by IT developments). Centralisation of generic-type posts is, as discussed earlier, a much favoured strategy, with efficiency savings providing, for example, the major rationale for the (very unpopular) centralisation of programme officer posts which some universities were implementing. But many posts are not generic, and also involve quite a small number of individuals.

Hence the sheer number of Professional Services departments that typically characterises a modern university. We noted earlier the huge number of 'direct reports' to the University Secretary or COO that we found in every institution visited. These are seen by everyone concerned as excessive: what we describe above is the internal process that, time and again, produces them. All this makes rapid reductions of MNAP posts challenging: there is a ratchet effect, making it far easier to increase these appointments than to cut them back again.

(C) The decision-making process

The final factor contributing to the general rise in MNAP posts is, we suggest, the lack of professional services expertise in much of the senior team. Vice Chancellors and their senior deputies (Provosts, Pro-Vice Chancellors, Deputy Vice Chancellors) are normally academics. They can and do argue about academic strategy, scrutinise faculty bids and performance, and also compare one faculty or department with another when making decisions on new posts. Professional Services, by contrast, is essentially a single fiefdom, and not one where most other members of the Senior Management Team have direct experience on which to call. In every university that we visited, it was striking how little in-depth scrutiny of PS positions took place other than by the head of what is a huge and centralised workforce.

When I started my career, professional services appointments were all scrutinised by the University Registrar. Now nobody senior will be involved in interview panels for professional services roles. By contrast, we scrutinise academic positions very carefully: and every Monday there is a senior-level meeting about academic promotions. (Russell Group Business Intelligence director)

Signing off on a new position in Professional Services is easy if you're basically within budget. It just takes a member of the executive board – that's one out of the COO, the University Secretary, the DVCs for strategy and academic and the PVC research. (Post-92)

Until very recently, any new professional services post was just nodded through on the word of the University Secretary. (pre-92)

Thus, taken together, the internal organisation of university workforces, and the changing of the external environment – the growth of competitive student recruitment and regulatory change – have all facilitated the growth of professional services posts at senior levels. So, too, has a period of real income growth, especially for Russell Group universities. Unless these external forces and internal enablers change, it seems unlikely that recent patterns will reverse. Is the same true of recent far-reaching changes in the academic workforce?



Academic staffing and the growth of the 'teaching-only' workforce

Among non-academic staff, there have been, as we have seen, two major shifts: first, a marked shift away from posts that provide direct support to teaching staff within academic departments, and second, a sizeable increase in the number and proportion of more powerful, more highly-paid, centrally-based managers. These shifts in turn partly reflect technological change, which makes it practical to move staff physically, and increase the number of administrative staff that can be carried out by academics directly; and partly major changes in the wider environment. A combination of rapid growth in participation, global recruitment, regulatory changes, and, especially in England, a more competitive 'marketised' environment have contributed to the large rises in senior managers and non-academic professionals. The impact of these changes has also, we would suggest, been accelerated and magnified by the way professional services are organised.

It seems plausible that these changes will also have affected the academic workforce – structurally as well as in the way academics interact with professional services staff. While some systems (notably the French¹⁵) have made a very clear distinction between teaching and research staff in higher education, in many others – notably the UK, USA, Australia, Germany – the academic role is seen as one that combines teaching with research and scholarship. 'Researchled' teaching is perceived to be the distinctive feature of higher education, and progress to senior academic positions is dependent on demonstrated research excellence.

Nowadays, however, just under half of academic staff in UK universities are on traditional 'research and teaching' contracts with others classified as 'teaching only' or 'research only' (Locke et al, 2016; Scott, 2019). 'Research only' staff are highly concentrated among research-intensive universities (including but not confined to the Russell Group): as noted in the Introduction, their numbers have also grown in recent years. They are generally funded from time-limited grants, but there has been no major recent

15 This distinction is now being broken down. Universitybased researchers in France have. since the (late 19th century?) been employed by the single. national CNRS. and quite distinct from mainstream university teaching academics, but recent reforms have broken down this barrier to some significant degree.

change in their work conditions. Among teaching staff, in contrast, academic staff unions perceive a steady move towards a more insecure, casualised workforce than was the case pre-2000 (UCU, 2016).

Overall, large numbers of academic employees in the UK are now on fixed-term, hourly, or other 'contingent' teaching contracts. This is not, however, a uniquely British phenomenon, or, indeed, one that is particularly marked in the UK. In the US, the growth of 'non-traditional' staff, as a percentage of the total workforce, is a long-term trend. Those on tenured and tenure-eligible appointments shrank from 29% to 17.2% and 16.1% to 7% respectively between 1979 and 2013. Those on full-time fixed-term (non-tenure track) appointments rose from 10% to 15% of the total workforce. While part-timers were about 25% of instructional staff in American HE institutions in 1979, by 2013 this had risen to 43%. (Finkelstein et al (2016): see also Kezar and Gehrke 2014.)

Australian universities are probably the most similar to England's, both in terms of competitive student recruitment and the importance of student fees: and have become the most dependent on overseas students of all the developed countries. Here, too, there has been a major shift in academic staffing. In Australia, there has been a large increase in the number of 'casual' part-time teaching staff. On a headcount basis it has been estimated that 61% of academics were employed on casual contracts by 2011 and up to 80% of first-year teaching was undertaken by sessional staff (May et al, 2013: FTE figures show much lower levels since most 'casual' staff are part-time). The National Tertiary Education Union estimates that in 2020 45% of all university employees in New South Wales were on 'casual' contracts.¹⁶ Parallel changes are reported in other countries, but from a different base, and at different speeds (Cross & Goldenberg, 2009; Ryan et al, 2013; Bryson, 2013; Fitzgerald et al, 2012; Locke, 2014; Afonso, 2016).

