LSHTM Research Online

1   **More talk than action? Gender and ethnic diversity in leading public health universities**

2   **Summary**
3
4   Improving the career progression of women and ethnic minorities in public health universities has been a
5   longstanding challenge, which we believe may be addressed by including staff diversity data in university
6   rankings. We present findings from a mixed methods investigation of gender and ethnicity-related differences in
7   career progression at the 15 highest ranked public health universities in the world, including an analysis of the
8   intersection between sex and ethnicity. Our study revealed that clear gender and ethnic disparities remain at the
9   most senior academic positions, despite numerous diversity policies and actions plans reported. In all universities,
10   there was a decline in representation of women between mid and senior academic levels, despite women
11   outnumbering men at the junior level. Ethnic minority women may experience a magnified disadvantage as ethnic
12   minority academics constitute a small proportion of junior level positions and the proportion of ethnic minority
13   women declines along the seniority pathway.
14

15   **Gender and ethnic diversity in the highest-ranking public health universities**

16   *'Has it occurred to you that nothing is ever done until everyone is convinced that it ought to be done,*
17   *and has been convinced for so long that it is now time to do something else? And are you not aware that*
18   *conviction has never yet been produced by an appeal to reason, which only makes people uncomfortable?*
19   *If you want to move them, you must address your arguments to prejudice and the political motive'* –
20   Being a Guide for the Young Academic Politician, 1908.[1]

21   Action on gender disparities in the workplace has been unacceptably slow, despite mounting evidence of the
22   discrimination and disadvantage faced by women in many occupational sectors around the world.[2-4] However,
23   recent efforts to document and expose gender inequalities - such as the UK's initiative on 'gender pay gap'
24   reporting by organisations with more than 250 employees - have been instrumental in generating debate and
25   political attention to the topic of gender discrimination in the workplace.[5,6] By highlighting explicit or implicit
26   disparities in human resource management, the tracking and public reporting of critical indicators puts
27   organisations' reputations at stake. This in turn creates a 'political motive' for them to act. [1] In our study, we apply
28   this strategy to a set of institutions that we believe are lagging instead of leading on achieving gender equity:
29   universities focusing on public health.

30   We focus on underrepresentation of women in senior roles and sex differences in progression up the career ladder,
31   which is a well-documented but poorly addressed challenge in both global health and academia.[7-9] For example,
32   figures from the European Union indicate that only 21% of full professors are women, and even fewer are heads
33   of universities.[7] Data on women's progression from junior to senior academic positions in health-related fields
34   from the US show a similar situation.[10,11] Qualitative studies in diverse settings have indicated that even if the
35   number of women in senior positions increases, the power of an authoritative position is often downplayed when
36   that position is held by a woman, and that the academic career path is structured in line with male perceptions of
37   success.[12-14]

38   Deviations from meritocratic career progression in academia are not only related to gender (which we define as
39   traits or experiences that are culturally based as opposed to biological sex differences).[15] There is evidence to
40   suggest that barriers related to ethnicity may be even greater than for gender, and that gender intersects with
41   ethnicity to create an increased vulnerability to bias among ethnic minority women.[16,17] A study on minority
42   researchers - defined as women or people of colour - found that 72% encountered workplace barriers relating to
43   ethnicity and 26% reported barriers related to gender.[18] Despite efforts over the past 30 years, only modest
44   improvements in faculty ethnic diversity in health or science-related fields have been achieved, and research
45   focusing on leading academic institutions on this topic is extremely limited, particularly outside of the US. [19,20]

46   Furthermore, there is some evidence to suggest that disparities may be worse in the highest ranking academic
47   institutions, which should in fact be setting an example for other institutions that may model their development
48   on the leaders in the field.[23] We therefore conducted a mixed methods investigation of career progression at 15
49   leading public health academic institutions, encompassing a sex-disaggregated analysis of how sex and ethnicity
50   intersect and a content analysis of policy documents.

51   As we detail in our paper, all 15 universities have ethnicity and diversity policies and strategies, and the vast
52   majority have leadership and mentorship schemes, despite differences in performance on gender and ethnic

53 diversity. However, in spite of these efforts, substantial gender and ethnic disparities remain and there is limited
54 reporting on the existence of monitoring and evaluation activities to track and measure outcomes. Thus,
55 universities may be saying more than they are doing.

