A Description of Predatory Publishing in South African Economics Departments

Andrew Kerr[1] and Phillip de Jager[2]

Abstract

Predatory publishers charge fees to authors for open access publishing but with often no peer review or other quality controls. They have become prevalent in the last 5 years and contribute to declining trust in academic institutions. In this paper we make the case that this issue affects Economics departments in South African universities. The paper is partly aimed at raising awareness of the issue amongst staff and particularly students, who might be more vulnerable to falling prey to predatory publishers. Authors who presented at ESSA 2015 were targeted by predatory publishers using spam emails and this is likely to happen again for ESSA 2017. We describe what predatory publishing is, how common it is in South African economics departments and how staff and students can avoid falling prey to it, as well as measures the academic community and government have taken to lessen the impact of predatory publishing. We also highlight that several journals on the DHET accredited journal list are probable predatory journals. We briefly discuss predatory conferences. We highlight and extend the findings of a recent paper by de Jager et al (2017), that showed who was publishing in the top 5 most popular predatory journals amongst South African economics and management science academics.

JEL Codes:

A11 - Role of Economics; Role of Economists; Market for Economists

H20 - Taxation, Subsidies, and Revenue: General

J40 - Particular Labor Markets: General

Keywords:

Predatory publishing; South Africa; Economics

Acknowledgements: We thank participants at a 2017 SALDRU seminar, University of Cape Town, for helpful comments and suggestions.

[1] DataFirst, University of Cape Town: andrew.kerr@uct.ac.za

[2] Department of Finance and Tax and the African Collaboration for Quantitative Finance and Risk Research (ACQuFRR), University of Cape Town, phillip.dejager@uct.ac.za

Introduction

Predatory publishing has become a well-known phenomenon, both in South African academia and internationally. The term was coined by Jeffrey Beall (Beall, 2012), an associate professor and librarian at the University of Colorado. Predatory publishers charge fees to authors for open access publishing but with often no peer review or other quality controls. They are a quick, easy and low cost way for academics to boost their CVs but contribute to declining trust in academic institutions and academics. In this paper we make the case that this issue affects the economics discipline in South African universities.

The paper is partly aimed at raising awareness of the issue amongst staff and particularly students, who might be more vulnerable to falling prey to predatory publishers. It is likely that presenters at ESSA 2017 will be spammed by predatory publishers and asked to submit papers to these journals so we hope that the paper lessens the extent to which this happens. We also suggest ways that staff and students can avoid falling prey to predatory publishers, as well as measures the academic community and government have taken and can still take to lessen the impact of predatory publishing.

We highlight that several journals on the DHET accredited journal list are probable predatory journals and that Mouton (2017) suggests that the IBSS database may be taken off the DHET approved journal list.

In describing the extent of predatory journal publications in South African economics we use a dataset created by de Jager et al (2017) of the publications between 2013 and mid 2016 in five popular predatory journals in which South African management science and economics academics published . However we focus only on economics and improve the dataset by filling in a substantial amount of missing data on ranks, departments and universities for economists. We use this dataset to describe how common predatory publishing is in South African economics departments, which departments and at which ranks predatory publishing is occurring.

Literature Review

Predatory Publishing

Beall (2012) describes how his blog about predatory publishers began and how he coined this term. He argues that this has resulted from what he thinks of as the legitimate but problematic open access model that began in the early 1990s. He listed a number of criteria for what qualified a journal or publisher (who may publish one or many journals) as predatory. The main criteria are that there is no or very low standards of peer review, journals engage in spamming authors and inviting them to

publish in the journals, publishers start up fleets of journals at the same time and journals have very wide ranging areas of research from which they accept research.