16 <u>https://www.</u> parliament.nsw. gov.au/lcdocs/ submissions/ 68329/0022%20 National%20 Tertiary%20 Education%20 Union.pdf

Prior to our study there had been no detailed sector-wide analysis of these differences in the UK, or of their correlates. Our analysis of a large sample of 117 'generalist' universities shows that, in aggregate, the rise in teaching-only staff numbers has been remarkable. The total number employed in these universities rose by more than 80 per cent between the academic years 2005/06 and 2018/19 to almost 55,000 in total. This was about five times the rate of increase for 'traditional' teaching and research staff (i.e. lecturers, professors etc who both teach students and conduct research), where numbers only rose by about 16 per cent over the same period, though from a higher base, to just over 92,000. The proportion of full-time workers among teaching-only staff has gradually increased but about two-thirds remain part-time. This is in contrast to the rest of the academic workforce: teaching & research staff and research-only staff have in the past been, and today remain, overwhelmingly full-time.

This growth in teaching-only staff was not uniform across the sector. Increasing employment of teaching-only staff by the research-intensive Russell Group universities was responsible for much of the change in our sample: more than half of the growth in these staff –some14,000 from a total increase of about 25,000 – occurred within Russell Group universities. Many Russell Group universities had relatively few teaching-only staff among their academic workforces in 2005/06 and there was a general pattern of institutions with low proportions of teaching-only staff in 2005/06 tending to catch up over the years through to 2018/19. Rates of growth are nonetheless highly variable, across the sector and within the Russell Group.

Table 5 compares numbers of academic teaching staff in UK universities in 2005/06 and 2018/19. On a headcount basis there was an increase of nearly 40,000 in the total number of staff with teaching responsibilities.¹⁷ The total number of teaching-only staff rose from 29,610 in 2005/06 to 54,795 by 2018/19: in the Russell Group, numbers more than tripled from 6,115 to 20,155.

17 Including researchonly staff, in our large sample of 117 universities there was an overall increase of 51,125 in academic staffing between 2005/06 and 2018/19. Most of this increase – some 32,630 staff – were at Russell Group universities.

TABLE 5: Teaching staff numbers 2005/06 and 2018/19

	Teaching-only		Teaching & research		All teaching	
	2005/06	2018/19	2005/06	2018/19	2005/06	2018/19
Russell	6,115	20,155	28,780	34,575	34,895	54,730
Other old	10,200	14,210	15,915	18,410	26,115	32,620
Ex-poly	9,465	14,750	26,730	28,830	36,195	43,580
Other new	3,795	5,610	8,050	10,260	11,845	15,870
All univs*	29,635	54,795	79,475	92,160	109,110	146,955

* Sample size is 117. Includes Buckingham. Academic staff classified as 'neither teaching nor research' excluded

This was a major change. At the start of the period, in 2005/06, teaching-only staff accounted for rather more than a quarter -27.2% – of all staff with teaching contracts (including teaching-and-research) and just over a fifth, 20.5%, of all academic staff. They accounted for just 1 in 10 of all academic staff at Russell Group universities, and 17.5% of Russell Group academic staff with teaching contracts. So if there had been no change in the way universities managed their teaching, their numbers might have been expected to increase roughly in line with those initial proportions.

In fact, as Table 6 shows, additional teaching-only staff accounted for over two-thirds of the growth in teaching staff (on a headcount basis) among Russell Group universities. Indeed, about 55% of the total increase across all universities in the sample was in the Russell Group. More generally, teaching only staff accounted for barely more than

	As % all teaching staff 2005/06	As % all teaching staff 2018/19	% of growth in all staff with teaching responsibilities accounted for by teaching-only staff
Russell	17.5	36.8	71
Other old	39.1	43.6	62
Ex-poly	26.2	33.8	72
Other new	32	35.3	45
All	27.2	37.3	66

TABLE 6: Summarising the growth of teaching-only staff

a fifth of all academic staff in 2005/06, but almost two-fifths of the additional academic staff positions added over the following period were for teaching-only staff. In the Russell Group, their representation rose from 17.5% of all teaching staff to over 35% in the space of little more than a decade.

Figures 3 and 4 track changes in teaching-only staff numbers, looking at part-time and full time teaching-only staff separately. They show not just that the Russell Group universities have registered the largest increases in teachingonly staff, and made the largest change to the internal composition of their academic workforce, but also that there is a distinctive pattern in terms of part-time and full-time appointments. While there have been some fluctuations in part-time numbers, they have ended up largely stable except in the Russell Group, where they have grown very fast (Figure 3). In other university groupings, any growth has been almost entirely in full-time teaching only appointments (Figure 4). It is also the case (see Figure 5) that, while Russell Group



FIGURE 3: Numbers of part-time teaching-only staff, 2005/06 to 2018/19, b y university type. Total sample is 116 universities.



FIGURE 4: Numbers of full-time teaching-only staff, 2005/06 to 2018/19, by university type. Total sample is 116 universities.

FIGURE 5: All Teaching-only staff as percentage of all academic staff.* Total sample is 116 universities.



institutions' use of teaching-only staff is converging on the sector average, they remain proportionately less important than in the rest of sector.

In addition to changes in numbers, and in the proportions of teaching-only appointments, there has also been an ongoing shift in the pattern of appointments, Table 7 shows a sharp increase in the proportion of such teaching-only staff who are on open-ended/permanent rather than fixed-term contracts. This may partly reflect changes in employment law, which give fixed-term employees greater rights than in the past, but it also seems likely that it marks a shift in the way universities plan and implement teaching provision. It is also in marked contrast to the pattern reported by observers in the US and Australia, where 'contingent' or 'casual' contracts have become increasingly prevalent.