56 In light of the potential influence of university rankings on generating healthy competition and influencing
57 institutions' reputations,[49,50] we believe that tracking and publicly reporting sex and ethnicity statistics along the
58 career pathway will catalyse action to improve diversity. Rankings are recognised as a powerful tool that can
59 '…subtly, powerfully, and enduringly shape perceptions of ability and achievement'. [55] We therefore call for
60 university ranking systems, such as the US News and Times Higher Education, to take into account academic
61 staff diversity scores. We further urge universities to make information on gender and ethnic diversity at different
62 seniority levels publicly available. The US News ranking system has since 2001 published a 'diversity index' that
63 ranks schools based on measures of the proportion of ethnic minority (EM) students but there is no faculty
64 diversity index included in the overall ranking.[55] Reporting of information on faculty diversity for individual
65 universities may inform decisions of prospective staff, students and funding bodies.

66 **Methods**

67 After reviewing several university ranking schemes, [36,38,39] we used the US News 2018 ranking table to identify
68 the top 15 global universities for public health, all of which were based in the UK, USA or Canada.[37]

69 Complete names and professional grades of staff in each department within the school of public health (or
70 equivalent) were manually extracted from university websites between 9-16 February 2018. Data on 13,619
71 unique staff were recorded in a standardised database. Three researchers independently classified the grade and
72 job descriptors for each individual into categories, as summarised in appendix 1, based on protocols used in
73 existing literature. [40-45] A study database containing only junior, mid-level and senior academic staff was created
74 (n=8801) for analysis. Since only publicly available data were used for our analysis, ethical approval was not
75 required.

76 Two validated software tools, Gender-epi and Onolytics, designed to assign sex and ethnicity to individuals based
77 on their names, were used to generate classifications for each academic staff member in our study database (details
78 in appendix 2). In order to investigate intersectionality between sex and ethnicity, we classified individuals into
79 one of four groups: NEM men, EM men, NEM women and EM women. We then analysed proportions of each of
80 these four groups at junior, mid and senior academic positions.

81 In parallel, a content analysis of equality policies on gender and ethnicity was conducted for the 15 universities.
82 Using a standardised proforma, we extracted information on equality policies, strategic plans and actions for the
83 coming years, specific activities targeted towards addressing gender and ethnic equality, existent mentoring and
84 leadership programmes, and groups and networks involved in fostering equality. Data were extracted by one
85 researcher, and verified against the source document by a second researcher. Thematic analysis was used to
86 inductively identify themes from the data. Coding was conducted using NVivo 10 software and leveraging on
87 techniques from grounded theory.[46,47]

88 We sent all 15 universities a summary of quantitative data on academic staff and a list of policies identified for
89 verification. Nine universities (60%) responded, of which eight confirmed that our numbers were within 5% of
90 their faculty size, and one identified an additional department that they include within public health which we
91 subsequently included in our analysis. One University highlighted specific policies or programmes that we had
92 missed.

93

Magnified disadvantage of ethnic minority women in reaching senior academic positions

Overall, the proportion of men and women across academic positions in the 15 highest-ranking public health universities was mostly equal and approximately one third of academic faculty were from EM groups (table 1). However, analysing the sex and ethnic composition of academic staff by junior, mid-level and senior positions surfaced clear disparities in the four groups we tracked. Considering barriers that operate at two stages – securing a junior post-doctoral position and being promoted to the senior-most level – we found that NEM women represent the highest proportion of junior staff (37%), but the proportion declines from mid- to senior levels in the majority of universities analysed. Similarly, the proportion of EM women declines from mid- to senior levels. However, as illustrated by figure 1, EM women comprise a smaller proportion of the total cohort at the junior level (19%) and, coupled with the downward trajectory moving along the seniority pathway, this results in less than 9% of senior positions being held by EM women. NEM men comprise 25% of the faculty at the junior level but show a sharp increase as we move along the seniority pathway, particularly between mid- and senior levels, surpassing the proportion of NEM women at the mid-to-senior level junction. EM men, similar to EM women, are poorly represented at the junior level but unlike EM women do not show a sharp decline across the seniority levels.

