



Appendix 1

A study of scientific journal and book publishing in SA: 2005 – 2014

5 March 2017

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The Report is structured into two parts. The first part, *Twelve Years Later: Second ASSAf Report on Scholarly Publishing in and from South Africa (2018)*, presents an extensive overview of the main findings of the study and can be read as a standalone report in its own right. The second part is the Main Report (this report) which is a detailed treatment of the issues and consists of three sections devoted to journal articles, books and book chapters and conference proceedings respectively.

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The Academy of Science of South Africa (ASSAf) was inaugurated in May 1996. It was formed in response to the need for an Academy of Science consonant with the dawn of democracy in South Africa: activist in its mission of using science and scholarship for the benefit of society, with a mandate encompassing all scholarly disciplines that use an open-minded and evidence-based approach to build knowledge. ASSAf thus adopted in its name the term 'science' in the singular as reflecting a common way of enquiring rather than an aggregation of different disciplines. Its Members are elected on the basis of a combination of two principal criteria, academic excellence and significant contributions to society.

The Parliament of South Africa passed the Academy of Science of South Africa Act (No 67 of 2001), which came into force on 15 May 2002. This made ASSAf the only academy of science in South Africa officially recognised by government and representing the country in the international community of science academies and elsewhere.

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Part One: Introduction

The last systematic studies of scientific journals and scholarly publishing in South Africa were done in 2006 and 2009 respectively (both by CREST under commission from the Academy of Science of South Africa (ASSAf)). Both of these studies are now outdated. One reason for this has to do with the revision of the DHET Research Subsidy Framework in 2003 (which came into effect in 2005) as well as the more recent additional suggested revisions to the Framework. This framework is currently being implemented (with effect from 2017). As with the revision in 2003 we believe that these revisions will have far-reaching effects on scholarly publishing in South Africa. This report analyses the shifts in scholarly publishing over the past decade and more specifically the period between 2005 and 2014.

We have witnessed a spectacular increase in total publication output by the SA Higher Education sector since the implementation of the revised Framework in 2005 (the total publications nearly doubled from 7230 units in 2005 to 14 008 in 2013). The possible inclusion of journals listed in the TR WoS database (and possibly even other lists) and the increased monetary value disbursed to monographs are two of the changes that may impact significantly on the distribution and quantity of journal publications. In addition, over the past number of years, ASSAf has implemented a systematic review process of clusters of journals. In the initial reviews, bibliometric information was included, but this is not the case for more recent review studies.

This report, which was commissioned in 2015, provides an overview of the changes in scholarly publishing that we have witnessed over the past decade. The report covers the three main forms of scholarly publishing that are included in the DHET funding system: journal articles, book publishing and the publication of conference proceedings. The report is therefore organised into three parts.

Part Two: Journal publishing

2.1 Introduction

Academics at South African universities are rewarded for publishing journal articles, books, book chapters and conference proceedings that are either accredited or recognised by the DHET. As far as journal articles are concerned, a subsidy is earned for publication in any journal included in the TR WoS database (core collection), the Proquest *International Bibliography of Social Science* (IBSS) and local South African journals accredited by the DHET. This funding scheme has been in existence since 1987, but was fundamentally revised in 2003 (with effect 2005). The revision led to huge increases in the subsidy amounts paid to universities.

Figure 1 shows that research output (all publication categories) over the past decade has increased nearly threefold (from 7 230 in 2005 to 15 542 in 2014). This increase translates into an average annual growth rate for the past ten years of 8.8%.

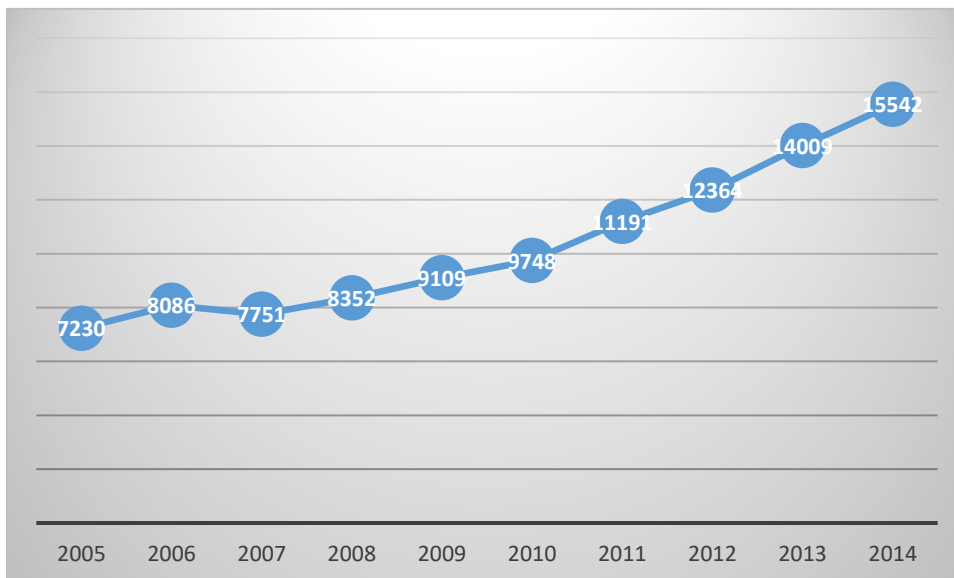


Figure 1: Total research publications produced by SA universities (1994 to 2014)

Data source: SAK, Crest

Note on SAK:

SAK is the proprietary database at Crest of scientific publications authored by South African scientists and scholars at SA universities. It is not a citation database, although SA-authored papers that are published

in the TR WoS can be linked to the citation data available in the latter (see above). SAK is unique in the following respects:

1. It is the only database that contains metadata on SA-authored scientific articles, books, book chapters and conference proceedings that are recognised under the DHET Funding Framework. This means that it presents the most complete coverage of SA-authored scientific publications as it includes all papers in the TR WoS, local SA journals accredited by the DHET and articles published in IBSS-listed journals.
2. It is not a standard bibliometric database in that it also contains demographic data on most of the authors listed. Coverage currently stands at more than 70%. This includes data on the gender, race, nationality and year of birth of the author.
3. CREST has over the years added value through the addition of many fields to each record. This includes additional data on the publication source (including most recently information on predatory publishers) and the field classification framework (a four-tiered classification is used that is more accurate than that used by the DHET).

At the same time that we witnessed this substantial growth in output, the human resource base at SA universities has not grown commensurately. The average annual growth in headcount of academic staff for the same period has only increased by 2.9% per annum. This would suggest that the average academic or researcher at SA universities has increased their publication output. However, one should keep in mind that most universities have become very 'strategic' in mobilising additional human resources to contribute to the overall research production. This would include the appointment of larger numbers of visiting and extraordinary professors as well as post-doctoral fellows and graduate students who now all contribute regularly to the output of a university. Nevertheless it is still striking how the per capita research output has increased for the sector as a whole (see Figure 2).

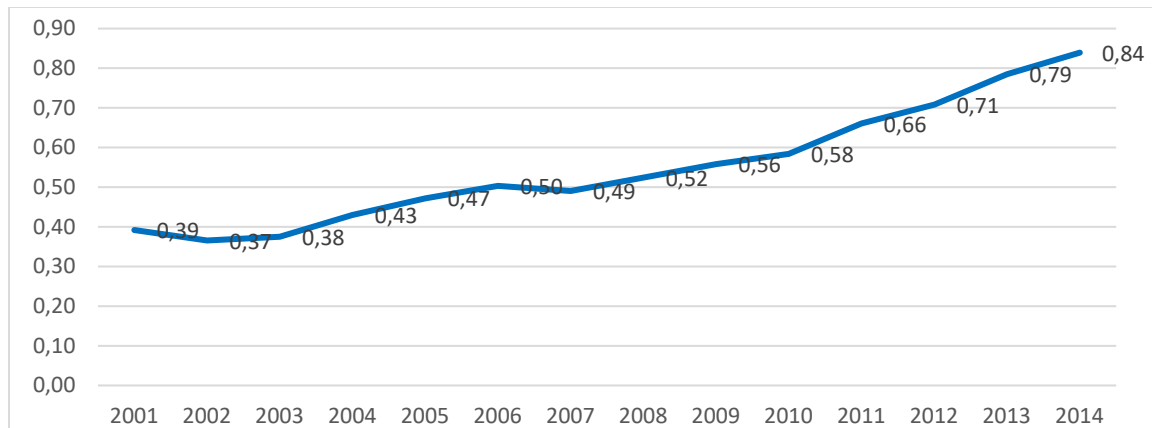


Figure 2: Per capita publication units at SA universities

Data source: DHET

In the remainder of Part One, we present the results of our study for journal publishing under the following headings:

1. Distribution of journal articles by journal list (WoS, IBSS and DHET)
2. Distribution of journal articles by journal title
3. An analysis of journal publication patterns/configurations
4. Journal articles by scientific discipline or field
5. Trends in collaborative publishing
6. The citation impact of South African-authored papers over the period 2005 – 2014
7. Demographics of journal article publishing
8. Ethics of journal publishing

2.2 Distribution of journal articles by journal list

Journal articles constitute the biggest share (about 90%) of total publication output. Figure 3 summarises the trend in article output (disaggregated by full paper and fractional unit count) for the period between 2005 and 2014.

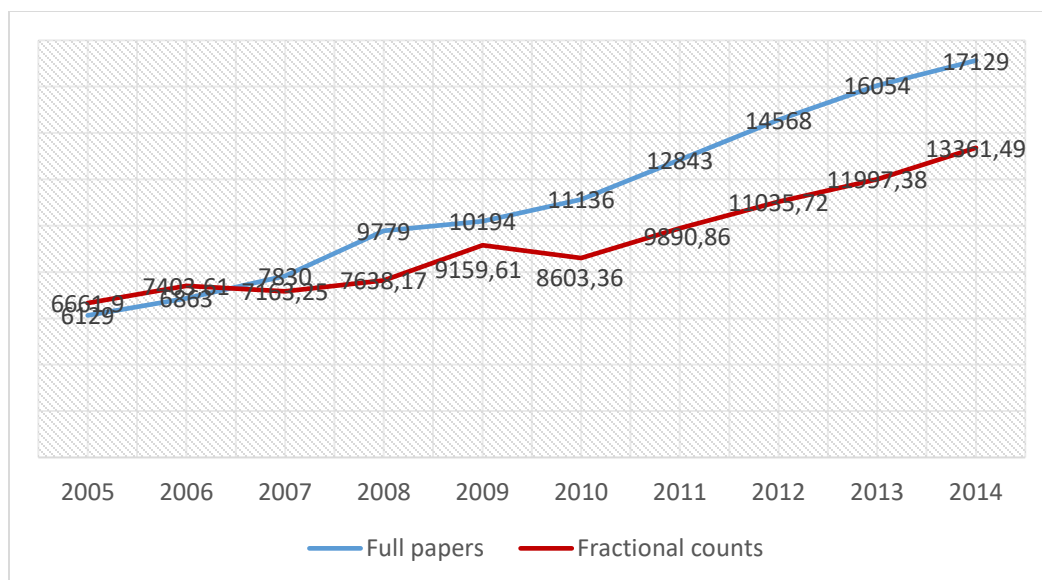


Figure 3: Full papers and fractional units (2005 – 2014)

Data source: SAK, Crest

The 2003 DHET Funding Framework is built on three pillars of ‘accreditation’ (or quality control):

1. The DHET recognises all journals listed in the TR WoS (Core collection) for subsidy purposes. This means that any university academic who publishes in any of the more than 20 000 journals indexed in the WoS (formerly the ISI) automatically qualifies for a subsidy. From the perspective of the DHET, this means that it “trusts” the judgment of the WoS in its inclusion of journals. There is a low ‘turnover’ of journal titles in the WoS. Some journals are “de-accredited”, whilst new journals are added every year. This means that academics or research offices need to monitor the WoS list quite regularly to ensure that articles are submitted for subsidy that appeared in the ‘active list’ of the WoS.
2. The DHET also recognises all journals listed in the ProQuest IBSS. The IBSS was added in 2003 palpably to ensure better coverage of the social sciences and humanities. The WoS has been consistently criticised for its meagre coverage of journals dealing with the humanities and social sciences. As is the case with the WoS, the DHET therefore also must trust ProQuest in its decision to include or exclude journal titles. As we will discussed in the section on predatory publishing, this has become a contentious issue as many predatory journals are in fact included in the IBSS.
3. The DHET accredits SA journals for inclusion or exclusion for subsidy purposes. This is an ongoing process as new journals can submit for ‘accreditation’ to the DHET on an annual basis. If they

are successful, they are added to the 'DHET List'. In the past the DHET had commissioned the Academy of Science of South Africa to assist it in this process. However, at the time of writing this report, this arrangement has been cancelled. Independent of this arrangement, however, ASSAf continues with its own regular reviewing of all SA journals (whether on the WoS, IBSS or DHET lists).

The relationship between these three lists, and specifically the coverage of journal titles by the respective lists, are depicted in Figure 4 below.

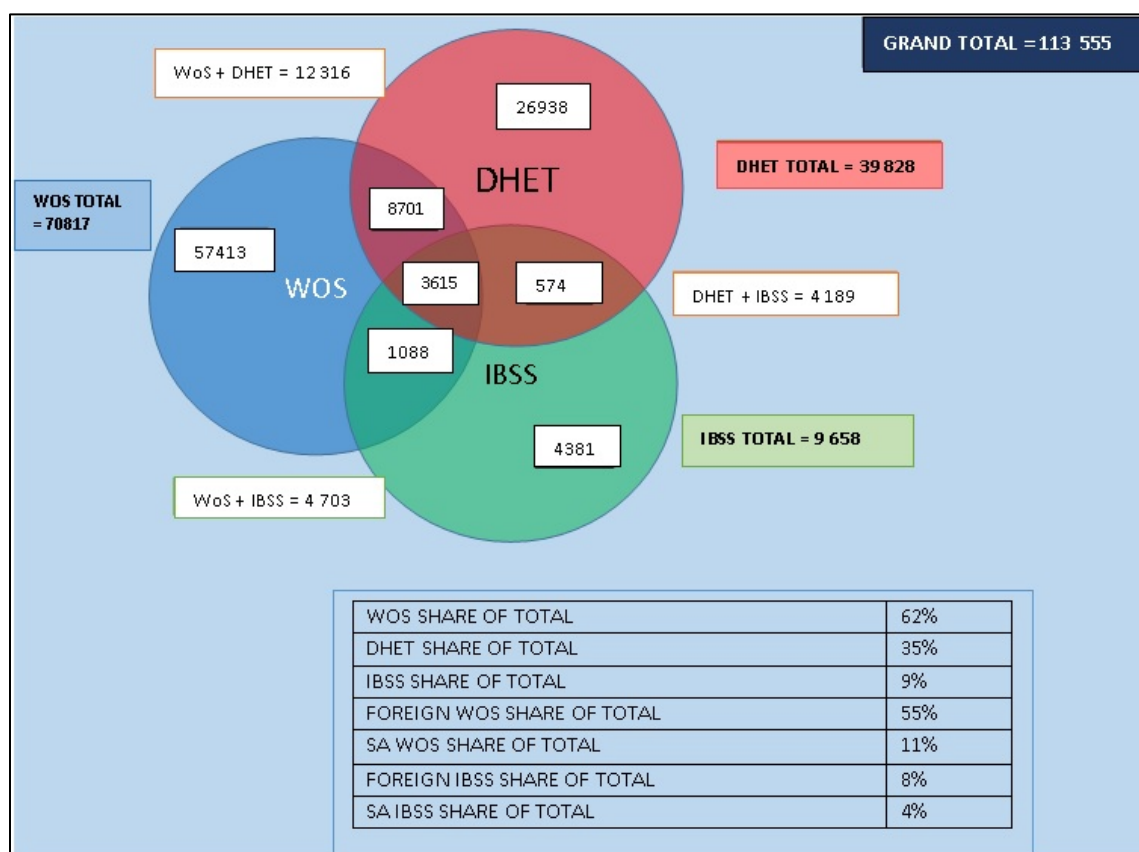


Figure 4: Coverage of articles by different journal lists (2005 – 2014)

Data source: SAK, Crest

The distribution of papers by journal list by year is presented in Figure 5.

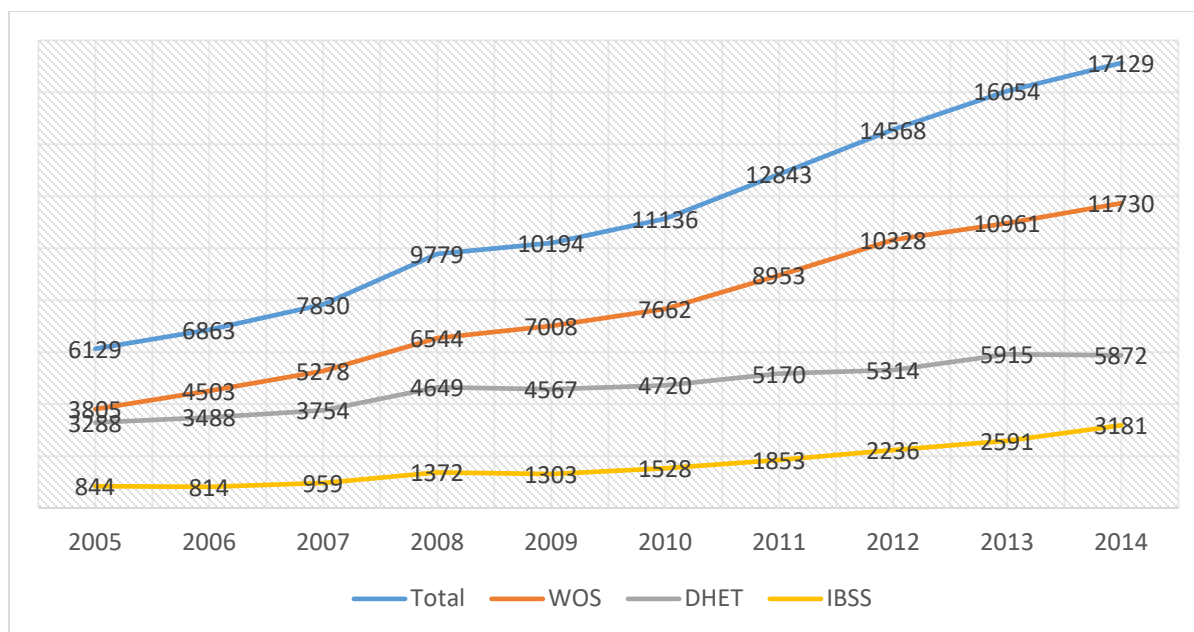


Figure 5: Distribution of SA journal articles by journal list (full paper count)

Data source: SAK, Crest

The most recent revision in 2015 of the DHET Funding Framework has resulted in the inclusion of three more lists for subsidy purposes¹:

1. The list of journals included in the *Scopus* database of Elsevier
2. The *Norwegian Social Sciences Data Services (NSD) List*
3. The list of journals indexed in the *SCIELO Index*

This revision will generate further challenges to the funding framework. These challenges speak to these areas:

- The differential coverage (and duplication) of journal titles across the six lists
- The differential representativeness of scientific fields by the different lists
- The differences in embedded quality control mechanisms across the lists.

As far as the first issue is concerned, CREST undertook a review of how the journal titles are distributed across the five big lists. (All SA Scielo titles are covered by at least of one of the other five lists so we

¹ The DHET has announced that this new system will be implemented from 2017 (which will then refer to publications with a 2016 publication date).

have not included it in the table below). We have summarised the results of this review in Table 1 below.

Table 1: Distribution of journal titles by journal list

Index	Journal Titles
WoS unique	2522
WoS + Scopus	7961
WoS + IBSS	43
WoS + NSD	80
WoS + DHET	1
WoS + Scopus + IBSS	638
WoS + Scopus + NSD	994
WoS + Scopus + DHET	19
WoS + IBSS +NSD	12
WoS + Scopus + IBSS + NSD	283
WoS + Scopus + IBSS + DHET	5
WoS + Scopus + NSD + DHET	5
Scopus unique	11702
Scopus + IBSS	623
Scopus + NSD	145
Scopus + DHET	12
Scopus + IBSS + NSD	28
Scopus + IBSS + DHET	5
IBSS unique	1338
IBSS + NSD	8
IBSS + DHET	7
NSD unique	523
DHET unique	217
WoS Total	12560
Scopus Total	22460
IBSS Total	2994
NSD Total	2076
DHET Total	276
Scielo Total	61

Even a cursory inspection of the table shows the large degree of overlap between the different lists. Not surprisingly, there is huge overlap between WoS and Scopus. But there are also other interesting results from this quick review.

- The addition of Scopus to the list of subsidy-earning journals could have a significant effect on the system as 11 702 unique titles are now added.
- The addition of NSD (Level 2) would probably have a very small effect on the system with the addition of 523 unique titles.

- The additions of the Scopus and NSD lists already affect the IBSS list. Because of its overlap with other lists, the number of unique journal titles in IBSS has now been reduced to 1 338 (out of a total number of 2 994).

In addition to the issue of differential coverage, it is also clear that different scientific fields are represented differently across these lists. The IBSS list was evidently added to improve the coverage of social science and humanities journals. The addition of Scopus will increase the coverage of journals in the fields of medicine and health. It has therefore become imperative that the representation of different scientific fields and disciplines is studied in a systematic fashion in order to establish whether there are still remaining over- or under-representation of certain fields.

The different lists incorporate very different quality control mechanisms and procedures. The WoS and Scopus lists are based on a set of explicit criteria related to journal quality which ultimately use the citation data embedded in the two databases. In theory, the highest impact journals in specific fields are typically indexed. The NSD list is based on peer-review ratings by academic panels in the Norwegian science system. The DHET list is also based on regular reviews by discipline-based panels as co-ordinated by ASSAf. To our knowledge there is no inbuilt quality assurance mechanism in the IBSS list.

2.3 Distribution of journal articles by journal title

The SA HE sector produced 113 555 unique articles in the lists of accredited journals over the period 2005 to 2014². These articles appeared in 8 052 individual journals. However, this figure is somewhat misleading as 50% of all the articles appeared in 296 journals only (see Figure 6 below).

² This is the number of records in SAK. It is, of course, possible that there may be some errors in our data management or that not all submissions from the universities to the DHET were complete. This would impact slightly on the overall number, but we believe that the margin of error would be less than 1%.

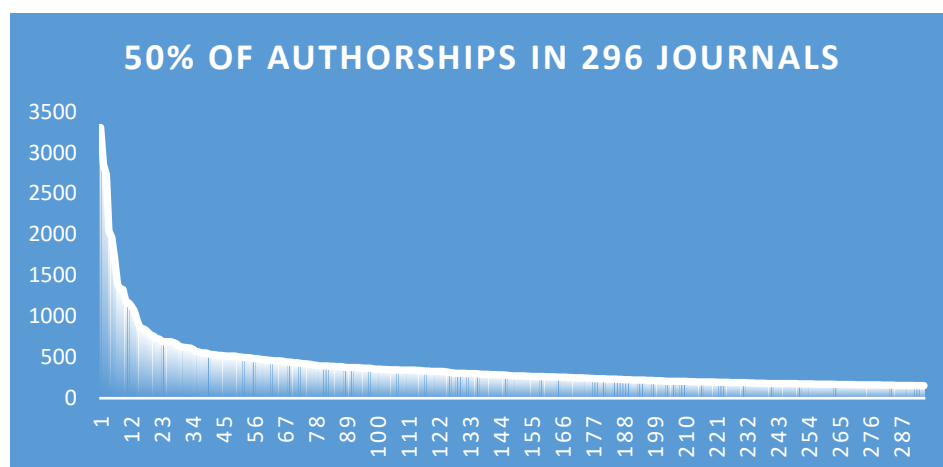


Figure 6: Distribution of papers in journals that account for 50% of all output (2005 – 2014)

Data source: SAK, CREST

In this section we looked more closely at those journals in which SA academics have published the majority of their papers. Table 2 below lists the 424 journals in which more than 50 SA-authored articles have been published during this period. Journal titles are listed in descending order by article count.

Table 2: Journals with more than 50 SA-authored articles in descending order (2005 to 2014)³

Journal	Papers	Share	Cum%
<i>AJPHRD: African Journal for Physical, Health Education Recreation and Dance</i>	1228	1.1%	1.1%
<i>SAMJ: South African Medical Journal</i>	1113	1.0%	2.1%
<i>HTS Teologiese Studies/Theological Studies</i>	998	0.9%	2.9%
<i>PLoS One</i>	996	0.9%	3.8%
<i>South African Journal of Science</i>	877	0.8%	4.6%
<i>South African Journal of Higher Education/Suid-Afrikaanse Tydskrif vir Hoër Onderwys</i>	801	0.7%	5.3%
<i>Acta Crystallographica Section E: Structure Reports Online</i>	730	0.6%	5.9%
<i>South African Journal of Botany/Suid Afrikaanse Tydskrif vir Plantkunde</i>	701	0.6%	6.5%
<i>South African Family Practice: Official Journal of the South African Academy of Family Physicians</i>	639	0.6%	7.1%
<i>Journal of Public Administration</i>	618	0.5%	7.6%

³ It is important to again emphasise that the number of papers listed against each journal title refers to the number of papers authored by South African academics and scholars affiliated to a SA university. This means that the number does not reflect the full-paper count of these journals. It would typically exclude at least two other categories of authors: other SA authors (from science councils, NGOs and government) and non-SA authors who published in these journals. A quick inspection of some of the SA (DHET accredited) journals would show that these latter two categories typically do not contribute more than 5% to 10% of the overall journal production.

