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"*Mind that gap! An investigation of gender imbalance on the governing bodies of UK universities*"

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"*Mind that gap! An investigation of gender imbalance on the governing bodies of UK universities*"

Abstract

This paper evaluates the factors affecting the representation of females on governing bodies of UK universities. Applying resource dependence and stakeholder theory, the paper argues that it is in the interests of the organisation that there should be an equitable gender balance on the governing bodies of universities. Using data from university websites and the Higher Education Statistics Agency (HESA), we observe the proportion of female members of UK university boards to be 32%, higher than the corporate sector and similar to Parliament, but unsatisfactory given that it fails to reflect the percentage of female staff and students at UK universities. The principal findings of the research are that a gender imbalance persists across the sector with some differences between different types of university. For example, there are lower levels of overall female board membership for "New" (post 2000) universities, but lower female *outsider* members in pre-92 universities.

KEYWORDS: UK universities, governing bodies, gender balance resource dependence, stakeholder,

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1. Introduction

This paper investigates the gender balance on the governing bodies of UK universities. Using data from university annual reports and statistics from the UK Higher Education Statistics Agency (HESA), we analyse this gender balance across the UK university sector during 2013/14 and evaluate the factors that might explain the differences between universities. The principal contributions of this paper are:

1. That gender (im)balance in UK university governing bodies is systemic across the whole sector, with no clear reasons for differences between the universities.
2. Using resource dependence and stakeholder theories in providing a rationale for a better gender balanced university governing bodies
3. Combining two unique data sets to analyse and explain gender imbalance in university governing bodies.

Governing bodies of universities play an increasingly important role in both ensuring accountability of senior management and determining the strategic direction of their institutions. In the context of significant changes in the global higher education sector, governing bodies need to be both reactive and proactive which require them to appoint members with the appropriate skills and expertise (AGB, 2015). This concern regarding composition of university governing bodies echoes current calls for better diversity and inclusiveness on corporate boards.

In particular, there has been concern that women are under-represented in the board rooms of companies all over the world. Although the proportion varies significantly across countries the evidence is that women make up only a minority (and often a very small minority) of boardroom members. There has been some progress in recent years, with some countries, such as Austria, France and Italy (European Commission, 2012) enacting legislation to set a minimum quota for female membership of boards, but many critics argue that the pace of change is too slow (Kogut et al., 2012). The Davies Report (2015) concluded that the FTSE100 UK listed companies had on average now achieved the milestone of 25% female

membership on boards of directors, a target that was recommended in the predecessor report (Davies, 2011). The 2015 Report has set a higher target of 33% female representation on FTSE100 boards by 2020 which, it can be argued, now sets the bar for all organisations in the UK, not just listed companies. In this context it is especially relevant to examine the level of female representation on the governing bodies on UK universities.

The issue of female representation in public life is often seen as a political issue in that it reflects the (lack of) power of women in high profile institutions such as FTSE[2] companies, the National Health Service (NHS), universities, and of course Parliament. The 2015 general election saw an increase of 23% in female representation since 2010 with a total of 191 women (29% of Parliament) elected. That still leaves the UK well behind the Scandinavian parliaments where women account for more than 40% of the total number of MPs and ranked 54th in the world. Lovenduski (2012) argues that a more balanced representation of women in political decision making is important both because it will "make a difference for women" (ibid. P. 699) and because justice demands it. The same arguments can be applied to female membership of FTSE companies and higher education institutions. Women are better able than men to have an impact on the issues and policies that affect women (Lovenduski and Norris, 2003) and organisations with high public profiles should be seen to be fair and just to women. Such issues include flexible working, equal pay, and workplace behaviour.

There are several other arguments put forward as to why a more equal representation of women on company boards is desirable. These include ethical reasons, improved company financial performance, more emphasis given to social and environmental policies, and better reflecting the gender balance of consumers and clients (Nielsen and Huse, 2010). In addition, writers have utilised a range of theoretical frameworks in support of a more equal gender balance on company boards, for example stakeholder theory, agency theory, feminist theory and human rights theory. There is an array of economic, social, political and cultural factors that contribute to gender gaps, the analysis of which is beyond the scope of this paper. However, we seek to shed more light on the extent of the gender gap in the higher education sector.

[2] The FTSE ('Footsie'), which originally stood for Financial Times Stock Exchange, is the common name for a set of British stock market indices that show how well companies listed on the London Stock Exchange (LSE) are performing.

Although the literature on female membership of boards does include organisations other than companies, there has been very little research on higher education institutions, with the exception of Carnegie and Tuck (2010) in an Australian context. Other authors such as Breakwell and Tytherleigh (2008), Deem (2003) and Doherty and Manfredi (2006) have looked at the gender gap in the management and leadership of universities. However, very little research has looked at the scale of, and the factors affecting, representation of women on the governing bodies of UK universities. A report by Jarboe (2013) devised an index of female representation on university governing bodies as at October 2013 with the conclusion that less than one-fifth of universities had an appropriate gender balance (defined as 40-60% female membership). The report also identified differences in female membership across the sector but did not attempt any formal evaluation of the reasons for those differences.

There has been significant change in the gender profile of academic and professional support staff in UK universities in the past few years. More women are having successful academic and administrative careers in universities and there has been improvement in promotions for women, although women still account for a very small minority of professors and there are very few women occupying senior management positions (McTavish and Thomson, 2007; Tomàs et al., 2010).