Predatory Publishing in South Africa

There are several recent papers that measure the extent of predatory publishing in South Africa. Mouton and Valentine (2017) used Beall's list of predatory journals to identify South African based authors that had published in any of these journals between 2005 and 2014. There were 57 journals. Mouton and Valentine (2017) then did their own investigation into these journals to verify Beall's classification of them as predatory and found 10 journals either which were not predatory or for which there was not sufficient evidence to make a decision. This is a relatively high number and does provide some evidence for one of the criticisms of the use of a "black list" like Beall's list- that it can be wrong and legitimate journals and the authors that publish in them can be unfairly stigmatised (Vence, 2017).

Across the other 47 predatory journals Mouton and Valentine (2017) found 3907 papers that had been published. UNISA, UKZN, NWU and Fort Hare were the main sources of predatory publications- with 590, 436, 408 and 380 articles respectively. Mouton and Valentine (2017) then compared the predatory publication number to the number of subsidy earning outputs by university, finding that predatory publications were as high as 25% of the total subsidy earning publications at Fort Hare and Mangosuthu University of Technology. 53% of the predatory publications were in social sciences and humanities and 32% in Economic and Management Sciences.

De Jager et al (2017) focused on the 5 predatory journals on Beall's list most published in by South African Economic and Management Sciences academics between 2013 and mid-2016. One of these publishers (two journals) was subsequently removed from Beall's list before he took down the list due to pressure from his employer (Beall 2017). Nevertheless de Jager et al (2017) found that all 5 journals were of very low quality, across a number of indicators. This is despite all five of them being DHET subsidy earning journals at some point. One was removed from Thomson Reuters in 2012 and two were removed from Scopus in 2017, meaning two are still subsidy earning in 2017. Poor spelling and copyediting were widespread. A number of articles were also published twice in the same journal and salami slicing of articles also occurred. One of the journals also published a paper whose title was about firms in Thailand but the body of the article revealed it had nothing to do with Thai firms but rather was about Zimbabwean firms! Since these lapses were made public by de Jager et al (2017) many have since been fixed by the publishers. 2514 articles were published in these 5 journals during 2013- mid-2016, of which 728 had South Africa based authors.

De Jager et al (2017) use weights in their analysis, with the weight for each author being equal to 1 divided by the number of authors of each paper. Using these weights, UNISA academics were

responsible for 211 of the 728 papers, North West 89, Stellenbosch 57 and UKZN 41. Of these four universities, three occupied the top three positions in Mouton and Valentine's research covering all predatory journals on Beall's list for all disciplines between 2005 and 2013 that had a South Africa based author. Below we explore the extent to which these universities also feature in the top predatory publishing economics departments.

Public Finance Issues

The South African government subsidises South African universities in different ways. In an attempt to incentivise the creation of knowledge the Department of Higher Education and Training publishes a list of approved journals. This is called a "white list" in the scholarly communication literature (Vence, 2017) and is an alternative to a black list – such as Beall's list of predatory publishers. Any publication by an academic on this DHET approved list theoretically earns the academic's university approximately R100 000 in public funding (Mouton and Valentine, 2017). However, in practice the South African Department of Higher Education and Training allocates a set amount of money made available to subsidise research in South Africa public universities each year. This means that the subsidisation of output is a zero sum game in which an extra publication by an academic in one university lowers the amount received by another university. Depending on the way in which a university shares the subsidy it receives from the government, a similar zero sum game may be present between faculties in the same university or departments within the same faculty.

This system can result in Vice Chancellors, Deans and heads of departments having strong incentives to maximise the number of publications appearing on the DHET approved lists. Some universities also have directly linked the number of subsidy earning outputs to the research grants paid to academics, again resulting in strong monetary incentives to publish many articles. These incentives are not necessarily bad. However they do encourage quantity at the expense of quality, as a number of other authors have pointed out (Vaughn 2008, Muller 2017). The idea of a white list is it incentivises publications that meet a basic level of competence or quality. However the paper by de Jager et al (2017) points out that of the 5 journals that appear on Beall's list of predatory publishers, all five of them were on the DHET list of approved publishers at some point, although three have since been removed. But this still means that 2 probably predatory journals are on the DHET list. This suggests that the DHET list is compromised and that the state is possibly funding research that does not meet basic research standards, such as peer review. It also means that those universities that are not engaged in predatory publishing are losing out to those that are by not churning out large numbers of low quality papers that do quality for subsidy but that are published in what Beall considered predatory journals.