2018/19					
	Fixed-term		Open-ended		
	Full-time Part-time		Full-time Part-time		TOTALS
	%	%	%	%	%
2005/06	8	60	14	18	100
2006/07	6	56	16	22	100
2007/08	4	54	15	26	100
2008/09	4	52	17	27	100
2009/10	4	51	18	27	100
2010/11	5	55	16	24	100
2011/12	5	53	18	25	100
2012/13	6	47	21	26	100
2013/14	6	46	22	27	100
2014/15	6	46	22	27	100
2015/16	6	44	23	28	100
2016/17	7	41	25	28	100
2017/18	6	42	25	28	100
2018/19	6	39	27	29	100

TABLE 7: Teaching staff numbers 2005/06 and 2018/19

The overall trends for the sector, and for the individual university groupings, incorporate a great deal of institutional variation, and we looked at a number of possible explanatory variables. It seemed possible that teaching-only staff might grow faster in universities with relatively weak financial positions; or where there had been a good deal of instability in student numbers, so that managers were reluctant to expand permanent 'traditional' posts. Alternatively, it might be slower in institutions with large numbers of postgraduates, where 'research-led' teaching was very important. Some subjects make greater use of teaching-only staff than others. These will likely be subjects which are more practical or vocational in orientation where practitioners will have been employed to do some of the teaching rather than career academics: teaching-only staff are notably more important in medicine and also common in business schools. So subject mix might explain the size and speed of change.

However, most of these factors proved insignificant. (See Appendix and main report (Wolf & Jenkins, 2021) for detailed tables.) The most important factor by far was simply the university's own growth. The faster a university grew, the faster the rate at which more teaching-only staff were hired. Many of the fastest-growing universities have been from the Russell Group, because of their success in overseas recruitment and in taking an increasing number of uncapped home students; so this is a partial (but only partial) explanation of why these institutions have been the biggest recent source of teaching-only staff growth.

What does this mean for students and the teaching they receive? In evaluating teaching provision, the two most common metrics are student: staff ratios and number of contact hours. While both of these are blunt measures (especially the second), it is certainly the case that students want personal contact with individual teachers: commitment to small classes and tutorials is a major selling point at university level, just as it is in schools. The relevant research on teaching effectiveness is limited and largely American: we summarise it below. 18 In theory, actual access might be as high as before, if 'traditional' academics were increasing their teaching hours to compensate. However, given the importance of research ratings to UK universities. and the findings of research on internal staffing and appointments decisions in US research universities, this seems unlikely

Although we do not have national data for the UK on contact hours, we are able to look at student:staff ratios at institutional level over time. Figure 6 shows that, compared to 2005/06, there was some considerable improvement in student:staff ratios for each type of university (as indeed one might hope and expect, given the growth in average sector income per student, especially after 2010). Figure 7 then focuses on student:staff ratios for staff who have both teaching and research responsibilities – the 'traditional' academics.

The results here reflect the fact that teaching-only positions have, as we have seen, grown in number faster than traditional teaching-and-research ones. But they also highlight the fact that, in some institutions, while overall SSRs have improved, those for traditional academics have worsened. That is, students now have less potential acces¹⁸ than in the past to those academics who teach but are actively engaged in research – the type of academic who is seen as central to university-level instruction.







These changes are less dramatic than in other countries, notably in the USA and Australia, but they are nonetheless substantial. Why might they have occurred? How were they implemented? And why might the largest changes be apparent in the Russell Group of research-intensive universities?

In addressing this question, the following discussion first sets the changes in the context of key features of the academic workforce. It then discusses evidence from other countries on why changes have occurred there: this evidence is important given the lack of such research for the UK. Finally, we discuss the evidence collected from our own university case-studies.

Context: the academic workforce

In understanding the dynamics of university hiring decisions, we need to start with higher education's prime function. Universities are, first and crucially, organisations which recruit students; teach and assess them; and send them on their way endowed with formal qualifications. The modern research university emerged in the 19th century: before that, universities were entirely occupied with teaching, certification and scholarship. But even after the changes of the 19th and 20th centuries, universities are, always, 'about' the teaching of students.

Teaching and assessing, the core activities of a university, are carried out by its academics. On an hour-by-hour level, these academics have a great deal of autonomy. They spend a great deal of their time on research, writing, maintaining their subject expertise through reading, and attending seminars and conferences, and also on administrative work in specific academic roles such as directing a particular degree programme, or running an exam board. They spend, in contrast, a minority of their working hours actually delivering lectures or seminars or tutorials. But this overall time allocation obscures the fact that direct teaching activity is both the most critical in terms of institutional 'profitability', since it is why students attend, and is easily monitored, easily counted and easily sub-divided. This is far truer for academic roles than for the vast majority of administrative or professional jobs which were discussed in the previous sections.

Students enrol for a specific course, with specific timetabled hours: and individual academics will be allocated so many hours teaching on specified courses and degrees. They may teach on just one degree, or on several. They can easily be employed less than full-time, because teaching hours are discrete and can increase or decrease. Individuals with large administrative loads, or large research grants that buy out some of their time can have teaching hours recalculated and reallocated accordingly. British universities traditionally also offered their academics paid sabbaticals, on a regular basis, for scholarship, writing and research. This remains the case in most (perhaps all) pre-92 universities, but is not routine elsewhere in the sector. The nature of academic teaching, and its position at the core of academic work, mean that individuals who have been allocated to teaching on degrees that do not recruit can – up to a point, but usually quite widely – be reallocated accordingly. Alternatively, they can at worst be made redundant (voluntarily or not) or encouraged to take retirement. This is not something that university managers do lightly, especially if their institution is highly unionised (as some English and almost all Scottish universities are), preferring hiring freezes and natural wastage. But matching staffing to student numbers is a core management concern, as our case study interviewees confirmed.