Using current data from university websites and the Higher Education Statistics Agency (HESA), the UK agency that collects statistical data on university demographics, this paper reports on the gender composition of all university governing bodies in the UK in 2014, and analyses whether there are particular characteristics that can explain the variation of female membership across universities. The results show that females make up an average of 31.9% of the membership of governing bodies, a substantially higher proportion than for the corporate sector (20.7%) and similar to female MPs (29%) but nevertheless disappointing given that the majority of students in universities are female and that the number of female academic staff is approximately 50%. The results demonstrate that there is variation across universities and the paper examines a number of structural variables as possible explanatory factors.

The paper has five further sections. Section 2 discusses the rationale for this research, arguing that a more equal membership of university governing bodies is desirable both for reasons of effective governance and appropriate ethical behaviour. Section 3 sets out a theoretical framework based on stakeholder theory and resource dependence theory to

provide a justification for more female members of governing bodies. Section 4 describes the methodology, methods, and data sets used in the research. Section 5 presents the results of the research, analysed by different university groupings, and the outcomes of a multiple regression analysis using relevant structural variables. Section 6 reports the conclusion, together with some limitations of the research, and suggests further work that can be undertaken.

2. Overview of UK Sector

Universities can be thought of as hybrid organisations. They exhibit characteristics of public sector organisations, private sector companies, and third sector organisations. Almost all universities in the UK receive some funding from the government although this is an ever dwindling proportion of total revenues. Universities are regulated like public sector bodies, for example having to accede to requests under the Freedom of Information Act. Also, many employees of universities perceive themselves as public sector workers, often choosing this employment because it was not working in an organisation with a profit motive.

However, as inferred above, universities are receiving less and less income from the state, and in particular student fees make up an increasing and substantial amount of total revenues. Universities operate in a very competitive environment both for students and research income, encouraging market-based behaviour more akin to commercial companies than public sector bodies. Typically universities will place more importance on bottom line targets such as gross surplus or surplus as a percentage of total revenues, although such surpluses are reinvested within the universities rather than distributed to any "shareholders".

Universities also exhibit characteristics of the third sector, not-for-profit organisations. They are established as charities which gives some significant tax advantages with regard to income from commercial activities. They also tend to exhibit an ethos that is similar to that of not-for-profit organisations; with an emphasis on learning and research that benefits society as a whole and an environment that actively promotes the values of justice, diversity, equality, fairness, and human rights.

UK universities play a pivotal role in the UK economy. They are a major destination of students from overseas, second only to the United States, and contribute £40bn (2.8%) to the UK GDP (Universities UK, 2014). Therefore, the importance of governance of UK universities is on par with both the governance of the corporate and not-for-profit sectors. In

the UK there are 128 officially designated universities (HESA, 2014) with varied missions. All UK universities engage in teaching but a substantial number also consider themselves "research intensive", where the vast majority of academic staff are recruited for the quality of their teaching **and** their research. Of the other universities most were established after 1992 when the "binary divide" was removed and former polytechnics were designated as universities. Accordingly, for the purposes of this research UK universities are classified under the following categories:

- Russell Group (n=24) - the larger research intensive universities in the UK
- Other research intensive (n=30) – smaller research intensive universities
- Post-1992 (n=44) – former polytechnics that have been granted university status, with a stronger emphasis on teaching
- New (post-2000) (n=18) – former higher education colleges that have been granted university status, with less emphasis on research
- Specialist (n=12) [3] single subject institutions with university status

3. Effective governance and board composition

As shown above UK universities are a very diverse set of institutions with different histories, different objectives, and different resources. Consequently, their multiple and varied characteristics make universities very complex organisations to manage and govern. Although there are some variations across the sector there is a great deal of commonality for the management and governance structures in UK universities. There is a chief executive, with a title of Vice-Chancellor, Principal, or Warden, who is also formally designated by the public funding bodies as the "accounting officer" of the university. The chief executive heads up a senior management team, usually between four and eight academic and/or professional staff. The chief executive is directly accountable to the governing body of the university. The governing body determines the remuneration of the chief executive and has the power to remove them from office.

Governing bodies of UK universities are normally known either as the Council or the Board of Governors. The duties and responsibilities of governing bodies are set out in a Code of

[3] These include drama schools, music schools, and small single discipline institutions.

Governance published by the Committee of University Chairs (CUC) and include the following:

- The governing body is accountable for institutional activities, taking all final decisions on matters of fundamental concern within its remit.
- The governing body ensures institutional sustainability by working with the Executive to set the institutional mission and strategy. In addition, it needs to be assured that appropriate steps are being taken to deliver them and that there are effective systems of control and risk management
- The governing body receives assurance that academic governance is effective by working with the Senate/Academic Board or equivalent as specified in its governing instruments.
- The governing body must promote equality and diversity throughout the institution, including in relation to its own operation. (CUC, 2014, p.9).

The Code also includes recommendations for sub-committees of the full governing body, including a Nominations Committee for appointing members to the governing body, and a Remuneration Committee, for awarding salaries to the chief executive, members of the senior management team, and other senior staff within the university.