<i>Journal of Psychology in Africa</i>	584	0.5%	8.1%
<i>STJ: Stellenbosch Theological Journal</i>	563	0.5%	8.6%
<i>Water SA</i>	554	0.5%	9.1%
<i>Journal of Contemporary Roman-Dutch Law/Tydskrif vir Hedendaagse Romeins-Hollandse Reg</i>	538	0.5%	9.6%
<i>SADJ: Journal of the South African Dental Association/Tydskrif van die Suid-Afrikaanse Tandheelkundige Vereniging</i>	511	0.4%	10.0%
<i>Journal of Social Sciences</i>	485	0.4%	10.5%
<i>Tydskrif vir die Suid-Afrikaanse Reg/Journal of South African Law</i>	463	0.4%	10.9%
<i>African Journal of Biotechnology</i>	452	0.4%	11.3%
<i>Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa</i>	451	0.4%	11.7%
<i>African Journal of Business Management</i>	438	0.4%	12.0%
<i>In Die Skriflig</i>	432	0.4%	12.4%
<i>Acta Academica</i>	420	0.4%	12.8%
<i>Obiter</i>	418	0.4%	13.2%
<i>Verbum et Ecclesia</i>	415	0.4%	13.5%
<i>Monthly Notices of the Royal Astronomical Society</i>	399	0.3%	13.9%
<i>Tydskrif vir Geesteswetenskappe</i>	394	0.3%	14.2%
<i>South African Journal of Psychology</i>	384	0.3%	14.5%
<i>South African Journal of Education/Suid-Afrikaanse Tydskrif vir Opvoedkunde</i>	370	0.3%	14.9%
<i>Studia Historiae Ecclesiasticae: Journal of the Church History Society of Southern Africa</i>	355	0.3%	15.2%
<i>Old Testament Essays (New Series): Journal of the Old Testament Society of South Africa</i>	351	0.3%	15.5%
<i>De Jure</i>	341	0.3%	15.8%
<i>SA Mercantile Law Journal/SA Tydskrif vir Handelsreg</i>	337	0.3%	16.1%
<i>South African Journal of Animal Science</i>	327	0.3%	16.4%
<i>LitNet Akademies/Academic</i>	325	0.3%	16.7%
<i>Acta Theologica</i>	324	0.3%	16.9%
<i>Scriptura: International Journal of Bible, Religion and Theology in Southern Africa</i>	321	0.3%	17.2%
<i>South African Journal of Economic and Management Sciences</i>	313	0.3%	17.5%
<i>South African Law Journal</i>	310	0.3%	17.8%
<i>African Journal of Marine Science</i>	309	0.3%	18.0%
<i>Perspectives in Education</i>	307	0.3%	18.3%
<i>Acta Criminologica: Southern African Journal of Criminology</i>	305	0.3%	18.6%
<i>PER: Potchefstroom Electronic Law Journal</i>	304	0.3%	18.8%
<i>Development Southern Africa</i>	295	0.3%	19.1%
<i>Social Work/Maatskaplike Werk: A Professional Journal for the Social Worker</i>	286	0.3%	19.3%
<i>AIDS</i>	286	0.3%	19.6%

<i>South African Journal of Plant and Soil</i>	284	0.2%	19.8%
<i>Journal for Christian Scholarship/Tydskrif vir Christelike Wetenskap</i>	284	0.2%	20.1%
<i>Journal of Human Ecology</i>	280	0.2%	20.3%
<i>SAIMM: Journal of the South African Institute of Mining and Metallurgy</i>	279	0.2%	20.6%
<i>Journal of the South African Veterinary Association/Tydskrif van die Suid-Afrikaanse Veterinêre Vereniging</i>	274	0.2%	20.8%
<i>Southern African Linguistics and Applied Language Studies</i>	272	0.2%	21.1%
<i>Corporate Ownership and Control</i>	266	0.2%	21.3%
<i>South African Journal of Art History</i>	261	0.2%	21.5%
<i>Koers: Bulletin for Christian Scholarship/Bulletin vir Christelike Wetenskap</i>	261	0.2%	21.8%
<i>Southern African Public Law</i>	258	0.2%	22.0%
<i>Journal for Semitics/Tydskrif vir Semistiek</i>	257	0.2%	22.2%
<i>Agenda: Empowering Women for Gender Equity</i>	256	0.2%	22.4%
<i>SA Journal of Industrial Psychology/Tydskrif vir Bedryfsielkunde</i>	256	0.2%	22.7%
<i>Journal for Contemporary History/Joernaal vir Eietydse Geskiedenis</i>	256	0.2%	22.9%
<i>African Zoology</i>	255	0.2%	23.1%
<i>Curationis</i>	254	0.2%	23.3%
<i>Astrophysical Journal</i>	250	0.2%	23.5%
<i>Physical Review D</i>	250	0.2%	23.8%
<i>SA Orthopaedic Journal</i>	250	0.2%	24.0%
<i>Administratio Publica</i>	244	0.2%	24.2%
<i>International Journal of Tuberculosis and Lung Disease</i>	243	0.2%	24.4%
<i>African Journal of Agricultural Research</i>	242	0.2%	24.6%
<i>Cardiovascular Journal of Africa</i>	239	0.2%	24.8%
<i>African Entomology</i>	236	0.2%	25.0%
<i>International Business and Economics Research Journal</i>	234	0.2%	25.2%
<i>South African Journal of Economics</i>	234	0.2%	25.4%
<i>Africa Insight</i>	232	0.2%	25.7%
<i>Minerals Engineering</i>	231	0.2%	25.9%
<i>Literator</i>	231	0.2%	26.1%
<i>International Journal of Electrochemical Science</i>	229	0.2%	26.3%
<i>South African Journal of Criminal Justice/Suid-Afrikaanse Tydskrif vir Strafrechtspleging</i>	227	0.2%	26.5%
<i>Journal of Ethnopharmacology</i>	227	0.2%	26.7%
<i>JAIDS: Journal of Acquired Immune Deficiency Syndromes</i>	226	0.2%	26.9%
<i>Health SA Gesondheid</i>	224	0.2%	27.0%
<i>Stellenbosch Law Review</i>	223	0.2%	27.2%
<i>Africa Education Review</i>	220	0.2%	27.4%

<i>South African Journal of Industrial Engineering</i>	220	0.2%	27.6%
<i>Agrekon</i>	216	0.2%	27.8%
<i>South African Journal for Research in Sport, Physical Education and Recreation</i>	213	0.2%	28.0%
<i>Annual Survey of South African Law</i>	212	0.2%	28.2%
<i>Journal for New Generation Sciences</i>	208	0.2%	28.4%
<i>Education As Change</i>	205	0.2%	28.6%
<i>Mousaion: South African Journal of Information Studies</i>	203	0.2%	28.7%
<i>South African Journal of Geology</i>	201	0.2%	28.9%
<i>South African Journal of Clinical Nutrition</i>	200	0.2%	29.1%
<i>Bothalia</i>	198	0.2%	29.3%
<i>Onderstepoort Journal of Veterinary Research</i>	196	0.2%	29.4%
<i>South African Journal of African Languages</i>	195	0.2%	29.6%
<i>Southern African Business Review</i>	192	0.2%	29.8%
<i>Social Work Practitioner-Researcher</i>	192	0.2%	29.9%
<i>Southern African Journal of Infectious Diseases</i>	191	0.2%	30.1%
<i>South African Journal of Business Management</i>	191	0.2%	30.3%
<i>African Journal of Aquatic Science</i>	189	0.2%	30.4%
<i>Lancet</i>	189	0.2%	30.6%
<i>South African Journal of Philosophy</i>	188	0.2%	30.8%
<i>International Journal of Educational Sciences</i>	187	0.2%	30.9%
<i>Astronomy and Astrophysics</i>	185	0.2%	31.1%
<i>South African Historical Journal/Suid-Afrikaanse Historiese Joernaal</i>	185	0.2%	31.3%
<i>Urban Forum</i>	183	0.2%	31.4%
<i>Cochrane Database of Systematic Reviews</i>	181	0.2%	31.6%
<i>Journal of Literary Studies/Tydskrif vir Literatuurwetenskap</i>	181	0.2%	31.7%
<i>Journal of Contemporary Management</i>	180	0.2%	31.9%
<i>Physical Review C</i>	179	0.2%	32.0%
<i>SA Journal of Human Resource Management</i>	179	0.2%	32.2%
<i>South African Journal of Physiotherapy</i>	178	0.2%	32.4%
<i>Journal of Infectious Diseases</i>	176	0.2%	32.5%
<i>TD: Journal for Transdisciplinary Research in Southern Africa</i>	176	0.2%	32.7%
<i>South African Journal on Human Rights</i>	175	0.2%	32.8%
<i>Zootaxa</i>	173	0.2%	33.0%
<i>Southern African Journal of Anaesthesia and Analgesia</i>	172	0.2%	33.1%
<i>African Journal of Wildlife Research</i>	171	0.1%	33.3%
<i>Journal of Educational Studies</i>	171	0.1%	33.4%
<i>Journal of Southern African Studies</i>	170	0.1%	33.6%
<i>AIDS Care: Psychological and Socio-Medical Aspects of AIDS/HIV</i>	169	0.1%	33.7%
<i>SAIEE Africa Research Journal</i>	168	0.1%	33.9%
<i>AJAR: African Journal of AIDS Research</i>	167	0.1%	34.0%

<i>Communicatio: South African Journal for Communication Theory and Research</i>	167	0.1%	34.2%
<i>AJRMSTE: African Journal of Research in Mathematics, Science and Technology Education</i>	166	0.1%	34.3%
<i>African Journal of Psychiatry</i>	166	0.1%	34.4%
<i>Historia: Journal of the Historical Association of South Africa</i>	164	0.1%	34.6%
<i>Pharos Journal of Theology</i>	163	0.1%	34.7%
<i>Physica B: Condensed Matter</i>	163	0.1%	34.9%
<i>Journal of High Energy Physics</i>	162	0.1%	35.0%
<i>Anthropologist: International Journal of Contemporary and Applied Studies of Man</i>	162	0.1%	35.2%
<i>Ostrich: Journal of African Ornithology</i>	161	0.1%	35.3%
<i>BMC Public Health</i>	158	0.1%	35.4%
<i>South African Journal of Surgery</i>	158	0.1%	35.6%
<i>African Vision and Eye Health</i>	158	0.1%	35.7%
<i>Journal of Early Christian History: A Journal for the Study of Early Christianity and Late Antiquity</i>	157	0.1%	35.9%
<i>Social Dynamics: A Journal of African Studies</i>	157	0.1%	36.0%
<i>South African Journal of Chemistry/Suid-Afrikaanse Tydskrif vir Chemie</i>	156	0.1%	36.1%
<i>Art South Africa</i>	154	0.1%	36.3%
<i>South African Journal of Libraries and Information Science</i>	154	0.1%	36.4%
<i>SAALT: Journal for Language Teaching/Tydskrif vir Taalonderrig</i>	151	0.1%	36.5%
<i>Life Science Journal/Acta Zhengzhou University Overseas Edition</i>	150	0.1%	36.7%
<i>Stilet: Tydskrif vir Afrikaanse Letterkundevereniging</i>	150	0.1%	36.8%
<i>Current Allergy and Clinical Immunology</i>	150	0.1%	36.9%
<i>Comparative and International Law Journal of South Africa</i>	149	0.1%	37.1%
<i>Southern African Journal for Folklore Studies</i>	149	0.1%	37.2%
<i>Acta Commercii</i>	147	0.1%	37.3%
<i>SA Journal of Radiology</i>	146	0.1%	37.4%
<i>South African Journal of Occupational Therapy</i>	144	0.1%	37.6%
<i>New Contree: A Journal of Historical and Human Sciences for Southern Africa</i>	144	0.1%	37.7%
<i>South African Archaeological Bulletin</i>	141	0.1%	37.8%
<i>English Academy Review</i>	141	0.1%	37.9%
<i>South African Journal of Sport Medicine</i>	141	0.1%	38.1%
<i>Tydskrif vir Letterkunde</i>	141	0.1%	38.2%
<i>Journal of Theology for Southern Africa</i>	141	0.1%	38.3%
<i>AIDS and Behavior</i>	141	0.1%	38.4%
<i>Lexikos</i>	140	0.1%	38.6%
<i>Journal of Education</i>	137	0.1%	38.7%
<i>Southern African Journal of HIV Medicine</i>	137	0.1%	38.8%

<i>Physics and Chemistry of the Earth</i>	137	0.1%	38.9%
<i>Indilinga: African Journal of Indigenous Knowledge Systems</i>	137	0.1%	39.0%
<i>Marine Ecology –Progress Series</i>	136	0.1%	39.2%
<i>Industrial and Engineering Chemistry Research</i>	136	0.1%	39.3%
<i>South African Journal of Psychiatry</i>	135	0.1%	39.4%
<i>Speculum Juris</i>	135	0.1%	39.5%
<i>African Journal of Public Affairs</i>	134	0.1%	39.6%
<i>South African Journal of Cultural History/Suid-Afrikaanse Tydskrif vir Kultuurgeskiedenis</i>	134	0.1%	39.8%
<i>Quaestiones Mathematicae</i>	134	0.1%	39.9%
<i>Journal of Energy in Southern Africa</i>	133	0.1%	40.0%
<i>Language Matters: Studies in the Languages of Africa</i>	132	0.1%	40.1%
<i>African Journal of Range and Forage Science</i>	132	0.1%	40.2%
<i>South African Review of Sociology</i>	132	0.1%	40.3%
<i>Polyhedron</i>	131	0.1%	40.4%
<i>Clinical Infectious Diseases</i>	131	0.1%	40.6%
<i>Fundamina: A Journal of Legal History</i>	130	0.1%	40.7%
<i>Physics Letters B</i>	129	0.1%	40.8%
<i>African Journal of Primary Health Care and Family Medicine</i>	129	0.1%	40.9%
<i>South African Journal of Information Management</i>	129	0.1%	41.0%
<i>Critical Arts: A Journal of South-North Cultural and Media Studies</i>	129	0.1%	41.1%
<i>PLoS Medicine</i>	128	0.1%	41.2%
<i>Journal of Zoology</i>	127	0.1%	41.4%
<i>Politikon: South African Journal of Political Studies</i>	127	0.1%	41.5%
<i>African Human Rights Law Journal</i>	127	0.1%	41.6%
<i>Current Writing</i>	127	0.1%	41.7%
<i>Africa Journal of Nursing and Midwifery</i>	126	0.1%	41.8%
<i>Politeia: Journal for Political Science and Public Administration/Tydskrif vir Politieke Wetenskap</i>	126	0.1%	41.9%
<i>Anthropology Southern Africa</i>	125	0.1%	42.0%
<i>Journal of Economic and Financial Sciences</i>	125	0.1%	42.1%
<i>Journal of Clinical Microbiology</i>	124	0.1%	42.2%
<i>Management Dynamics: Contemporary Research Journal of the Southern Africa Institute for Management Scientists</i>	124	0.1%	42.3%
<i>Occupational Health Southern Africa</i>	124	0.1%	42.5%
<i>Vaccine</i>	124	0.1%	42.6%
<i>Tropical Medicine and International Health</i>	123	0.1%	42.7%
<i>Dalton Transactions</i>	122	0.1%	42.8%
<i>Koedoe: Research Journal of the South African National Parks</i>	121	0.1%	42.9%
<i>Electrochimica Acta</i>	121	0.1%	43.0%
<i>Progressio: South African Journal for Open and Distance Learning Practice</i>	119	0.1%	43.1%

<i>English Studies in Africa</i>	118	0.1%	43.2%
<i>Journal of Arid Environments</i>	118	0.1%	43.3%
<i>South African Computer Journal</i>	118	0.1%	43.4%
<i>Journal of Constructive Theology: Gender, Religion and Theology in Africa</i>	118	0.1%	43.5%
<i>South African Geographical Journal</i>	118	0.1%	43.6%
<i>South African Baptist Journal of Theology</i>	117	0.1%	43.7%
<i>Gender and Behaviour</i>	117	0.1%	43.8%
<i>African Journal of Ecology</i>	116	0.1%	43.9%
<i>English in Africa</i>	116	0.1%	44.0%
<i>Physical Review Letters</i>	116	0.1%	44.1%
<i>Pythagoras: Journal of the Association for Mathematics Education of South Africa</i>	115	0.1%	44.2%
<i>Precambrian Research</i>	114	0.1%	44.3%
<i>Scrutiny2: Issues in English Studies in Southern Africa</i>	114	0.1%	44.4%
<i>Missionalia: Journal of the Southern African Missiological Society</i>	114	0.1%	44.5%
<i>Acta Structilia: Journal for the Physical and Development Sciences</i>	112	0.1%	44.6%
<i>Child Abuse Research in South Africa</i>	112	0.1%	44.7%
<i>Communitas: Journal for Community Communication and Information Impact</i>	112	0.1%	44.8%
<i>Journal of Physics A: Mathematical and Theoretical</i>	112	0.1%	44.9%
<i>Journal of the SA Institution of Civil Engineering/Joernaal van die SA instituut van Siviele Ingenieurswese</i>	112	0.1%	45.0%
<i>Meditari: Accountancy Research</i>	111	0.1%	45.1%
<i>Transformation: Critical Perspectives on Southern Africa</i>	111	0.1%	45.2%
<i>African Invertebrates</i>	111	0.1%	45.3%
<i>Molecular Phylogenetics and Evolution</i>	111	0.1%	45.4%
<i>Journal of Economics and Behavioral Studies</i>	110	0.1%	45.5%
<i>Journal for Juridical Science</i>	109	0.1%	45.6%
<i>Journal of Virology</i>	108	0.1%	45.7%
<i>Pediatric Infectious Disease Journal</i>	108	0.1%	45.8%
<i>Southern Forests: A Journal of Forest Science</i>	108	0.1%	45.9%
<i>Mathematical Problems In Engineering</i>	107	0.1%	46.0%
<i>Law, Democracy and Development</i>	107	0.1%	46.1%
<i>African Studies</i>	106	0.1%	46.2%
<i>Biological Conservation</i>	106	0.1%	46.2%
<i>Taxon</i>	105	0.1%	46.3%
<i>Journal of Archaeological Science</i>	105	0.1%	46.4%
<i>Discrete Mathematics</i>	104	0.1%	46.5%
<i>Journal of Applied Polymer Science</i>	104	0.1%	46.6%

<i>Religion and Theology: A Journal of Contemporary Religious Discourse</i>	103	0.1%	46.7%
<i>Veterinary Parasitology</i>	103	0.1%	46.8%
<i>Global Health Action</i>	102	0.1%	46.9%
<i>Architecture South Africa: Journal of the South African Institute of Architects</i>	101	0.1%	47.0%
<i>Muziki: Journal of Music Research in Africa</i>	101	0.1%	47.1%
<i>Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa</i>	100	0.1%	47.1%
<i>African Journal of Microbiology Research</i>	99	0.1%	47.2%
<i>British Journal of Sport Medicine</i>	98	0.1%	47.3%
<i>Medical Technology SA</i>	97	0.1%	47.4%
<i>Science</i>	97	0.1%	47.5%
<i>BMC Infectious Diseases</i>	96	0.1%	47.6%
<i>Per Linguam: A Journal of Language Learning</i>	95	0.1%	47.7%
<i>Estuarine Coastal and Shelf Science</i>	95	0.1%	47.7%
<i>Africanus: Journal of Development Studies</i>	94	0.1%	47.8%
<i>Theologia Viatorum: Journal of Theology and Religion in Africa</i>	94	0.1%	47.9%
<i>Journal of Medicinal Plants Research</i>	93	0.1%	48.0%
<i>Journal of Organometallic Chemistry</i>	93	0.1%	48.1%
<i>Proceedings of the Royal Society B: Biological Sciences</i>	93	0.1%	48.1%
<i>Neotestamentica: Journal of the New Testament Society of South Africa (NTSSA)</i>	92	0.1%	48.2%
<i>Southern African Humanities</i>	92	0.1%	48.3%
<i>Tydskrif vir Nederlands en Afrikaans</i>	91	0.1%	48.4%
<i>Malaria Journal</i>	91	0.1%	48.5%
<i>Scientia Militaria: South African Journal of Military Studies</i>	91	0.1%	48.5%
<i>South African Journal of Labour Relations</i>	90	0.1%	48.6%
<i>African Journal of Traditional Complementary and Alternative Medicines</i>	90	0.1%	48.7%
<i>Journal of Child and Adolescent Mental Health</i>	90	0.1%	48.8%
<i>South African Theatre Journal</i>	90	0.1%	48.9%
<i>Zeitschrift für Kristallographie - New Crystal Structures</i>	88	0.1%	48.9%
<i>Applied Mathematics and Computation</i>	87	0.1%	49.0%
<i>Proceedings of the National Academy of Science of the United States of America</i>	87	0.1%	49.1%
<i>South African Journal of Child Health</i>	87	0.1%	49.2%
<i>South African Yearbook of International Law</i>	86	0.1%	49.2%
<i>AIDS Research and Human Retroviruses</i>	86	0.1%	49.3%
<i>Abstract and Applied Analysis</i>	85	0.1%	49.4%
<i>Tropical Animal Health and Production</i>	85	0.1%	49.5%
<i>Molecules</i>	85	0.1%	49.5%
<i>African Journal of Hospitality, Tourism and Leisure</i>	84	0.1%	49.6%

<i>Journal of African Earth Sciences</i>	83	0.1%	49.7%
<i>Physical Review B</i>	83	0.1%	49.8%
<i>South African Journal of Agricultural Extension/Suid-Afrikaanse Tydskrif vir Landbouvoorligting</i>	83	0.1%	49.8%
<i>Inorganica Chimica Acta</i>	82	0.1%	49.9%
<i>R&D Journal: Journal of the South African Institution of Mechanical Engineering</i>	82	0.1%	50.0%
<i>Transactions of the Royal Society of South Africa</i>	82	0.1%	50.1%
<i>Journal of Asian and African Studies</i>	81	0.1%	50.1%
<i>Emerging Infectious Diseases</i>	81	0.1%	50.2%
<i>Antimicrobial Agents and Chemotherapy</i>	81	0.1%	50.3%
<i>South African Journal of Enology and Viticulture</i>	81	0.1%	50.3%
<i>Strategic Review for Southern Africa</i>	81	0.1%	50.4%
<i>Topology and Its Applications</i>	80	0.1%	50.5%
<i>SAHARA J: Journal of Social Aspects of HIV/AIDS Research Alliance</i>	80	0.1%	50.5%
<i>Journal of Applied Physics</i>	80	0.1%	50.6%
<i>Culture Health and Sexuality</i>	79	0.1%	50.7%
<i>Water Science and Technology</i>	79	0.1%	50.8%
<i>Communicare: Journal for Communication Science in Southern Africa</i>	79	0.1%	50.8%
<i>Metabolic Brain Disease</i>	78	0.1%	50.9%
<i>Archives of Virology</i>	77	0.1%	51.0%
<i>Journal of Family Ecology and Consumer Sciences/Tydskrif vir Gesinsekologie en Verbruikerswetenskappe</i>	77	0.1%	51.0%
<i>Journal of Chemical and Engineering Data</i>	77	0.1%	51.1%
<i>Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms</i>	77	0.1%	51.2%
<i>Journal of Transport and Supply Chain Management</i>	76	0.1%	51.2%
<i>Diversity and Distributions</i>	76	0.1%	51.3%
<i>South African Statistical Journal</i>	75	0.1%	51.4%
<i>Southern African Review of Education</i>	75	0.1%	51.4%
<i>Acta Juridica</i>	75	0.1%	51.5%
<i>South African Journal of Communication Disorders</i>	74	0.1%	51.6%
<i>Fluid Phase Equilibria</i>	73	0.1%	51.6%
<i>Journal of Chemical Thermodynamics</i>	73	0.1%	51.7%
<i>Bulletin of the World Health Organization: The International Journal of Public Health</i>	73	0.1%	51.8%
<i>Biodiversity and Conservation</i>	73	0.1%	51.8%
<i>Journal of Contemporary African Studies</i>	73	0.1%	51.9%
<i>SPiL Plus: Stellenbosch Papers in Linguistics Plus</i>	73	0.1%	51.9%
<i>Physics of Plasmas</i>	72	0.1%	52.0%
<i>Lithos</i>	72	0.1%	52.1%
<i>De Arte</i>	72	0.1%	52.1%

<i>Mediterranean Journal of Social Sciences</i>	72	0.1%	52.2%
<i>Journal of Applied Business Research</i>	72	0.1%	52.3%
<i>Safundi: The Journal of South African and American Studies</i>	71	0.1%	52.3%
<i>Scientific Research and Essays</i>	71	0.1%	52.4%
<i>Studies in Economics and Econometrics/Studies in Ekonomie en Ekonometrie</i>	71	0.1%	52.4%
<i>Social Science and Medicine</i>	71	0.1%	52.5%
<i>South African Journal of Bioethics and Law</i>	71	0.1%	52.6%
<i>BMC Health Services Research</i>	70	0.1%	52.6%
<i>Kronos: Southern African Histories</i>	70	0.1%	52.7%
<i>Nomina Africana: Journal of the Names Society of Southern Africa</i>	70	0.1%	52.8%
<i>New England Journal of Medicine</i>	70	0.1%	52.8%
<i>CrystEngComm</i>	70	0.1%	52.9%
<i>Journal for Studies in Economics and Econometrics/Tydskrif vir Studies in Ekonomie en Ekonometrie</i>	70	0.1%	52.9%
<i>Animal Behaviour</i>	70	0.1%	53.0%
<i>Nature</i>	70	0.1%	53.1%
<i>European Physical Journal C</i>	70	0.1%	53.1%
<i>Fuel</i>	70	0.1%	53.2%
<i>Biology Letters</i>	69	0.1%	53.2%
<i>Image and Text</i>	69	0.1%	53.3%
<i>Phronimon: Journal of the South African Society for Greek Philosophy and the Humanities</i>	69	0.1%	53.4%
<i>Polar Biology</i>	68	0.1%	53.4%
<i>French Studies in Southern Africa</i>	68	0.1%	53.5%
<i>Advances in Space Research</i>	68	0.1%	53.5%
<i>Biological Invasions</i>	68	0.1%	53.6%
<i>Problems and Perspectives in Management</i>	68	0.1%	53.7%
<i>Food Chemistry</i>	67	0.1%	53.7%
<i>Town and Regional Planning/Stads- en Streekbeplanning/Meralo Ya Ditoropo Le Mabatowa</i>	67	0.1%	53.8%
<i>Journal of Sociology and Social Anthropology</i>	67	0.1%	53.8%
<i>Journal of Mathematical Analysis and Applications</i>	67	0.1%	53.9%
<i>International Journal of the Physical Sciences</i>	67	0.1%	54.0%
<i>International Journal of Environmental Research and Public Health</i>	67	0.1%	54.0%
<i>Public Health Nutrition</i>	67	0.1%	54.1%
<i>Commonwealth Youth and Development</i>	67	0.1%	54.1%
<i>Austral Ecology</i>	67	0.1%	54.2%
<i>Marine Biology</i>	67	0.1%	54.2%
<i>Applied Microbiology and Biotechnology</i>	66	0.1%	54.3%
<i>Acta Crystallographica Section C: Crystal Structure Communications</i>	66	0.1%	54.4%

<i>JEMDSA: Journal of Endocrinology, Metabolism and Diabetes of South Africa</i>	66	0.1%	54.4%
<i>Journal of the International AIDS Society</i>	66	0.1%	54.5%
<i>Tuberculosis</i>	66	0.1%	54.5%
<i>Akroterion: Journal for the Classics in South Africa</i>	66	0.1%	54.6%
<i>Journal of Applied Mathematics</i>	66	0.1%	54.7%
<i>ORiON: Journal of the Operations Research Society of South Africa</i>	66	0.1%	54.7%
<i>Journal of Experimental Biology</i>	66	0.1%	54.8%
<i>Acta Classica</i>	66	0.1%	54.8%
<i>Journal of Human Evolution</i>	65	0.1%	54.9%
<i>Journal of Food, Agriculture and Environment</i>	65	0.1%	54.9%
<i>South African Journal of International Affairs</i>	65	0.1%	55.0%
<i>Physical Review A</i>	65	0.1%	55.1%
<i>African Journalism Studies</i>	65	0.1%	55.1%
<i>Chemical Engineering Science</i>	65	0.1%	55.2%
<i>Meat Science</i>	64	0.1%	55.2%
<i>Discrete Applied Mathematics</i>	64	0.1%	55.3%
<i>Journal of Agricultural and Food Chemistry</i>	64	0.1%	55.3%
<i>African Identities</i>	63	0.1%	55.4%
<i>Studies of Tribes and Tribals</i>	63	0.1%	55.4%
<i>Journal of Biogeography</i>	63	0.1%	55.5%
<i>Journal of Cosmology and Astroparticle Physics</i>	63	0.1%	55.6%
<i>International Journal of African Renaissance Studies: Multi-, Inter- and Transdisciplinarity</i>	62	0.1%	55.6%
<i>Health Policy and Planning</i>	62	0.1%	55.7%
<i>Bioorganic and Medicinal Chemistry</i>	62	0.1%	55.7%
<i>Review of African Political Economy</i>	61	0.1%	55.8%
<i>Australasian Plant Pathology</i>	61	0.1%	55.8%
<i>Chemical Communications</i>	61	0.1%	55.9%
<i>Annals of Botany</i>	60	0.1%	55.9%
<i>Investment Analysts Journal</i>	60	0.1%	56.0%
<i>Loyola Journal of Social Sciences</i>	60	0.1%	56.0%
<i>South African Journal of Accounting Research</i>	60	0.1%	56.1%
<i>Southern African Journal of Accountability and Auditing Research</i>	59	0.1%	56.1%
<i>International Journal of Gynecology and Obstetrics</i>	59	0.1%	56.2%
<i>African Journal of Pharmacy and Pharmacology</i>	59	0.1%	56.2%
<i>Journal for the Study of Religion</i>	59	0.1%	56.3%
<i>Inorganic Chemistry</i>	59	0.1%	56.3%
<i>Applied Surface Science</i>	58	0.1%	56.4%
<i>African Security Review</i>	58	0.1%	56.5%
<i>Southern African Journal of Environmental Education</i>	58	0.1%	56.5%

<i>International Journal of Hydrogen Energy</i>	57	0.0%	56.6%
<i>Journal of Environmental Management</i>	57	0.0%	56.6%
<i>Plant Disease</i>	57	0.0%	56.7%
<i>Journal of Porphyrins and Phthalocyanines</i>	57	0.0%	56.7%
<i>European Respiratory Journal</i>	57	0.0%	56.8%
<i>Nonlinear Analysis: Real World Applications</i>	57	0.0%	56.8%
<i>Pins: Psychology in Society</i>	56	0.0%	56.9%
<i>Bradleya</i>	56	0.0%	56.9%
<i>Tetrahedron</i>	56	0.0%	56.9%
<i>Journal of Alloys and Compounds</i>	56	0.0%	57.0%
<i>Ecology and Society</i>	56	0.0%	57.0%
<i>Classical and Quantum Gravity</i>	56	0.0%	57.1%
<i>Journal of Hazardous Materials</i>	56	0.0%	57.1%
<i>Journal of Molecular Catalysis A: Chemical</i>	56	0.0%	57.2%
<i>Lecture Notes in Computer Science</i>	56	0.0%	57.2%
<i>International Journal of Systematic and Evolutionary Microbiology</i>	56	0.0%	57.3%
<i>Oecologia</i>	55	0.0%	57.3%
<i>SA Heart</i>	55	0.0%	57.4%
<i>Energy Policy</i>	55	0.0%	57.4%
<i>SPiL: Stellenbosch Papers in Linguistics</i>	55	0.0%	57.5%
<i>International Journal of Molecular Sciences</i>	54	0.0%	57.5%
<i>Conservation Biology</i>	54	0.0%	57.6%
<i>Small Ruminant Research</i>	54	0.0%	57.6%
<i>Natural Product Communications</i>	53	0.0%	57.7%
<i>Utilitas Mathematica</i>	53	0.0%	57.7%
<i>Bioorganic and Medicinal Chemistry Letters</i>	53	0.0%	57.8%
<i>PLoS Neglected Tropical Diseases</i>	53	0.0%	57.8%
<i>Industrial Law Journal</i>	53	0.0%	57.9%
<i>Euphytica</i>	53	0.0%	57.9%
<i>European Journal of Medicinal Chemistry</i>	53	0.0%	58.0%
<i>Apidologie</i>	52	0.0%	58.0%
<i>Hydrometallurgy</i>	52	0.0%	58.0%
<i>Journal of Materials Science</i>	52	0.0%	58.1%
<i>American Journal of Respiratory and Critical Care Medicine</i>	52	0.0%	58.1%
<i>Crop Protection</i>	52	0.0%	58.2%
<i>African Sociological Review</i>	52	0.0%	58.2%
<i>African Safety Promotion: Journal of Injury and Violence Prevention</i>	52	0.0%	58.3%
<i>Journal of Molecular Structure</i>	52	0.0%	58.3%
<i>Journal of General Virology</i>	52	0.0%	58.4%
<i>Lancet Infectious Diseases</i>	52	0.0%	58.4%
<i>Journal of the Science of Food and Agriculture</i>	52	0.0%	58.5%

<i>Plant Ecology</i>	51	0.0%	58.5%
<i>Parasites and Vectors</i>	51	0.0%	58.5%
<i>Materials Letters</i>	51	0.0%	58.6%
<i>Journal of Applied Microbiology</i>	51	0.0%	58.6%
<i>Economic History of Developing Regions</i>	51	0.0%	58.7%

In the remainder of this section, we look more closely at the high article count journals. We also comment on the differences in publication trends of these journals, as well as identifying some potential predatory journals in this list.