We take information from the Admissions Teams and look at the financial side: are we forecasting a shortfall of £x million, have we got courses and staff where we can over-recruit? We start doing that in October/November for the following August and September. (Deputy Director of Finance, Russell Group)

From a manager's point of view, teaching loads and student recruitment levels thus have the great advantage of being easily calculated, and quite easily responded to in terms of academic recruitment. They also appear highly amenable to 'productivity-related' interventions (or 'efficiency gains'). That translates as a move to larger classes, less contact time per student and increased numbers of teaching hours for academic staff, typically on a programme-by-programme basis rather than by institution-wide fiat.¹⁹ Specific degrees can be and are closed down. Additional staff can also be hired to carry out specific extra teaching for programmes that are growing. In each case, these changes at the margin can be made without any need to rethink activity, or employment, beyond the specific teaching programme in question.

In the UK's current semi-marketised system, there has been a very noticeable move to a more 'business-like' focus on not just income but surpluses.²⁰ Income is generated, overwhelmingly, by academic departments, and in all

- 19 During the 1990s, year-on-year cuts in funding per student were labelled as 'efficiency gains' by the government.
- 20 Generating a surplus has become increasingly important for universities since the government abolished separate capital grants.

the UK's universities, 'home' teaching income for 'home' students is overwhelmingly fee – and headcount-based, regardless of whether there are number controls for home students and whether individuals or government pays the fees. Institutions do not receive 'block teaching grants' which are not directly linked to student numbers – something which is quite common in other systems. Overseas students all pay fees individually. In other words, the more students, the higher the teaching income.²¹

Academic departments and/or faculties in all the institutions we studied, or know, have the income that they earn through fees individually calculated (although the money is collected centrally). They then 'pay' a 'contribution' to the centre. In other words, money coming in (as fees, funding for discrete research projects or consultancy) is credited to the department and then a proportion is used in order to pay for central activities, including capital costs, administration and student services. By contrast, the budget for professional services is, in the words of one planning officer, 'essentially a deficit budget'.

The more surplus there is in a department after it has covered its costs, the more there is to 'contribute'. Measuring productivity in the sense of whether students actually learn more, and develop higher levels of skills and understanding, is very hard and rarely attempted directly. But surplus is easy to measure. And the cheaper the academic staff, the more teaching that they do, and the larger the taught groups, the larger the surplus. Although this was before the period we studied, during the 1990s, the 'unit of resource' per student was reduced, year on year, alongside rapid expansion of home student numbers. There were also major changes in teaching practice in all the pre-92 universities other than Oxford and Cambridge. The third term of teaching became in effect an exams term so that there was a significant reduction in total teaching weeks. At the same time lecture and 'tutorial' group sizes moved ever upwards - as they have across Europe.

21 In systems with number controls for home students - which include England prior to 2014 as well as Scotland today institutions which over-recruit will not get additional income for the extra students and may indeed be financially penalised, although our interviewees indicated that this was very unusual.

However, there are important countervailing forces to this cost-cutting approach. Opting for cheap, young, biddable lecturers and large classes is not necessarily an optimal strategy. Universities want to attract high quality academics, who will be unenthused by large classes and high numbers of teaching hours. They want to attract students – and good students at that. They also want to acquire a reputation for high quality research, which in turn means giving academic staff time to do research and write. That is why the pre-92 universities – but not the post-92's – routinely offer academics regular sabbaticals. This of course adds substantially to their teaching costs, but may more than pay for itself.

Another important influence on UK universities' behaviour is, as explained in the Introduction, 'the REF'.²² Increasing an institution's performance on the Research Excellence Framework (and so the amount of quality related funding they receive from government) is not only financially important in terms of direct payments, but because it affects the fees universities can charge in the unregulated overseas and postgraduate market. In the short-term at least, the major driver of overseas fee income is research reputation (Wolf & Jenkins 2018). Moreover, in disciplines where there are independent external checks on what student learn (notably the professions, especially medicine, and sciencebased industries), a cost-cutting approach which seriously threatens teaching quality and attainment will be identified fairly fast. And of course, students want to be taught by well-qualified, reputable, well-known academics. If they are not, 'student satisfaction' will fall.

The fundamental point, however, remains. 'Managing' academic posts is far more straightforward than managing professional services. It is easy for senior managers (including academic Deans running faculties) to monitor whether particular degrees and departments are highly, or not very, 'cost-efficient' with respect to teaching delivery and to act accordingly in a fine-tuned way.

22 The 'Research Excellence Framework', and its predecessor, the 'RAE - Research Assessment Exercise' evaluate the research of UK universities, based around extensive peer-review of research outputs, and are used to make decisions about the allocation of 'quality related funded', which is designed to strengthen the research infrastructure of a university but can be used freely.

Student recruitment is operationalised via recruitment targets, typically set centrally on a programme by programme basis. At undergraduate level, student admissions decisions have been increasingly centralised across the university sector, and taken over by professional services staff (with Oxbridge, and medicine, the main hold outs): to a lesser extent, but in a good many cases, this is true at Masters level too. This allows central teams both to increase target numbers easily in the middle of a recruitment year (e.g. to offset low recruitment in some parts of the institution) and to make offers which academic staff might resist on grounds of quality or total numbers.

Evidence from other countries

Although we have data showing a growth in teaching-only and/or short-term academics in a good number of countries, research on the causes and consequences of this is largely American. A number of US academics have interpreted changes in the staffing patterns of their sector as a manifestation of self-interest and greed. 'Insiders' (including tenured research stars) gain and protect their gains at the expense of low-paid staff, often on temporary contracts (see e.g., Ginsberg 2011), producing a classic 'dual-labour market' situation. Some detailed studies of decision-making in US research universities suggest, however, that the changes are not (or not always) directed from the centre as part of a coherent strategy for reducing teaching costs and freeing up time for high-profile researchers. They are often the result of cumulative decisions made at departmental level, by academic leaders and managers who are concerned to maintain budgetary flexibility or pay for research 'stars'. (See e.g. Cross and Goldenburg (2009): also May (2014) for comparable Australian data).