Responses by South African public Research Institutions

There has been some response from South African public institutions that are responsible for research. DHET has removed some journals from the approved list, with Mouton and Valentine (forthcoming) suggesting that one of the journal indices that DHET uses will be excluded from 2018, which will remove a number of predatory journals, including one of the five used in the analysis in this paper.

The South African National Research Foundation (NRF) has also warned that academics who submit CVs that contain publications from predatory journals will not be considered for ratings or research grants (NRF, 2017). These are positive steps, although how this will be policed is not clear. Anecdotal evidence suggests that some of the NRF rating committees contain academics who regularly publish in predatory journals.

Education

Although this paper is mostly about analysing the extent of publications in the 5 journals from Beall's list, we also hope to educate and alert academics and staff about the problem of predatory publishers in the hope that this will mean academics and students will ignore spam email requests from predatory publishers to publish the work they have presented at ESSA 2017 and other conferences. Some predatory publishers use more sophisticated techniques to convince authors to publish in them. These are mentioned in de Jager et al (2017) and include the recruitment of local academics as editors or associate editors. We also hope that our paper will persuade heads of departments, university management, DHET and the NRF to discourage publishing in predatory journals, even if (for now) these are subsidy earning.

Our main suggestion is to ignore almost all email requests to publish in journals, since spamming academics is the main tactic used by predatory publishers and legitimate journals very seldom send out unsolicited requests to publish in them. If in doubt a student or academic should consult Beall's list- looking both at the actual publishers on the list but also consulting the criteria to be considered predatory and examining whether the journal the academic wants to publish in meets these criteria, and if still in doubt consult a more senior academic that they trust. However the analysis below suggests that actually senior academics are much more likely to be publishing in predatory journals compared to junior academics.

Although we do not analyse them below, we also caution academics and students to avoid what can be called predatory conferences. Again the main way to identify these is the spamming the organisers of these conferences do of potential attendees. There are also completely fraudulent conferences that are used as a way to scam potential attendees out of money by asking for upfront contributions to accommodation.

Data

The data used by De Jager et al (2017) is the basis of the analysis of South African economics departments undertaken below. As discussed above, the data is all publications with South African authors in economics and management science in 5 journals on Beall's list between 2013 and the middle of 2016. These 5 journals were chosen because they had the highest number of publications of all the journals on Beall's list by South African authors in economics and management science academics. It is not a representative sample of predatory publishing by South African academic economists. Also, the five journals we analyse are not necessarily the 5 most published in predatory journals by South African economics academics as there are other probable predatory journals that South African academic economists publish in. Mouton and Valentine found 53 journals on Beall's list that contained contributions from academics based at South African universities. Thus our data is a non-random, roughly 10% sample of journals appearing on Beall's list that have South Africa based contributors. It can be thought of as a one stage cluster sample (Lohr, 2010) but with non-random selection of clusters. Nevertheless we think the data from de Jager et al (2017) is a useful place to start an investigation of predatory publishing in South African economics.

The data used by De Jager et al (2017) contains data on 728 publications with South African authors. Some of the authors did not have ranks or departments identified in the dataset. We have thus improved the dataset by updating the department and ranks where these were missing and where this was possible. From this improved dataset we have identified 166 contributions in 15 South African economics departments, that were contributed to 85 papers from the data used by de Jager et al (2017). This is the basis of the data analysis undertaken below. This means that economists contributed to about 12% of the total papers in the 5 most popular predatory journals in South African economics and management science (which includes accounting, marketing, business studies, human resource management, finance and business schools, amongst others).