Although universities do have bottom line financial targets they cannot focus on them to the exclusion of other measures of performance, such as student satisfaction, teaching quality, research rating, facilities, and employability. To manage universities effectively in the context of these multiple objectives, Vice-Chancellors, Registrars, Deans and Heads of Departments and Professional Services, need to manage with a "balanced scorecard approach" (Beard, 2009). This is not simply reporting a variety of different measures of performance, it is also recognising the impact that trying to achieve one set of objectives will have on other objectives. For example, a target to grow student numbers to generate more income may lower entry qualifications, lead to poorer degree results, and reduce the likelihood of employment. Or, an emphasis on the universities ranking in the Research Excellence Framework (REF) may impact negatively on teaching quality and student satisfaction.

If managing a university is a balancing act across several competing objectives, then governing a university has to reflect that variety (Ashby, 1958). It is very important that the

role of the governing body of universities is responsive both to the competitive, market-based environment facing universities and to the core principles of learning and research as embodied in the aspirations of students and staff. The governing body should have the range of skills, experience and values so that it can monitor effectively the extent to which the university is taking account of the multiple stakeholders and their objectives. One way to achieve this is through the composition of the governing body which should, therefore, reflect as far as possible the characteristics and values of the university, and hence provide some assurance that the managers are fully aware of the diverse and interconnected objectives of the university.

It is in this context that this paper reports on a study of the composition of the boards of governors of all UK universities. The research question posed concerns specifically the gender balance of the boards, whether the level of female membership is sufficient, and the factors that might impact on the numbers of female board members. Eagly and Carly (2003) argue that women leaders are more likely than male leaders to endorse progressive policies such as flexible working hours and equal pay. However, prejudice still exists to limit the number of women in leadership roles. This prejudice can take two forms: first, a perception exists that the default is that men are better leaders, and that leadership is a masculine role; second, should a woman be in a leadership role, she is then judged to be not fulfilling society's expectations of female behaviour (Eagly and Karau, 2002). If this prejudice continues to persist, it could limit the ability of governing bodies of universities to provide a holistic and inclusive direction for their institution at a time of great need for such strategies. The next section argues that the application of resource dependence theory and stakeholder theory provides a useful theoretical framework for the argument that an equal gender balance is appropriate for university governing bodies.

4. Resource dependence theory and stakeholder theory

Resource dependence theory views organisations as being embedded in networks of interdependencies and social relationships (Pfeffer and Salancik, 1978). In order to survive and be effective organisations need to "manage" these interdependencies (Pfeffer and Salancik, 1978), especially the demands of interest groups, stakeholders, upon which organisations depend for resources and support. One strand of research using resource dependence theory has focused specifically on the size and composition of boards of directors (Hillman, Withers & Collins, 2009), and hence is directly relevant to this study. Pfeffer

(1972) argues that the decision of who to co-opt onto boards is based on the need to match the resources provided by the members of the board with the needs of the organisation. Thus, the type of board member, their skills, their networks, their position in society, is important for the economic, social and political resources they can bring to the organisation. This was evidenced by Adams et al (2015) who found that director skill sets added value to the firm.

Members of boards can bring a range of benefits to organisations (Pfeffer and Salancik, 1978) including: information in the form of advice; preferential access to resources; and legitimacy. In the context of university governing bodies members also provide these benefits. Universities are examples of regulated organisations which typically have a high percentage of stakeholder members (Luoma and Goodstein, 1999) and it has been shown that such stakeholder members have a positive impact on corporate social performance (Johnson and Greening, 1999). So, from a resource dependence perspective we would expect university governing bodies to include the full range of stakeholders that make up the environmental relationships with the university. In addition to expecting governing bodies to include members with the requisite skills and connections, they should have regard to gender balance both to reflect the resources in the environment and for legitimacy (Hillman et al, 2009). Of the student population, 55% of all enrolments are female, as are 54% of all staff (HESA Statistics). This suggests a healthy gender balance for students and staff, but is this reflected in the composition of governing bodies?

Just as resource dependence theory provides a rationale for boards to co-opt members who can bring resources to the organisation, so stakeholder theory (Freeman, 1984) also argues that organisations are more efficient if they take account of the interests on their stakeholders. Stakeholder theory argues that in the short term management decisions will give preference to different stakeholders (Mitchell, Agle & Wood, 1997) but that over a period of time all stakeholders must feel included for the organisation to survive. Clearly, female students and female staff are key stakeholders in universities who should be proportionately represented in the composition of the governing body.

The use of resource dependence and stakeholder theories in explaining and supporting the value of board diversity can be found in the board / corporate governance literature. Work by Bear et al (2010), Hillman et al (2002), Hillman et al (2007) and Ruigrok et al (2007) apply

resource dependence theory in evaluating the composition, role, predictors and impact of diversity and gender composition on boards in various national settings. Francoeur et al (2008) (and Boulouta (2012) to a certain extent) apply stakeholder theory in discussing gender diversity and corporate governance.

Thus, from the complementary resource dependence and stakeholder perspective (Hillman et al., 2009) we would expect to observe full gender balance in the composition of university boards of governors. The next section of the paper discusses the data and research methods used to investigate the gender balance of boards.