The impact of these changes on students is not necessarily or self-evidently bad. In principle, a move to using more teaching-only staff might be good for students, since they will be taught by people who are entirely focused on teaching rather than research. However, information on this, which comes almost exclusively from the United States, is not encouraging. The evidence is reviewed in our main report (Wolf & Jenkins 2021) and suggests that contingent faculty, particularly part-timers, are less effective in their delivery of undergraduate instruction and that increases in either the percentage of faculty that are part-time or the percentage of full-time faculty that are not on the tenure-track route, are associated with a reduction in graduation rates.

At least in the US, adjunct appointments are often of an ad hoc nature, with part-time tutors having very high teaching loads, often combining several part-time contracts across multiple institutions. (Baldwin & Chronister, 2001; Gappa & Leslie, 1993). Research correspondingly found that part-time faculty therefore interacted with students less frequently, used active and collaborative techniques less often, spent less time preparing for class, and had lower academic expectations of students than tenured and tenure-track faculty members (Umbach, 2007). A link between poorer working conditions and less effective performance is very much in line with research on contingent workers in other sectors (Connelly & Gallagher, 2004; Capelli & Keller, 2013).

Staffing decisions in UK universities: evidence from the case-studies

There has been very little previous research into the dynamics of faculty hiring in the UK. Our case studies focused specifically on the growth of teaching-only staff, as well as senior managers and non-academic professionals. As noted above, we examined six different institutions, two in Scotland and four in England. Two were Russell Group ('RG'), two were pre-92 universities that are not Russell Group universities (and two were 'new' universities– one expolytechnic and one whose main component institution was formally a College of Higher Education. Before interviewing senior staff, we calculated and showed them their own institution's student:staff ratios over the period 2005-18 in two ways, and asked for comments. The ratios for all six are shown (in abbreviated form) in Tables 8 and 9 below. While none tracks exactly the average patterns for their 'group', the differences between the two measures are clear in every case.

TABLE 8: Case-study institutions, Student: Staff ratios calculated for all staff with teaching responsibilities 2005-18 (HESA definition)²³

Academic Year	А	В	С	D	Е	F
Туре	Pre-92	New	RG	Ex-poly	RG	Pre-92
2005/06	14.2	24.7	17.7	19.1	12.0	17.2
2011/12	16.4	23.3	18.7	21.4	11.7	16.9
2017/18	16.1	17.0	15.9	20.2	12.4	13.4

TABLE 9: Case-study institutions, Student: Staff ratios calculated for staff with teaching and research responsibilities 2005-18

Academic Year	А	В	С	D	Е	F
Туре	Pre-92	New	RG	Ex-poly	RG	Pre-92
2005/06	16.2	31.3	23.2	20.2	13.3	23.2
2011/12	19.7	27.6	26.1	23.0	14.0	21.2
2017/18	20.5	18.9	21.6	23.7	15.6	20.0

Is this the result of a consistent, ongoing strategy? Perhaps, but not one developed with direct reference to these numbers. Time and again we found that our interviewees were not aware of these differences. This was in spite of the fact that they all, without exception, checked and benchmarked overall SSRs using the official (HESA) definition:

23 Calculating this ratio using HESA data but without weightings produces results which differ very little – typically 1/10 of a percentage point – or not at all. We benchmark on a number of metrics – for example (HESA generated) SSRs. Ours got way out of line and we moved to increase academic numbers. (Pre-92 institution: Provost)

This university's overall SSR had duly improved –but their SSR for 'teaching and research' posts had shifted very little. This seemed to be something of which the central team was genuinely unaware. The same was true elsewhere. We only monitor the stuff we have to report on. And there's plenty of that. (Pre-92 university, Director of Strategy)

The reporting to the regulator gets more and more detailed every year (Director of Strategy and Planning post-92)

If it's in the league tables, then we measure it. If not, not. (Director of Planning, Pre-92)

As always, there are factors specific to different institutions – institution A, for example, an 'old' university, was grappling with a financial crisis at the time of our interviews. But the case studies also illustrate the trends we highlighted earlier. In all the pre-92 institutions (A, C, E and F) there are large differences, in 2018, between the SSRs for all teaching and for Teaching-and-Research staff. The difference is very marked in the two Russell Group universities (C and E).

And our two examples are by no means extreme: if we take three other Russell Group institutions which have all increased their student enrolments very fast (and faster than the group as a whole) then we find that in one, overall SSR improved from 15 to 13.6 – but for teaching & research staff deteriorated from 16.7 to 19.3. Another had and has very low SSRs – but these actually worsened slightly over the period, from 9.9 to 10.5: and for teaching & research went from 10.5 down to 13.8. At a third, the overall SSR improved from 14.8 to 13.7 – but on teaching & research deteriorated from 14.8 to 19.²⁴

24 The pattern is not totally uniform across the Russell Group – taking the three most atypical members, at LSE teaching & research ratio only fell a little, at Cambridge it improved a little and Oxford improved a lot.

The shifts shown in these tables and figures are entirely consistent with an 'efficiency strategy' such as we outline above. In our case study interviews, we therefore probed to find out whether these changes reflected a coherent and deliberate strategy. However, to our surprise, our respondents also uniformly denied any strategic or centrally driven attempt to replace teaching & research academics with teaching-only staff. In understanding how these different trends have emerged, and why they differ by institutional type, it is important to note two things. First, research performance matters more to research-intensive universities and second, there is a major cost differential between pre-92 and post-92 institutions, in that teaching & research staff in the former expect and receive lower teaching loads and regular research leave. In the post-92 institutions that we visited, there was no expectation that staff would receive paid sabbaticals/ research leave as a matter of course rather than in a few highly specific circumstances.