2.4 An analysis of journal publication patterns/configurations

The aim of this section is to look more closely at the differences between journals as far as their patterns and trends in publication are concerned. In this section we decided only to analyse those journals in which more than 100 papers (authored by SA academics) had appeared over the period 2005 to 2014. There are 235 such journals.

Table 3: High-article-count journals: average from 2010 to 2014

<i>Journal name</i>	Average number of papers for 2010 to 2014	Proportional share
<i>PLoS One</i>	192	2.8%
<i>AJPHRD: African Journal for Physical, Health Education Recreation and Dance</i>	191	2.8%
<i>SAMJ: South African Medical Journal</i>	135	2.0%
<i>HTS Teologiese Studies/Theological Studies</i>	126	1.8%
<i>Journal of Social Sciences</i>	95	1.4%
<i>Acta Crystallographica Section E: Structure Reports Online</i>	92	1.3%
<i>South African Journal of Higher Education/Suid-Afrikaanse Tydskrif vir Hoër Onderwys</i>	89	1.3%
<i>African Journal of Business Management</i>	83	1.2%
<i>Journal of Psychology in Africa</i>	81	1.2%
<i>South African Journal of Science</i>	80	1.2%
<i>South African Journal of Botany/Suid Afrikaanse Tydskrif vir Plantkunde</i>	79	1.2%
<i>SADJ: Journal of the South African Dental Association/Tydskrif van die Suid-Afrikaanse Tandheelkundige Vereniging</i>	64	0.9%
<i>STJ: Stellenbosch Theological Journal</i>	62	0.9%
<i>Monthly Notices of the Royal Astronomical Society</i>	61	0.9%
<i>South African Family Practice: Official Journal of the South African Academy of Family Physicians</i>	60	0.9%
<i>Water SA</i>	58	0.8%

<i>In Die Skriflig</i>	57	0.8%
<i>Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa</i>	57	0.8%
<i>African Journal of Biotechnology</i>	56	0.8%
<i>Journal of Human Ecology</i>	56	0.8%
<i>LitNet Akademies/Academic</i>	55	0.8%
<i>Tydskrif vir die Suid-Afrikaanse Reg/Journal of South African Law</i>	52	0.8%
<i>Verbum et Ecclesia</i>	51	0.7%
<i>Journal of Contemporary Roman-Dutch Law/Tydskrif vir Hedendaagse Romeins-Hollandse Reg</i>	51	0.7%
<i>Journal of Public Administration</i>	50	0.7%
<i>PER: Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad</i>	50	0.7%
<i>Corporate Ownership and Control</i>	48	0.7%
<i>Obiter</i>	47	0.7%
<i>International Business and Economics Research Journal</i>	46	0.7%
<i>International Journal of Electrochemical Science</i>	46	0.7%
<i>African Journal of Agricultural Research</i>	45	0.7%
<i>South African Journal of Education/Suid-Afrikaanse Tydskrif vir Opvoedkunde</i>	43	0.6%
<i>Tydskrif vir Geesteswetenskappe</i>	41	0.6%
<i>Physical Review D</i>	41	0.6%
<i>Acta Academica</i>	40	0.6%
<i>Perspectives in Education</i>	40	0.6%
<i>South African Journal of Psychology</i>	38	0.6%
<i>Astrophysical Journal</i>	38	0.6%
<i>International Journal of Educational Sciences</i>	37	0.5%
<i>Studia Historiae Ecclesiasticae: Journal of the Church History Society of Southern Africa</i>	37	0.5%
<i>South African Journal of Animal Science/Suid-Afrikaanse Tydskrif vir Veekunde</i>	37	0.5%
<i>African Journal of Marine Science</i>	37	0.5%
<i>Acta Theologica</i>	37	0.5%
<i>AIDS</i>	36	0.5%
<i>Development Southern Africa</i>	36	0.5%
<i>Administratio Publica</i>	35	0.5%
<i>Old Testament Essays (New Series): Journal of the Old Testament Society of South Africa</i>	35	0.5%
<i>SAIMM: Journal of the South African Institute of Mining and Metallurgy</i>	34	0.5%
<i>South African Law Journal</i>	33	0.5%
<i>De Jure</i>	32	0.5%
<i>Scriptura: International Journal of Bible, Religion and Theology in Southern Africa</i>	32	0.5%
<i>International Journal of Tuberculosis and Lung Disease</i>	32	0.5%
<i>JAIDS: Journal of Acquired Immune Deficiency Syndromes</i>	32	0.5%

<i>South African Journal of Economic and Management Sciences/Suid-Afrikaanse Tydskrif vir Ekonomiese en Bestuurswetenskappe</i>	32	0.5%
<i>Social Work/Maatskaplike Werk: A Professional Journal for the Social Worker/'n Vaktydskrif vir die Maatskaplike Werker</i>	31	0.5%
<i>South African Journal of Art History</i>	31	0.4%
<i>Agenda: Empowering Women for Gender Equity</i>	30	0.4%
<i>Acta Criminologica: Southern African Journal of Criminology</i>	30	0.4%
<i>Anthropologist: International Journal of Contemporary and Applied Studies of Man</i>	30	0.4%
<i>Life Science Journal/Acta Zhengzhou University Overseas Edition</i>	30	0.4%
<i>SA Mercantile Law Journal/SA Tydskrif vir Handelsreg</i>	30	0.4%
<i>SA Journal of Industrial Psychology/Tydskrif vir Bedryfsielkunde</i>	30	0.4%
<i>African Zoology</i>	30	0.4%
<i>African Entomology</i>	30	0.4%
<i>Africa Education Review</i>	30	0.4%
<i>Minerals Engineering</i>	29	0.4%
<i>Journal for Semitics/Tydskrif vir Semistiek</i>	29	0.4%
<i>Journal of Contemporary Management</i>	28	0.4%
<i>TD: Journal for Transdisciplinary Research in Southern Africa</i>	28	0.4%
<i>Astronomy and Astrophysics</i>	28	0.4%
<i>Journal of the South African Veterinary Association Tydskrif van die Suid-Afrikaanse Veterinêre Vereniging</i>	28	0.4%
<i>SA Orthopaedic Journal</i>	28	0.4%
<i>Journal for Christian Scholarship/Tydskrif vir Christelike Wetenskap</i>	27	0.4%
<i>Cochrane Database of Systematic Reviews</i>	27	0.4%
<i>Journal of High Energy Physics</i>	27	0.4%
<i>BMC Public Health</i>	27	0.4%
<i>African Journal of Public Affairs</i>	27	0.4%
<i>Southern African Public Law</i>	27	0.4%
<i>Southern African Linguistics and Applied Language Studies</i>	26	0.4%
<i>Stellenbosch Law Review</i>	26	0.4%
<i>Health SA Gesondheid</i>	26	0.4%
<i>South African Journal of Industrial Engineering/Suid-Afrikaanse Tydskrif vir Bedryfsingenieurswese</i>	26	0.4%
<i>Southern African Journal of Anaesthesia and Analgesia</i>	26	0.4%
<i>Africa Insight</i>	25	0.4%
<i>Koers: Bulletin for Christian Scholarship/Bulletin vir Christelike Wetenskap</i>	25	0.4%
<i>Journal for New Generation Sciences</i>	25	0.4%
<i>Bothalia</i>	25	0.4%

<i>Zootaxa</i>	25	0.4%
<i>Journal of Economic and Financial Sciences</i>	25	0.4%
<i>South African Journal of Criminal Justice/Suid-Afrikaanse Tydskrif vir Strafrechtspleging</i>	25	0.4%
<i>South African Journal of Clinical Nutrition</i>	25	0.4%
<i>Education As Change</i>	24	0.4%
<i>SA Journal of Human Resource Management</i>	24	0.4%
<i>South African Journal of Plant and Soil/Suid-Afrikaanse Tydskrif vir Plant en Grond</i>	24	0.4%
<i>Journal of Ethnopharmacology</i>	24	0.4%
<i>African Journal of Aquatic Science</i>	24	0.3%
<i>African Journal of Primary Health Care and Family Medicine</i>	24	0.3%
<i>Journal of Infectious Diseases</i>	24	0.3%
<i>Progressio: South African Journal for Open and Distance Learning Practice</i>	24	0.3%
<i>South African Journal for Research in Sport, Physical Education and Recreation/Suid-Afrikaanse Tydskrif vir Navorsing in Sport, Liggaamlike Opvoedkunde en Ontspanning</i>	23	0.3%
<i>Annual Survey of South African Law</i>	23	0.3%
<i>Journal for Contemporary History/Joernaal vir Eietydse Geskiedenis</i>	23	0.3%
<i>Journal of Literary Studies/Tydskrif vir Literatuurwetenskap</i>	23	0.3%
<i>Mousaion: South African Journal of Information Studies</i>	23	0.3%
<i>Lancet</i>	23	0.3%
<i>Southern African Journal of Infectious Diseases</i>	22	0.3%
<i>AIDS and Behavior</i>	22	0.3%
<i>Physics Letters B</i>	22	0.3%
<i>Social Work Practitioner-Researcher/Maatskaplikewerk Navorsers-Praktisyn</i>	22	0.3%
<i>AJRMSTE: African Journal of Research in Mathematics, Science and Technology Education</i>	22	0.3%
<i>Cardiovascular Journal of Africa</i>	22	0.3%
<i>AIDS Care: Psychological and Socio-Medical Aspects of AIDS/HIV</i>	22	0.3%
<i>African Journal of Psychiatry</i>	22	0.3%
<i>Journal of Economics and Behavioral Studies</i>	22	0.3%
<i>Journal of Southern African Studies</i>	22	0.3%
<i>South African Journal of African Languages/Suid-Afrikaanse Tydskrif vir Afrikatale</i>	22	0.3%
<i>South African Journal of Philosophy</i>	21	0.3%
<i>Physical Review C</i>	21	0.3%
<i>Gender and Behaviour</i>	21	0.3%
<i>Social Dynamics: A Journal of African Studies</i>	21	0.3%
<i>Literator</i>	21	0.3%
<i>Agrekon</i>	21	0.3%
<i>Art South Africa</i>	21	0.3%
<i>South African Journal of Geology</i>	20	0.3%

<i>Southern African Business Review</i>	20	0.3%
<i>AJAR: African Journal of AIDS Research</i>	20	0.3%
<i>Current Allergy and Clinical Immunology</i>	20	0.3%
<i>Global Health Action</i>	20	0.3%
<i>Communicatio: South African Journal for Communication Theory and Research</i>	20	0.3%
<i>Urban Forum</i>	20	0.3%
<i>Curationis</i>	20	0.3%
<i>South African Journal of Physiotherapy</i>	20	0.3%
<i>Pharos Journal of Theology</i>	20	0.3%
<i>Physica B: Condensed Matter</i>	20	0.3%
<i>Physics and Chemistry of the Earth</i>	20	0.3%
<i>South African Journal of Occupational Therapy</i>	19	0.3%
<i>South African Journal of Business Management</i>	19	0.3%
<i>South African Historical Journal/Suid-Afrikaanse Historiese Joernaal</i>	19	0.3%
<i>Southern African Journal of HIV Medicine</i>	19	0.3%
<i>Industrial and Engineering Chemistry Research</i>	19	0.3%
<i>Africa Journal of Nursing and Midwifery</i>	19	0.3%
<i>South African Journal on Human Rights</i>	19	0.3%
<i>South African Journal of Surgery</i>	19	0.3%
<i>Indilinga: African Journal of Indigenous Knowledge Systems</i>	19	0.3%
<i>South African Journal of Chemistry/Suid-Afrikaanse Tydskrif vir Chemie</i>	19	0.3%
<i>Southern African Journal for Folklore Studies</i>	18	0.3%
<i>Acta Commercii</i>	18	0.3%
<i>Tropical Medicine and International Health</i>	18	0.3%
<i>Mathematical Problems In Engineering</i>	18	0.3%
<i>Historia: Journal of the Historical Association of South Africa</i>	18	0.3%
<i>Clinical Infectious Diseases</i>	18	0.3%
<i>South African Review of Sociology</i>	18	0.3%
<i>Critical Arts: A Journal of South-North Cultural and Media Studies</i>	18	0.3%
<i>Marine Ecology –Progress Series</i>	17	0.3%
<i>Journal of Constructive Theology: Gender, Religion and Theology in Africa</i>	17	0.3%
<i>Physical Review Letters</i>	17	0.3%
<i>African Vision and Eye Health</i>	17	0.3%
<i>Journal of Early Christian History: A Journal for the Study of Early Christianity and Late Antiquity</i>	17	0.2%
<i>SAALT: Journal for Language Teaching/Tydskrif vir Taalonderrig</i>	17	0.2%
<i>PLoS Medicine</i>	17	0.2%
<i>New Contree: A Journal of Historical and Human Sciences for Southern Africa</i>	16	0.2%
<i>Tydskrif vir Letterkunde</i>	16	0.2%
<i>Journal of Energy in Southern Africa</i>	16	0.2%
<i>Dalton Transactions</i>	16	0.2%
<i>SA Journal of Radiology</i>	16	0.2%

<i>Vaccine</i>	16	0.2%
<i>South African Journal of Psychiatry</i>	16	0.2%
<i>Precambrian Research</i>	16	0.2%
<i>South African Journal of Economics/Suid-Afrikaanse Tydskrif vir Ekonomie</i>	16	0.2%
<i>South African Archaeological Bulletin</i>	16	0.2%
<i>Journal of the SA Institution of Civil Engineering</i>	16	0.2%
<i>Onderstepoort Journal of Veterinary Research</i>	16	0.2%
<i>Polyhedron</i>	16	0.2%
<i>Journal of Education</i>	15	0.2%
<i>Electrochimica Acta</i>	15	0.2%
<i>African Journal of Wildlife Research</i>	15	0.2%
<i>Ostrich: Journal of African Ornithology</i>	15	0.2%
<i>Pediatric Infectious Disease Journal</i>	15	0.2%
<i>SAIEE Africa Research Journal</i>	15	0.2%
<i>Comparative and International Law Journal of South Africa</i>	15	0.2%
<i>Journal of Clinical Microbiology</i>	15	0.2%
<i>Journal of Educational Studies</i>	15	0.2%
<i>South African Baptist Journal of Theology</i>	15	0.2%
<i>South African Journal of Sport Medicine</i>	15	0.2%
<i>Politikon: South African Journal of Political Studies</i>	15	0.2%
<i>Transformation: Critical Perspectives on Southern Africa</i>	15	0.2%
<i>Journal of Theology for Southern Africa</i>	14	0.2%
<i>African Human Rights Law Journal</i>	14	0.2%
<i>Lexikos</i>	14	0.2%
<i>English Academy Review</i>	14	0.2%
<i>Language Matters: Studies in the Languages of Africa</i>	14	0.2%
<i>Anthropology Southern Africa</i>	14	0.2%
<i>Speculum Juris</i>	14	0.2%
<i>African Journal of Range and Forage Science</i>	14	0.2%
<i>English Studies in Africa</i>	14	0.2%
<i>Journal of Applied Polymer Science</i>	14	0.2%
<i>Current Writing</i>	13	0.2%
<i>Child Abuse Research in South Africa</i>	13	0.2%
<i>Law, Democracy and Development</i>	13	0.2%
<i>South African Journal of Information Management</i>	13	0.2%
<i>African Invertebrates</i>	13	0.2%
<i>Communitas: Journal for Community Communication and Information Impact</i>	13	0.2%
<i>Journal of Virology</i>	13	0.2%
<i>Veterinary Parasitology</i>	13	0.2%
<i>Stilet: Tydskrif vir Afrikaanse Letterkundevereniging</i>	13	0.2%
<i>Fundamina: A Journal of Legal History</i>	13	0.2%
<i>Journal of Zoology</i>	13	0.2%
<i>Occupational Health Southern Africa</i>	13	0.2%
<i>Journal of Archaeological Science</i>	13	0.2%
<i>South African Journal of Libraries and Information Science</i>	12	0.2%

<i>South African Journal of Cultural History/Suid-Afrikaanse Tydskrif vir Kultuurgeskiedenis</i>	12	0.2%
<i>English in Africa</i>	12	0.2%
<i>Management Dynamics: Contemporary Research Journal of the Southern Africa Institute for Management Scientists</i>	12	0.2%
<i>Southern Forests: A Journal of Forest Science</i>	12	0.2%
<i>Quaestiones Mathematicae</i>	12	0.2%
<i>Koedoe: Research Journal of the South African National Parks</i>	12	0.2%
<i>Pythagoras: Journal of the Association for Mathematics Education of South Africa</i>	12	0.2%
<i>Taxon</i>	12	0.2%
<i>African Studies</i>	12	0.2%
<i>Acta Structilia: Journal for the Physical and Development Sciences</i>	12	0.2%
<i>Biological Conservation</i>	12	0.2%
<i>African Journal of Ecology</i>	11	0.2%
<i>Scrutiny2: Issues in English Studies in Southern Africa</i>	11	0.2%
<i>Politeia: Journal for Political Science and Public Administration/Tydskrif vir Politieke Wetenskap</i>	11	0.2%
<i>South African Geographical Journal/Suid-Afrikaanse Geografiese Tydskrif</i>	11	0.2%
<i>Missionalia: Journal of the Southern African Missiological Society</i>	10	0.2%
<i>Molecular Phylogenetics and Evolution</i>	10	0.2%
<i>Journal of Arid Environments</i>	10	0.1%
<i>Journal of Physics A: Mathematical and Theoretical</i>	10	0.1%
<i>Discrete Mathematics</i>	10	0.1%
<i>South African Computer Journal</i>	10	0.1%
<i>Religion and Theology: A Journal of Contemporary Religious Discourse</i>	10	0.1%
<i>Journal for Juridical Science/Tydskrif vir Regswetenskap</i>	9	0.1%
<i>Meditari: Accountancy Research</i>	6	0.1%

The table reveals some interesting and even surprising results. Ten high-volume journals (more than 80 papers on average per year) top the list. But as we will argue in this and the following sections, these publication patterns need to be explained. At least two of these (*Journal of Social Sciences* and the *African Journal of Business Management*) are classified by us as probably predatory journals (see Section 2.8). Another two (*AJPHRD* and *Acta Crystallographica*) are journals that probably engage in questionable (unethical) publication practices. The journal that tops the list, *Plos One*, is now one of the so-called ‘mega-journals’ in the world. Although it is not generally seen as engaging in questionable publication practices, some scholars have criticised its editorial policies. The other journals in this list can

be seen as the ‘mega SA journals’: the *SAMJ*, *HTS*, *SA Journal of Higher Education*, the *Journal of Psychology in Africa* and the *SA Journal of Science*.

Table 4: The mega SA journals

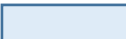
<i>Journal title</i>	Average annual number of papers over the past 5 years	Number of articles 2010 to 2014	Number of articles 2005 to 2014
<i>PLoS One</i>	192	960	996
<i>AJPHRD: African Journal for Physical, Health Education Recreation and Dance</i>	191	957	1227
<i>SAMJ: South African Medical Journal</i>	135	674	1109
<i>HTS Teologiese Studies/Theological Studies</i>	126	631	998
<i>Journal of Social Sciences</i>	95	476	485
<i>Acta Crystallographica Section E: Structure Reports Online</i>	92	462	728
<i>South African Journal of Higher Education/Suid-Afrikaanse Tydskrif vir Hoër Onderwys</i>	89	445	798
<i>African Journal of Business Management</i>	83	413	438
<i>Journal of Psychology in Africa</i>	81	403	584
<i>South African Journal of Science</i>	80	401	875


Our analysis of the publication trends of the journals in this section is based on the assumption that the average volume of papers produced by a journal per year as well as the trends over time are good indicators (even if only proxy indicators) of:

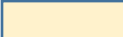
- The sustainability of the journal in the long run
- Possible changes in editorial policy or practices of the journal
- The nature of the underlying ‘community of scholars’ which is served by the journal
- The possibility of the journal being a predatory journal (see Section 2.8)
- Indicators of questionable publication practices by the journal (see Section 2.9).

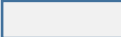
Based on the shape of the trend lines over the ten-year period we have identified five typical configurations:

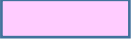
Type 1: Consistent and stable publication output (Two sub-types)

Consistently high (more than 30⁴ papers on average per year since 2010) 

Consistently low (fewer than 30 papers on average per year since 2010) 

Type 2: Inconsistent and interrupted trends in publication 

Type 3: Gradual and incremental increase in publication output 

Type 4: Inexplicable spikes in publication trends which may be indicative of it being a predatory journal. 

In the remainder of this section we have assigned journals to one of these categories with a profile of their publications over the ten year period. In each category we also discussed in some detail a few illustrative cases.

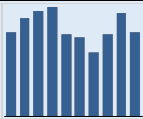
⁴ The mean annual article production of journals (Table 17) in which more than 100 papers have appeared between 2005 and 2014 is 28. We therefore decided to take 30 as the threshold criterion to distinguish between 'large' and 'small' annual publication volumes. We recognised that this is a rather arbitrary cut-off point. We also recognise that these numbers are a function of the number of issues published by the journal. However, in general we would argue that the difference between "high" and "low" volume publication counts is a useful indicator of the demand for the journal (perceived standing and reputation) as well as the supply side of possible contributors in an academic community of scholars.

Type 1: Consistent and stable publication output

This is typically a journal where annual counts (whether relatively high or low) are consistently maintained. This may suggest that there is a reasonably stable community of scholars that are ‘feeding’ manuscripts to the journal. Here we distinguished between three sub-categories: consistently high, moderate and low output. We define ‘high’ as 50 or more articles per annum over the most recent period (2010 – 2014), moderate as between 30 and 50 (30 is the average for the entire journal set) and ‘low’ as fewer than 30 articles over the same period.

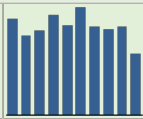
Consistently high publication output

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
---------	------	------	------	------	------	------	------	------	------	------	-------

South African Journal of Science	86	101	108	112	84	81	65	84	106	86	913	
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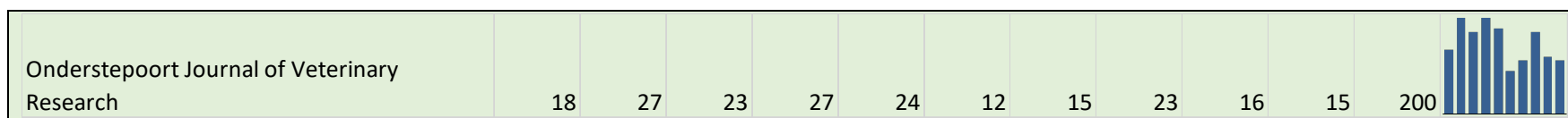
Consistently moderate publication output

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
---------	------	------	------	------	------	------	------	------	------	------	-------

Acta Academica	47	39	41	49	44	53	43	42	43	30	431	
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Consistently low publication output

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
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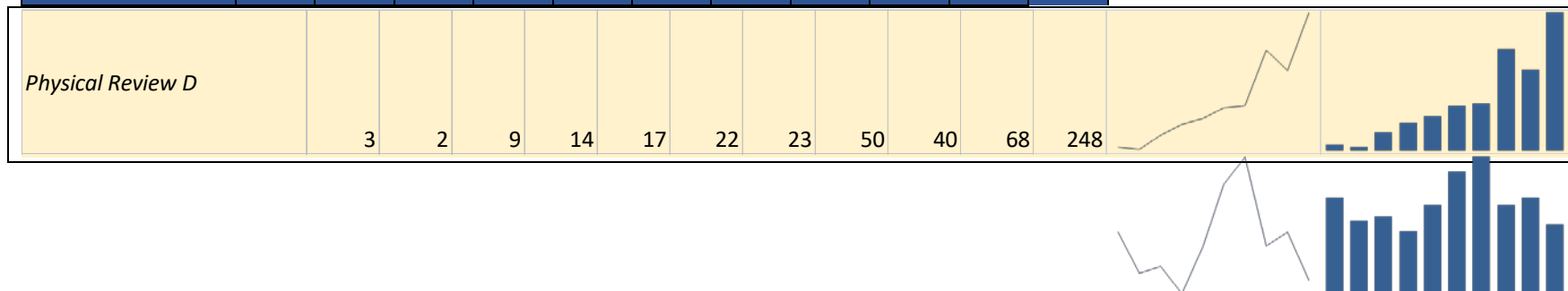


Type 2: Inconsistent and interrupted trends in publication

This is a case where SA authors are contributing to a journal (typically a foreign journal), but not in a consistent manner. This is not per se problematic. But where there are sudden changes (increases and decreases) from year to year, it may be worth investigating to see whether this is related to the output of specific authors or institutions or due to specific interventions such as new incentives in the system.

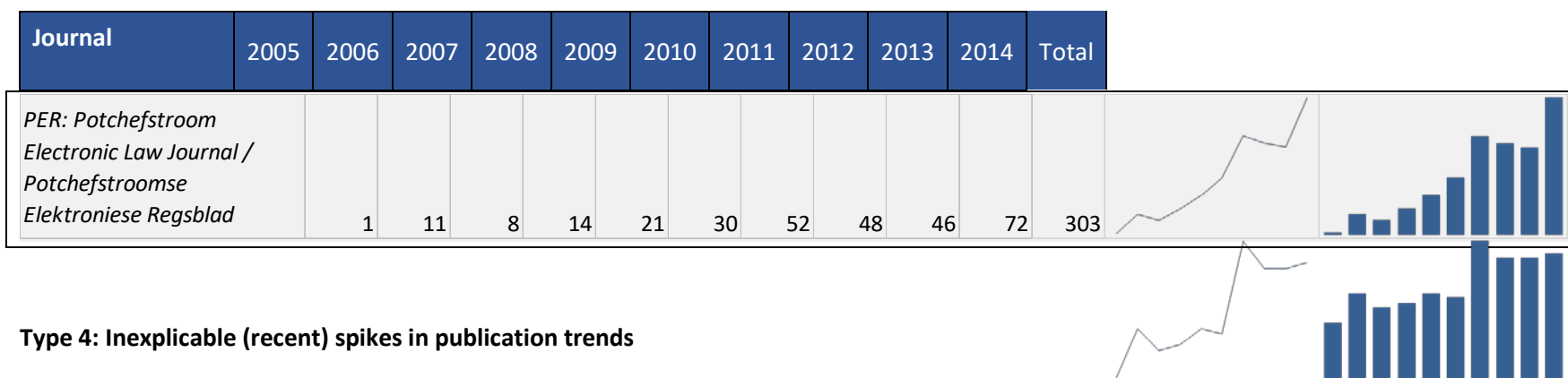
Example: The profile of “Physical review D” is interesting as it suggests a period of low publication intensity (between 2005 and 2011) followed by a spike in 2012 and then again in 2014. These spikes need explanation.