5. Data collection and research methods

The study was based on the total population of 131 UK universities in 2014, of which three were federal universities. Relevant data for all the universities was attained from two sources. Details of the membership of the governing bodies were obtained from the official websites of the universities. The CUC Code of Practice (Committee of University Chairs, 2014) recommends that detailed information about board membership is published in the annual reports of universities and in all cases these reports are available online. Information was obtained about the total number of board members, whether lay, university or student members, whether appointed or elected, and whether male or female. In addition data the gender of the chair of the governing body and the vice-chancellor or principal were also collected from university annual reports.

Data were also collected from HESA Services Limited on a number of structural variables for all UK universities for 2013/14, the most recent year available at the time of the study. These included for each university the following items:

FTE of students by gender and cost centre
FTE of academic staff by gender and job classification

Data on structural variables were analysed to provide possible explanations for differences in the composition of governing bodies across the university population.

6. Results of the study

The average size of boards is just under 21, with a range of between 13 to 34. The data on board composition collected from 128 UK universities is summarised in Table 1. Within the total population it is noticeable that the Russell Group and the Pre-92[4] universities have significantly larger governing bodies than the Post-92[5] and New[6] universities. There are several possible reasons for the difference in board size. For example, the older universities, because of their longer history and traditions, are more inclusive and collegiate, encouraging participation from a wider range of groups. Related to this, these universities may believe it is important to connect with all the stakeholders, in part to connect with individuals and groups that can provide resources to the university (Pfeffer and Salancik, 1978). On the other hand Post-92 and New universities may have a more managerialist tradition which would tend to be associated with smaller governing bodies.

<TABLE 1 HERE>

In Table 2 below total board membership is disaggregated into several categories: lay, university, and student members; elected and appointed members; male and female members. The lay members, who may be viewed as the "independent" members, account for nearly two-thirds of the total membership although the range extends from a minimum of 5 (or 20.8%) to a maximum of 25 (100%). The category University Members includes both academic and administrative staff and on average accounts for 27.4% of the boards. There are a couple of outliers here with one university having no university members and one where they made up more than two-thirds of the total membership of the board. In almost all universities student representation is minimal which in some ways is rather surprising since students are a very important stakeholder. It might be argued that some of the lay members of the governing body are recruited specifically to look after the students' interests but an assessment of that proposition is outside the scope of this paper.

<TABLE 2 HERE>

The vast majority of members of university governing bodies are appointed rather than elected which is not that surprising given the numbers of lay members. The other appointed members are likely to be senior office holders in universities where the regulations or

[4] Pre-92 universities refer to former 1994 group and research intensive universities that are not members of the Russell Group, but were established before 1992.
[5] Post-92 universities refer to former polytechnics and similar institutions that were granted university status in 1992.
[6] New universities refer to former colleges of further education that have been granted university status.

ordinances allocate a number of ex officio members to the board. In this regard university practice seems to differ from that in both the private sector and the public sector. For companies listed on the London Stock Exchange all directors of the board are elected by the shareholders. For public sector bodies such as NHS Hospital Trusts the majority of lay governors representing staff, patients and the public are elected. Universities do not have shareholders but it would be possible, albeit radical, to devise a system whereby at least some of the lay members were elected to the governing body. In many universities public advertisements are used to invite individuals to apply to be lay members of the governing body. A short list is then drawn up by the chair and one or two members of the governing resulting in an interview with a subset of the governing body. Individuals may also be encouraged to apply and they will also be interviewed. It is probably the case that the Vice-Chancellor or Principal of the university will have a substantial influence on who is invited to interview, and who is ultimately appointed to the governing body.

We now turn to the gender balance. The results show that on average there were more than twice as many males (68%) than females (32%) on university governing bodies in 2014. At the extremes of the range one university only had two female board members out of 25 and one university had 15 out of 21. Given the inclusive nature of universities and the commitment all universities have to equality and diversity it is perhaps surprising that the proportion of female members on governing bodies is so low. Indeed, the gender (im)balance on university boards is not much different from that for companies in the FTSE 100 (Davies, 2015) where 26.1% of directorships are held by female members.

The percentage of female university governing body members is also similar to that of UK charities, another sector with a large proportion of female stakeholders. Based on a report by Jarboe (2012), the top 100 charities by funds have 27% female directorships, with the percentage slightly higher at 32% for the top 100 charities by income.

However, for the corporate sector and the FTSE 100 in particular, there is now a stated commitment to improve the gender balance (The Guardian, 2014).The Davies report (Davies, 2015) has now recommended a target of 1/3 (33%) of female board membership in the FTSE 100 by 2020. In contrast, there has not been a similar public statement by UK universities in general or the Committee of University Chairs (CUC 2014) in particular. The Higher Education Code of Governance 2014 published by the CUC mentions the need for more diverse boards, but does not recommend specific gender balance targets. Later in this section

we will examine the factors that might be associated with the low proportion of females on governing bodies.

Table 3 provides more detailed analysis of the gender balance across the various groups of universities.

<TABLE 3 HERE>

The proportion of female members is remarkably consistent across different types of university, ranging from a high of 37.9% for specialist universities to a low of 30% for New universities. Although not statistically significant the higher proportion for specialist universities may reflect the nature of the subject specialisms, typically drama, music, fine arts, and education.