By contrast, in a major research-intensive university a sabbatical is more or less automatic every 6th semester – i.e. institutions only get 2½ years' worth of teaching hours for every 3 years' employment. The expectation is that this enables academics to maintain high quality research output – which, in addition to maintaining levels of research activity and reputation, can more than pay for itself because of the impact of institutional reputation on fee income. (Wolf and Jenkins 2018) But it also means that, in these institutions, the up-front cost of a permanent appointment on a teaching @ research contract carries additional elements that are not present elsewhere.

A university which does not grant research leave except in extraordinary circumstances will get more teaching weeks for a given salary than one which grants sabbaticals. And this also explains why a number of post-92 institutions in this situation – including the two in our sample – have bucked the general trend and increased the proportion of staff who are on traditional teaching and research contracts.

In both these institutions, senior managers told us that they had concluded that there was no advantage in having large numbers of staff on teaching-only contracts, and some real disadvantages. Back in the early 2000s we were actually just a teachingonly institution – there was hardly any genuine research. We were still a poly, with no academic ambitions. By putting almost everyone on a full teaching and research contract we became a university. But we will, in the future, move to having Teaching Assistants and maybe some teaching-only contracts. (Vice-Chancellor, post-92)

These two universities are not highly research-active in terms of REF metrics, and do not provide routine sabbaticals: in one of them, only a very few academic groups are targeted and supported to promote REF excellence. So the direct cost of moving to 'teaching-and-research' contracts is low. This scenario may help explain the 'regression to the mean' in teaching-only proportions which is evident in the quantitative analysis, with 'high scoring' institutions tending to become less so, at the same time as 'low-scoring' ones, typically research-intensive, move in the opposite direction.

As noted, our interviewees in the pre-92 universities were failing to monitor the balance between teaching only, and teaching + research, contracts in any systematic way. They also, without exception, saw the leadership of the institution as unwilling to increase teaching only posts and gave examples of senior colleagues (typically Deputy Vice Chancellors with a research brief) who consistently pushed for 'research-active' appointments, and blocked bids for new teaching-only posts.

Our previous Deputy VC for Research would have stopped us appointing a single teaching-only academic if he could – he certainly tried to avoid there being any. Any senior academic simply must be engaged in research. (DVC, Russell Group)

Given the apparent mis-match between perceptions and bodies on the ground, what might be happening here? Why is the picture so different from that reported in the US? The answer probably lies with the Vice-Chancellor who commented that

The REF keeps us honest. Without it we'd be all too likely to push more and more of our teaching onto casual employees. (Vice-Chancellor, pre-92 university)

We noted above that the importance of good research, good academics and good students – and of a good reputation – were a countervailing force to the attraction of 'efficiency gains' achieved via lower salaries, and higher workloads. While this is generally true, and would be true for any country, the 'REF' – or Research Excellence Framework – is a highly formal exercise, in which individual academics are evaluated and large sums of money allocated by the government on the basis of these evaluations.

There is nothing comparable in the US and this may indeed be an important reason why the shift to 'casual' labour appears to have been less pronounced in the UK than among US research universities. One Chief Operating Officer did remark that their Deans and Pro-Vice Chancellors (PVCs) were more relaxed about teaching-only posts as they helped cover sabbaticals. However, we did not interview enough Deans or PVCs on this issue to be sure whether our informant is correct.

Additional support for the idea that the REF is critically important for UK hiring practice is that we find a 'spike' in the number of teaching only contracts immediately before the last REF census and then little change until 2018, with recently released data seeming to indicate another pre-REF rise. At that point in the cycle, some staff in researchintensive universities may be shifted to teaching-only contracts, rather than risk a reduction in the quality verdict returned by the assessor panels. Equally, or perhaps more likely – though we cannot quantify this – is an increased reluctance to hire anyone for a standard 'Teaching and Research' position whose REF profile is uncertain but who will have to be entered more or less immediately.

Another difference between UK and American universities is that, in the UK, decisions on whether to create new posts with teaching responsibilities, or reappoint to vacated ones, are made by central teams. (Central management also controls use of quality-related funding earned through the REF: this is not distributed to departments according to their performance.) The American literature indicates that, at least in leading research-intensive universities, faculties have more power to make decisions than is currently the case in the UK.

During our case study interviews we were told repeatedly that there is enormous scrutiny of the case for an academic post put forward by a department or faculty. And at that point, there will indeed be a strong tendency not only to demand proof that the post will be justified by student recruitment/teaching requirements but also to insist that any permanent post must also be for 'research active' academics who can contribute to the REF. Moreover, on appointment panels, applicants' expertise will be assessed using current metrics – which means that there is a very strong emphasis on publications (and the number of stars given to journals in which publications appear) and research funding. If no-one is 'appointable', then the post is simply not filled.

We target a 3% vacancy rate in professional services and with others it's more like 7 or 8% – that helps balance the books. (Pre-92 planning officer)

This is the stage of the appointment process that senior managers experience. And so when our interviewees claimed university-wide resistance to teaching only appointments, they were almost certainly entirely sincere.

But what happens when a post is left unfilled? Or indeed not approved – but the students still enrol, targets are achieved

or even surpassed, and at the same time staff turnover occurs, and vacancy rates are high? Or when additional successful academics buy themselves out of much of their teaching for a year or more, at short notice – for example, when a big research application is successful?