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
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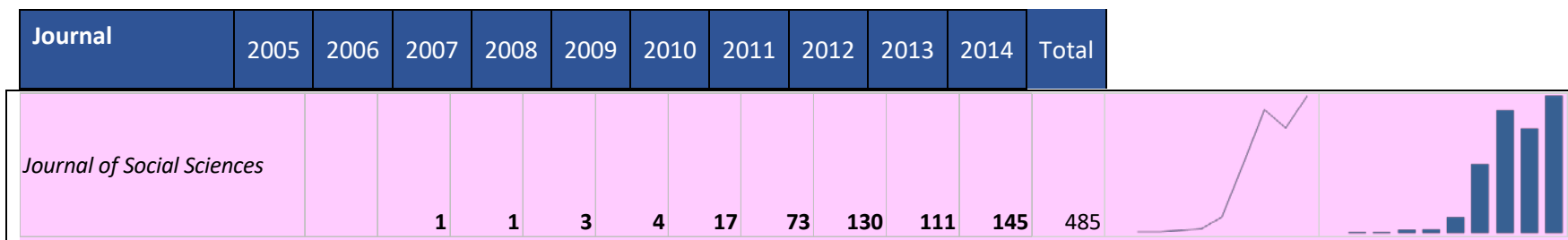
Type 3: Gradual and incremental increase in publication output

In this case publication output in the journal increases more gradually and incrementally (with not too many spikes) over the ten year period. Again, it is important to attempt to explain this pattern. It could simply be because of issues of coverage in our dataset (which would be correlated with submissions to the DHET), or it could reflect changes in editorial policies that impacted on the realised increases over time.



Type 4: Inexplicable (recent) spikes in publication trends

Type 4 refers to journals where we witnessed very recent spikes (large increases) in publication counts that are 'anomalous'. Often these increases have occurred since 2010 or 2011 which coincide with the advent of predatory publishing. We used the term 'anomalous' as we often witness increases from year to year of a factor of 2 or 3 which is highly unusual in standard journal publication practice. We would view these trends with some scepticism as this may be indicative of a predatory journal.



The *Journal of Social Sciences* appears on Beall's list as a predatory journal. We believe that this configuration (where one witnesses a very sudden increase in publication count (specifically in the most recent years) as one of the 'indicators' of predatory publishing. Again, we will

analyse this trend in more detail and disaggregate the publication count by author and institution to see how ‘localized’ these publication practices are.

In the remainder of this section we have ‘assigned’ those journals in which SA authors have published more than 100 articles over the ten year period to one of the five categories discussed above. In some cases we have added some comments on the recorded trends and patterns in publication.

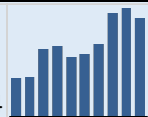
2.4.1 Consistent and stable publication output

As indicated above the first configuration refers to journals which have maintained a very consistent (whether relatively high or low) publication output. This may suggest that there is a reasonably stable community of scholars that are ‘feeding’ manuscripts to the journal. Here we distinguish between two sub-categories: consistently high and consistently low output. Journals are listed in descending order of the number of articles that were published in that journal.

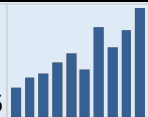
Consistently high publication output

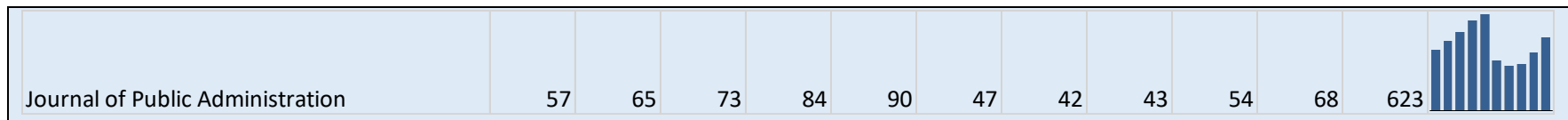
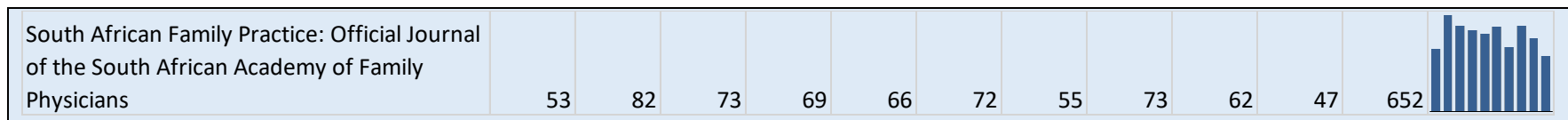
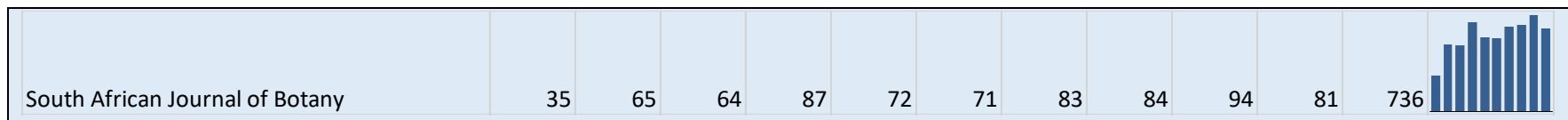
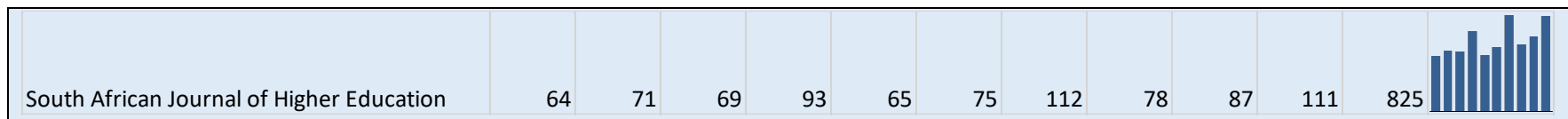
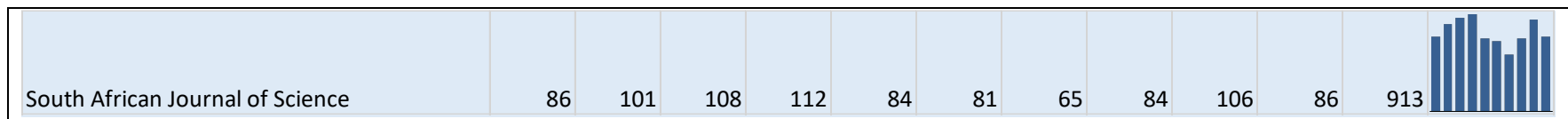
Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
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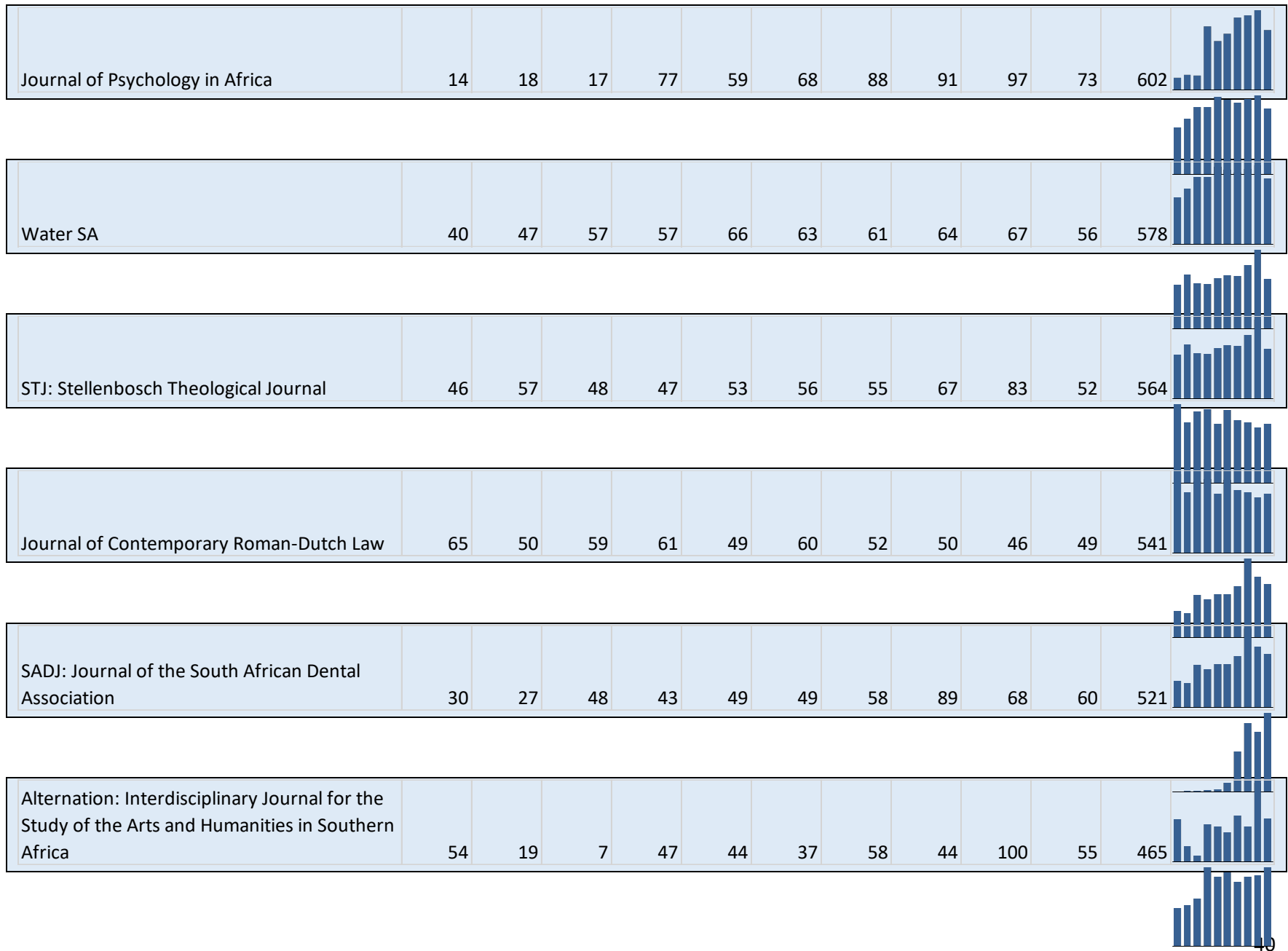
SAMJ: South African Medical Journal	63	65	111	116	98	103	119	169	178	162	1184
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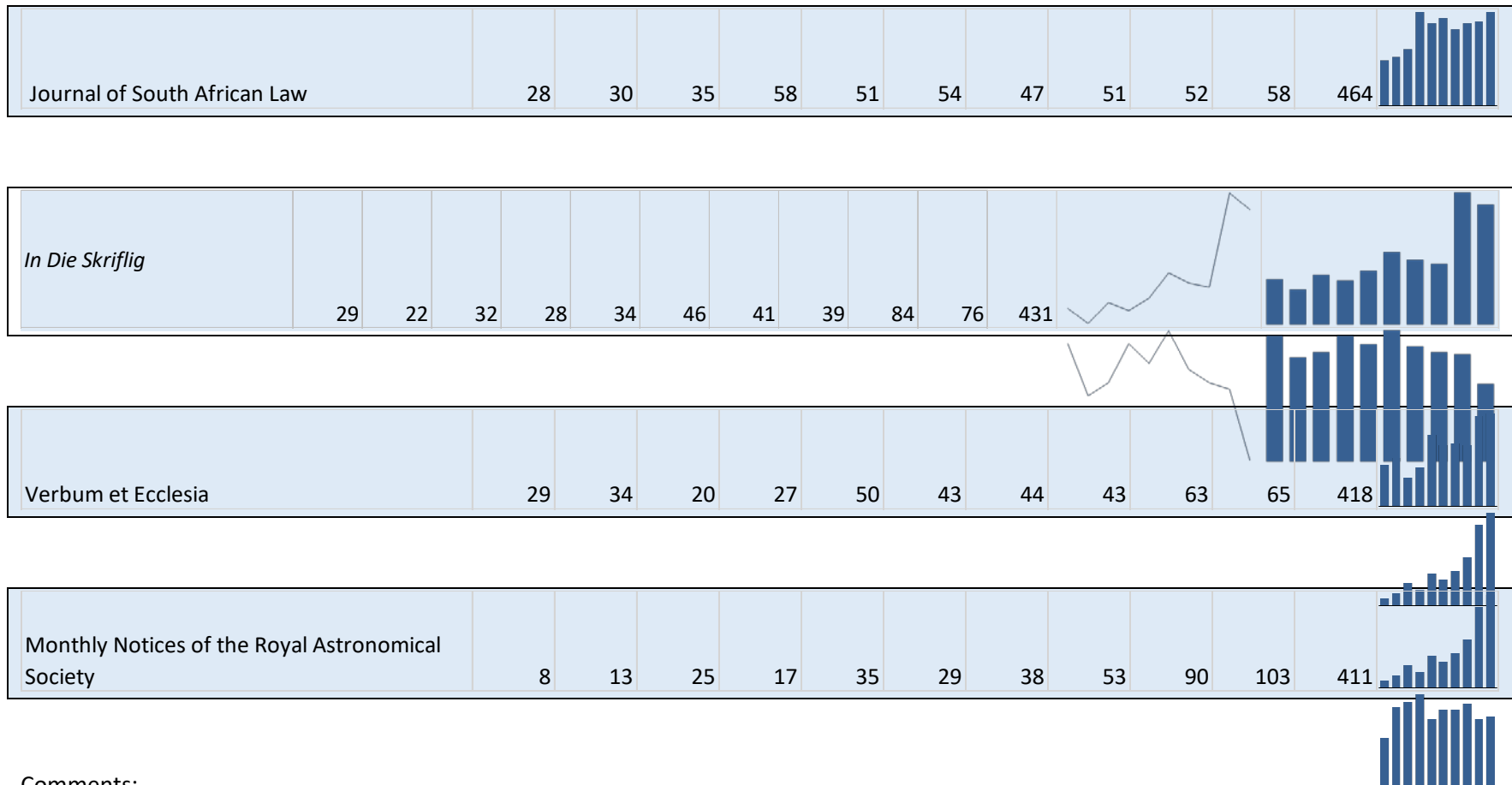


HTS Teologiese Studies / Theological Studies	47	63	69	87	101	76	142	110	138	173	1006
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Comments:

In the 'high volume and consistent publication output' we find journals that they:

- Are typically some of the flagship journals in the country as they serve either a very large scientific field (*SA Medical Journal*) or a wide range of disciplines (*SA Journal of Science*)
- Are typically some of the older and well-established journals in the country (such as *HTS*, *SA Journal of Botany*, *Water SA* and *Monthly Notices of the Royal Astronomical Society*)

- Reflect the high activity in the fields of Theology and Law in our academic landscape (*HTS, In die Skriflig, Verbum et Ecclesia, Journal of Contemporary Dutch Law* and the *SA Law Journal*)
- Also include some more recent interdisciplinary journals (*Alternation*).

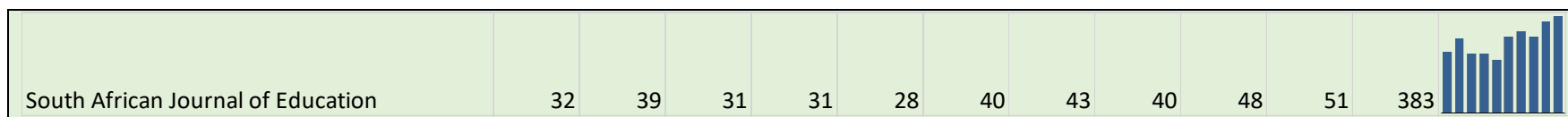
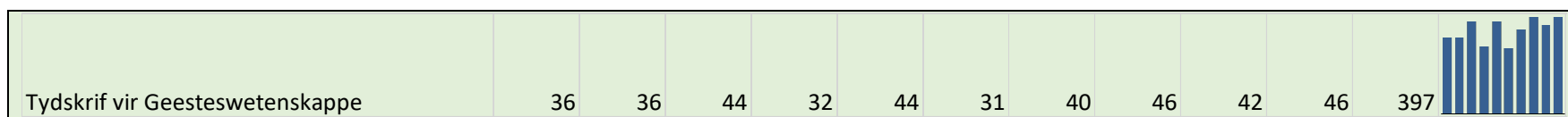
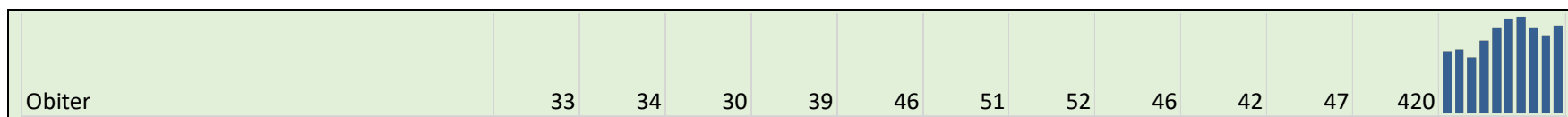
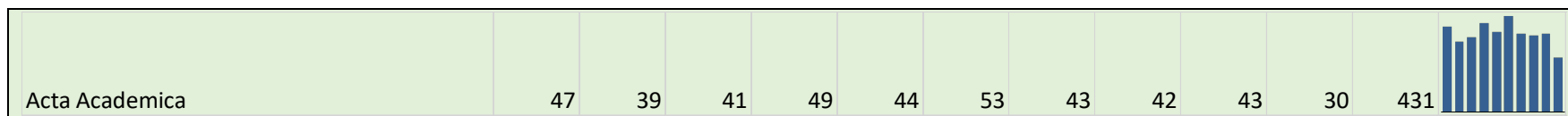
One of the indicators that characterise journals in this category is the ratio of authors to papers. In order to sustain high volumes of output annually, one would need a reasonably large pool of contributing authors. This is certainly the case for the first eight journals on our list (see Table 5 below) where the total pool of contributing authors exceed 700. What is perhaps somewhat surprising is the fact that the Law and Theology journals in this list are in fact ‘sustained’ by a much smaller pool of fewer than 300 contributing authors over the period 2005 to 2014.

Table 5: High-volume journals and their contributing authors

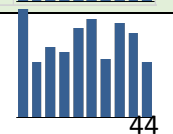
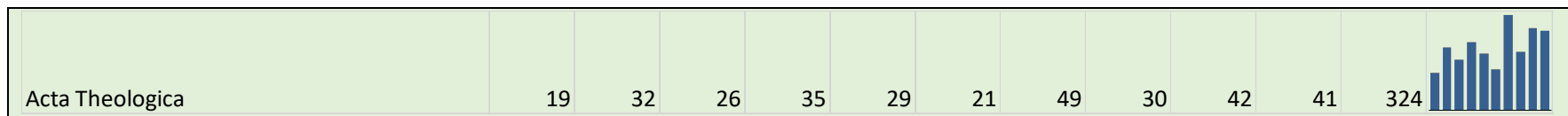
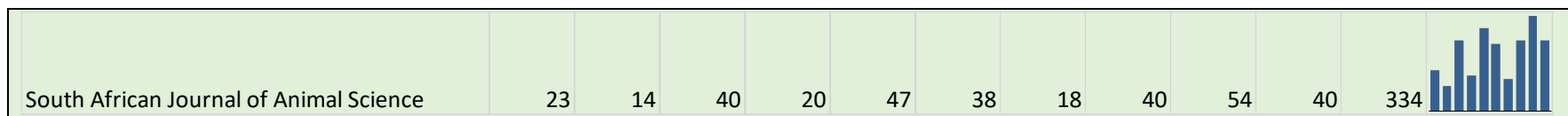
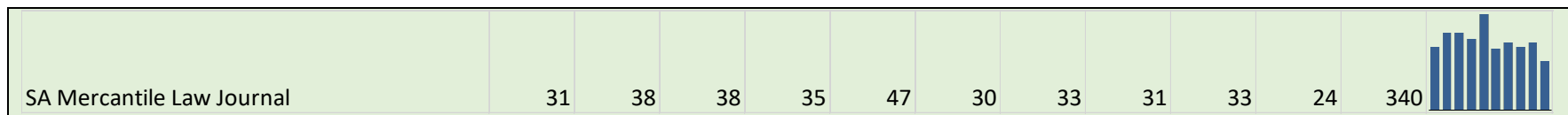
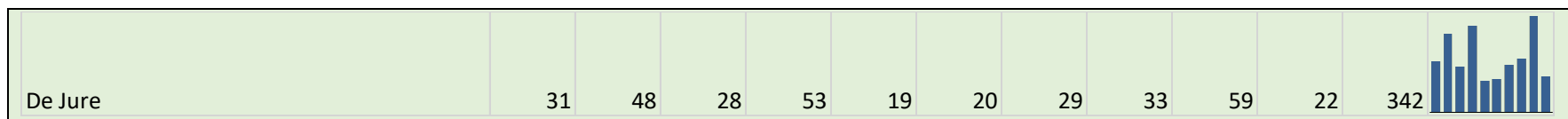
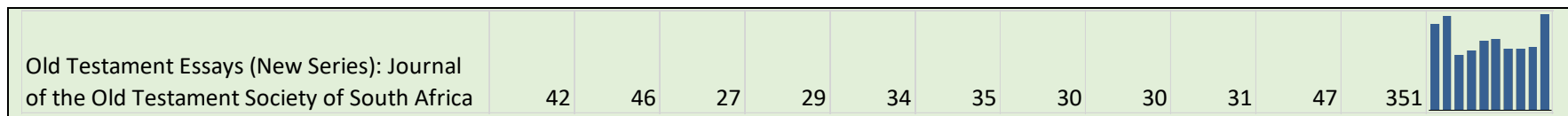
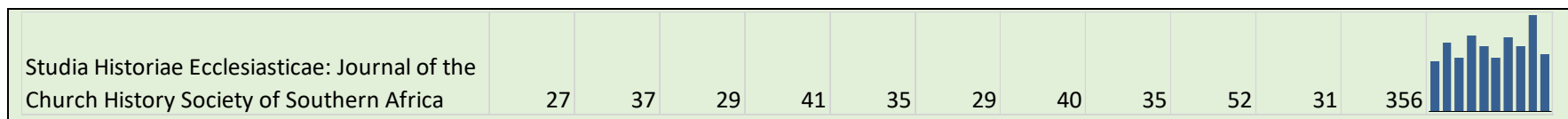
Journal	Authors	Papers	Authors/Papers
SAMJ: South African Medical Journal	1832	1184	1.55
HTS Teologiese Studies/Theological Studies	499	1006	0.50
South African Journal of Science	1328	913	1.45
South African Journal of Higher Education	871	825	1.06
South African Journal of Botany	677	736	0.92
Journal of Public Administration	361	623	0.58
Journal of Psychology in Africa	615	602	1.02
Water SA	732	578	1.27
STJ: Stellenbosch Theological Journal	285	564	0.51
Journal of Contemporary Roman-Dutch Law	212	561	0.38
SADJ: Journal of the South African Dental Association	351	521	0.67
Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa	442	465	0.95
Journal of South African Law	203	464	0.44
In Die Skriflig	218	436	0.50

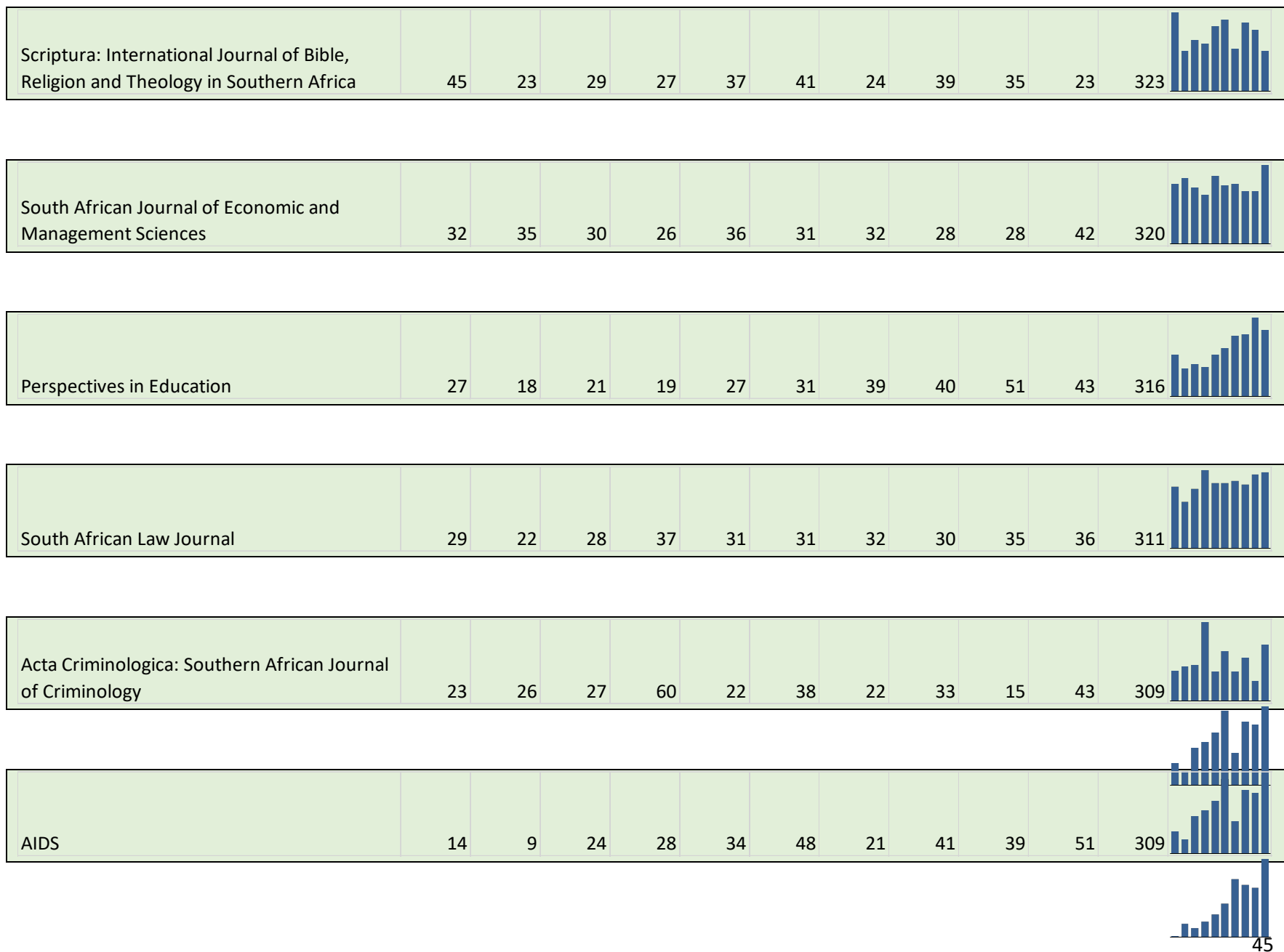
Consistently moderate publication output⁵

