



Research Article

Origins and Destinations: The Career Paths of Male and Female Academics at the University of Malta

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Abstract. 35 individuals (23 men and 12 women) were recruited as full-time assistant lecturers at the University of Malta around thirty years ago. By looking at their administrative responsibilities, by following their career progression, as well as by exploring publically available metrics about the quantity and quality of their scholarship, it can be argued that there is no significant difference among this cohort based on gender. This suggests that men and women in Malta can today achieve similar career destinations in academia; and existing gender gaps are therefore likely to close with the passage of time, on the basis of existing policies.

1 Introduction

During December 2020, I was informed that ten academics working in Malta had recently featured in a list of the top two per cent of the world's scientists. The database was curated by a team of experts at Stanford University, USA, and was published in October 2020 in one of the world's most reputed academic journals, PLOS Biology. The report lists some 100,000 scientists whose published research manuscripts have accelerated progress in their respective fields and influenced the productivity of other researchers. Their exceptional standing is a function of scoring on top after using a composite index that acknowledges scholarship, research leadership and citations (excluding self-citations) from Scopus data made available by Elsevier (Ioannidis et al., 2020). Seven of these scholars are employed full-time at the University of Malta (UM), another two at Mater Dei General Hospital (and part-time at UM), and one at the Malta College for Arts, Science and Technology (MCAST). Table 1 indicates the ten scholars involved, ranked in terms of their research impact as measured during the year 2019.

What is, however, perhaps the most striking observation in table 1, is that **all ten scholars on this list are male**.

1.1 Gender Gaps

The matter of equity of gender representation on UM Boards and committees was brought up during a meeting of the Senate of the University of Malta held on 22nd October 2020. On that occasion, Senate decided that appointees to such boards and committees should be reviewed with an attempt at a better representation of men and women. In the context of this spontaneous discussion—the item was not on the Senate's agenda—reference was made to the glaring 'gender gaps' amongst full-time academic staff the University of Malta. Female representation was only higher than male at the entry (assistant lecturer) level, and the female-to-male ratio at this staff level (54:46) was almost in the same proportion as the female-male ratio of students studying at UM (60:40).¹ However, with every increasing higher scale in the occupational hierarchy of academics, the proportion of females in relation to males deteriorates. These statistics had been highlighted in an article published in the 2017–18 Biennial Report of the Centre for Labour Studies (Baldacchino, 2019), and which can be considered as the companion to this current article. The relevant statistics are reproduced in table 2.

A fresh snapshot of the gender gap among UM's resident academic staff was taken more recently, and almost 2.5 years after the previous exercise. There is clear evidence that female representation has improved across all five occupational scales of the academic class. These include the promotion and appointment of nine female full professors, which increased the complement of female full professors at UM by 60% in just 30 months.

¹There were 6,991 female and 4,753 male students registered at UM in the 2018/19 academic year (University of Malta, 2020, p. 19).

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Name	Name of Institution	Field	Rank in the Field	Total Scientists in Field
Baldacchino, Godfrey	L-Università ta' Malta	Geography	485	12879
Balzan, Mario V.	Malta College of Arts, Science & Technology	Entomology	527	25735
Borg, Michael A.	L-Università ta' Malta	Microbiology	1804	134369
Caruana, Albert	L-Università ta' Malta	Marketing	520	10464
Di Giovanni, Giuseppe	L-Università ta' Malta	Neurology & Neurosurgery	4399	227881
Gatt, Ruben	L-Università ta' Malta	Applied Physics	3405	224856
Grech, Victor	Mater Dei Hospital/UM	Pediatrics	239	49820
Grima, Joseph N.	L-Università ta' Malta	Applied Physics	971	224856
Pace, David	Mater Dei Hospital/UM	General & Internal Medicine	1740	106795
Yannakakis, Georgios N.	L-Università ta' Malta	Artificial Intelligence & Image Processing	1096	215114

Source: Ioannidis et al. (2020).

Table 1: Ten scholars, working in Malta, ranked among the top 2% of the world's scientists (based on 2019 data).

(The complement of male full professors increased by 21 [25%] during the same period, see [table 3](#)).