Analysis

In this section we describe the university, rank and number of publications by author for the authors based in South African economics departments from the data collected by De Jager et al (2017). We analyse the data in several ways. We analyse the 166 author-paper contributions, where a contribution is a defined as a unique author-paper combination. We also undertake analysis by author- since authors can contribute to multiple papers- as well as the number of publication units, taking account of the number of authors on each paper by dividing 1 by the number of authors.

A description of predatory publishing by rank and university

Column 1 of Table 1 shows the number of authors by department and Column 2 shows this in percentages. The 166 contributions were made by 93 different authors. 29% of the authors were at North West University, 15% were at Fort Hare, 14% were at UNISA and 7% each at UJ and UKZN. The top 3 economics departments were the same universities in the top 3 in all of South African academia, according to Mouton and Valentine (2017). Two of the top 3 were also in the top 3 for economics and management science according to de Jager (2017).

The median number of contributions per author was 1 whilst the mean was 1.75 and the maximum was 8. Column 3 of Table 1 shows the number of contributions by department and column 4 shows the percentage. 38% of the contributions were made by authors at North West University, 15% were by UNISA authors and 11% were by Fort Hare authors. The larger share of North West contributions relative to the share of its authors suggests its academics also had a larger average numbers of contributions- this is shown in Column 5 of Table 1. In column 6 of table one we show the average number of publication units per author, by department. To obtain this measure we divide each paper by the number of authors and sum this for each author. The average (the final row) is about half of the number of contributions, shown in column 5. This implies that there are an average of about two authors per paper.

We next investigate predatory publications by rank of the author of the contribution. Columns 1 and 2 of Table 2 shows the rank of author of each of the 166 contributions to the 5 predatory journals. 28% of the contributions came from Professors, 20% from Associate Professors, 20% from students, 13% from Senior Lecturers and 12% from Lecturers. For 6% of the contributions we could not identify the rank of the author. We think most of these are probably students but we could not verify this. This analysis shows that between 68 and 74%% of contributions came from either students, Associate Professors or Professors. This means that junior staff are not the main culprits (which is usually attributed to the pressure they come under or their ignorance). Rather, most contributions come from senior academics and students, and a larger proportion of senior academics published predatory articles than junior academics, as we show in the next section.

Columns 3 and 4 show the pattern by authors. Students were the largest group of authors, followed by Professors and then Senior Lecturers, Associate Professors and Lecturers. This analysis suggests that Professors and Associate professors had the highest numbers of contributions by authors, which is confirmed in Column 5 of Table 2- Associate Professors had a mean number of contributions of 2.6, Professors had a mean number of contributions of 2.15, compare to 1.6 for lecturers and 1.4 for students. In column 6 we show the number of publication units by rank. Associate professors had the

largest average number of units per author- 1.63. Professors, Lecturers and Senior Lecturers all had an average of around 1 unit whilst students had an average of 0.62 units.

Tables 3 and 4 show the cross tabulation of university and rank for the 93 authors and 166 contributions respectively. Of the departments with the largest number of authors with predatory publications there are quite differing patterns. At NWU less than 5% of contributions and just more than 10% of authors were students, whereas at Fort Hare almost two thirds of contributions came from students and at UNISA 25% came from students. It should be noted that a low proportion of student authors does not rule out that students did contribute to the research in these papers- they may just not have been included as authors[3]. Future work could investigate whether the papers without student authors were based on student papers housed in libraries or in online thesis repositories.

The analysis of contributions, publication units and authors by rank suggests that student contributors may be used by professors- either in research assistant work or by publishing their theses. We thus analyse author contribution patterns to papers. Of the 85 papers to which economics academic contributed, 25 had one author, 39 had two and 21 had 3. Students contributed to 26 papers, all except one of which also had an academic as an author (and the one student-authored paper had two student authors). Students and professors collaborated on 13 papers whilst students and associate professors collaborated on 5 papers. Because of the possibility of more than 2 authors, of the 26 papers which had student authors, 17 were written in collaboration with either a Professor or Associate Professor, 4 were written in collaboration with a senior lecturer only and 5 were written with a lecturer only.