Perhaps of more significance than the proportion of female members to total board membership is the proportion of "lay" female members to total lay membership (see Table 4 below). As we have discussed above the chair of the governing body has a lot of influence over the appointment of lay members and, therefore, we might expect a higher proportion of female lay members than female members as a whole; the chair has no influence over the ex officio or elected members of the board.

<TABLE 4 HERE>

Perhaps surprisingly the proportion of female lay members (32.1%) is almost identical to the proportion of female members in total (31.9%) although there are some differences within the groupings. In particular, the proportion of female lay members is higher for Russell Group universities and Specialist universities but lower for the other groups

Although the differences are not statistically significant Table 4 does suggest that there may be structural factors that are affecting the number of female members of university governing bodies. The remainder of the paper identifies a number of factors that may explain the relatively low proportion of female members including the number of female staff in the university, number of female vice-chancellors or principals, and the subject mix of the universities.

<TABLE 5 HERE>

As we have shown the proportion of female members of university governing bodies is much lower than the proportion of male members. For each university group this proportion is also smaller than the proportion of female staff. For example, in New universities female staff make up 50% of the total staff but female governors only account for 30% of board membership. The disparity is lowest for Pre-92 universities where the proportion of female staff is 39% and the proportion of female governors is 32%. The table also shows how few vice-chancellors or principals are female and this is matched by the low number of female chairs of governing bodies. Given that females make up about 30% of the membership of governing bodies it might be expected that a similar proportion of the chairs would be female. This disparity is also observed in the non-profit sector, where only 9% and 17% of chairs are female in the top hundred charities by funds and by income respectively, despite 61% of donors and 68% of the workforce comprising of women (Jarboe, 2012).

One question that might be posed here is whether there is a relationship between the gender of the vice-chancellor or principal and the gender of the chair of the governing body. However, the data shows that universities with a female vice-chancellor are more likely to have a male chair of the governing body, with the corollary also being true.

In analysing the gender balance on university governing bodies, it is important to recognise that university (insider) and lay (outsider) members are appointed to the board via different mechanisms. Our data reveals that a very large proportion of lay members (approximately 95%) are appointed to the board (via an interview process), while university members are as equally likely to be appointed as they are to be voted onto the governing body through some form of election process (an approximate 52% appointed to 48% elected).[7]

Taking this into consideration, before analysing the proportion of females on university governing bodies, we first ran a simple regression to evaluate what factors affect the likelihood of university vs. lay membership on boards. Columns 1 and 2 of Table 6 reveal that 'older universities' – that is, Russell Group and Pre-92 universities – are less likely to have lay members, while 'newer universities' – Post-92 and New universities – are less likely to have university members.

[7] The table that illustrates this is available upon request from the authors.

With this in mind, we ran a regression model to test whether the proportion of female on boards of universities – in total, lay members only and university members only - are related to the proportion of senior female staff, the proportion of female students, the type of university and if the university has a STEM focus. We also control for whether the VC or the Chair of the board is female, board size and also the size of the university. The regression model employed is:

$$fem = \alpha + \beta 1 fstud + \beta 2 smpf + \beta 3 \Sigma unigroup\ dummies + \beta 4 stemdummy + \beta 5 femvc + \beta 6 femchair + \beta 7 size + \beta 8\ brddum$$

Where:

fem =	proportion of female board members (excluding VCs and Chairs);
femstud =	proportion of female students
smpf =	proportion of female professors or senior management
unigroup dummies =	university dummies, binary (1 or 0): Russell Group, Pre-92, Post92 and New
stemdummy =	takes the value of 1 if the university has a STEM focus, 0 otherwise
femvc =	binary variable taking the value of 1 if the VC is female, 0 otherwise
femchair =	binary variable taking the value of 1 if the Chair is female, 0 otherwise
size =	log of the number of students
brddum =	dummy variable that takes the value of '1' if board size is greater than mean board size, and 0 otherwise

Three variations of this equation were run:

1. For total board members, *femboard*
2. For the proportion of board members who were female and lay, *layfem*
3. For the proportion of board members who were female and university, *femuni*

<TABLE 6 HERE>

Results for Model 3, where we look at total female board membership, are fairly weak. We are unable to tease out any specific pattern or meaningful insights, especially given the low adjusted R-Squared statistic, suggesting some complexity in different types of board membership.

To further refine this, in Models 4 and 5, we use female lay membership and female university membership as dependent variables; where we approximate, for comparative purposes, lay membership as non-executive directorships, and university membership as executive directorships. The following discussion focuses on Models 4 and 5.

The resource dependence approach argues that boards should reflect the demographics of its stakeholders. Using the proportion of female students and female senior management and professors (hereafter referred to as senior staff) as proxies for student and staff respectively, we observe that while the proportion of female students are not significantly related to lay and university members respectively, the proportion of female senior staff are significantly related to lay and university members, albeit in different ways. We observe more female lay members on university governing bodies when there is more female senior staff, but less university members in the same situation: that is, the presence of more female senior staff leads to more outsider female members, but less insider female members.

We can contrast this finding with that of Hillman et al (2007), who found that in the corporate sector, more female stakeholders were positively related to female board membership. Our findings suggest that more female stakeholders tend to be represented on boards by lay (outside) members rather than by one of their own.