These results therefore indicate that gender and ethnicity related barriers to securing senior academic positions may operate differently, while also intersecting; ethnic disparities appeared across seniority levels whilst gender disparities were more evident between the mid and senior levels. Our findings of gender and ethnic disparities at senior levels are consistent with quantitative analyses conducted in British, European and South Asian universities.[23][51][52][53] Literature on this topic relates heightened marginalisation experienced by EM women to cultural factors, institutional structures and individuals' personality traits (such as assertiveness)[18].

Table 1: Sex and ethnicity distribution within the 15 leading universities focusing on public health [NEM = non-ethnic minority; EM = ethnic minority]

Rank	University	Faculty size n(%)	EM Women n(%)	NEM Women n(%)	EM Men n(%)	NEM Men n(%)	Unclassified n(%)
1	Harvard (HU)	644 (7)	85 (13)	149 (23)	165 (26)	235 (37)	11 (2)
2	Johns Hopkins (JHU)	1033 (12)	134 (13)	310 (30)	199 (19)	367 (36)	24 (2)
3	Stanford (SU)	425 (5)	72 (17)	98 (23)	82 (19)	166 (39)	7 (2)
4	University of Oxford (OU)	875 (10)	100 (11)	233 (27)	152 (17)	363 (42)	28 (3)
5	University College London (UCL)	621 (7)	93 (15)	222(36)	92 (15)	202 (33)	12 (2)
6	London School of Hygiene & Tropical Medicine (LSHTM)	513 (6)	75 (15)	198 (39)	69 (14)	165 (32)	6 (1)
7	University of Michigan (UM-AA)	347 (4)	38 (11)	100 (29)	74 (21)	128 (37)	7 (2)
8	University of Washington (UW)	1069 (12)	119 (11)	353 (33)	182 (17)	399 (37)	18 (2)
9	Columbia University (CU)	463 (5)	72 (16)	138 (30)	93 (20)	147 (32)	14 (3)
10	University of California LA (UCLA)	255 (3)	32 (13)	80 (31)	50 (20)	90 (35)	3 (1)
11	University of North Carolina (UNC-CH)	838 (10)	86 (10)	323 (39)	116 (14)	299 (36)	14 (2)
12	University of Cambridge (UC)	266 (3)	24 (9)	64 (24)	42 (16)	126 (47)	10 (4)
13	University of Toronto (UoT)	976 (11)	159 (16)	340 (35)	165 (17)	293 (30)	19 (2)
13	Yale University (YU)	286 (3)	45 (16)	72 (25)	74 (26)	93 (33)	2 (1)
15	University of California Berkeley (UCB)	190 (2)	30 (16)	61 (32)	21 (11)	76 (40)	2 (1)

Total	8801 (100)	1164 (13)	2741(31)	1576 (18)	3149 (36)	177 (2)

117

118   [Figure 1]

119 Analysing data from individual universities was a critical component of our analysis which revealed that although
120 some institutions are better than others in terms of representation of NEM women in senior positions, all are doing
121 poorly with respect to EM women. In terms of similarities, there was a drop in the proportion of EM women and
122 an increase in the proportion of NEM men between the mid and senior level in all universities (figure 2). For EM
123 men there was variation between universities, with the proportion of this group gradually increasing from junior
124 to senior levels in six universities but decreasing in eight universities. The proportion of NEM women decreased
125 from mid to senior level positions in the majority of universities (n=11); UCL, UC and YU were exceptions in
126 that the decline was pronounced in EM women whilst static in NEM women.

127 [Figure 2]

128
129 **Numerous legislations, policies and strategies to promote diversity but with limited reporting of outcomes**

130 Legislative protection from employment discrimination on the basis of gender and ethnicity is offered throughout
131 the United Kingdom, Canada, and the United States (Appendix 3). For example, the US Executive Order 11246
132 requires federal contractors, such as universities, to take "affirmative action" to prevent discrimination on the
133 basis of ethnicity, religion, gender or national origin".[48]

134 **Table 2: Policies, action plans and schemes to support diversity at the 15 highest rank public health**
135 **universities**