At that point, back-up processes come into play. 'Chair's action' allows the appointment of short-term staff. Departments whose bid for a permanent post was rejected are allowed to appoint a teaching fellow instead.

The VC is keen to reduce the number of teaching-only posts. But in some key schools – medicine, business – we simply can't get active researchers. (Pre-92)

There has never ever been encouragement for one-year posts, and there's a very strong preference for teaching & research. But for example, recently we approved 3 one-year Teaching Fellows in the Business School because we simply couldn't appoint (pre-92)

The faster the growth, and the more rigorous the university is about 'research-active' teaching & research appointments, the more likely it is that there will be multiple such occasions: which is what the growth of Teaching Only posts in Russell Group universities indeed suggests. They may also use increased numbers of sessional contracts or call on individuals who are on the books with 'zero hours' contracts – groups on which very little information is available.²⁵ Our case studies suggest that, in the UK, decisions to make 'teaching only' appointments are essentially 'residual' rather than a central and conscious part of university strategy. However, they also suggest that and why they will continue to be made, and in large quantities.

25 Universities also use PG teaching assistants, although the number of hours they can work is regulated by the Research Councils. Again, we have little information on this group.


Conclusion

This report has provided new information on changes to the staffing of UK universities in the 21st century focusing on two key issues – firstly, the growth of administrative and managerial staff, and secondly, the perceived decline of 'traditional' permanent academic jobs which carry both teaching and research responsibilities, and the growing prevalence of teaching-only employees. Both of these developments have attracted a good deal of comment but there has been little research either looking at trends over a substantial period of time or identifying the factors which might explain emerging patterns. Here we have drawn extensively on statistical data from HESA to show how staffing in universities has changed, backed up by case studies to isolate and explain the factors which seem to be driving staffing changes.

Among non-academic staff relatively highly paid positions for managers and non-academic professionals were the main area of growth. Some of the likely drivers and enabling factors for this were clearly identifiable in the external environment. Over the last twenty years UK universities have grown both in size and complexity, they have faced increasing competition for students, notably for overseas students, and have developed major marketing departments. A development of particular significance in the UK was a growing preoccupation in the sector with improving student services and with using this to increase student satisfaction. Associate professional employees dealing with the 'student experience', including welfare workers and career advisors greatly increased in numbers therefore as did marketing/ media staff. Case study evidence was consistent: perceived contributions to 'improving the student experience' were highly important in justifying new professional services jobs.

Centralisation of professional services was a consistent development in case study institutions. Even when professional services staff were situated in academic departments, they increasingly and overwhelmingly reported to managers in the centre: senior teams believed this both increased effectiveness and decreased costs. Senior professional service posts were approved (or not) centrally in all the institutions visited. But senior leadership teams often lack expertise on professional service matters. This made it much easier for a steady upward movement in relatively well-paid professional services jobs to occur – or perhaps more accurately, much harder to create institution-wide structural barriers to, and constraints on, such drift than would be the case with academic posts.

As for changes in academic staffing, our analysis of a large sample of 117 'generalist' universities found that the total number of teaching-only staff employed in these universities rose by more than 80 per cent between the academic years 2005/06 and 2018/19. This was about five times the rate of increase for 'traditional' teaching and research staff (i.e. lecturers, professors etc who both teach students and conduct research), where numbers only rose by about 16 per cent over the same period. Teaching-only staff tended to be parttime, although the proportion of full-timers was increasing, reaching about a third by the end of our study period.

This growth in teaching-only staff was not uniform across the sector. Increasing employment of teaching-only staff by the research-intensive Russell Group universities was responsible for much of the change in our sample. Many Russell Group universities had relatively few teaching-only staff among their academic workforces in 2005/06 and there was a general pattern of institutions with low proportions of teaching-only staff in 2005/06 tending to catch up over the years through to 2018/19. Rates of growth were nonetheless highly variable, across the sector and within the Russell Group.

The evidence from our case studies showed that teachingonly staff appointments were often linked to universities' focus on research productivity and excellence, notably in the government's 'Research Excellence Framework' (REF) review, for which numbers and percentages of 'researchactive' staff are important. So, especially in researchintensive universities, teaching-only appointments might be to cover for permanent staff bought out by research commitments or taking up their entitlement to regular sabbaticals (which were importance for strengthening their own, and hence their institution's, research profile). Recruitment to permanent academic posts was very closely scrutinised from the centre, and especially in 'researchintensive' universities, research excellence was a key criterion for appointment. When these posts were not filled, or not approved, but student numbers still grew, short-term staff would most likely be appointed instead.

A key finding from the case studies, then, is the lack of any deliberate strategic or centrally-driven attempt to replace teaching and research academics with teaching-only staff. Growth in the numbers, and proportions, of teaching-only staff was not a component in a well-considered strategic plan but something which occurred in a more haphazard way, especially as a response to the research funding environment of UK universities.

Our research was conducted before the pandemic; but we do not believe that, on current evidence, this will have a major impact on the developments and trends described above. Short-term pressures may have led some universities to reduce the number of teaching-only positions, simply because fixed-term contracts are the easiest to terminate: but in the UK, the large majority of universities seem (as of July 2021) to have weathered the crisis in reasonable financial shape. Meanwhile applications through UCAS are sharply up on 2021; international applications have risen; and the government has introduced a new visa for graduates of UK universities which is quite explicitly intended to strengthen their competitive position in an increasingly competitive, global sector.

We therefore believe that the long-run drivers of growth in teaching-only numbers are likely to remain: intense competition for international students, volatile recruitment of home students (other than for Scottish undergraduates), plus continuing pressure to achieve high research-based rankings. These factors also strengthen the tendency towards expansion of management numbers, and centralisation at the expense of academic department power and autonomy.