Interesting work on the dynamics of relationships between females in top management positions and promotions was carried out using corporate sector data by Deszo, Uribe and Ross (2013). They studied why there continues to be low representation of women in top management despite advances in other levels of a corporation and suggest that a "queen bee syndrome" exists –the presence of a female in the top management team reduces the likelihood that another female be appointed to the same team. They argue that this is because of one of two possible factors: the lack of solidarity among women, or norm satisfaction, where the presence of one female on boards leads to satisficing behaviour and stems efforts to recruit more, arguably because the box has been ticked. While we do not test for "queen bee" vs "norm satisficing" effects in this paper, the fact that university governing bodies are less likely to have female university members when there are a higher proportion of female senior staff warrants a separate analysis which would be a natural extension of this work.

In terms of a university type effect, we observe modest results for female lay members, but some interesting results for female university members. While our earlier results show that

Russell Group and Pre-92 universities are less likely to appoint lay members, we observe no evidence to suggest that there are more female lay board members for any university type. However, when it comes to female university board members, there is a significant negative relationship with Russell Group, Post 92 and New universities.

Post-92 and New universities are less likely to have lay members on governing bodies (Table 6 Column 2), and our results here suggest that they are also less likely to have female lay members – as do Russell Group universities, but not Pre-92 universities. We found this to be rather surprising, given that Russell Group universities are the market leaders and therefore are more politically sensitive, it was expected that given their public visibility, they potentially were more likely to have female on boards as a response to public scrutiny.

For board size, we observe significant effects in opposite directions for lay and university members respectively. In particular, we find that there is a negative relationship between female lay board members and board size, but the opposite for female university members, where the relationship is positive significant. Taking into consideration that very few lay members are elected onto boards compared to university members, our findings raises an interesting question - do boards become larger because they accommodate female university members that were elected, or are larger boards more likely to appoint female members? We also find that female university membership is positively related to university size, suggesting that larger universities, which on average have a larger number of female students, are more pluralistic in their approach towards representation on boards.

Overall, our results suggest that in understanding the gender make-up of university governing bodies, the type of board members seem to reveal different insights, with female senior staff playing different roles depending on whether members are lay or university members. We also observe that for university members, the type of university plays a key role in gender balance, as does board size.

It is also clear from our analysis that the make-up of governing bodies of UK universities is complex and there seems to be no discernible pattern. While some factors affecting gender balance have been identified, the factors that are expected to be present based on resource dependence theory are inconclusive, and therefore any approximation – from both an academic and a policy perspective – to corporate or third sector board composition needs to be done with much care.

7. Concluding remarks

This paper has considered the representation of females on the governing bodies of UK universities and the reasons why the number of women on boards is still so low. There is a similarity in the size of female representation on governing boards across the range of many high profile organisations in the UK, including FTSE companies, public sector bodies, and Parliament, of between 20% and35%. This is much lower than female representation in equivalent organisations in many countries around the world with Scandinavian countries especially consistently recording more than 40% in their high profile organisations.

Applying resource dependence theory and stakeholder theory, the paper argues that it is in the interests of the organisation, as well as a requisite for justice, that there should be an equitable gender balance on the governing bodies of universities. The paper also argues that any prejudice against female leaders in UK universities needs to be addressed by the sector as a whole, with a strong recommendation from the Committee of University Chairs (CUC) to improving the gender balance on university governing bodies.

Using data collected from the websites of all UK universities and from HESA the paper analysed the membership of university governing bodies for the academic year 2014-15. The principal findings of the research are that a gender imbalance persists in a systemic fashion across the sector with some relatively small differences between different types of university. Regression analysis was employed to examine whether there was any relationship between female membership of governing bodies and a range of structural variables, including the university grouping, size, proportion of total and academic staff who are female, proportion of students who are female, the gender of the vice-chancellor or principal, and the gender of the chair of the governing body. We find that there are lower levels of female board membership for "New" (post 2000) universities, that higher levels of lay female board membership are associated with a higher numbers of female senior executives and female professors, but there are fewer female lay members in pre-92 universities.

There are three main limitations to this research. First, the data was collected for one academic year 2014-15 and therefore represents a single snapshot of the membership of the governing bodies of UK universities. It is likely that over time the proportion of female members will grow although this is likely to be a slow process as the average length of tenure of a board member is in excess of four years. Also, the report by Jarboe (2013) which used

similar data for 2013-14 revealed a very similar pattern of representation for women. However, this does suggest a further area of research using a case study methodology which looks in detail at the processes by which new board members are recruited.

Second, the paper has given attention only to the representation of women on the governing bodies of universities. In doing so it has highlighted that there are groups that may also not be fully represented on the boards. In particular, black and minority ethnic (BME) groups are likely to be very poorly represented on boards although there is no publicly available data on this. Not only is more representation for BME groups required, as for women, on the basis of justice, but through a resource dependence lens, their representation should reflect the increasing numbers of BME groups in the student and staff populations. In some universities not a single member of the governing body is from a BME group and, therefore, for those institutions there are no representatives of a very important set of stakeholders. Because very few universities publish any information on BME membership of governing bodies there is a need for researchers to collect this data through a systematic survey.

Third, whilst the focus of this paper has been on the membership of females on university governing boards, it is recognised that we have not addressed the question of whether having female board members makes a difference in terms of decision making and performance. Further research could examine the behaviour of university governing bodies with regard to particular policy issues and performance, for example, whether strategic outcomes and financial performance, human resource policies, equality and diversity, and student welfare, are affected by the presence of female board members.