This means that the representation of females across the occupational hierarchy that constitutes the academic class at UM is steadily improving. However, all things being equal, it would take decades before anything resembling gender equity is achieved. The gender gap is especially wide when it comes to research. The PLOS Biology article referred to earlier is one that reaffirms the ongoing dominance of Maltese males when it comes to international recognition. Additionally, as of 2019, 92.8% of male resident academic staff at UM are holders of a PhD; but only 79.9% of female resident academic staff hold the same qualification (University of Malta, 2020, p. 18). Looking at the difference between male and female holders of a doctorate, Tabone (2015, p. 101) had concluded that “traditional gender roles which link mothers to caring and men to their breadwinning role are still impacting on the lives of women and men, even when these are highly educated, and are studying for a PhD”. Amongst the top UM academics who are most cited, as manifest via their public Google Scholar user profiles, one is female: retired medical professor Rena Balzan, who is

the fourth most cited. The next female academic at UM to appear on these profiles when ranked by citation counts is chemistry professor Giovanna Bosica, at position No. 21 (Google Scholar, 2021).

And success tends to breed success: the four winners of the 2019 Research Excellence Awards at UM, valued at €60,000 each, were all men (University of Malta, 2021). As it turned out, only men appear in the photo—including the two portraits of past UM Rectors hanging on the Council Room wall as backdrop—which memorialises the presentation of these awards. Here, the awardees are accompanied by the Rector, the Pro-Rector responsible for Research, and a sample of Directors (at UM, all except three of these are women) and Deans (at UM, all except two of these are women, at the time of writing, see [figure 1](#)).

1.2 This article

The data at hand suggests that females and males experience somewhat different challenges as they attempt to move up the occupational hierarchy at the University of Malta. This short article is based on a recent attempt to shed some additional light on this topic, by using a longitudinal research methodology. The idea is inspired by a study that looked at the eventual career paths of boys

Rank	Male (N, %)	Female (N, %)	Total
Professor	84 (84%)	15 (15%)	99
Associate Professor	90 (77%)	27 (23%)	117
Senior Lecturer	129 (71%)	52 (29%)	181
Lecturer	97 (54%)	83 (46%)	180
Assistant Lecturer	43 (46%)	55 (54%)	98
Total	443 (66%)	232 (34%)	675

Source: Office of Human Resource Management and Development, University of Malta; Baldacchino (2019).

Table 2: Male and Female representation amongst full-time resident UM academic staff (as of 10 June 2018).

Rank	Male (N, %)	Female (N, %)	Total
Professor	105 (81%)	24 (19%)	129
Associate Professor	107 (75%)	35 (25%)	142
Senior Lecturer	148 (65%)	78 (35%)	226
Lecturer	100 (50%)	100 (50%)	200
Assistant Lecturer	43 (44%)	54 (56%)	97
Total	503 (63%)	291 (37%)	794

Source: Office of Human Resource Management and Development, University of Malta; Baldacchino (2020).

Table 3: Male and Female representation amongst full-time resident UM academic staff (as on 10 November 2020).

drawn from different social classes in the United Kingdom, and how their experience of education in particular had been influenced by their social class background (Halsey et al., 1980). In my case, I wanted to explore if there are indeed different career trajectories of academics who start their academic career from the same occupational position and at the same time. Put differently, if you select a group of men and women who are recruited in the same grade at the same time, would they still achieve different career paths and trajectories? Would, in other words, similar 'origins' not secure similar 'destinations'? And could 'gender' be the main, gross, explanatory variable for any such discrepancies?

2 Research Methodology

One way of testing these research questions is afforded by examining the Minutes of Council meetings that include the details of appointments and confirmations (after probation) of academics who joined the University of Malta many years ago. The length of time should be long enough to afford these academics ample opportunities to scale the occupational hierarchy at UM. Additionally, they should all have been appointed and confirmed at the same occupational level, and at around the same time. Per-

mission was sought and obtained from the Office of the Registrar to pore over Council minutes and therefore to be in a position to execute such an investigation. It was decided to go back approximately 30 years: one should think that this a sufficiently long period of time to allow most recruits to have the chance to apply for promotion to the highest grades. Going back further in time might also have been compromised by the absence of available or complete records. It was also decided to focus exclusively on new academic recruits to the *Assistant Lecturer level*: at that time, when most candidates to academic positions at UM lacked a doctorate, the main entry point would be at grade of Assistant Lecturer, with any successful recruits then being afforded the possibility to start or complete their doctorate while in the employ of UM. It was also decided to focus only on *full-time appointees*. It is understood that various academic appointments to certain faculties—such as Economics, Management and Accountancy, Dental Surgery or Medicine and Surgery—involve part-time resident academics who are loath to leave any current professional engagements or jobs and are prepared to offer services to UM only on a part-time basis. These individuals were not deemed to be interested in or capable of investing all their energy and career aspir-



Source: University of Malta (2020, p. 10).