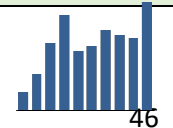
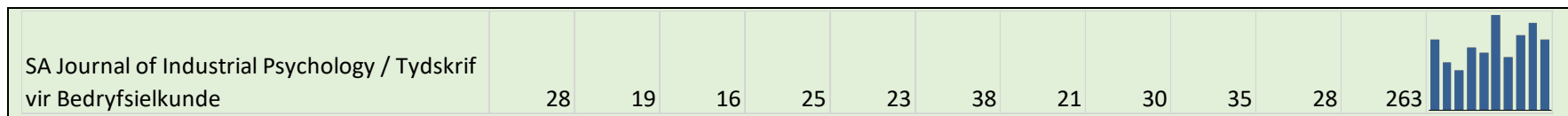
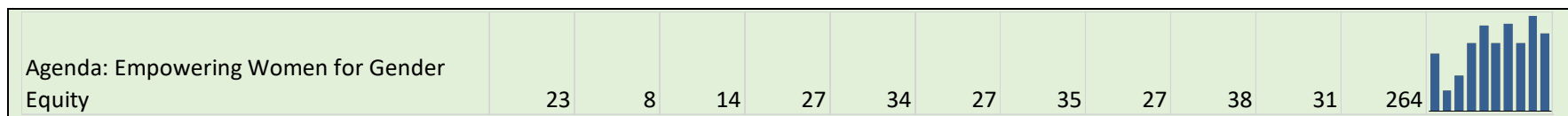
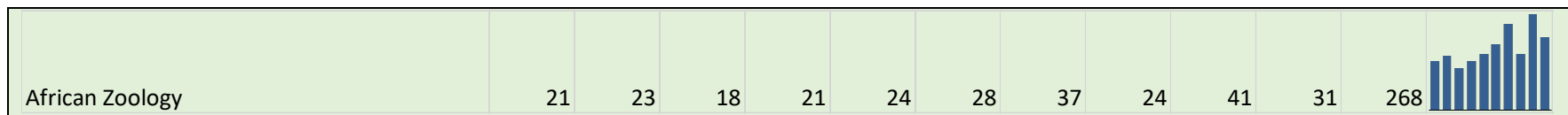
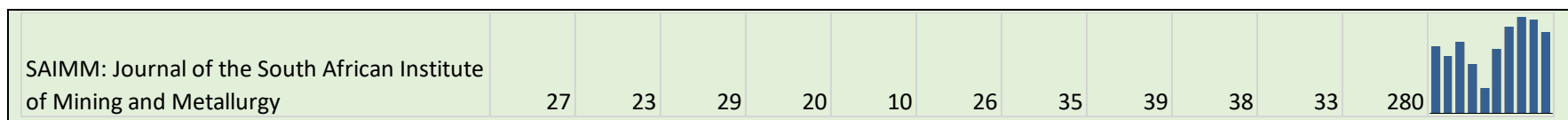
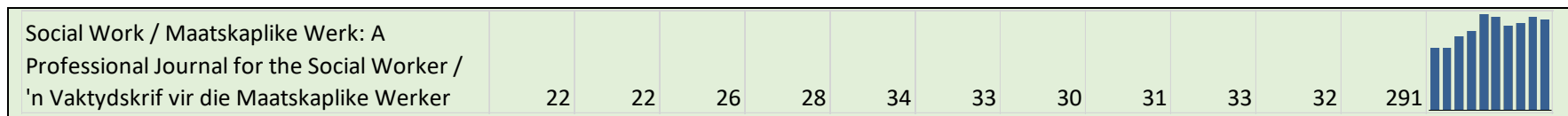
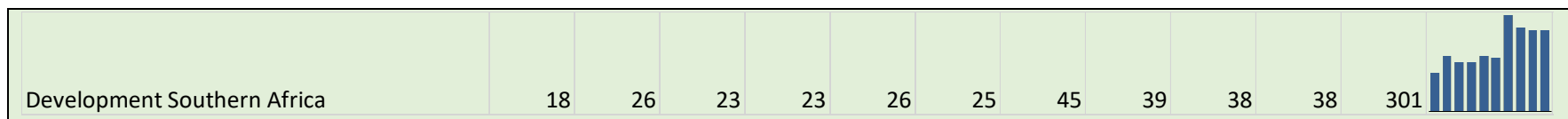
Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
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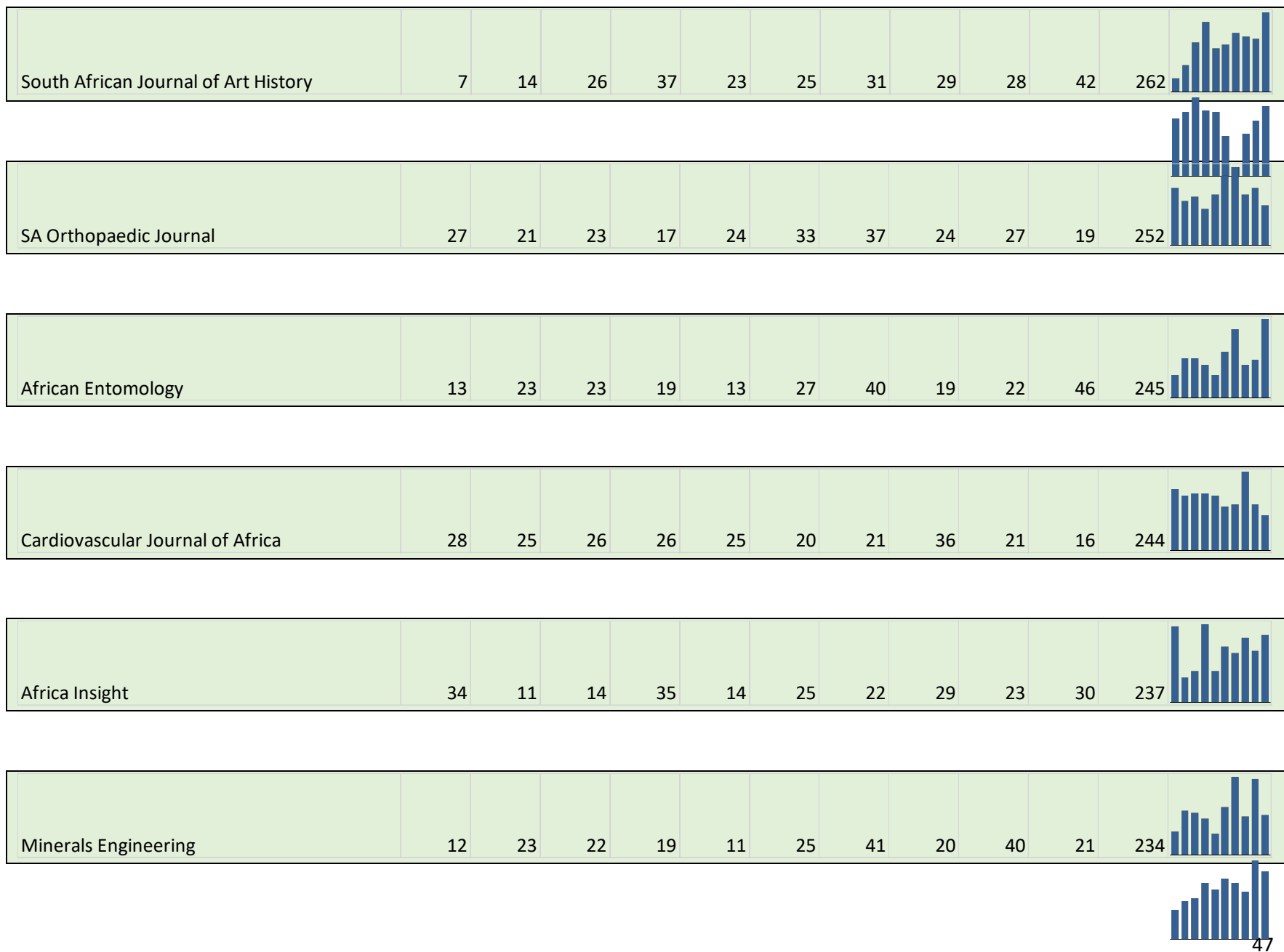


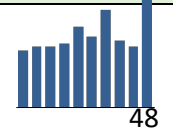
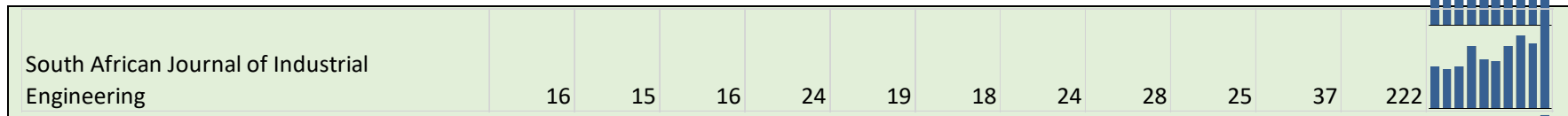
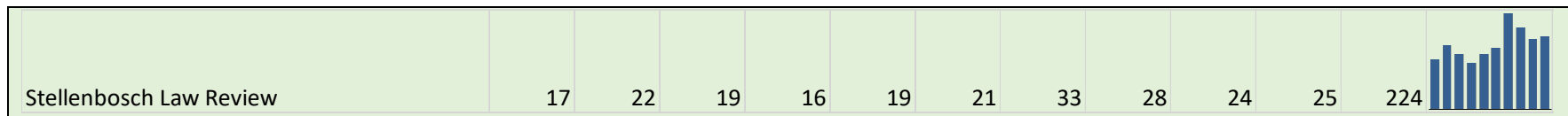
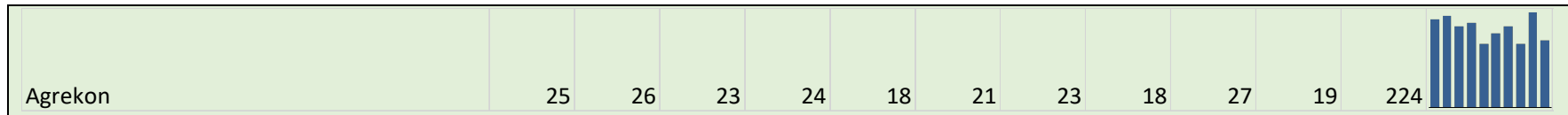
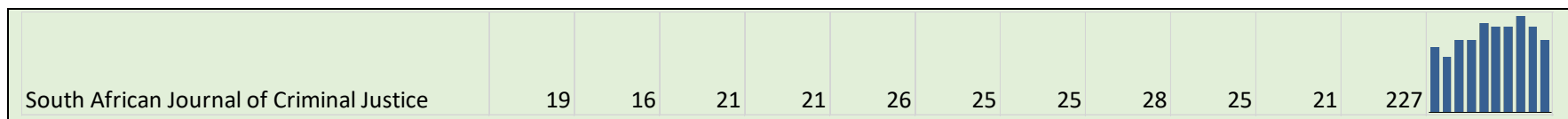
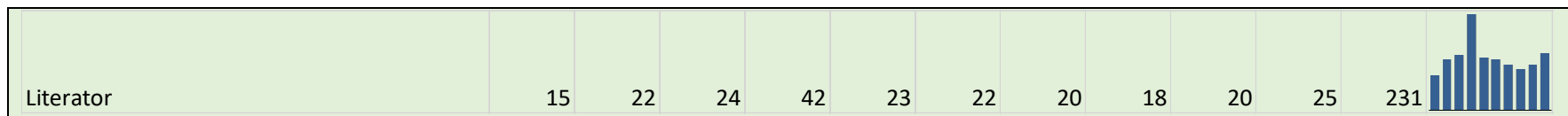
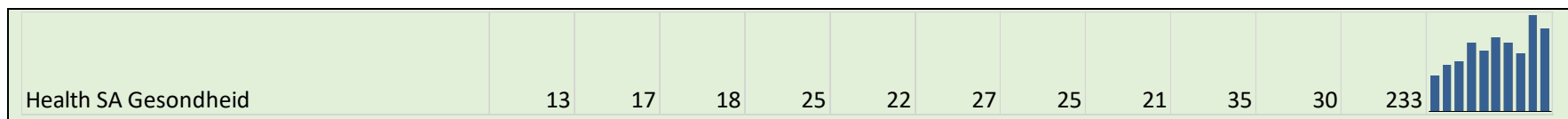
⁵ We have included only journals with a total output over the ten year period of 200 or more articles.

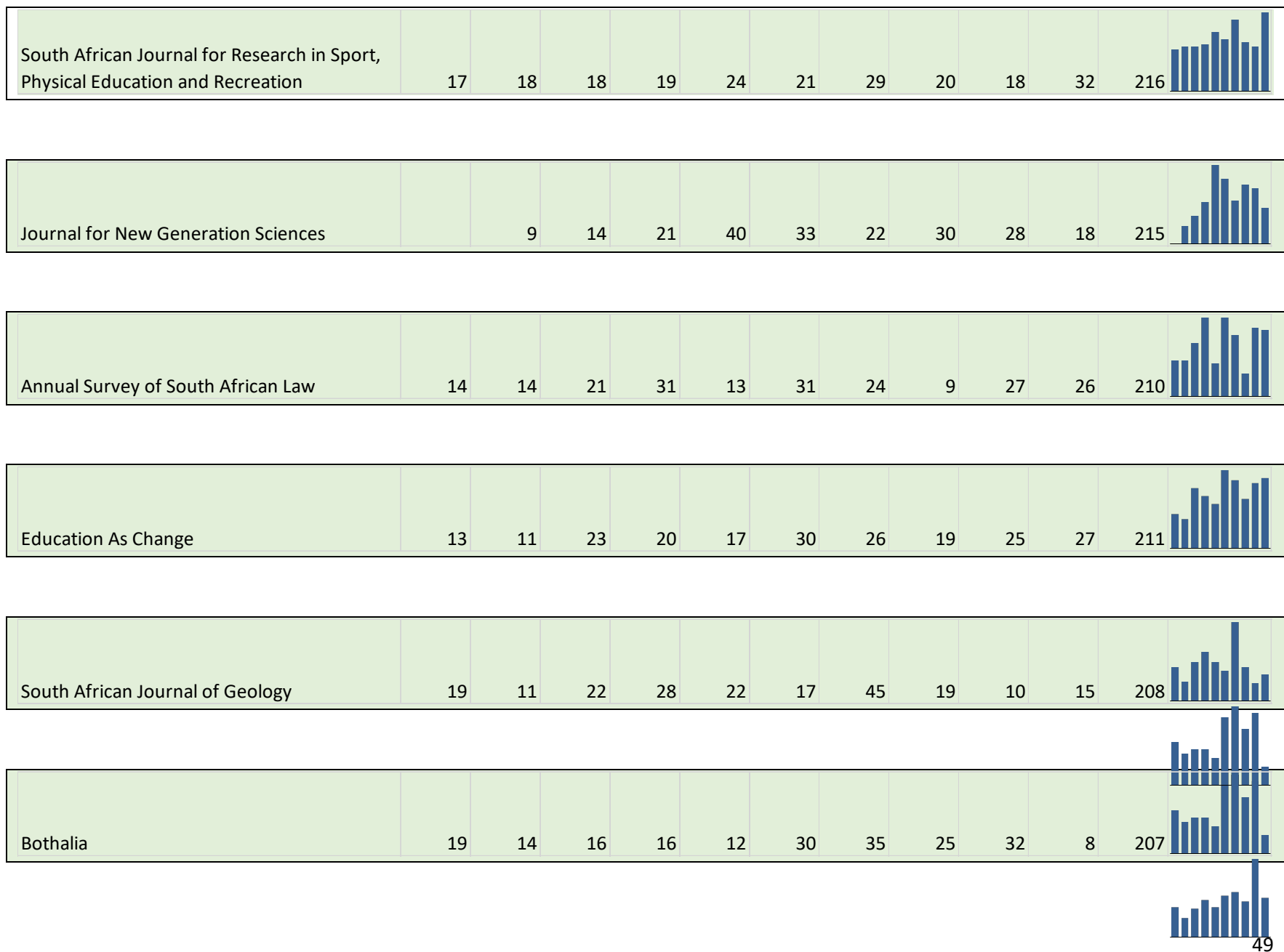


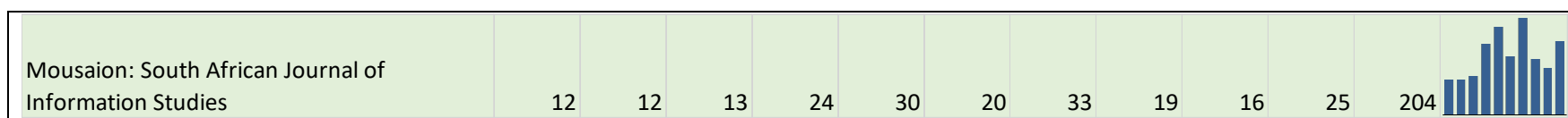
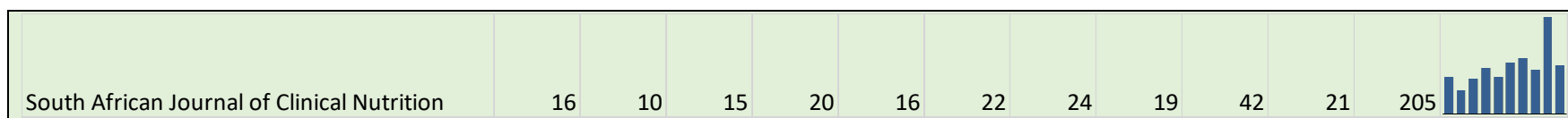












Discussion

In the ‘moderate volume and consistent publication output’ category we found:

- Many discipline-specific journals: these are journals that serve a very specific discipline (Social Work, Education, Media Studies, English, Occupational Health, Nursing and Business Management) or inter-disciplinary domain (Wildlife research, Energy).
- Many Theology journals that serve a very specific religious denomination (*Koers*, *Journal of Christian Scholarship*, *SA Baptist Journal of Theology*)
- Many journals that serve sub-fields in medicine (Surgery, Cardiovascular Medicine, Sport Medicine)
- Some journals that could be described as ‘advocacy’ or ‘special interest’ journals such as *Agenda*, *Journal for Transdisciplinary Research* and the *Next Generation Sciences* journal.
- A range of foreign (non-SA) journals in which SA academics regularly publish including *Journal of Ethnopharmacology*, *JAIDS* (Wolters Kluwer), *Journal of Education* (published by Boston University), *African Journal of Ecology* (Published by Wiley Online), *Urban Forum* (published by Springer) and *Dalton Transactions* (Journal of the Royal Society of Chemistry).

The sustainability of these journals is equally dependent on a reasonably large pool of productive academics and scholars. In Table 6 we list for each of these journals the number of papers produced over the ten year period, as well as the number of unique authors who produced these papers. The ratio of authors to papers is, we believe, an interesting indicator of sustainability. Where the ratio is 1.00 or more it means that there are more authors than papers. Perhaps the most interesting subset of journals in this table is those journals with very low author to paper ratios. We have highlighted the journals where this ratio is less than 0.7, while the average ratio for all journals in this list is 0.92.

Table 6: Moderate volume journals with their authors and papers

Journal	Authors	Papers	Authors/Papers
Acta Academica	472	431	1.10
Obiter	234	420	0.56
Verbum et Ecclesia	272	418	0.65
Tydskrif vir Geesteswetenskappe	339	397	0.85
South African Journal of Psychology	474	394	1.20
South African Journal of Education	430	383	1.12
Studia Historiae Ecclesiasticae: Journal of the Church History Society of Southern Africa	182	356	0.51
Old Testament Essays (New Series): Journal of the Old Testament Society of South Africa	145	351	0.41
De Jure	204	342	0.60
African Journal of Marine Science	351	343	1.03
SA Mercantile Law Journal/SA Tydskrif vir Handelsreg	164	340	0.48
South African Journal of Animal Science/Suid-Afrikaanse Tydskrif vir Veekunde	283	334	0.85
LitNet Akademies/Academic	295	328	0.90
Acta Theologica	231	324	0.71
Scriptura: International Journal of Bible, Religion and Theology in Southern Africa	189	323	0.59
South African Journal of Economic and Management Sciences/Suid-Afrikaanse Tydskrif vir Ekonomiese en Bestuurswetenskappe	366	319	1.15
Perspectives in Education	386	315	1.23
Acta Criminologica: Southern African Journal of Criminology	208	309	0.67
PER: Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad	273	309	0.88
South African Law Journal	220	309	0.71
Development Southern Africa	380	300	1.27
South African Journal of Plant and Soil/Suid-Afrikaanse Tydskrif vir Plant en Grond	279	293	0.95
Social Work/Maatskaplike Werk: A Professional Journal for the Social Worker/'n Vaktydskrif vir die Maatskaplike Werker	234	289	0.81

Journal for Christian Scholarship/Tydskrif vir Christelike Wetenskap	108	284	0.38
Southern African Public Law	156	280	0.56
SAIMM: Journal of the South African Institute of Mining and Metallurgy	350	278	1.26
Journal of the South African Veterinary Association/Tydskrif van die Suid-Afrikaanse Veterinere Vereniging	318	274	1.16
Southern African Linguistics and Applied Language Studies	261	274	0.95
African Zoology	359	267	1.34
Koers: Bulletin for Christian Scholarship/Bulletin vir Christelike Wetenskap	210	263	0.80
Agenda: Empowering Women for Gender Equity	248	262	0.95
SA Journal of Industrial Psychology/Tydskrif vir Bedryfsielkunde	275	262	1.05
South African Journal of Art History	127	261	0.49
Journal for Contemporary History/Joernaal vir Eietydse Geskiedenis	136	257	0.53
Journal for Semitics/Tydskrif vir Semistiek	122	257	0.47
Curationis	332	255	1.30
SA Orthopaedic Journal	287	250	1.15
Administratio Publica	185	247	0.75
African Entomology	245	245	1.00
Cardiovascular Journal of Africa	380	242	1.57
Africa Insight	228	236	0.97
South African Journal of Economics/Suid-Afrikaanse Tydskrif vir Ekonomie	237	235	1.01
Health SA Gesondheid	329	233	1.41
Africa Education Review	276	229	1.21
Literator	191	229	0.83
Agrekon	203	223	0.91
South African Journal of Industrial Engineering/Suid-Afrikaanse Tydskrif vir Bedryfsingenieurswese	233	222	1.05
Stellenbosch Law Review	187	222	0.84
South African Journal for Research in Sport, Physical Education and Recreation/Suid-Afrikaanse Tydskrif vir Navorsing in Sport, Liggaamlike Opvoedkunde en Ontspanning	249	216	1.15
Journal for New Generation Sciences	252	215	1.17

South African Journal of Criminal Justice/Suid-Afrikaanse Tydskrif vir Strafrechtspleging	110	212	0.52
Education As Change	277	209	1.33
South African Journal of Clinical Nutrition	281	205	1.37
South African Journal of Geology	210	205	1.02
Mousaion: South African Journal of Information Studies	162	204	0.79
Onderstepoort Journal of Veterinary Research	215	200	1.08

Consistent but low volume journals

More than 130 SA journals fall into this category where the total average output over the past five years was fewer than 30 papers per year. These titles are listed in Table 7. In fact, at the bottom end of this group are a large number of journals that average only 10 to 15 papers per year.

Table 7: Low volume journals

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Grand Total	Average 2005 – 2014	Average 2010 – 2014
<i>Journal of Contemporary Management</i>			6	10	23	32	27	24	27	39	188	23.50	29.80
<i>Minerals Engineering</i>	12	23	22	19	11	25	41	20	40	21	234	23.40	29.40
<i>TD: Journal for Transdisciplinary Research in Southern Africa</i>			2	17	15	22	25	18	35	44	178	22.25	28.80
<i>Journal for Semitics</i>	17	19	26	29	23	33	25	15	30	40	257	25.70	28.60
<i>Global Health Action</i>							1	10	46	57	114	28.50	28.50
<i>Problems and Perspectives in Management</i>	5	3	1	2					5	52	68	11.33	28.50
<i>Southern African Public Law</i>	33	24	28	22	34	36	25	29	30	22	283	28.30	28.40
<i>Journal of the South African Veterinary Association/Tydskrif van die Suid-Afrikaanse Veterinere Vereniging</i>	27	21	22	32	34	29	32	16	35	28	276	27.60	28.00
<i>SA Orthopaedic Journal</i>	27	21	23	17	24	33	37	24	27	19	252	25.20	28.00
<i>Health SA Gesondheid</i>	13	17	18	25	22	27	25	21	35	30	233	23.30	27.60
<i>Journal for Christian Scholarship/Tydskrif</i>	23	40	22	21	42	38	24	26	30	19	285	28.50	27.40

<i>vir Christelike Wetenskap</i>													
<i>Southern African Linguistics and Applied Language Studies</i>	25	21	29	37	28	29	36	25	21	23	274	27.40	26.80
<i>South African Journal of Industrial Engineering</i>	16	15	16	24	19	18	24	28	25	37	222	22.20	26.40
<i>Stellenbosch Law Review</i>	17	22	19	16	19	21	33	28	24	25	224	22.40	26.20
<i>Journal for New Generation Sciences</i>		9	14	21	40	33	22	30	28	18	215	23.89	26.20
<i>Southern African Journal of Anaesthesia and Analgesia</i>	7	8	16	7	5	29	32	19	24	27	174	17.40	26.20
<i>Bothalia</i>	19	14	16	16	12	30	35	25	32	8	207	20.70	26.00
<i>Africa Insight</i>	34	11	14	35	14	25	22	29	23	30	237	23.70	25.80
<i>South African Journal of Clinical Nutrition</i>	16	10	15	20	16	22	24	19	42	21	205	20.50	25.60
<i>Koers: Bulletin for Christian Scholarship/Bulletin vir Christelike Wetenskap</i>	24	18	16	40	39	25	26	26	25	25	264	26.40	25.40
<i>Education As Change</i>	13	11	23	20	17	30	26	19	25	27	211	21.10	25.40
<i>African Journal of Primary Health Care and Family Medicine</i>					10	13	12	14	49	39	137	22.83	25.40
<i>South African Journal of Plant and Soil/Suid-Afrikaanse Tydskrif vir Plant en Grond</i>	39	42	29	30	28	28	22	24	23	29	294	29.40	25.20
<i>African Journal of Aquatic Science</i>	11	17	6	15	22	20	16	30	27	33	197	19.70	25.20
<i>South African Journal of Criminal Justice</i>	19	16	21	21	26	25	25	28	25	21	227	22.70	24.80
<i>SA Journal of Human Resource Management</i>	9	10	6	9	24	24	24	29	24	23	182	18.20	24.80
<i>Pharos Journal of Theology</i>	6	9	8	21	20	26	25	26	22		163	18.11	24.75
<i>African Journal of Psychiatry</i>	9	16	9	12	10	24	28	35	29	5	177	17.70	24.20
<i>South African Journal for Research in Sport, Physical Education and Recreation</i>	17	18	18	19	24	21	29	20	18	32	216	21.60	24.00
<i>Progressio: South African Journal for Open and Distance Learning Practice</i>					1	25	26	22	30	15	119	19.83	23.60
<i>Journal for Contemporary History</i>	28	34	21	24	33	27	23	24	23	20	257	25.70	23.40
<i>Annual Survey of South African Law</i>	14	14	21	31	13	31	24	9	27	26	210	21.00	23.40
<i>Journal of Literary Studies/Tydskrif vir Literatuurwetenskap</i>	11	11	12	17	16	29	24	18	21	25	184	18.40	23.40
<i>Southern African Journal of Infectious Diseases</i>	28	5	12	19	16	25	27	23	22	19	196	19.60	23.20

<i>AIDS Care: Psychological and Socio-Medical Aspects of AIDS/HIV</i>	8	8	15	10	22	31	19	13	26	26	178	17.80	23.00
<i>Cardiovascular Journal of Africa</i>	28	25	26	26	25	20	21	36	21	16	244	24.40	22.80
<i>Mousaion: South African Journal of Information Studies</i>	12	12	13	24	30	20	33	19	16	25	204	20.40	22.60
<i>AJRMSTE: African Journal of Research in Mathematics, Science and Technology Education</i>	8	11	12	18	8	24	17	23	26	23	170	17.00	22.60
<i>Social Work Practitioner-Researcher/Maatskaplikewerk Navorsers-Praktisyn</i>	15	13	19	19	15	29	20	23	20	20	193	19.30	22.40
<i>Journal of Southern African Studies</i>	19	11	3	15	14	15	12	31	17	35	172	17.20	22.00
<i>South African Journal of African Languages / Suid-Afrikaanse Tydskrif vir Afrikatale</i>	18	17	10	23	19	22	21	19	17	30	196	19.60	21.80
<i>South African Journal of Philosophy</i>	10	18	13	18	24	19	24	28	16	22	192	19.20	21.80
<i>Agrekon</i>	25	26	23	24	18	21	23	18	27	19	224	22.40	21.60
<i>AJAR: African Journal of AIDS Research</i>	8	9	6	23	19	24	32	14	15	22	172	17.20	21.40
<i>Social Dynamics: A Journal of African Studies</i>	5	7	12	15	16	37	14	21	23	12	162	16.20	21.40
<i>South African Journal of Geology</i>	19	11	22	28	22	17	45	19	10	15	208	20.80	21.20
<i>Literator</i>	15	22	24	42	23	22	20	18	20	25	231	23.10	21.00
<i>South African Journal of Physiotherapy</i>	12	17	16	19	15	17	22	19	35	12	184	18.40	21.00
<i>Art South Africa</i>	5	5	12	9	19	22	35	24	22	1	154	15.40	20.80
<i>Southern African Business Review</i>	15	22	20	15	20	16	24	18	25	20	195	19.50	20.60
<i>Communicatio: South African Journal for Communication Theory and Research</i>	17	10	13	14	13	18	24	15	25	21	170	17.00	20.60
<i>Curationis</i>	27	30	37	31	30	19	4	20	26	33	257	25.70	20.40
<i>Physics and Chemistry of the Earth</i>	3	7	8	11	10	9	32	22	17	22	141	14.10	20.40
<i>Indilinga: African Journal of Indigenous Knowledge Systems</i>	5	4	7	19	8	20	20	20	22	18	143	14.30	20.00
<i>South African Journal of Chemistry / Suid-Afrikaanse Tydskrif vir Chemie</i>	11	16	7	11	19	14	25	20	28	12	163	16.30	19.80
<i>Southern African Journal of HIV Medicine</i>	2	2	4	13	20	12	20	23	34	10	140	14.00	19.80
<i>Africa Journal of Nursing and Midwifery</i>				16	14	16	15	22	27	19	129	18.43	19.80
<i>South African Historical Journal / Suid-Afrikaanse Historiese Joernaal</i>	7	13	19	23	27	21	19	23	22	13	187	18.70	19.60