Table 1 shows that there were contributions from authors based at 15 South African universities, including one private university, Monash. This means that several universities have no contributions to these 5 predatory journals, including Rhodes, UWC, Limpopo, Walter Sisulu, Zululand, Venda and several universities of technology, most of which do not have standalone economics departments. An analysis of all predatory journals of Beall's list (and others that have proliferated since Beall decided to discontinue updating his list) would be required to know whether any of these departments have staff or students that have published in any predatory journals other than the 5 used in this paper.

[3] One of the authors of the current paper did student research assistant work in 2005 which was presented verbatim at the 2005 ESSA conference by the academic who hired the author, without explicit acknowledgement in the presentation.

The extent to which academics publish in Predatory Journals

We now use data from Yu et al (2016) to explore the proportion of academics publish in predatory journals. Table 5 shows the number of authors with predatory publications during 2013-2016 by department, and the total academic staff count, taken from Yu et al (2016) who used data from 2014. We exclude departments which appear in our data but are not in the Yu et al (2016) data. The ratio ranges from 0 at a number of departments to 156% at Fort Hare and 67% at North West. The ratios greater than 1 are a result of including students as authors. Column 4 shows the number of predatory publishing authors excluding students, emeritus professors and missing ranks, whilst the proportions using this revised number of authors are shown in column 5. The largest proportions are Fort Hare with 56% of economics academics publishing in journals on Beall's list, North West with 53%[4], UNISA with 28%, UFS with 18%, UJ with 15%, UKZN with 14% and Wits with 12%. The overall proportion is 18%, i.e. 18% of academics based in South African economics departments had published in one of the 5 journals from Beall's list that were the basis of the data used. If the number of economics academics has increased since Yu et al (2016) collected their data in 2014 then our estimate of the proportion is too high. But it should be remembered that this proportion includes only 5 journals. There are certainly economists who are publishing in other predatory journals that are not in our data, which would *increase* the estimated proportion of academics based in South African economics departments.

We can also use the Yu et al (2016) data to estimate the proportion of economics academics at the South African universities in Yu et al's (2016) data at each rank that published in the 5 journals in this study. This proportion is monotonically increasing in seniority. There were no junior lecturers with publications in the 5 journals so the proportion is 0. It rises to 8.5% for lecturers, 22.2% for senior lecturers, 27% for Associate Professors and 35% for Professors. Again, this suggests that rather than predatory publications being attributable to under pressure or naïve junior staff, it is rather senior staff, who should in theory be much more able to distinguish predatory from legitimate journals, who are publishing in the 5 journals we have focused on in this paper.

Conclusions

In this paper we have described what predatory publishing is and the state of predatory publishing in South African academia in general (using the extant literature on this subject) and then specifically

[4] Yu et al (2016) only included the Potchefstroom campus NWU staff for their study. We added the 2017 staff numbers from the Vaal Triangle and Mafikeng campuses based on the websites http://commerce.nwu.ac.za/economic-sciences/mafikeng-campus and http://commerce.nwu.ac.za/economic-sciences/staff-vaal-triangle-campus. Staff numbers are unlikely to have decreased since 2014 so in this sense the percentage we have calculated is conservative.

spending more time analysing predatory publishing in economics departments, partly as an attempt to make colleagues and students aware of the problem and to generate some introspection in the discipline about how economics departments are educating students and how the behaviour of senior academics may affect the discipline in the future.

We found that the universities in which predatory publishing is most common across all disciplines are also generally the ones in which predatory publishing in economics occurs- the top 3 for both include North West, UNISA and Fort Hare. Senior academics and students made the most contributions to predatory publications in the 5 journals analysed for this paper- Professors made 28% of the contributions, whilst students and associate professors each made 20% of the contributions. We also found that Associate Professors had the largest average number of contributions- 2.6, whilst Professors were the only group to have an average above 2.