Does this matter? We think it does, but also that it is easier to make a positive response to changes in the academic workforce than it is to the changing balance of departmental power. The UK has, thanks to our research funding system, experienced much less of a move towards a 'dual labour market' than have a number of other marketised higher education systems, and there is also growing awareness of the challenges faced by young academics, who face, at one and the same time, heavy teaching loads and enormous pressure to publish and win research grants.

The way in which the government, and UKRI (UK Research and Innovation), organise the next Research Excellence Framework will have a major impact on the academic hiring decisions that universities make, and they can also take direct action to encourage recognition of teaching-only staff and their specific needs. Some universities, with pressure from unions, have already introduced concordats²⁶ and improved conditions, with clearer career paths for those on teaching-only pathways but also better opportunities for moving to 'teaching and research' contracts which do allocate time for research as well as for professional development. Since we know those with poor working conditions are less likely to have the time and resources to develop their skills and knowledge, such changes should be of direct and fairly immediate benefit to students and the quality of teaching and learning.

The continuing movement towards more highly-paid managers and non-academic professionals is harder to evaluate, or address. One does not have to share the hostility of many academic commentators to recognise that there is a

26 See, for example, the UCL teaching concordat <u>https://</u> <u>www.ucl.ac.uk/</u> <u>human-resources/</u> <u>news/2020/sep/</u> <u>improving-our-</u> <u>offering-teaching-</u> fellows-ucl real imbalance in the way resource allocation decisions are currently being made within universities, or feel concern about a continuation of recent trends. Internationally, academic excellence is strongly associated with university and academic autonomy. In the UK, Oxford and Cambridge have by far the 'messiest' systems of governance, with less power for central management and more remaining with academics, departments and colleges: and this seems to be serving them very well. More generally, we are struck by the lack of clear strategy which underpins recent change.

Starting in the latter part of the last century, there was a general move to make university governance more businesslike, with clearer lines of accountability and more outside appointments to governing bodies. There has also been a marked increase in government regulation. It was expected that these changes would make universities more efficient, and more effective in terms of both their teaching and their research. Looking at the evidence from our research, and at other developments - including, notably, some quite clear indications of widespread grade inflation - we would suggest that these changes have not been entirely successful. Turning the clock back is rarely an option, and approaches which were developed for much smaller institutions, and before large-scale global competition for students, are unlikely to translate to the present. But we do believe, in the light of our research, that the internal organisation and governance of our universities requires some quite urgent attention.

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Appendix

TABLE A1: Regression model for change in percent MNAP/Academic staff, 2005/06 to 2016/17

	(1)	(2)	(3)	(4)
MNAP per 100 academic staff in year 2005/06	-0.592***	-0.579***	-0.579***	-0.585***
	(-6.79)	(-6.62)	(-6.74)	(-6.76)
Percent change in number of academic staff, 2005/06-2016/17 Russell Group New university	-0.071***	-0.078***	-0.074***	-0.071***
	(-3.42)	(-3.61)	(-3.65)	(-3.50)
	1.524	0.518	1.669	1.736
	(0.65)	(0.21)	(0.82)	(0.84)
	-3.705*	-3.442*	-3.888*	-3.867*
	(-2.32)	(-2.15)	(-2.48)	(-2.45)
Change in real research grant money, 2005/06 to 2016/17	0.000			
	(0.81)			
Change in agg real income, 2005/06 to 2016/17		0.000		
		(1.34)		
Change in real income per student,			0.387*	
2005/06 to 2016/17			(2.11)	
Change in real research grants				0.762
per student, 2005/06 to 2016/17				(1.57)
Constant	20.402***	19.718***	19.861***	20.446***
Constant	(8.75)	(8.24)	(8.60)	(8.86)
Observations	115	115	115	115
R ²	0.376	0.383	0.397	0.387

t statistics in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001

Regression models: growth of teaching only staff

In order to gain further insight into the growth of teachingonly staff in HE in recent years some regression models were fitted.²⁷ These models have the growth in number of teaching-only staff from 2005/06 to 2016/17 as the dependent variable. A model was developed which included the level in 2005/06, growth in student numbers up to 2016/17 and the growth in numbers of teaching/research staff. This model was found to fit the data quite well, accounting for just over half of the total variation in the growth of teaching-only staff.

We experimented with some slightly more elaborate models – for example splitting the growth of student numbers between undergraduates and postgraduates; or adding further explanatory variables to pick up student subject mix and university finances (real income per student). (See Tables 16 and 17 in Wolf & Jenkins 2021). However, introducing a distinction between undergrads and postgrads did not noticeably improve the fit of the models while measures of student subject mix, and university finance, were not significant.

The relatively simple model shown below was therefore chosen as the preferred specification.

27 These models generally use 115 or 116 of our full sample of 117 universities. The merger of Manchester and UMIST part way through the research period means that Manchester must normally be excluded: as must Buckingham when university 'group' is a variable, since it belongs to none of them.

TABLE A2: Growth model, linear regression.

Dependent variable is change in number of teaching-only staff, 2005/06 to 2016/17

Observations	116
R-squared	0.52
	(2.67)
Constant	126.531**
טומווצי וו וועוווטידו טו דוב געעפוונג, 2000/00 נט 2010/ וו	(6.35)
Change in number of FTE students, 2005/06 to 2016/17	0.053***
Change in number of teaching & research staff, 2005/06 to 2016/17	(-6.76)
Change in number of teaching & near and staff 2005 /06 to 2016 /17	-0.756***
Other new	(-0.36)
Other new	-19.595
Ex-poly	(2.03)
Ex poly	105.358*
Russell Group	(3.37)
University type (reference group is 'other old')	196.105**
Teaching-only staff, 2005/06	(-3.17)
Teaching only staff 0005/00	-0.299**

t statistics in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001

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M



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