<i>South African Journal of Business Management</i>	23	15	21	23	15	18	22	21	17	19	194	19.40	19.40
<i>South African Journal of Occupational Therapy</i>	5	5	13	14	10	15	27	14	18	23	144	14.40	19.40
<i>South African Journal on Human Rights</i>	14	14	15	18	20	17	14	23	25	17	177	17.70	19.20
<i>South African Journal of Surgery</i>	9	10	20	8	19	9	24	14	24	24	161	16.10	19.00
<i>Southern African Journal for Folklore Studies</i>	15	10	6	16	11	15	21	28	17	11	150	15.00	18.40
<i>Acta Commercii</i>	2	10	17	18	10	20	21	13	15	23	149	14.90	18.40
<i>South African Review of Sociology</i>	6	9	7	16	4	18	18	18	18	19	133	13.30	18.20
<i>Critical Arts: A Journal of South-North Cultural and Media Studies</i>	7	3	5	14	11	21	8	18	12	32	131	13.10	18.20
<i>African Vision and Eye Health</i>	8	12	8	23	23	21	21	25	18	5	164	16.40	18.00
<i>Historia: Journal of the Historical Association of South Africa</i>	16	10	14	15	19	19	16	18	15	22	164	16.40	18.00
<i>South African Journal of Child Health</i>				1		9	10	19	24	28	91	15.17	18.00
<i>SAALT: Journal for Language Teaching/Tydskrif vir Taalonderrig</i>	11	11	13	17	17	16	19	18	19	15	156	15.60	17.40
<i>Journal of Constructive Theology: Gender, Religion and Theology in Africa</i>	2	8	5	4	12	10	11	27	22	17	118	11.80	17.40
<i>Tydskrif vir Letterkunde</i>	4	16	8	16	17	21	15	19	19	11	146	14.60	17.00
<i>Journal of Energy in Southern Africa</i>	10	16	8	10	7	12	13	23	20	17	136	13.60	17.00
<i>African Journal of Wildlife Research</i>	16	22	15	27	23	17	21	16	16	14	187	18.70	16.80
<i>Journal of Early Christian History: A Journal for the Study of Early Christianity and Late Antiquity</i>	12	15	9	15	22	23	19	13	13	16	157	15.70	16.80
<i>SA Journal of Radiology</i>	11	23	18	7	6	17	14	20	14	17	147	14.70	16.40
<i>New Contree: A Journal of Historical and Human Sciences for Southern Africa</i>	13	3	21	10	15	12	14	17	21	18	144	14.40	16.40
<i>South African Journal of Psychiatry</i>	7	9	17	12	10	5	13	22	24	18	137	13.70	16.40
<i>Onderstepoort Journal of Veterinary Research</i>	18	27	23	27	24	12	15	23	16	15	200	20.00	16.20
<i>Ostrich: Journal of African Ornithology</i>	11	12	17	22	27	23	15	12	14	17	170	17.00	16.20
<i>African Journal of Traditional Complementary and Alternative Medicines</i>			5	4	5	11	13	20	11	26	95	11.88	16.20
<i>South African Journal of Economics</i>	32	31	33	37	24	18	15	22	9	16	237	23.70	16.00

<i>South African Archaeological Bulletin</i>	7	9	15	19	15	19	16	18	9	18	145	14.50	16.00
<i>Journal of the SA Institution of Civil Engineering/Joernaal van die SA instituut van Siviele Ingenieurswese</i>	9	8	12	3	1	12	7	20	21	19	112	11.20	15.80
<i>SAIEE Africa Research Journal</i>	35	26	11	10	12	14	11	19	15	16	169	16.90	15.00
<i>Comparative and International Law Journal of South Africa</i>	16	17	16	13	12	17	16	17	15	10	149	14.90	15.00
<i>South African Baptist Journal of Theology</i>	8	6	10	9	10	11	14	18	17	15	118	11.80	15.00
<i>Politikon: South African Journal of Political Studies</i>	9	8	14	13	10	10	14	13	20	17	128	12.80	14.80
<i>Journal of Theology for Southern Africa</i>	15	13	11	12	19	12	14	17	17	13	143	14.30	14.60
<i>South African Journal of Sport Medicine</i>	8	12	12	15	23	12	17	13	15	16	143	14.30	14.60
<i>Transformation: Critical Perspectives on Southern Africa</i>	10	5	4	8	11	13	21	16	11	12	111	11.10	14.60
<i>Lexikos</i>	9	11	12	13	24	20	11	13	16	12	141	14.10	14.40
<i>African Human Rights Law Journal</i>	7	12	10	11	15	16	17	11	12	16	127	12.70	14.40
<i>African Journal of Range and Forage Science</i>	10	15	14	14	14	11	16	8	13	23	138	13.80	14.20
<i>English Academy Review</i>	5	22	17	17	9	17	12	15	16	9	139	13.90	13.80
<i>Speculum Juris</i>	10	18	14	12	13	16	16	8	12	17	136	13.60	13.80
<i>Language Matters: Studies in the Languages of Africa</i>	13	12	15	16	8	14	11	10	18	16	133	13.30	13.80
<i>Anthropology Southern Africa</i>	8	12	10	14	12	13	9	13	16	18	125	12.50	13.80
<i>English Studies in Africa</i>	1	10	5	19	15	16	14	16	9	14	119	11.90	13.80
<i>Law, Democracy and Development</i>	3	7	14	11	6	10	13	12	19	15	110	11.00	13.80
<i>South African Journal of Bioethics and Law</i>					4	11	14	14	16	14	73	12.17	13.80
<i>South African Journal of Information Management</i>	16	14	7	14	13	12	14	13	17	12	132	13.20	13.60
<i>African Invertebrates</i>	7	12	9	8	10	12	11	9	24	12	114	11.40	13.60
<i>Koedoe: Research Journal of the South African National Parks</i>	17	17		21	9	9	17	11	18	12	131	14.56	13.40
<i>Current Writing</i>	9	8	11	17	15	16	12	14	12	13	127	12.70	13.40
<i>Child Abuse Research in South Africa</i>	13	7	11	10	4	9	13	15	14	16	112	11.20	13.40
<i>Fundamina: A Journal of Legal History</i>	10	26	9	9	13	19	11	12	16	7	132	13.20	13.00
<i>Stilet: Tydskrif vir Afrikaanse Letterkundevereniging</i>	20	10	15	23	18	17	18	8	15	6	150	15.00	12.80

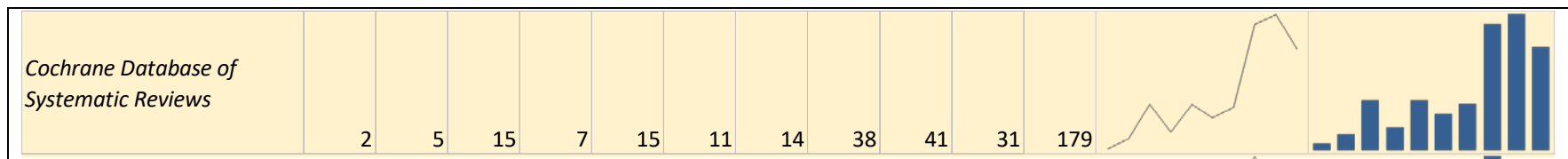
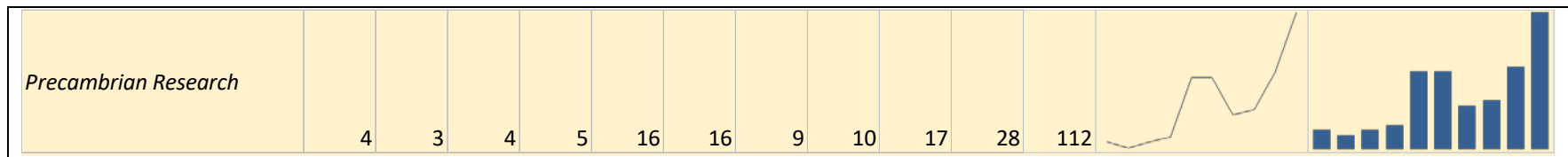
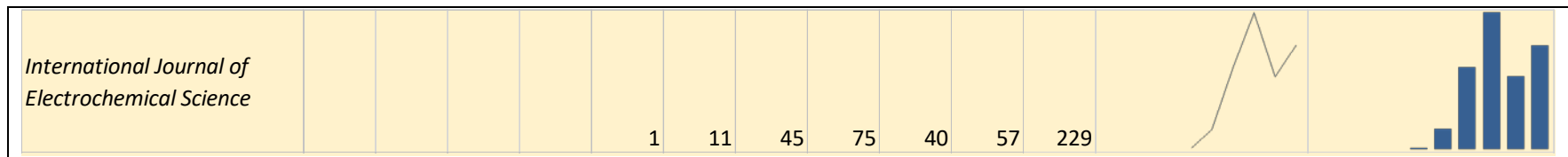
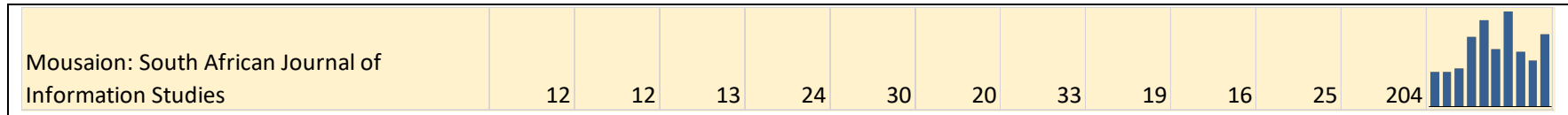
<i>Occupational Health Southern Africa</i>	7	17	13	10	15	9	14	13	15	13	126	12.60	12.80
<i>Per Linguam: A Journal of Language Learning</i>	5	5	2	11	8	12	13	11	10	18	95	9.50	12.80
<i>South African Journal of Libraries and Information Science</i>	26	18	16	17	23	12	15	17	10	8	162	16.20	12.40
<i>South African Journal of Cultural History</i>	13	18	13	15	13	12	15	14	12	9	134	13.40	12.40
<i>Pythagoras: Journal of the Association for Mathematics Education of South Africa</i>	9	14	15	9	11	11	9	21	11	10	120	12.00	12.40
<i>English in Africa</i>	9	13	10	16	7	11	11	12	12	16	117	11.70	12.40
<i>SAHARA J: Journal of Social Aspects of HIV/AIDS Research Alliance</i>	1	3	3	9	3	7	10	26	5	14	81	8.10	12.40
<i>Quaestiones Mathematicae</i>	12	13	19	18	13	9	14	11	11	16	136	13.60	12.20
<i>Management Dynamics</i>	16	11	13	12	11	12	12	13	12	12	124	12.40	12.20
<i>Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa</i>	7	9	9	2	14	11	8	13	18	11	102	10.20	12.20
<i>Medical Technology SA</i>	6	6	8	8	10	11	14	17	12	6	98	9.80	12.00
<i>SPiL Plus: Stellenbosch Papers in Linguistics Plus</i>		4	4	8	12	6		2	14	24	74	9.25	11.50
<i>South African Journal of Labour Relations</i>	5	7	5	11	8	11	10	10	13	13	93	9.30	11.40
<i>South African Geographical Journal/Suid-Afrikaanse Geografiese Tydskrif</i>	12	20	16	7	11	8	12	10	11	15	122	12.20	11.20
<i>Transactions of the Royal Society of South Africa</i>	3	3	1	9	13	7	15	6	18	10	85	8.50	11.20
<i>Scrutiny2: Issues in English Studies in Southern Africa</i>	21	5	12	13	8	9	5	20	10	11	114	11.40	11.00
<i>Muziki: Journal of Music Research in Africa</i>		1	11	20	14	12	11	9	14	9	101	11.22	11.00
<i>Acta Juridica</i>	1	6	1	7	5	11	2	18	13	11	75	7.50	11.00
<i>Politeia: Journal for Political Science and Public Administration / Tydskrif vir Politieke Wetenskap</i>	15	14	16	14	14	11	14	14	11	4	127	12.70	10.80
<i>Scientia Militaria: South African Journal of Military Studies</i>	7	9	8	6	8	6	8	21	9	10	92	9.20	10.80
<i>Missionalia: Journal of the Southern African Missiological Society/Tydskrif Van Die Suider-Afrikaanse Werkgemeenskap</i>	14	9	5	17	18	15	7	8	9	13	115	11.50	10.40

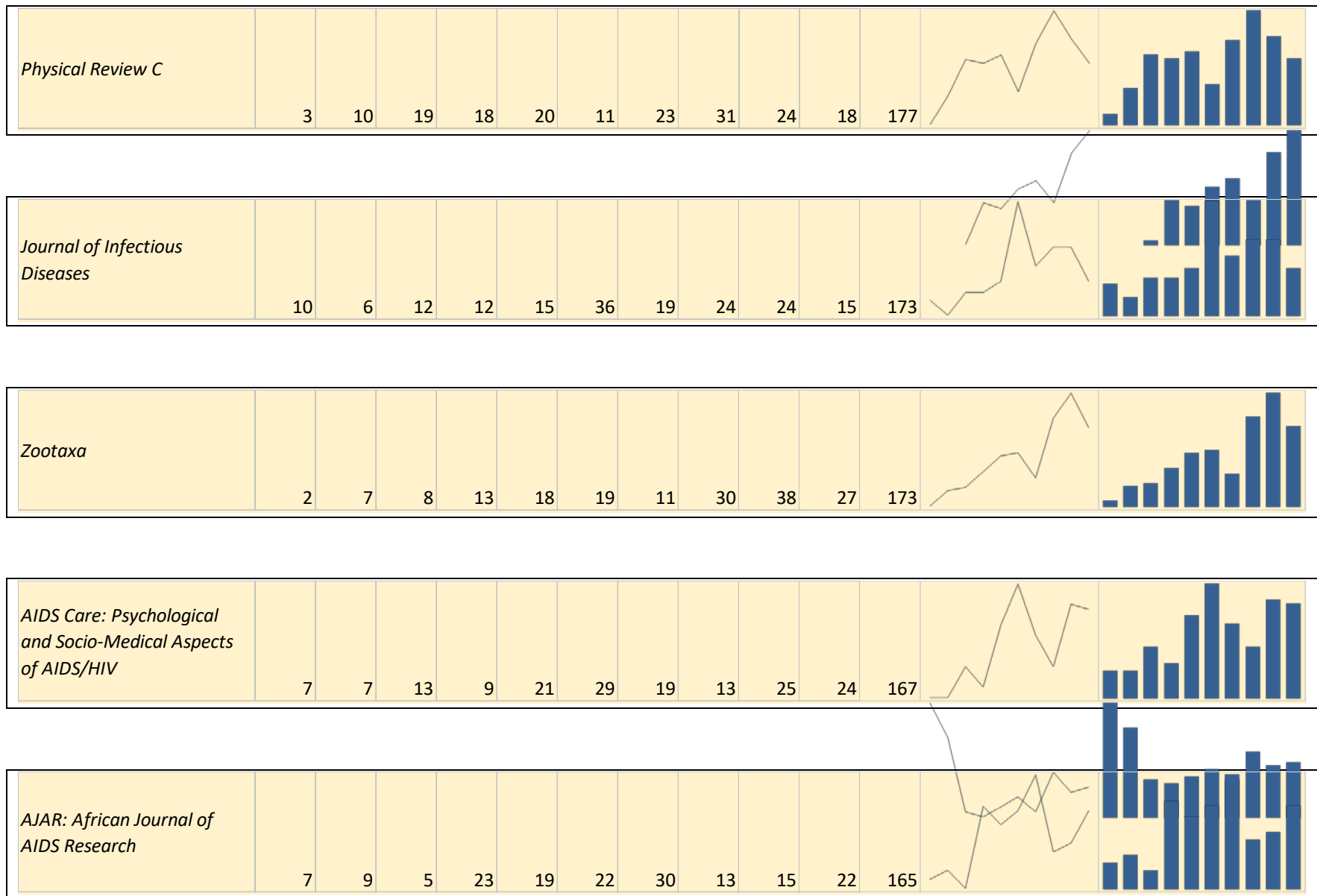
<i>Vir Sendingwetenskap</i>													
<i>South African Statistical Journal</i>	7	5	3	6	5	7	10	14	6	15	78	7.80	10.40
<i>South African Computer Journal</i>	14	14	9	27	6	8	4	8	8	22	120	12.00	10.00
<i>Theologia Viatorum: Journal of Theology and Religion in Africa</i>	3	7	4	11	20	5	9	13	9	14	95	9.50	10.00
<i>South African Journal of Agricultural Extension/Suid-Afrikaanse Tydskrif vir Landbouvoorligting</i>	15	10	9	5	5		11	5	8	16	84	9.33	10.00
<i>Strategic Review for Southern Africa/Strategiese Oorsig vir Suider-Afrika</i>	7	6	4	6	9	9	10	11	6	14	82	8.20	10.00

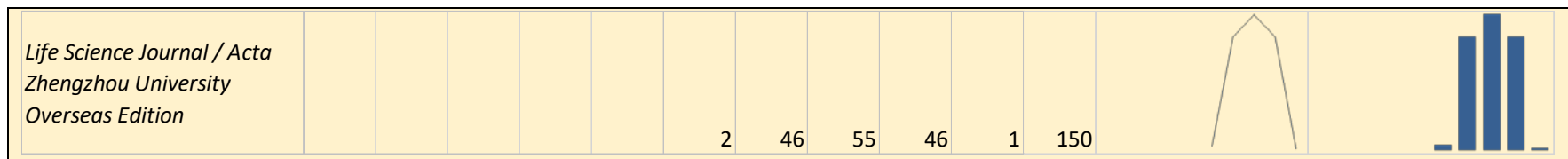
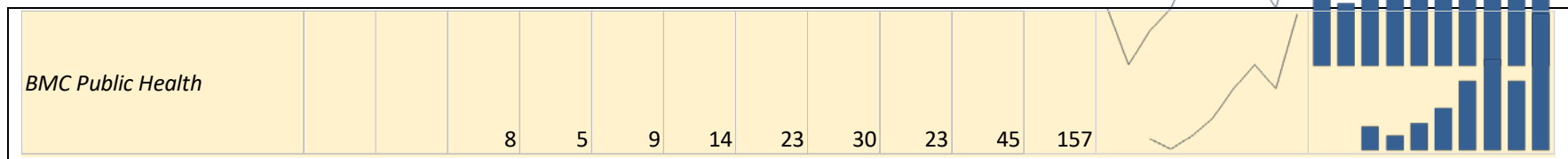
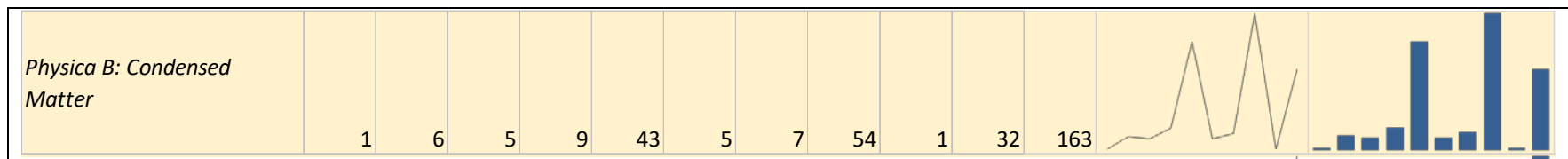
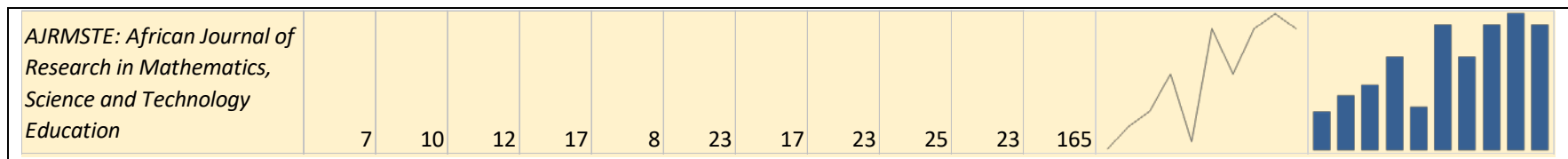
2.4.2 Inconsistent and interrupted trends in publication

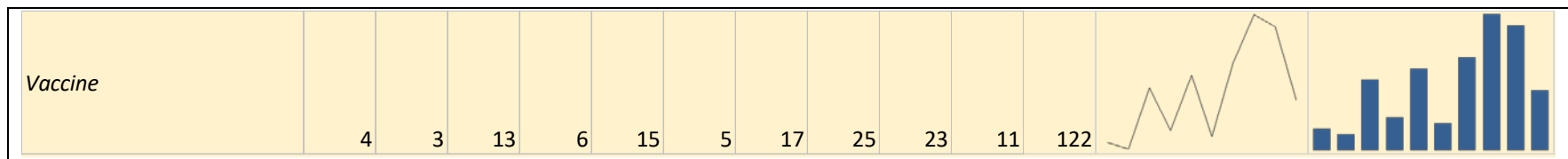
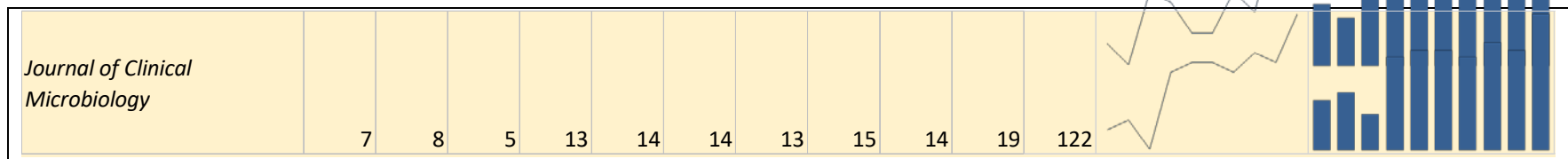
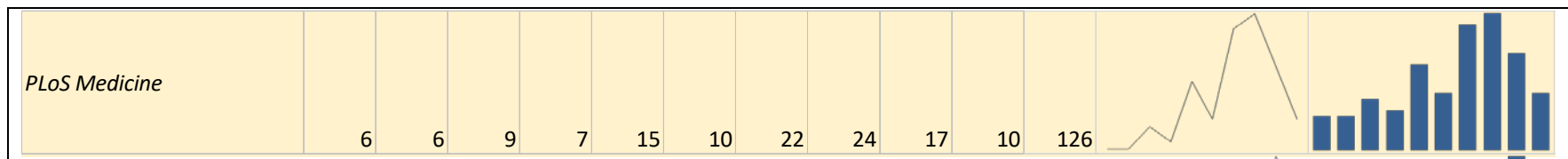
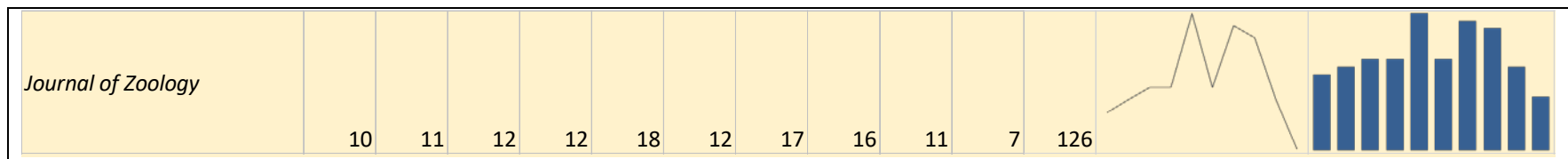
In this category we have placed journals (typically foreign journals) where the articles by SA authors do not represent a stable or consistent pattern. This is not unexpected as these publications would typically be produced by a small community of scholars in the country. But we are still interested to explain when we witness sudden changes (increases and decreases) from year to year and whether it correlates to the publications of specific authors or institutions.

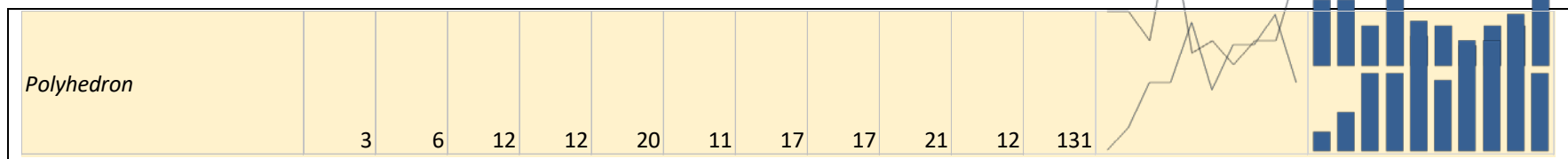
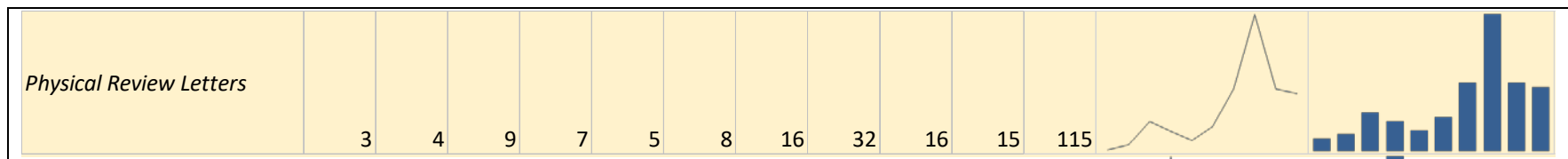
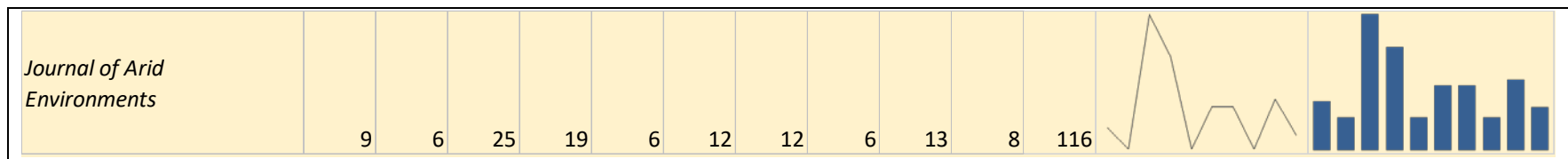
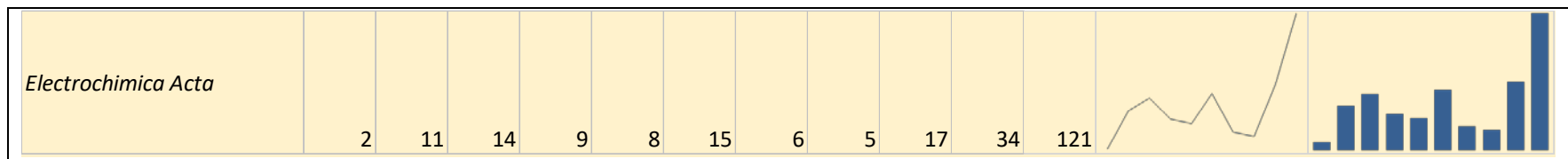
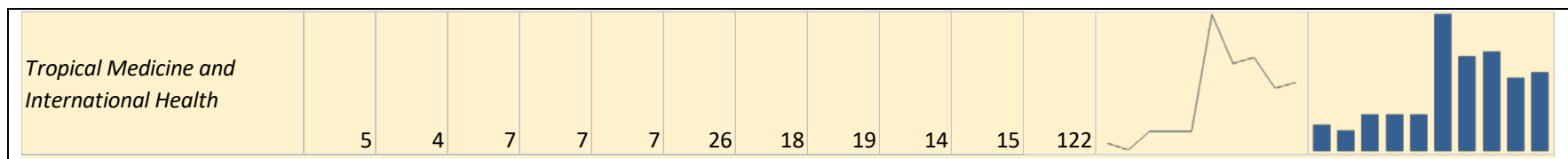
Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
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We have selected two examples which we analysed in more detail as examples of quite inconsistent article publication: the *Journal of Arid Environments* and *Physics and Chemistry of the Earth*.



The Journal of Arid Environments is an international journal publishing original scientific and technical research articles on physical, biological and cultural aspects of **arid, semi-arid, and desert environments**. As a forum of multi-disciplinary and interdisciplinary dialogue it addresses research on all aspects of arid environments and their past, present and future use. It is published by Elsevier and its latest JIF = 1.623.

Two spikes – in 2007 and 2008 – are clear in the trend profile. In 2007, a special issue on “*Sustainable Land Use in Namaqualand*” was edited by three SA academics (M.T. Hoffman, N. Allsopp and R.F. Rohde), The papers that were published in this issue (n = 19) arose out of a conference in May 2005. The other spike of 2008 cannot be explained by reference to any special issues. The papers authored by the SA authors were quite evenly spread over the 12 issues of the journal. It was simply a good year for SA academics working in this field.