When we used the economics academic staff numbers data from Yu et al (2016) we estimated that 18% of academic economics at the South African universities for which there was staff information had made at least one contribution to the 5 publications analysed in the paper. We found that the proportion of academic economics staff that contributed to predatory publications increases monotonically with seniority- it was 8.5% for Lecturers, 27% for Associate Professors and 35% for Professors.

References

Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*. 489:179.

Beall, J. (2017). What I learned from predatory publishers. *Biochemia Medica*. 27(2):273–279.

De Jager, P. van der Spuy, P and de Kock, F. (2017). Do Not Feed the Predators. *South African Journal of Business* Management. 48(3):1-11.

Lohr, S. (2010). Sampling: Design and Analysis. 2nd Edition. Brooks/Cole, Boston, MA.

Mouton, J (2017). Predatory Publishing in South Africa: Scale and Challenges. Presentation, June 2017.

Mouton, J and Valentine, A. (2017). The extent of South African authored articles in predatory journals. *South African Journal of Science*. 113(7/8) 1-9.

Muller, S (2017). Academics as rent seekers: distorted incentives in higher education, with reference to the South African case. *International Journal of Educational Development.* 52: 58-67.

NRF (2017). NRF Statement on Predatory Journals & Deceptive Publishers. http://www.nrf.ac.za/media-room/news/nrf-statement-predatory-journals-deceptive-publishers Accessed on 18 August 2017.

Vaughan, K. (2008). Alternatives to the publication subsidy for research funding. *South African Journal of Science*, pp. 91-96.

Vence, T (2017). On Blacklists and Whitelists. The Scientist. http://www.the-scientist.com/?articles.view/articleNo/49903/title/On-Blacklists-and-Whitelists/ Accessed on 18 August 2017.

Yu, D., Kasongo, A and Moses, M. (2016). Examining the performance of the South African economics departments, 2005-2014. Stellenbosch Economic Working Papers: 13/16

Tables

Table 1: Predatory Publications by Department

	Authors		Contributions			
	Number	%	Number	%	Mean contributions by author	Mean publication units per author
Durban University of Technology	2	2.13	3	1.81	1.50	0.50
Fort Hare	14	14.89	19	11.45	1.36	0.57
Monash South Africa	2	2.13	3	1.81	1.50	1.00
NMMU	3	3.19	5	3.01	1.67	0.72
North-West	29	30.85	63	37.95	2.45	1.12
Stellenbosch	1	1.06	1	0.6	1.00	0.33
UCT	1	1.06	1	0.6	1.00	0.33
UFS	4	4.26	5	3.01	1.25	0.83
UJ	7	7.45	12	7.23	1.71	1.07
UKZN	7	7.45	10	6.02	1.29	0.71
UNISA	13	13.83	24	14.46	1.92	1.12
UP	4	4.26	5	3.01	1.25	0.50
Vaal University of Technology	1	1.06	6	3.61	5.00	4.00
Wits	5	5.32	8	4.82	1.60	0.63
MUT	1	1.06	1	0.6	1.00	0.33
Total	**94**	**100**	**166**	**100**	**1.84**	**0.91**

Table 2: Predatory Publications by Rank

	Number of contributions		Number of Authors			
Rank	Freq.	Percent	Freq.	Percent	Average contributions	Average publication units
Associate professor	33	19.88	14	15.05	2.64	1.63
Emeritus professor	2	1.2	1	1.08	2.00	1.00
Lecturer	20	12.05	11	11.83	1.64	0.98
Missing	8	4.82	6	6.45	1.17	0.42
Post doctoral fellow	1	0.6	1	1.08	1.00	0.33
Professor	47	28.31	20	21.51	2.15	1.01
Research fellow	1	0.6	1	1.08	1.00	1.00
Senior Lecturer	21	12.65	16	17.2	1.31	0.76
Student	33	19.88	23	24.73	1.43	0.62
Total	**166**	**100**	**93**	**100**	**1.75**	0.91