136

US News Rank	University	Equal pay policy/pay disclosure	Action plan for equality and diversity	Leadership schemes	Mentoring schemes
1	Harvard		Dean's Annual Report on Diversity and Inclusion: February 2015	Executive Education – Women's Leadership Forum	Office of Diversity and Inclusion organizes mentoring programmes
2	John Hopkins		Faculty Diversity and Inclusion plan	Leadership plan for Women Faculty	Mentoring and Faculty development for under-represented minorities
3	Stanford		Taskforce on Women in Leadership	Diversity Cabinet	Staff Mentorship Program
4	Oxford	- Equal pay audit -Mandatory Gender Pay Gap reporting	- Strategic plan 2013-18 - Equality objectives 2016-2020	Oxford Business Network for Women's Leadership	- Pivot: mentoring program - Springboard Ad Feminam
5	Uni College London	Market pay policy	- Population Health Faculty Action Plan - Equality, Diversity & Inclusion Strategy 2015-2020	Leadership and Management Development/Training	uMentor-Online Mentoring Program
6	London School of Hygiene & Trop Medicine	Equal pay policy	E & D Strategy Action plan: 2016-2019	- Aurora Women's Leadership Programme - Future Female Leaders	School's mentoring scheme

7	Uni Michigan Ann Arbor	Freedom of Information Act: Annual Salary Disclosure Report	- Diversity, Equity, and Inclusion Strategic Plan 2.0 2017-18 - Toolkit for recruiting diverse staff	- ADVANCE Program: The Leadership Development Workshop - Academic Leadership Programs - Administrative Fellowship Program	- ADVANCE Program: The Mentor-for-Leadership Lunch Program - Women of Color Task Force
8	Uni of Washington		- Strategic plan for diversity: five year plan for diversity, equity and inclusion - UW Diversity Blueprint 2017-2021	UW ADVANCE's Leadership Development Workshops	The Mentoring-for-Leadership Lunch Program for women faculty in ADVANCE departments
9	Columbia		Taskforce on Diversity, Culture, and Inclusion	Leadership and Management Programs	- Mentoring Training series - Sponsorship opportunities for women and minority faculty to attend development seminars
10	University of California, LA		Office of Equity, Diversity and Inclusion (EDI)		Mentoring, career advising, and professional development for faculty
11	University of North Carolina - Chapel Hill		- Equal Employment Opportunity Plan - North Carolina Health Careers Access Program	Carolina Women's Leadership Council	As part of Carolina Women's Leadership Council: Mentoring future generations of women philanthropists at Carolina
12	Cambridge		- Equal Pay Reviews - Equality Assurance Assessments - InterConnect Steering Group	Women in Science, Engineering and Technology Initiative	- Senior Academic Promotions CV Scheme - Springboard: A women's development programme
13t	University of Toronto		University Of Toronto's CRC Equity, Diversity And Inclusion Action Plan Targets 2017-2019	New and Evolving Academic Leaders (NEAL) Programs	Career Development Mentoring Workshops
13y	Yale		- Affirmative Action plan (updated annually) - YSPH Diversity Committee - Initiative for Faculty Excellence and Diversity - Presidential Task Force on Diversity and Inclusion - The Women Faculty Forum	- ELAM- Executive Leadership in Academic Medicine Program for Women - Emerging Women's Leadership program (EWLP) - Diversity Leadership Council -	- School of Medicine, Office for women in Medicine - Minority Organization for Retention and Expansion (MORE) in School of Medicine - Working Women's Network (WWN)

15	University of California, Berkeley	- Equal pay act - UC Berkeley Faculty Salary Equity Study, Annual update	- Pathways to Excellence: Campus Strategic Plan for Equity, Inclusion, and Diversity - Plan of action for diversity	Cal Women's Network	Cal Women's Network

137

138 In line with the legislation, all universities reported having some policies and accompanying procedures in place
139 to ensure a safe and non-discriminatory employment environment (Table 2). In the UK, several universities have
140 signed up to voluntary schemes such as to the Race Equality Charter and the Athena SWAN award. The Athena
141 SWAN is the first Charter that has been linked to funded research activities in applications made to the UK
142 National Institute for Health Research. However, although action plans operating at the macro (institutional) level,
143 meso (departmental) level or micro-(interpersonal) level have been developed as means to operationalise their
144 diversity strategies, these are rarely linked to specific goals or reported outcomes, such as the proportion of women
145 in senior and leadership positions. Similarly on Equal Pay Policies, only a few universities, such as LSHTM and
146 UCL, reported having documents specifically describing procedures. Other universities, such as the UM-AA,
147 produce a detailed Salary Disclosure Report but have not introduced a specific Equal Pay Policy.