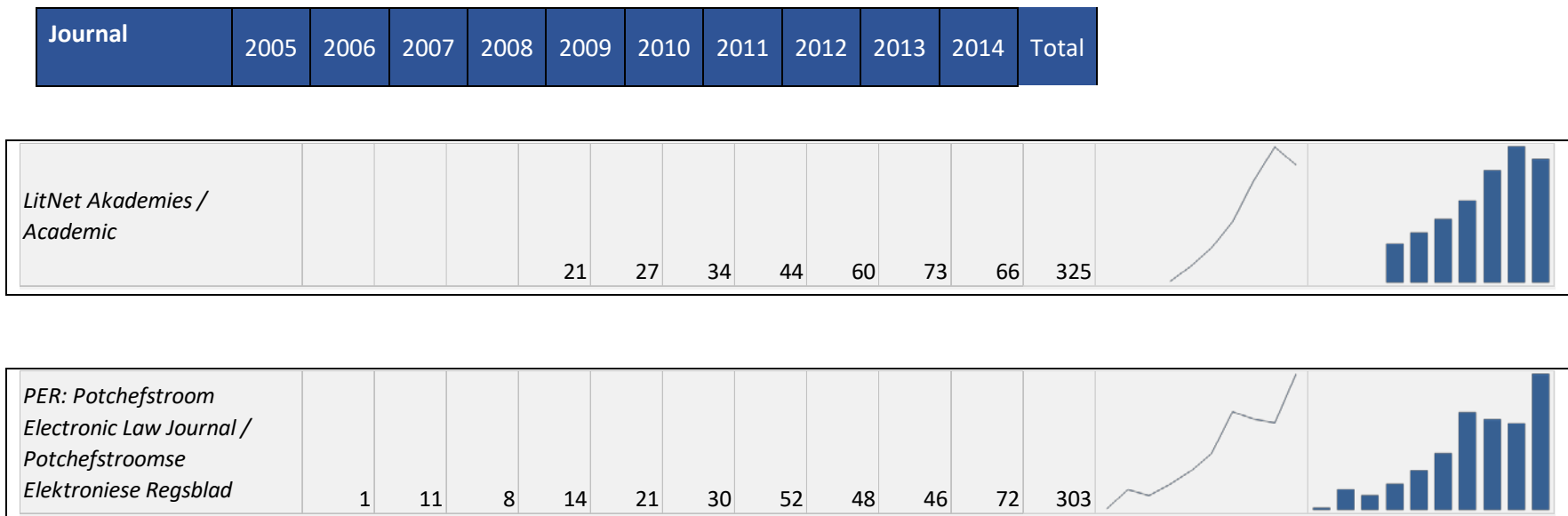


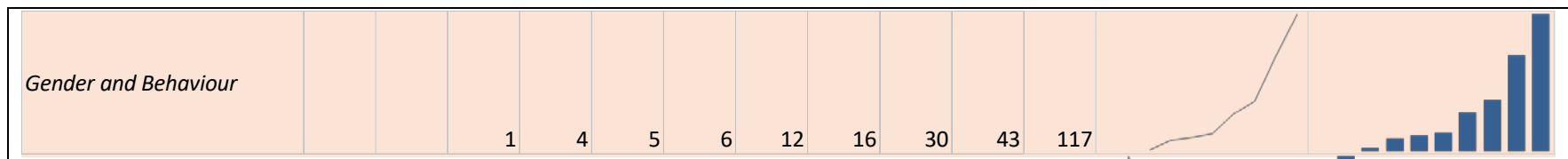
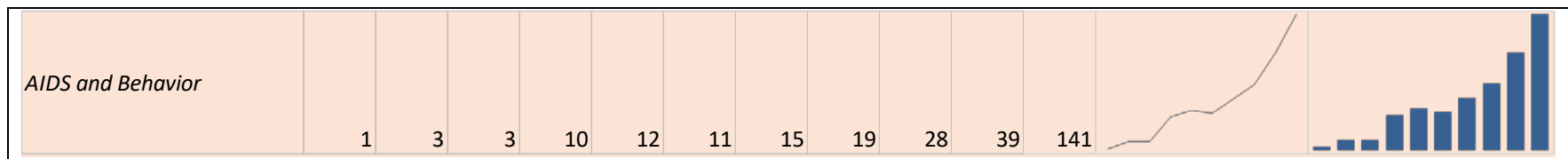
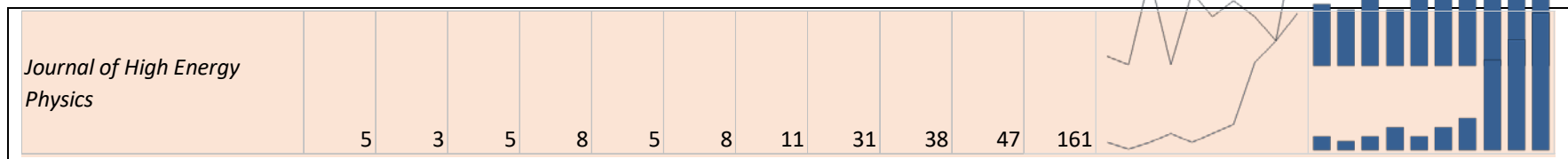
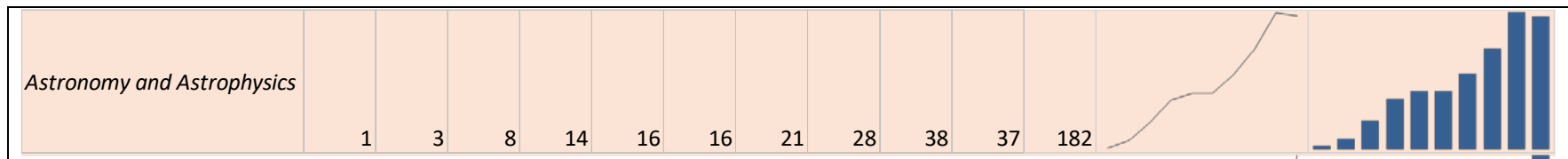
Physics and Chemistry of the Earth is an international interdisciplinary journal for the rapid publication of collections of refereed communications in separate thematic issues, either stemming from scientific meetings, or, especially compiled for the occasion. There is no restriction on the length of articles published in the journal. *Physics and Chemistry of the Earth* incorporates the separate *Parts A, B and C* which existed until the end of 2001. It is published by Elsevier and its latest JIF was 1.297.

The most obvious spike in publications appeared in 2011 when 31 papers by SA authors were published in the journal. Again, this can be explained by a special issue in 2011 which was devoted to the proceedings of the 11th WaterNet/WARFSA/GWP-SA Symposium: IWRM for National and Regional Integration through Science, Policy and Practice which had been held at Victoria Falls in Zimbabwe in October 2010. A total of 57 papers from this conference appeared in this special issue with 31 by an SA co-author or author.

2.4.3 Gradual and incremental increase in publication output

In this category we included journals where the publication output in the journal increases more gradually and incrementally (not too many spikes) over the ten year period. Again we find this an interesting trend that calls for an explanation. Is the gradual increase the result of changes in the editorial policies (for example moving to online publication or changing the journal management system) or is this perhaps indicative of a new dynamics in the underlying domain and evidence of the emergence of a new body of scholarship? In this category we find both SA journals and international journals (colour-coded light orange).





Our selected example for discussion is the *Potchefstroom Electronic Law Journal*. In 2005 we have listed one paper only. A steady increase occurred around 2009 and 2010. By 2014 it was publishing 72 papers. Inspection of their web page shows a steady increase in the number of issues per year and articles per issue.

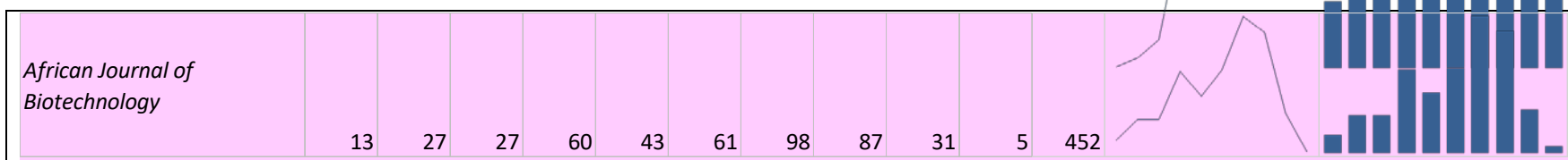
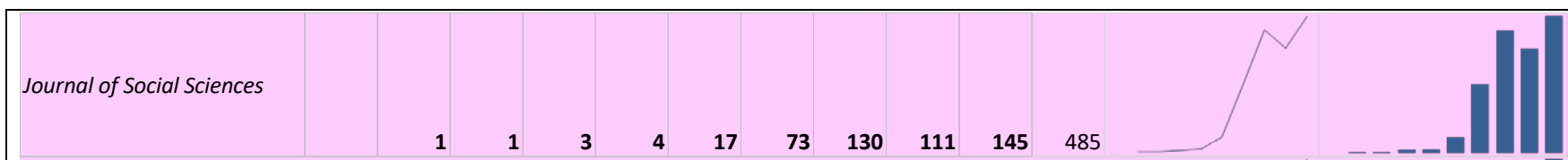
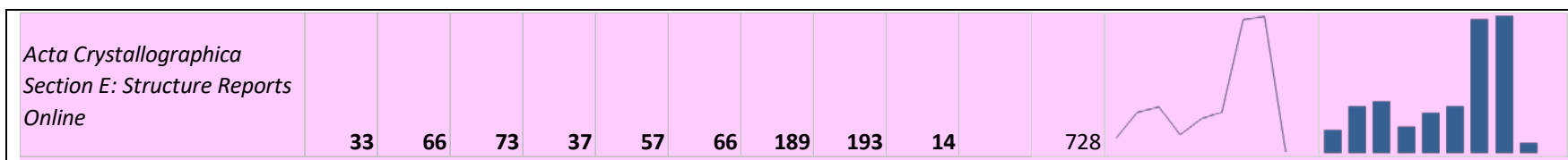
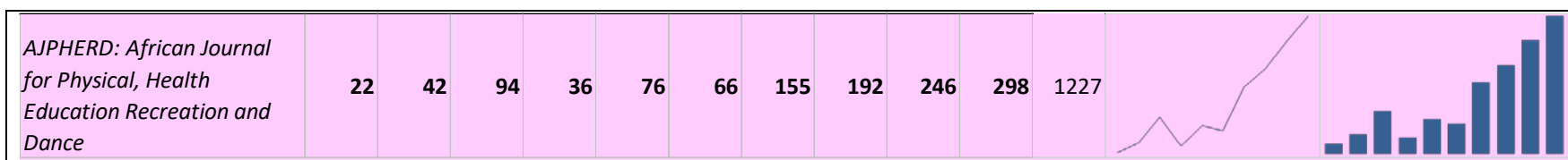
Year	Number of issues	Average papers per issue	Total papers in SAK
2005	1	5	1
2007	3	5	8
2009	4	5	21
2011	6	8	52
2014	6	13	72

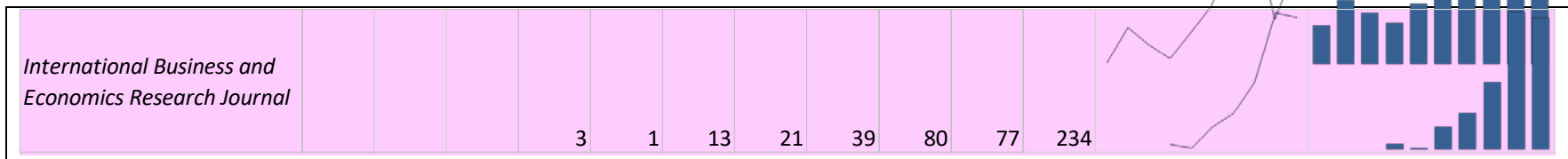
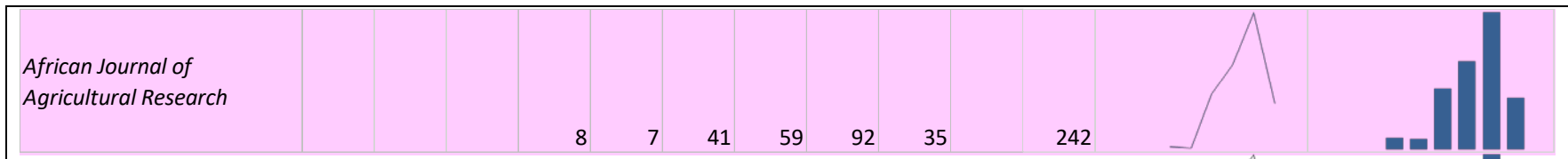
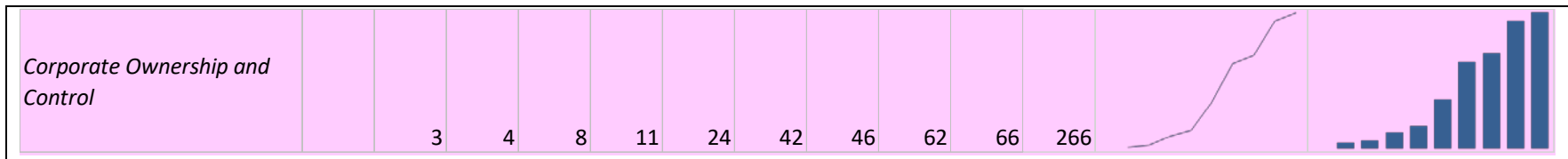
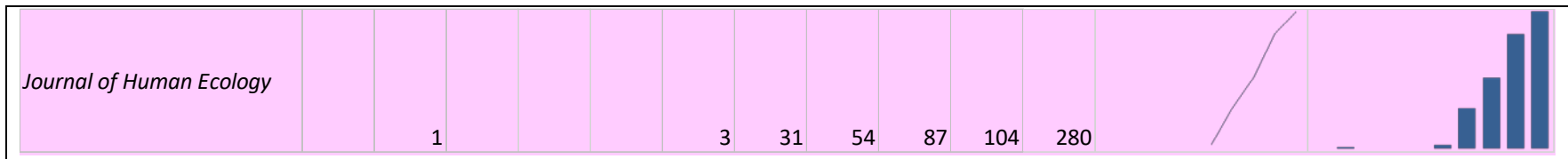
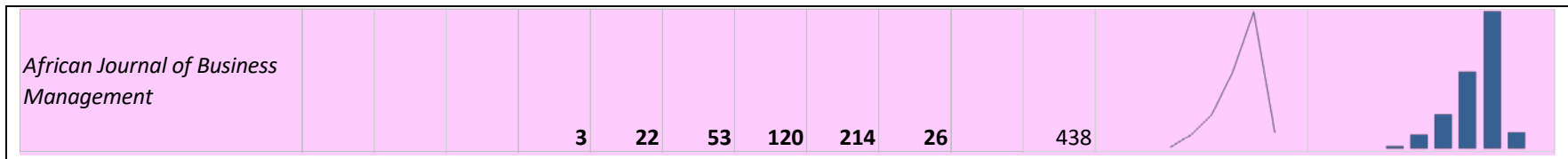
The increase in the number of articles published by PER is clearly the result of an increase in the number of issues per year (from one in 2005 to seven in 2015) as well as an increase in the average number of papers per issue: from around five per issue in the early years to more than 10 in 2014. We do not believe that there is anything untoward about these trends. The increases seem to be the result of an increasing professional effort on the side of the editorial board and editor as they have responded to a demand in the market for their journal. See also the paper by Marita Carley entitled *Identifying predatory open-access academic journal publishers, in light of the South African Department of Higher Education and Training's decision to retrospectively de-accredit certain journals* published in *Orbiter* (Vol. 36:3), 2015.

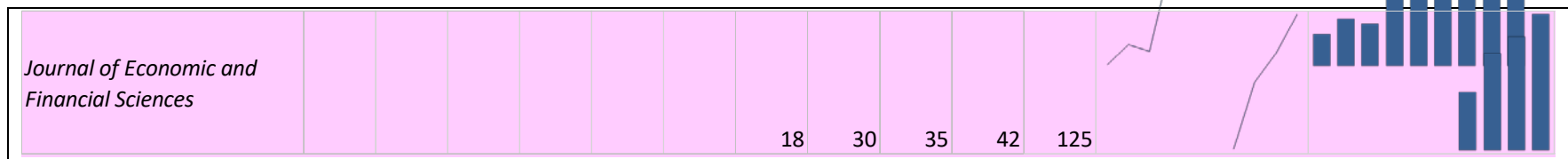
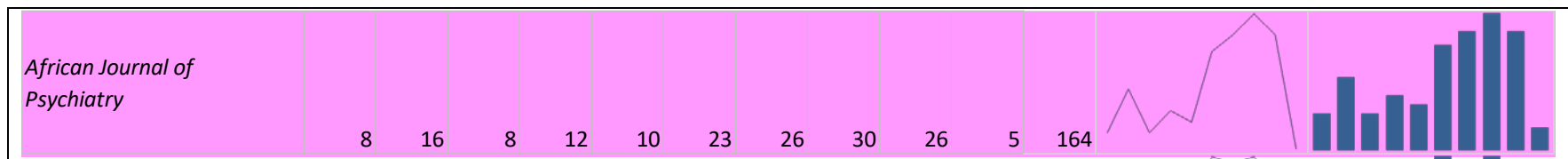
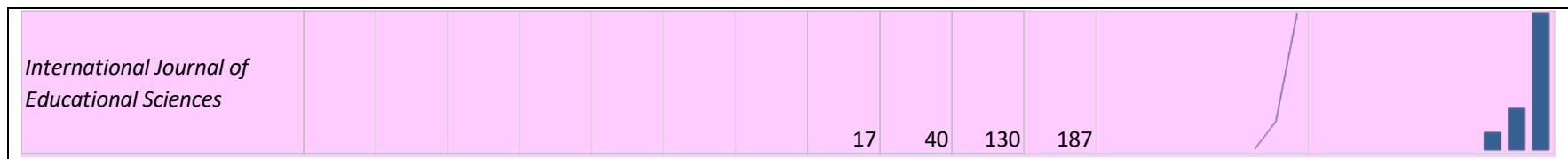
2.4.4 Inexplicable (recent) spikes in publication trends

Our final category of journals includes journals where we witness very recent spikes (large increases) in publication counts that we believe to be 'anomalous'. We typically would view this with some scepticism as this may be indicative of predatory publishing or at least very questionable publication practices. As we discuss most of these titles in some detail in Section 2.8 of this report, we simply present their profiles below.

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
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Summary/conclusions

In this section we have presented rather detailed information on the historical trends and patterns of journals in which SA academics have published over the past ten years. The aim has been to highlight the fact that these journals exhibit very different patterns in publication in terms of annual volumes, changes over time ranging from incremental to radical increases and declines, and so on. We believe that this (very first) attempt to develop a 'categorisation' of scholarly journals is helpful as it forces us to take a much more nuanced view about the differences amongst a rather large oeuvre of academic journals. Different journals serve different scholarly and scientific communities, different academic and research interests and increasingly respond differently to the new demands and reward systems for publishing. The advent of open access publishing has irrevocably changed the face of journal publishing.

But our aim in this section was an even more practical and mundane one which speaks to the sustainability of SA journals. The existence of so many local SA journals (more than 300) that are accredited or recognised by the DHET for subsidy purposes has, from time to time, evoked calls for rationalisation and reduction in numbers. It is a worthwhile question to ask whether public funding should pay for 'subsidising' journals which serve a very small community of scholars and academics. Perhaps more important is the question whether very small journals have the resources to maintain consistently high standards of quality in peer review and journal management.

2.5 Journal articles by scientific discipline/field

In this section we present detailed results of our analyses on journal articles as disaggregated by scientific field or discipline.

2.5.1 Introduction

The most common approach to identify the (field) subject matter of journal articles in bibliometrics is to assign the journal in which the article appears to a discipline or field (or subject category). This practice is followed both by the TR WoS and Scopus indexes. The WoS currently assigns all of its more than 20 000 journals to one or more subject category. In total 291 subject categories are 'used' for this purpose.

CREST uses the same approach. However, we have made two adjustments to this methodology for this study. First, we had to assign all (local) SA journals (which are currently NOT in the WoS) to one or more

of the WoS categories (to allow for comparison). Secondly, we have developed a more elaborate subject classification framework that allows us to articulate across different levels of classification. Using the WoS 291 categories as the lowest (most detailed) level of classification, we have added three higher-order classification levels. In this report, we use both the lowest level (Level 4) which is the most detailed, as well as Level 2 (which contains 22 categories).

2.5.2 Level 4 field categories

Disaggregation of papers by the most detailed classification level (Level 4) is presented in Table 8 below. Data is presented in descending order from highest to lowest. The second last column lists the share of that field to overall output. The last column presents information on the AAG rate of publications in that field between 2005 and 2014.

Table 8: Journal articles classified by subject category (Level 4 level) (n = 291 categories)

Subject category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total	Share	AAG
Religion	451	519	438	557	659	610	643	637	803	759	6076	3.4%	6.2%
Law	381	433	441	556	521	578	575	598	671	658	5412	3.0%	4.2%
Environmental sciences and ecology	208	287	352	401	452	471	510	557	675	689	4602	2.5%	11.0 %
Education and educational research	235	243	281	356	343	426	485	503	555	718	4145	2.3%	12.5 %
Chemistry	194	234	271	311	330	438	506	501	635	626	4046	2.2%	9.9%
Multi-disciplinary sciences	121	162	170	242	251	303	404	498	638	632	3421	1.9%	21.3 %
Medicine, general and internal	170	221	292	307	314	333	337	432	505	476	3387	1.9%	11.8 %
Engineering	211	212	249	258	262	344	364	441	519	513	3373	1.9%	12.2 %
Plant sciences	209	249	240	355	281	327	388	358	403	410	3220	1.8%	5.0%
Social sciences, interdisciplinary	126	122	189	196	206	206	346	444	529	604	2968	1.6%	29.4 %
Mathematics	139	194	217	270	260	276	310	383	417	488	2954	1.6%	15.4 %
Ecology	147	199	226	283	269	302	326	300	365	373	2790	1.5%	5.5%
Physics	127	139	192	204	284	253	318	433	367	461	2778	1.5%	14.4 %

Infectious diseases	117	114	170	216	229	289	321	370	394	427	2647	1.5%	10.4 %
Agriculture	192	201	177	205	224	277	284	355	375	336	2626	1.5%	6.9%
Management	88	81	105	118	154	226	353	435	275	336	2171	1.2%	21.0 %
Psychology	96	108	102	202	179	243	215	278	349	385	2157	1.2%	15.1 %
Business and economics	110	110	131	159	169	221	274	429	234	260	2097	1.2%	1.7%
Zoology	122	141	164	197	206	227	231	242	267	275	2072	1.1%	5.4%
Economics	99	103	116	141	143	156	202	265	371	426	2022	1.1%	29.9 %
Public, environmental and occupational health	81	94	132	177	164	181	266	248	285	380	2008	1.1%	16.8 %
Biochemistry and molecular biology	89	107	151	182	173	179	217	239	224	246	1807	1.0%	6.9%
Pharmacology and pharmacy	78	78	111	159	139	179	245	253	284	268	1794	1.0%	10.0 %
Literature	89	79	116	188	190	204	193	233	258	233	1783	1.0%	5.7%
Astronomy and astrophysics	58	56	91	93	130	146	190	270	322	354	1710	0.9%	25.8 %
History	129	142	143	163	195	177	180	182	201	197	1709	0.9%	3.3%
Business	45	54	76	91	96	155	281	401	229	261	1689	0.9%	8.7%
Immunology	58	73	131	138	176	166	194	216	245	276	1673	0.9%	13.3 %
Biotechnology and applied microbiology	84	111	132	160	149	178	219	217	188	202	1640	0.9%	1.0%
Geology	83	68	88	129	159	159	215	200	212	259	1572	0.9%	10.1 %
Humanities, multidisciplinary	142	127	105	145	159	142	164	168	210	174	1536	0.8%	4.9%
Mathematics, applied	66	94	107	120	142	154	169	199	206	274	1531	0.8%	14.5 %
Area studies	101	70	95	153	126	187	182	210	180	223	1527	0.8%	3.5%
Language and linguistics	101	107	119	164	151	166	149	175	182	212	1526	0.8%	7.1%
Microbiology	90	96	110	140	160	167	174	180	176	185	1478	0.8%	2.2%
Veterinary sciences	87	98	109	131	148	130	167	191	223	159	1443	0.8%	7.2%
Public administration	82	100	100	128	163	120	154	168	177	229	1421	0.8%	15.4 %
Marine and freshwater biology	46	92	91	137	141	147	152	184	187	211	1388	0.8%	9.7%

Engineering, chemical	64	64	75	101	101	143	203	168	243	210	1372	0.8%	9.9%
Geosciences, multidisciplinary	66	58	70	103	133	144	160	190	186	250	1360	0.8%	13.4 %
anthropology	29	43	54	65	82	78	108	233	274	320	1286	0.7%	45.6 %
Political science	76	65	105	105	117	120	139	158	174	224	1283	0.7%	15.9 %
Crystallography	46	88	106	82	116	105	256	255	100	94	1248	0.7%	- 11.0 %
Water resources	67	81	91	106	118	118	147	153	172	177	1230	0.7%	10.2 %
Chemistry, multidisciplinary	61	57	69	83	94	110	160	163	187	210	1194	0.7%	15.6 %
Materials science, multidisciplinary	46	59	65	97	99	126	130	155	180	201	1158	0.6%	17.5 %
Psychology, multidisciplinary	49	65	65	137	114	121	142	154	161	133	1141	0.6%	3.2%
Food Science and technology	62	94	91	78	88	114	129	126	179	155	1116	0.6%	9.9%
Chemistry, physical	46	51	63	100	83	129	116	157	172	198	1115	0.6%	13.3 %
Materials science	37	49	73	74	104	113	129	144	173	191	1087	0.6%	14.4 %
Linguistics	73	63	98	107	108	113	98	119	137	148	1064	0.6%	9.1%
Entomology	57	89	81	74	94	129	116	99	140	139	1018	0.6%	3.4%
Psychiatry	50	55	77	105	87	107	96	127	156	136	996	0.6%	10.1 %
Evolutionary biology	49	72	95	95	111	111	115	100	113	104	965	0.5%	-1.5%
Neurosciences	44	58	68	87	94	85	81	129	146	159	951	0.5%	20.2 %
Cardiac and cardiovascular systems	56	45	52	107	95	99	89	127	132	148	950	0.5%	12.7 %
Environmental studies	31	50	36	53	62	66	87	127	191	234	937	0.5%	39.3 %
Information science and library science	67	66	65	79	107	77	108	107	111	119	906	0.5%	9.4%
Pediatrics	36	52	78	69	83	85	100	134	123	145	905	0.5%	13.6 %
Physics, multidisciplinary	37	55	68	64	71	60	120	172	123	112	882	0.5%	13.6 %
Physics, particles and fields	18	18	34	43	53	71	100	171	163	202	873	0.5%	33.8 %
Genetics and heredity	33	49	72	81	90	99	94	90	123	137	868	0.5%	9.6%

Biology	36	47	53	76	62	67	122	145	158	100	866	0.5%	11.2 %
Virology	32	28	50	82	104	94	108	123	126	108	855	0.5%	4.4%
Energy and fuels	25	34	30	70	65	74	98	104	160	190	850	0.5%	26.8 %
Sociology	36	33	29	62	27	55	80	118	175	217	832	0.5%	42.3 %
Planning and development	37	53	50	65	71	70	88	101	129	133	797	0.4%	18.1 %
Health care sciences and services	18	22	36	67	63	90	102	125	109	145	777	0.4%	10.7 %
Computer science	42	86	44	91	85	73	65	94	105	89	774	0.4%	9.2%
Rehabilitation	39	48	73	67	68	64	108	76	109	111	763	0.4%	11.7 %
Agronomy	62	83	47	71	65	79	73	77	96	93	746	0.4%	6.2%
Chemistry, organic	31	40	71	51	56	78	82	89	124	115	737	0.4%	12.6 %
Physics, condensed matter	35	42	56	61	91	68	66	127	74	112	732	0.4%	11.8 %
Engineering, electrical and electronic	30	46	57	68	67	69	72	95	109	115	728	0.4%	15.4 %
Social work	54	50	58	83	60	83	77	83	80	93	721	0.4%	2.7%
Biodiversity conservation	34	45	29	59	59	93	96	79	100	112	706	0.4%	15.1 %
Surgery	33	40	69	72	88	81	61	79	87	96	706	0.4%	7.2%
Chemistry, medicinal	17	16	39	59	41	79	118	108	125	96	698	0.4%	4.6%
Dentistry, oral surgery and medicine	34	45	59	71	74	62	79	100	91	78	693	0.4%	6.2%
Chemistry, inorganic and nuclear	41	44	57	64	68	79	72	69	102	88	684	0.4%	5.8%
Meteorology and atmospheric sciences	28	41	42	57	59	65	96	76	93	116	673	0.4%	11.9 %
Business, finance	36	36	34	51	53	41	70	73	111	160	665	0.4%	37.5 %
Endocrinology and metabolism	23	44	44	48	62	65	56	102	114	95	653	0.4%	15.8 %
Social sciences, biomedical	28	23	27	46	57	70	81	86	116	118	652	0.4%	15.1 %
Social sciences, other	4	2	1	4	7	18	94	145	197	174	646	0.4%	69.5 %