Table 3: Authors by Rank and University

Rank	Associate Professor	Emeritus Professor	Lecturer	Missing	Post doc	Professor	Research Fellow	Senior lecturer	Student	Total
University										
Durban University of Technology	0	0	0	0	0	0	0	1	1	2
Fort Hare	1	0	2	1	0	1	0	1	8	14
Monash South Africa	1	0	0	0	0	1	0	0	0	2
NMMU	0	0	0	1	0	0	0	1	1	3
North-West	8	0	1	2	0	7	0	7	3	28
Stellenbosch	0	0	0	0	0	1	0	0	0	1
UCT	0	0	0	0	1	0	0	0	0	1
UFS	0	0	2	0	0	0	1	0	1	4
UJ	1	0	2	1	0	2	0	0	1	7
UKZN	0	1	1	0	0	0	0	2	3	7
UNISA	1	0	1	0	0	5	0	4	2	13
UP	0	0	0	0	0	3	0	0	1	4
Vaal University of Technology	0	0	1	0	0	0	0	0	0	1
Wits	2	0	1	0	0	0	0	0	2	5
MUT	0	0	0	1	0	0	0	0	0	1
Total	14	1	11	6	1	20	1	16	23	93

Table 4: Contributions by Rank and University

	Associate Professor	**Emeritus Professor**	**Lecturer**	**Missing**	**Post doc**	**Professor**	**Research Fellow**	**Senior lecturer**	**Student**	**Total**
University										
DUT.	0	0	0	0	0	0	0	2	1	3
Fort Hare	1	0	3	1	0	1	0	1	12	19
Monash South Africa	1	0	0	0	0	2	0	0	0	3
NMMU	0	0	0	1	0	0	0	1	3	5
North-West	22	0	1	4	0	23	0	10	3	63
Stellenbosch	0	0	0	0	0	1	0	0	0	1
UCT	0	0	0	0	1	0	0	0	0	1
UFS	0	0	3	0	0	0	1	0	1	5
UJ	3	0	3	1	0	4	0	0	1	12
UKZN	0	2	3	0	0	0	0	2	3	10
UNISA	1	0	1	0	0	12	0	4	6	24
UP	0	0	0	0	0	4	0	0	1	5
Vaal University of	0	0	5	0	0	0	0	1	0	6
Wits	5	0	1	0	0	0	0	0	2	8
MUT	0	0	0	1	0	0	0	0	0	1
Total	33	2	20	8	1	47	1	21	33	166

Table 5: Proportion of Staff with publications in the 5 journals

University	Staff size	Authors	Proportion of staff with pubs in the 5 journals	Authors excl students, missings +Emeritus Professors	Proportion of Staff with pubs in the 5 journals, corrected
UCT	38	1	3%	1	3%
UFH	9	14	156%	5	56%
UFS[1]	17	4	24%	3	18%
UJ	34	7	21%	5	15%
UKZN	22	7	32%	3	14%
UL	Not available				
NMMU	12	3	25%	1	8%
NWU	43	29	67%	23	53%
UP	23	4	17%	3	13%
RU	15	0	0%	0	0%
SUN	30	1	3%	1	3%
UNISA	39	13	33%	11	28%
Univen	8	0	0%	0	0%
WSU	5	0	0%	0	0%
UWC	7	0	0%	0	0%
Wits	25	5	20%	3	12%
UniZulu	5	0	0%	0	0%
All	**332**	**88**	**25%**	**59**	**18%**

Notes: The staff sizes are from 2014 and are taken from Yu et al (2016). The NWU numbers are increased using the 2017 staff numbers for Vaal and Mafikeng campuses- see footnote 3 above.