148 Instead of focusing on tangible goals, most strategies focus on raising awareness both of issues surrounding gender
149 and equality, as well as awareness of the policies in place to address these issues. For example, increasing
150 knowledge is central to the LSHTM equality and diversity strategic plan. Similarly, the UO Strategic Plan 2013
151 – 2018 includes awareness as key to their strategy. Institutions also claim that they seek to embed diversity and
152 equality within the institutional culture to create a climate supportive of gender and equality policies, which is
153 another strategy whose success is difficult to assess. Beyond the creation of cultures and climate, all institutions
154 also reported the need to develop recruiting practices that are equitable and support the retention and professional
155 development of diverse faculty and staff. Activities to support these goals include organisational management
156 activities (for example, the creation of frameworks and standards by UW), collaborative activities (for example,
157 the use of committees, advisory boards and meetings by UCLA), implementation activities (for example, the
158 UNC-CH's goal-oriented training for supervisors) and monitoring or evaluation activities. We found that
159 monitoring and evaluation activities were poorly reported and those that were presented, lacked detail and tended
160 to focus on process indicators rather than outcomes.

161 Institutions reported a range of additional activities and initiatives related to gender and equality. These include,
162 programmes, fellowships and schemes; surveys and assessments; media and communications materials; and
163 outreach activities such as lecture series. Reported programmes to support equality and diversity include those
164 specific to gender issues, such initiatives as the UC Springboard Programme, which is a personal development
165 programme for all female staff/graduate students. Others focus on increasing numbers of faculty from
166 disadvantaged backgrounds entering academia, such as the UNC-CH Health careers Access Program which
167 provides opportunities for training, awareness activities and cultivating interest in underrepresented groups.
168 Others, such as UC, focus on retention and promotion of existing women academics.

169 Most universities reported having support groups and mentorship programmes targeting women, such as the UO
170 Gender Equality Steering Group (GESG). Fewer universities described having associations to target ethnic
171 disparity issues, and the ones that did tended to be US based.

Strengths, limitations and implications of our study

173 Our study indicates that gender and ethnicity intersect to produce a magnified disadvantage for EM women
174 academics working in the top 15 public health universities, despite policies and strategies to facilitate staff
175 diversity. Literature on this topic links the underrepresentation of women and EM groups in more senior academic
176 positions to: worse working conditions (temporary contracts, lower pay for the same job);[23] lower chances of
177 recruitment or promotion;[24-28] lower success rates in funding applications;[29,30] research publications perceived to
178 be less important;[31-34] and less respect from students.[3 5] Since this study focused on the top 15 universities as
179 ranked by US News, our sample only included universities in three countries, and a similar analysis of universities
180 from other countries may yield different results.

181 We acknowledge that other factors not analysed in this study, such as socioeconomic status, sexual orientation,
182 disability, and age, are also important in shaping experiences of barriers to career progression, as are policies that

183 may not be labelled as 'diversity' efforts.[54] However, these factors are often poorly documented, and
184 classifications based on individuals' name are not possible. Further study into the multiple forms of discrimination
185 experienced by academic public health staff is therefore critical. Our cross-sectional analysis presents a snapshot
186 of the staff ethnic and gender diversity at present, and a study that tracks individuals' as they progress through the
187 career ladder may also be very valuable.

188 Finally, while the inclusion of diversity data into ranking systems offers a promising step forward in elucidating
189 and addressing gender and ethnic-based inequalities in public health universities, this can be done alongside other
190 activities that seek to achieve greater diversity in academia. Some of these strategies could include: the use of
191 gender and ethnicity - blind review in hiring, award nomination, funding decisions, and publication processes;
192 mentorship of junior staff by senior staff from less advantaged groups (for example, EM women); targeted
193 leadership training scholarships; research-enabling grants; diversity pay reporting requirements; and increased
194 funding for pilot projects of different mitigation strategies that could improve equity in the workplace [19,23,56-59].
195 Ultimately, strategies or actions taken to promote diversity are only useful if they have a measurable impact, and
196 impact can only be assessed through regular and transparent monitoring of gender and ethnicity along the
197 academic seniority pathway.

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