Figure 1: Prof. Alfred J. Vella (UM Rector) and Pro-Rector Prof. Ing. Saviour Zammit (Chair of the Research Fund Committee)—7th and 6th from left, respectively—congratulating the 2019 Excellence Award Winners, accompanied by their Faculty Deans and other members of UM's senior management (4th October, 2019).

ations to the academic life, and were therefore excluded from this study. Three bound volumes of Council minutes, covering the three academic years 1989/90 to 1991/92, were kindly made available to the author during December 2020. Notes were taken of the names of appointees and their eventual confirmation as UM employees after the successful completion of their probationary period, as indicated in the various meetings of Council. Three academic years were chosen so that the crop of male and female academics appointed within this time window would be large enough to prevent individual cases from skewing results in any particular way. It was also decided to maintain strict anonymity of the academics involved in this exercise, noting only whether they were referred to as men or women. The independent variable, in this case, was gender.

2.1 Data Description

The first set of Council minutes perused referred to the meeting held on 25 October 1989. The last set of minutes perused referred to the Council meeting held on 15 July 1992. These minutes indicate that, during the three academic years of 1989/90, 1990/91 and 1991/92, **45 academics** (29 men and 16 women) were appointed, or confirmed in their appointment, as full-time assistant lecturers at UM.

From this population, **ten** appointees (six men and four women) did not take up the job offer, switched over to an administrative grade, or opted thereafter to resign from UM employment. If the latter, they did so mainly to take up a position in the private sector locally or overseas; landed a position with the Ministry of Education; and/or else switched to a part-time UM appointment. The proportion of female resignations is just around the same as

that of male resignations; though the sample is too small to allow any bold suggestions of correlation or otherwise. Changes in these ten academics' family circumstances—such as pregnancy, parenthood, death of a spouse, or caring for an elderly relative—may have affected their decision to resign from a full-time post at UM. This warrants further investigation. This leaves **35 academics** (23 men and 12 women) who sought and pursued an academic career at UM. Some of these have already reached retirement age.

The 23 men, all recruited as assistant lecturers, occupy the following rank at the time of writing:

- 10 are full professors (43%)
- 7 are associate professors (30%)
- 3 are senior lecturers (13%)
- 2 retired as lecturers (9%)
- 1 retired as an assistant lecturer (4%).

The same crop of male academics include individuals who served as: Pro-Rector (1), Faculty Deans (2) and/or Heads of Department or Directors of Institutes or Centres (12).

The 12 women, all recruited as assistant lecturers, occupy the following rank at the time of writing:

- 5 are full professors (42%)
- 5 are associate professors; 2 of whom retired as such (42%)
- 2 are senior lecturers (16%).

Same as with their male counterparts, these female academics include individuals who have served as: Pro-Rector (1), Faculty Deans (2) and/or Heads of Department, or Directors of Institutes or Centres (7).

2.2 Testing for Significant Differences in Publications and Citations

Next, these 35 academics were compared in terms of the quantity and quality of their academic publications—the latter determined from the number of citations—both as evidenced from their Google Scholar User Profiles. Similar proportions of men and women—twelve out of the 23 males (52%), and seven out of the 12 females (58%)—had such profiles at the time of writing. The results are tabulated as [table 4](#).

This data was subjected to statistical testing by determining p -values. A p -value is a measure of the probability that an observed difference—in this case, between male and female academics—could have occurred just by chance. Hence, the lower the p -value, the greater the statistical significance of the observed difference, and so the stronger the claim that the two sets of data are indeed qualitatively different from each other. A p -value of 0.05 is often taken as a useful threshold: at that value, there is a 5% chance that the difference between two populations is not random. Both the Independent samples t -test and the Mann Whitney test were used in order to compare the average number of published articles and average number of citation between males and females. Both tests yielded p -values larger than the 0.05 level of significance, indicating NO significant difference in the average number of published articles and average number of citations between male and female lecturers. These summative results are described in some detail below. The average number of articles published by the seven females (61) is marginally less than the average number of articles published by the twelve males (68). Indeed, the difference is not significant since the p -value (0.745) exceeds the 0.05 level of significance. The average number of citations of the male authors (1434) exceeds considerably the average number of citations of the female authors (488). However, the difference is not significant since the p -value (0.446) exceeds the 0.05 level of significance. Despite the difference between the two means, the lack of significance may have been caused by the small sample sizes and the large dispersion (spread) in the measurements; the latter is mainly an effect of the large number of citations by M1 (see [table 5](#)).

3 Discussion

The above exercise suffers from the limitations of small numbers, so any attempt at generalisation is dangerous. However, the exercise is based on the total population of scholars who were recruited to UM as full-time assistant lecturers in the period 1989–1992.