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Table 1: Size of University Governing Bodies by Group

University Group	N	Mean	Std Dev	Min	Median	Max
Russell Group Universities	24	23.17	3.05	20	22	32
Pre-92 Universities	30	23.07	3.88	15	23.5	30
Post-92 Universities	44	18.52	3.2	13	18.5	25
New Universities	18	19.89	3.39	13	19	25
Specialist / Other Universities	12	20.83	5.17	14	20	34

This table presents the descriptive statistics of board size, by different university groups.

Table 2: Summary of Board Composition of all UK Universities

Variable	N	Mean	Std Dev	Min	Median	Max
Board Size	128	20.87	4.07	13	21	34
University Board Members	128	5.98	3.25	0	5	19
Lay Board Members	128	13.47	3.16	5	13	25
Student Board Members	128	1.48	0.69	0	1	3
Elected Board Members	128	3.34	3.36	0	2.5	21
Appointed Board Members	128	17.39	4.37	0	17	34
Male Board Members	128	14.19	3.3	7	14	23
Female Board Members	128	6.68	2.4	2	6	15

This table presents a summary of board members in the sample. Board membership can be subdivided into three sub-groups: University vs Lay vs Student members; Elected vs Appointed members; Male vs Female members.

Table 3: Board Gender Composition – By Group

	N	Mean	Std Dev	Min	Median	Max
Russell Group Universities						
Male Board Members	24	15.92	2.8	12	15	23
% of All Board Members	24	(68.74%)	(8.03%)	(52.00%)	(67.33%)	(81.82%)
Female Board Members	24	7.25	2.09	4	7	12
% of All Board Members	24	(31.26%)	(8.03%)	(18.18%)	(32.67%)	(48.00%)
Pre-92 (Research) Universities						
Male Board Members	30	15.67	3.51	10	15.5	23
% of All Board Members	30	(67.91%)	(9.34%)	(40.00%)	(66.67%)	(85.19%)
Female Board Members	30	7.4	2.55	3	7	15
% of All Board Members	30	(32.09%)	(9.34%)	(14.81%)	(33.33%)	(60.00%)
Post-92 Universities						
Male Board Members	44	12.7	3.1	7	12	19
% of All Board Members	44	(68.28%)	(9.64%)	(44.44%)	(68.75%)	(86.36%)
Female Board Members	44	5.82	1.82	2	6	10
% of All Board Members	44	(31.72%)	(9.64%)	(13.64%)	(31.25%)	(55.56%)
New Universities						
Male Board Members	18	13.83	2.18	8	14	17
% of All Board Members	18	(69.96%)	(7.41%)	(60.00%)	(68.99%)	(85.00%)
Female Board Members	18	6.06	2.13	3	6	10
% of All Board Members	18	(30.04%)	(7.41%)	(15.00%)	(31.01%)	(40.00%)
Specialist Universities						
Male Board Members	12	13	3.05	8	13	19
% of All Board Members	12	(63.52%)	(12.51%)	(42.11%)	(64.58%)	(83.33%)
Female Board Members	12	7.83	3.64	3	8	15
% of All Board Members	12	(36.48%)	(12.51%)	(16.67%)	(35.42%)	(57.89%)

The table presents the male-female split of UK university board members, subdivided by university type. Percentages are presented in parentheses below.

Table 4: Analysis of Lay Members

	N	Mean	Std Dev	Min	Median	Max
Russell Group Universities						
Male Lay Members	24	8.38	3.29	3	8	19
% of Lay Members	24	64.12%	9.99%	44.44%	63.96%	85.71%
% of Board	24	36.15%	12.58%	12.50%	33.97%	73.08%
Female Lay Members	24	4.54	1.59	2	5	7
% of Lay Members	24	35.88%	9.99%	14.29%	36.04%	55.56%
% of Board	24	19.64%	6.33%	7.14%	21.29%	28.57%
Pre-92 (Research) Universities						
Male Lay Members	30	9.33	2.34	3	9.5	13
% of Lay Members	30	69.88%	10.30%	50.00%	69.91%	86.67%
% of Board	30	40.76%	10.08%	20.00%	41.42%	66.67%
Female Lay Members	30	4.03	1.61	1	4	7
% of Lay Members	30	30.12%	10.30%	13.33%	30.09%	50.00%
% of Board	30	17.71%	7.00%	4.35%	17.95%	33.33%
Post-92 Universities						
Male Lay Members	44	9.16	2.6	5	9	16
% of Lay Members	44	69.07%	10.99%	38.46%	70.00%	94.12%
% of Board	44	49.29%	10.23%	27.78%	47.72%	72.73%
Female Lay Members	44	4	1.45	1	4	8
% of Lay Members	44	30.93%	10.99%	5.88%	30.00%	61.54%
% of Board	44	21.97%	8.05%	4.55%	21.74%	44.44%
New Universities						
Male Lay Members	18	10.28	2.19	5	11	14
% of Lay Members	18	71.25%	12.01%	50.00%	72.12%	91.67%
% of Board	18	51.86%	9.07%	38.46%	52.66%	70.59%
Female Lay Members	18	4.28	2.08	1	4	8
% of Lay Members	18	28.75%	12.01%	8.33%	27.88%	50.00%
% of Board	18	21.43%	9.68%	5.00%	21.05%	38.46%
Specialist Universities						
Male Lay Members	12	8.67	2.81	5	8.5	14
% of Lay Members	12	61.18%	14.22%	35.71%	66.67%	81.82%
% of Board	12	42.09%	11.22%	26.32%	43.65%	58.33%
Female Lay Members	12	5.67	2.64	2	5	10
% of Lay Members	12	38.82%	14.22%	18.18%	33.33%	64.29%
% of Board	12	26.85%	10.68%	11.11%	22.47%	47.37%
All Universities						
Male Lay Members	128	9.16	2.67	3	9	19
% of Lay Members	128	67.90%	11.40%	35.71%	68.75%	94.12%
% of Board	128	44.51%	11.91%	12.50%	44.72%	73.08%
Female Lay Members	128	4.3	1.78	1	4	10
% of Lay Members	128	32.10%	11.40%	5.88%	31.25%	64.29%
% of Board	128	20.91%	8.33%	4.35%	20.42%	47.37%