In any case, when judged from the data available, one is correct to conclude that there is no significant difference

between male and female academics who started their professional career as UM assistant lecturers at around the same time, some 30 years ago. This observation holds, whether in terms of (1): professional rank; (2) administrative responsibility; (3) number of publications; or (4) quality of publications. For those recruited in 1989–1992, the men and women in academic grades at the University of Malta have fared equally well. The data also suggests that the difference in the number of male and female professors (10 versus 5) and associate professors (7 versus 5) amongst those recruited at UM as assistant lecturers 30 years ago is essentially a function of the fact that many more males than females were recruited into the position of assistant lecturer during that same time period: 23 men as against 12 women; a gender ratio of just under 2:1. Indeed, and in spite of the relatively small numbers involved, the same gender ratio holds for those occupying both full professorial and associate professorial rank from the 35 academics that find themselves as the focus of this study.

One factor that may merit further investigation concerns the resignations from full-time academic employment at UM of those recruited in the 1989–1992 time period under scrutiny. As reported above, the proportion of female resignations is also somewhat similar to that of male resignations. Nevertheless, identifying the reasons for such resignations might illuminate any gender specific variables.

4 Conclusion

On July 23rd 2001, Minister of Education Dr Louis Galea provided a written reply to a parliamentary question number 27616, tabled by Dr Helena Dalli. Dr Dalli wanted a breakdown by gender of: (1) academics at the University of Malta who had applied for a promotion in 1998; (2) how many academics had obtained a promotion; and (3) how many were still awaiting a reply. Minister Galea replied that 10 applicants and 9 applicants had been promoted to (Full) Professor and Associate Professor respectively; all these 19 applicants were male. There had also been 60 promotions to senior lecturer: of these, 48 were male and 12 were female. Three other applicants had been promoted to lecturer; of these, two were male and one was female. There were 77 other academics still waiting for a decision on their promotion application: 68 were male and nine were female. This means that there were only 22 females within the cohort of 159 scholars applying for a promotion at UM in 1992: just under 14% (Kamrat-Deputati, 2001, July 23, p. 40). The gender gap was most palpable.

Just four years before, in 1997, Marie Therese Camilleri Podestà was the only full-time female academic at

Male	Rank	Articles	Citations
M1	Full Professorship	182	11307
M2	Full Professorship	57	252
M3	Full Professorship	86	336
M4	Full Professorship	122	602
M5	Associate Professor	47	1633
M6	Full Professorship	16	296
M7	Senior Lecturer	22	86
M8	Associate Professor	61	293
M9	Full Professorship	99	1012
M10	Associate Professor	63	907
M11	Associate Professor	27	197
M12	Associate Professor	34	281
Female	Rank	Articles	Citations
F1	Full Professorship	76	831
F2	Full Professorship	66	484
F3	Full Professorship	114	517
F4	Associate Professor	58	166
F5	Associate Professor	25	210
F6	Full Professorship	63	719
F7	Associate Professor	27	531

Table 4: Quantity and quality of scholarly publications (according to Google Scholar on 29 December 2020) ($N = 19$). Males identified as M; Females identified as F.

Number of Published Articles				
Gender	Sample Size	Mean	Std. Deviation	p-value
Male	12	68.00	48.138	0.74
Female	7	61.29	30.341	
Number of Citations				
Gender	Sample Size	Mean	Std. Deviation	p-value
Male	12	1433.50	3141.223	0.446
Female	7	494.00	243.047	

Table 5: Measures of significance in the difference between the number of publications and number of citations by male and female academics ($N = 19$).

UM promoted to the rank of full professor. There were 49 other women employed as resident academics at that time, none of whom held the rank of associate or full professor. This situation contrasts with the 312 male resident academics at UM at the same time, 47 of whom were full professors (Sciriha, 1999).

Writing in 2019, after having interviewed nine female full professors at UM, Vella Azzopardi (2019, p. 5) argues that “matters have improved over time, however not rapidly enough”.

This study, while indicative, confirms the improvement in closing the gender gap and breaking the glass ceiling amongst professors at UM. It furthermore suggests that we may have turned the proverbial corner: given similar ‘origins’, the crop of male and female scholars recruited for an academic career at the University of Malta 30 years ago have progressed to rather similar ‘destinations’.

This is welcome news. Some of the stubbornly lingering discrepancies in gender—as manifest, for example, in Google Scholar User Profile rankings—may be largely based on the disproportionate number of men recruited to UM as against women in earlier decades. Additionally, it is well known that younger academics are more likely to set up and make public their Google Scholar Profiles than older ones (Kim et al., 2020).

It will take its time; but it appears that the cadre of female appointees to the highest grades at the University of Malta is slowly but surely closing the gap with its male counterparts.

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