This table summarises the descriptive statistics of lay board members of UK universities by gender, together with the percentage as a proportion of all lay members, and as a proportion of the board as a whole, subdivided by university type.

Table 5: Female Governors, Female Staff, and Female Chief Executives

	Russell Group	Pre-92	Post-92	New	Specialist	All
Number of institutions	24	30	44	18	12	128
Average number of female governors	7.25	7.4	5.82	6.06	7.83	6.68
Average proportion of female governors	31.26%	32.09%	31.72%	30.04%	36.48%	31.93%
Average number of female staff	1104.08	362.78	396.82	198.23	246.7	479.45
Average proportion of female staff	39.60%	39.19%	46.14%	50.39%	48.74%	44.13%
No of Female Vice Chancellors	2	5	7	4	0	18
No of Female Chairs	4	5	4	3	2	19

This table presents statistics of female governors and staff at UK universities, subdivided by university type.

Table 6 Results of regression analysis of factors affecting the gender balance of university governing bodies

	Model 1 *University Board Members*	Model 2 *Lay Board Members*	Model 3 *Female Board Members*	Model 4 *Lay Female Members*	Model 5 *University Female Members*
Intercept	0.129	0.618	0.313	0.253	-0.009
	(0.274)	(0.000)***	(0.041)**	(0.048)**	(0.914)
Female Students	-	-	0.000	0.000	-0.000
	-	-	(0.967)	(0.924)	(0.823)
Female Senior Mgmt & Professors	-	-	0.108	0.252	-0.135
	-	-	(0.433)	(0.030)**	(0.078)*
Russell Group Universities	0.027	-0.140	-0.052	-0.001	-0.079
	(0.592)	(0.010)**	(0.370)	(0.980)	(0.015)**
Pre-92 Universities	0.015	-0.111	-0.046	-0.039	-0.036
	(0.726)	(0.017)**	(0.364)	(0.361)	(0.204)
Post-92 Universities	-0.109	-0.000	-0.062	-0.022	-0.073
	(0.017)**	(0.998)	(0.218)	(0.591)	(0.010)**
New Universities	-0.089	0.027	-0.089	-0.052	-0.045
	(0.040)**	(0.548)	(0.052)*	(0.172)	(0.074)*
STEM Focus	0.0291	-0.030	-0.013	-0.018	0.011
	(0.165)	(0.178)	(0.560)	(0.329)	(0.380)
Female VC	-	-	-0.023	-0.028	-0.005
	-	-	(0.408)	(0.226)	(0.743)
Female Chair	-	-	-0.052	-0.031	-0.013
	-	-	(0.058)*	(0.167)	(0.379)
Size	0.018	0.011	-0.006	-0.007	0.021
	(0.224)	(0.469)	(0.686)	(0.603)	(0.020)**
Board Size	0.024	-0.023	-0.006	-0.030	0.028
	(0.246)	(0.305)	(0.780)	(0.096)*	(0.022)**
R-Squared	0.3359	0.3247	0.0861	0.2004	0.2690
Adjusted R-Squared	0.2971	0.2853	-0.000	0.1245	0.2065

This table presents the results of the regression to identify what factors affect the proportion of female membership on university governing bodies. Female students are measured as a proportion of total students, based on data from HESA. Female senior management and professors are measured as a proportion of total staff, based on data from HESA. Russell Group universities are measured by a binary variable that takes the value of 1 if the university is a member of the Russell Group and 0 otherwise. Pre-92 universities take the value of 1 if the university is a university established before 1992 but is not a member of the Russell Group. Post-92 universities take the value of 1 if the university is a former polytechnic and were granted university status at this time, and 0 otherwise. New universities take the value of 1 if the university is a former FE college granted university status and 0 otherwise. STEM focus takes the value of 1 if the university delivers a majority of STEM programs, and 0 otherwise. Female VC takes the value of 1 if the Vice Chancellor of the university is female, and 0 otherwise. Female Chair takes the value of 1 if the chair of the board is female, and 0 otherwise. Size is the log of total number of students, and Board Size is a dummy variable that takes a value of 1 if the size of the board is greater than the mean size, and 0 otherwise. P-values are in parentheses, *, ** and *** signify statistical significance at the 10%, 5% and 1% levels respectively.