Communication	46	42	47	44	54	52	69	76	90	117	637	0.4%	20.8 %
Criminology and penology	42	46	50	87	56	67	67	74	54	88	631	0.3%	3.4%
Agriculture, dairy and animal science	46	41	51	40	73	73	53	65	95	88	625	0.3%	10.0 %
Electrochemistry	12	20	24	27	32	52	78	122	108	150	625	0.3%	27.7 %
Social issues	48	47	61	47	68	69	67	75	67	75	624	0.3%	1.7%
Respiratory system	25	34	40	45	60	75	86	89	70	95	619	0.3%	15.1 %
International relations	42	36	39	52	56	69	72	78	84	83	611	0.3%	5.4%
Sport sciences	26	29	42	57	63	66	78	68	78	102	609	0.3%	9.1%
Nutrition and dietetics	54	37	59	51	56	55	67	56	82	85	602	0.3%	11.3 %
Metallurgy and metallurgical engineering	41	42	47	50	44	57	76	74	76	92	599	0.3%	10.0 %
Mechanics	42	26	44	32	61	71	58	71	92	84	581	0.3%	8.3%
Behavioral sciences	17	29	28	38	27	37	42	79	124	148	569	0.3%	47.0 %
Nursing	33	34	51	65	62	52	45	56	78	79	555	0.3%	14.9 %
Art	17	28	44	56	49	59	81	72	84	56	546	0.3%	-0.7%
Chemistry, analytical	35	32	29	42	44	55	88	80	77	57	539	0.3%	-0.6%
Health policy and services	13	11	25	39	47	66	75	92	72	98	538	0.3%	7.8%
Agriculture, multidisciplinary	15	15	17	37	32	62	83	135	92	49	537	0.3%	-3.6%
Polymer science	19	37	31	30	41	61	58	73	87	92	529	0.3%	13.1 %
Thermodynamics	33	20	24	22	33	45	69	81	103	99	529	0.3%	21.9 %
Obstetrics and gynecology	45	37	38	50	67	39	44	64	61	73	518	0.3%	17.1 %
Geochemistry and geophysics	32	20	25	42	54	64	59	57	74	90	517	0.3%	15.5 %
Archaeology	21	22	30	56	53	62	52	69	79	69	513	0.3%	6.5%
Government and law	31	34	33	51	51	57	44	63	74	72	510	0.3%	10.4 %
Parasitology	10	12	24	39	47	56	58	73	91	98	508	0.3%	17.0 %
Cultural studies	26	27	32	55	49	46	57	55	66	87	500	0.3%	15.3 %
Mineralogy	29	33	42	48	45	47	70	44	68	66	492	0.3%	6.7%
Oceanography	11	17	46	45	52	55	58	55	55	83	477	0.3%	8.0%

Chemistry, applied	14	55	37	27	31	55	66	45	77	54	461	0.3%	1.2%
Medicine, research and experimental	22	14	39	23	43	26	49	67	73	102	458	0.3%	36.8 %
Tropical medicine	23	14	30	37	43	58	50	62	67	72	456	0.3%	7.5%
Geography, physical	15	14	31	39	38	46	46	59	75	90	453	0.3%	20.1 %
Philosophy	24	28	27	41	50	50	52	76	50	55	453	0.3%	1.5%
Industrial relations and labor	54	31	26	39	35	55	44	47	56	65	452	0.2%	5.9%
Clinical neurology	20	22	41	40	57	42	37	52	72	66	449	0.2%	17.0 %
Physics, applied	25	10	35	28	38	47	44	54	78	74	433	0.2%	16.0 %
Radiology, nuclear medicine and medical imaging	24	47	39	30	41	32	51	53	55	59	431	0.2%	7.6%
Horticulture	39	41	38	40	41	37	41	39	72	41	429	0.2%	8.0%
Critical care medicine	18	24	33	24	24	69	55	45	50	78	420	0.2%	1.5%
Soil science	46	53	37	39	37	42	32	46	42	45	419	0.2%	4.2%
Cell biology	20	26	29	37	53	35	47	54	59	58	418	0.2%	13.2 %
Physics, mathematical	21	25	35	52	58	35	44	44	40	64	418	0.2%	11.8 %
Geography	20	33	40	29	30	25	48	60	56	74	415	0.2%	26.2 %
Engineering, civil	21	21	36	31	36	44	44	54	63	62	412	0.2%	11.0 %
Engineering, multidisciplinary	25	20	36	25	28	30	33	45	86	78	406	0.2%	33.2 %
Mathematics, interdisciplinary applications	15	15	30	24	30	55	33	53	98	51	404	0.2%	9.8%
Urban studies	25	19	38	25	38	37	47	42	56	73	400	0.2%	16.6 %
Engineering, mechanical	31	34	35	28	29	45	38	53	58	46	397	0.2%	4.8%
Computer science, interdisciplinary applications	27	34	23	25	59	53	41	52	40	41	395	0.2%	-5.2%
Statistics and probability	23	32	26	36	31	41	39	60	42	65	395	0.2%	10.5 %
Physiology	27	29	34	34	34	44	47	41	45	58	393	0.2%	5.2%

Oncology	17	27	19	30	41	28	44	41	62	66	375	0.2%	14.7 %
Orthopedics	32	26	37	26	37	40	51	42	42	35	368	0.2%	-4.5%
Women's studies	27	11	19	46	45	30	43	42	51	54	368	0.2%	14.4 %
Forestry	19	23	23	29	44	40	56	43	45	45	367	0.2%	0.2%
Music	13	14	34	51	41	35	50	46	47	35	366	0.2%	-0.6%
Science and technology - other topics	20	27	21	37	44	45	44	26	44	49	357	0.2%	1.7%
Optics	19	13	24	23	27	22	45	52	51	70	346	0.2%	27.6 %
Integrative and complementary medicine	18	14	13	58	16	18	35	44	68	61	345	0.2%	36.4 %
Biochemical research methods	14	20	24	23	30	35	49	44	48	51	338	0.2%	7.6%
Engineering, industrial	21	20	26	33	26	26	35	45	45	60	337	0.2%	21.2 %
Nanoscience and nanotechnology	11	14	17	25	21	35	35	45	62	72	337	0.2%	22.3 %
Ornithology	15	13	38	40	40	48	34	33	30	43	334	0.2%	-3.4%
Anatomy and morphology	26	37	26	20	27	37	24	31	49	46	323	0.2%	12.2 %
Physics, nuclear	13	14	21	19	26	43	44	58	44	37	319	0.2%	-3.0%
Operations research and management science	25	21	31	25	30	24	30	37	46	38	307	0.2%	14.4 %
Computer science, theory and methods	24	47	23	62	19	23	14	25	26	37	300	0.2%	-2.5%
Literature, African, Australian, Canadian	19	24	28	38	27	36	32	31	33	32	300	0.2%	-2.0%
Physics, atomic, molecular and chemical	19	17	19	17	26	33	28	41	42	58	300	0.2%	16.6 %
Toxicology	16	18	23	31	30	30	23	43	31	50	295	0.2%	14.1 %
Engineering, environmental	16	23	20	22	36	30	32	30	34	51	294	0.2%	11.9 %
Instruments and instrumentation	16	15	22	20	28	26	32	40	30	57	286	0.2%	16.2 %
Ophthalmology	13	15	15	35	33	30	27	38	38	38	282	0.2%	8.5%
Fisheries	12	16	23	25	29	28	33	34	42	39	281	0.2%	9.5%

Mycology	26	31	18	26	30	33	26	24	25	31	270	0.1%	-1.6%
Peripheral vascular disease	15	10	19	36	21	25	29	34	42	37	268	0.1%	12.2 %
Poetry	22	7	13	27	35	26	37	27	39	31	264	0.1%	4.1%
Nuclear science and technology	13	15	19	15	33	19	29	41	31	43	258	0.1%	18.5 %
Ethics	5	5	9	13	20	25	35	44	42	55	253	0.1%	19.2 %
Agricultural economics and policy	24	26	23	26	19	22	26	22	30	23	241	0.1%	2.3%
Pathology	10	23	19	38	26	22	20	33	27	22	240	0.1%	3.0%
Education, scientific disciplines	9	17	21	33	14	25	30	28	24	37	238	0.1%	10.8 %
Literary theory and criticism	18	17	16	17	22	40	26	22	24	34	236	0.1%	-4.0%
Paleontology	17	12	21	21	34	27	20	19	33	30	234	0.1%	7.4%
Applied linguistics	15	22	24	42	23	22	20	18	20	25	231	0.1%	2.6%
Biophysics	7	10	13	17	19	27	29	21	36	45	224	0.1%	13.2 %
Spectroscopy	16	12	14	23	14	25	31	31	27	27	220	0.1%	0.2%
Hematology	8	10	19	17	16	22	23	26	41	36	218	0.1%	16.9 %
Medical laboratory technology	16	12	16	24	22	30	24	30	25	16	215	0.1%	- 11.5 %
Automation and control systems	14	12	23	18	21	15	21	23	30	35	212	0.1%	22.8 %
Computer science, information systems	7	11	9	24	23	23	13	30	48	21	209	0.1%	11.9 %
Hospitality, leisure, sport and tourism	2	2		1	1	10	23	18	30	118	205	0.1%	68.2 %
Engineering, biomedical	5	9	13	13	30	18	22	29	25	31	195	0.1%	12.9 %
Physics, fluids and plasmas	17	12	14	18	18	16	24	31	23	20	193	0.1%	4.1%
Family studies	8	6	5	19	17	25	23	31	28	30	192	0.1%	5.8%
Computer science, software engineering	20	22	11	17	18	18	21	20	14	15	176	0.1%	-7.4%
Telecommunications	7	14	7	10	14	16	23	19	34	32	176	0.1%	18.1 %

Reproductive biology	12	9	10	19	20	11	17	24	26	25	173	0.1%	23.0 %
Psychology, clinical	6	10	12	16	16	27	9	19	19	34	168	0.1%	12.8 %
Psychology, developmental	9	13	18	16	7	7	14	19	24	34	161	0.1%	44.8 %
Classics	15	9	15	21	23	11	13	18	15	19	159	0.1%	13.2 %
Construction and building technology	5	9	16	8	5	17	20	20	27	32	159	0.1%	16.9 %
Audiology and speech-language pathology	8	5	20	17	10	18	18	13	28	18	155	0.1%	4.5%
Folklore	15	9	6	17	11	15	23	29	18	12	155	0.1%	-6.7%
Primary health care	0			1	11	14	15	20	48	44	153	0.1%	41.2 %
Urology and nephrology	10	12	5	11	11	23	19	22	15	25	153	0.1%	-0.7%
Demography	1	6	2	14	12	3	19	12	31	47	147	0.1%	82.1 %
Medicine, legal	7	10	11	20	15	11	16	16	20	18	144	0.1%	12.8 %
Materials science, coatings and films	7	10	13	13	14	14	8	15	19	25	138	0.1%	22.4 %
Psychology, applied	2	4	2	8	5	14	15	21	22	42	135	0.1%	29.4 %
Psychology, social	4	10	5	11	4	23	11	21	17	26	132	0.1%	7.0%
Otorhinolaryngology	3	2	14	24	11	12	7	20	18	19	130	0.1%	20.1 %
Transportation	2	3	6	2	3	15	27	20	30	22	130	0.1%	9.1%
Computer science, artificial intelligence	5	4	5	7	15	19	17	15	17	25	129	0.1%	5.6%
Substance abuse	5	3	3	10	12	23	15	10	18	25	124	0.1%	3.6%
Dermatology	9	11	16	16	9	12	8	16	11	15	123	0.1%	7.9%
Emergency medicine	3	2	9	11	13	14	11	15	21	22	121	0.1%	16.8 %
Engineering, aerospace	8	4	7	19	12	15	19	11	9	13	117	0.1%	-9.8%
Mathematical and computational biology	2	10	2	6	11	10	16	11	19	30	117	0.1%	26.7 %

Remote sensing	5	4	5	3	5	13	8	15	25	28	111	0.1%	30.7 %
Materials science, composites	6	5	6	4	14	12	14	20	11	18	110	0.1%	5.9%
Architecture	5	6	9	22	18	4	13	13	10	9	109	0.1%	14.6 %
Rheumatology	8	7	10	13	7	11	8	17	7	21	109	0.1%	12.3 %
Theater	9	7	14	8	12	13	16	10	6	14	109	0.1%	-8.0%
Anesthesiology	9	8	8	17	11	13	12	6	11	12	107	0.1%	-2.4%
Gastroenterology and hepatology	12	8	17	10	5	9	14	13	13	5	106	0.1%	- 11.7 %
Agricultural engineering	3	1	1	11	5	11	16	9	21	25	103	0.1%	38.1 %
Mining and mineral processing	2	4	12	13	8	6	8	15	14	18	100	0.1%	31.7 %
Agriculture, soil science	12	5	2	6	9	9	13	9	14	14	93	0.1%	10.1 %
Ergonomics	8	9	7	10	5	5	11	8	15	13	91	0.1%	24.9 %
Materials science, biomaterials	2	5	5	7	12	7	7	9	18	18	90	0.0%	32.8 %
Imaging science and photographic technology	4	3	2	4	4	8	6	14	17	22	84	0.0%	35.9 %
Medical ethics	7	1	3	3	5	6	6	10	17	20	78	0.0%	41.2 %
Literature, romance	8	4	4	6	5	16	7	8	7	12	77	0.0%	-5.6%
Psychology, experimental	7	12	5	12	6	2	7	4	6	15	76	0.0%	47.3 %
Limnology	1	4	5	7	7	3	11	4	16	14	72	0.0%	41.3 %
Engineering, manufacturing	5	1	4	5	4	8	5	14	10	14	70	0.0%	19.9 %
Developmental biology	6	2	4	7	9	6	6	10	7	11	68	0.0%	14.6 %
Acoustics	1	9	6	2	7	4	8	10	10	9	66	0.0%	20.3 %
Allergy	3	4	14	4	6	7	6	10	4	8	66	0.0%	-1.4%
Ethnic studies	4	3	3	4	5	9	2	9	8	17	64	0.0%	30.5 %
Andrology		5	5	2	5	12	3	11	4	11	58	0.0%	

History and philosophy of science	4	1	3	6	3	4	7	10	4	16	58	0.0%	24.8 %
Materials science, ceramics	1	2	6	9	6	5	6	6	9	7	57	0.0%	11.4 %
Social sciences, mathematical methods	1	1	5	4	5	7	3	10	13	7	56	0.0%	15.8 %
Literature, German, Dutch, Scandinavian	1		7	2	3	2	4	17	8	11	55	0.0%	50.7 %
Microscopy	0	5	5	4	5	6	4	8	9	9	55	0.0%	17.6 %
Medical informatics	1	1		2	6	6	6	11	9	11	53	0.0%	17.6 %
Psychology, biological	4	12	6	6	4	1	3	5	3	9	53	0.0%	55.2 %
Materials science, characterisation and testing	3	2	7	1	6	4	9	2	5	11	50	0.0%	15.4 %
History of social sciences	2	1	4	4	3	6	5	10	6	8	49	0.0%	7.9%
Geriatrics and gerontology	1	0	2	2	3	6	2	6	17	7	46	0.0%	27.7 %
Psychology, educational	1	1	2	3	3	5	1	5	4	21	46	0.0%	53.1 %
Asian studies	3	2	2	6	3	5	6	7	4	6	44	0.0%	-0.4%
Materials science, paper and wood	1				3	9	10	5	7	9	44	0.0%	-3.5%
Transplantation	5	3	1	1	6	4	7	4	7	5	43	0.0%	4.6%
Psychology, psychoanalysis	2	4	3	3	3	4	4	6	6	6	41	0.0%	11.1 %
Medieval and Renaissance studies	4	7	4	7	6	3	3	1	1	1	37	0.0%	- 28.1 %
Education, special	1	2	4	3	1	2	3	6	8	6	36	0.0%	37.4 %
Film, radio, television	1		1		2		5	3	8	15	35	0.0%	
Logic	1	3	2	4	4	2	6	3	4	2	31	0.0%	-4.0%
Computer science, hardware & architecture	0	4		3	2	3	6	5	3	1	27	0.0%	- 25.1 %
Engineering, geological	2			4	3	2	3	2	4	6	26	0.0%	28.2 %
Neuro-imaging	1			1		1	2	4	5	12	26	0.0%	80.1 %

Computer science, cybernetics	0	0	1		3	1	4	4	8	4	25	0.0%	41.4 %
Gerontology	0	0	2	1	2	3	2	4	5	4	23	0.0%	16.1 %
Literature, British Isles	0	2	3	3	2	2	1	5		4	22	0.0%	
Materials science, textiles		1	1	3	3		2	2	5	4	21	0.0%	
Literature, Slavic		1	2	1	3	3	2	2	1	3	18	0.0%	-6.7%
Engineering, petroleum					1	1	1	1	6	5	15	0.0%	65.0 %
Cell and tissue engineering	1	1	1		2	3	2	2	1	1	14	0.0%	25.1 %
Robotics	1					2	1	3	3	4	14	0.0%	
Development	1	1	1	3	1	1		1		2	11	0.0%	
Engineering, ocean		1	1		1	1	2	1	1	2	10	0.0%	7.2%
Psychology, mathematical	1		1	1				2	1	2	8	0.0%	
Engineering, marine		1		1		1	2		1	1	7	0.0%	
Literary reviews		2						1	2	2	7	0.0%	
Transportation science and technology			2	3						2	7	0.0%	
Metallurgy and mineral processing						2		1	1		4	0.0%	
Literature, American									2	1	3	0.0%	
Dance					1						1	0.0%	

Figure 7 below lists the twenty largest fields as defined by publication output over the 10-year period. These twenty fields constitute one third (33.7%) of all journal articles produced by the university sector. Perhaps the most salient result is the fact that the Social Sciences and Humanities (Religion, Law, Education, Interdisciplinary Social Sciences, Management, Psychology and Business and Economics) constitute such a significant proportion of all journal articles (13.9%).

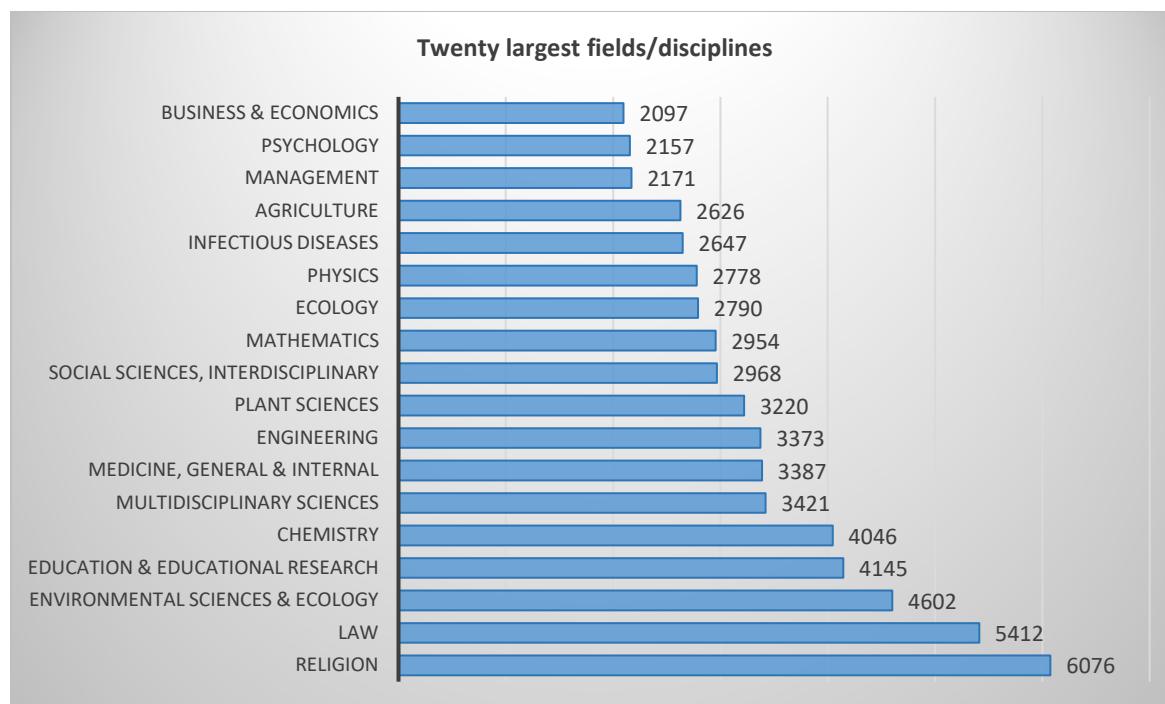


Figure 7: The twenty largest scientific fields (journal papers 2005 – 2014)

The subject categories that recorded that highest AAG over this period are listed below.

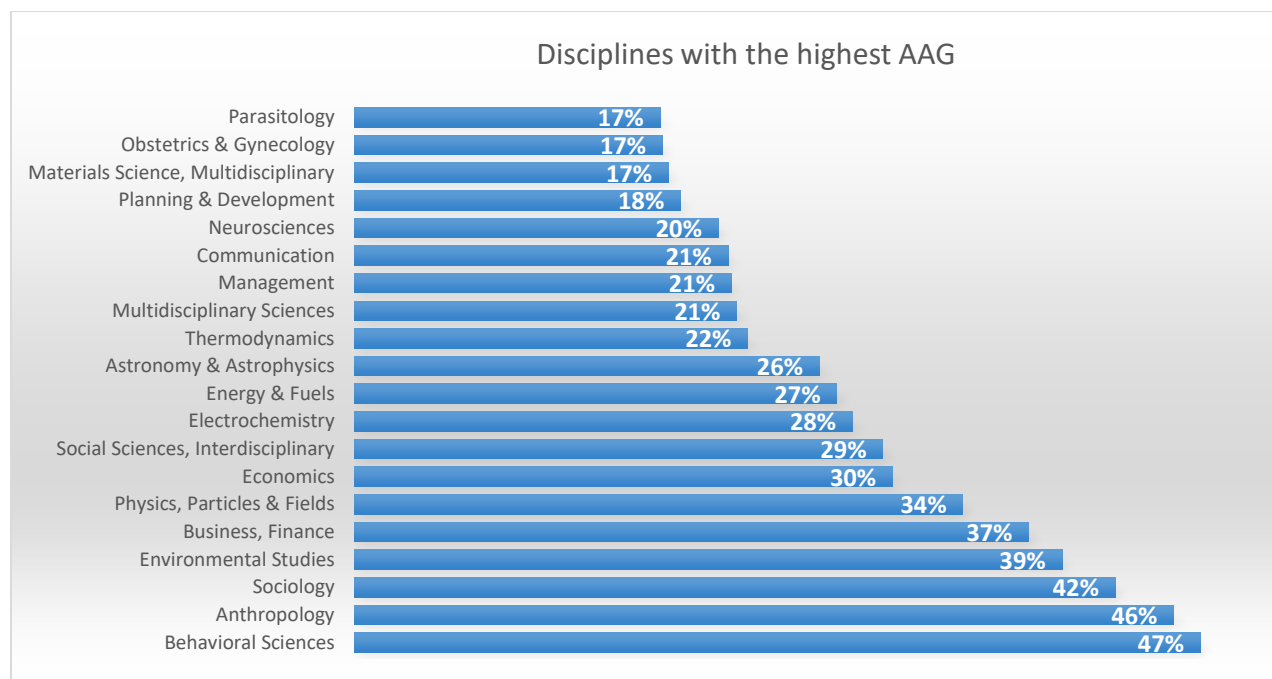


Figure 8: Scientific fields with highest average annual growth rates: 2005 - 2014

2.5.3 Level 2 categories: AAG rate (2005 – 2014)

In order to gain a better understanding of publication trends by field, it is sometimes advisable to focus on higher levels of aggregation. In this section we report on these trends in terms of our Level 2 classification.

Table 9: Distribution of journal papers by Level 2 scientific field

Level 2 field classification	Number of articles	%
Clinical and public health	21218	15.1%
Other social sciences	13012	9.2%
Biological sciences	10732	7.6%
Earth sciences	9378	6.7%
Agricultural sciences	8731	6.2%
Basic health sciences	8659	6.1%
Engineering sciences and applied technologies	8488	6.0%
Physical sciences	7240	5.1%
Economic and management sciences	6458	4.6%
Religion	6108	4.3%
Other humanities and arts	6082	4.3%
Chemical sciences	5945	4.2%
Law	5736	4.1%
Education	4330	3.1%
Mathematical sciences and ICCT	4305	3.1%
Language & linguistics	4082	2.9%
Sociology and related studies	3929	2.8%
Multidisciplinary sciences	3627	2.6%
Psychology	2784	2.0%
Total	140844	100%

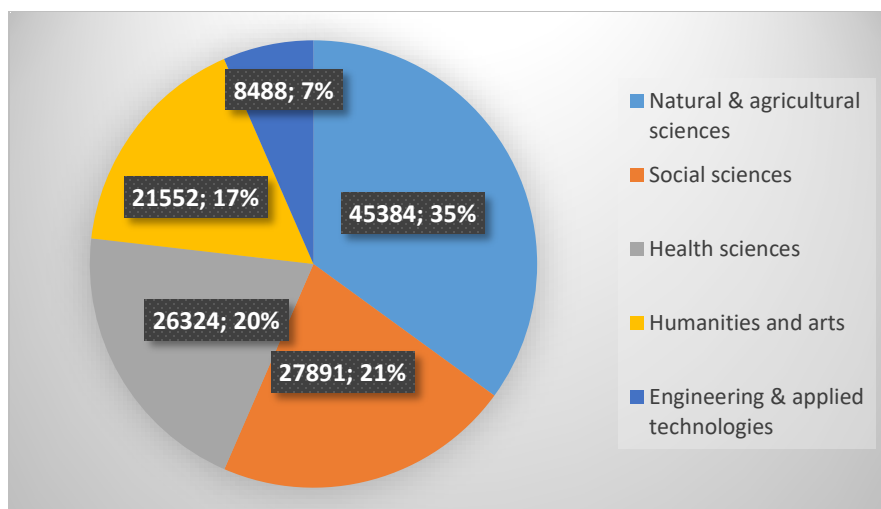


Figure 9: Distribution of journal articles by Level 1 science domain

Summary/conclusions

The distribution of journal articles by main science domain (Figure 9) shows that slightly more than one third appeared in journals categorised as natural sciences and agricultural science journals. The combined share of the social science and humanities constitutes 38% of all output. The share of articles in the medical and health sciences of total sector output is 20% and that of the engineering and technological sciences 5%. These patterns have remained quite stable over the past two decades. In previous studies where CREST has reported on these, very similar distributions were found.

2.6 Trends in collaborative publishing (multi-authorship)

What are the trends in collaborative publishing by South African academics? For the purposes of this report, 'collaborative publishing' is defined as any article with more than one author from multiple institutions (inside or outside South Africa). It is common practice to use multiple authorship as a proxy of research collaboration between scientists and scholars. In this section we discuss the trends in collaborative publishing for SA papers that appear in the WoS as well as in the IBSS and DHET lists separately. The reason is simply because the author affiliation information in the WoS is captured in standard fields which allows for straightforward analysis. However, the data for non-WoS articles (IBSS and DHET) which CREST receives from the DHET does not contain the affiliations of non-SA authors (again, this is because only SA authors qualify for subsidy). We were able to generate some collaboration profiles and trends for the non-WoS papers, but these are not as detailed as for the analyses of the WoS papers.

2.6.1 Trends in collaborative publishing in WoS journals

Our analysis of collaborative publishing is confined to 'research article' (excluding other document types such as editorials, book reviews and letters). To gauge the contribution of research cooperation on this productivity growth, we divided the outputs into three mutually-exclusive subsets by author affiliate addresses:

1. Publications from authors affiliated to single main organisation located in South African (university, research institute, business enterprise, etc.);
2. Publications with authors of two or more SA main organisations ('national cooperation');
3. Publications with at least one SA address and one non-SA address ('international cooperation').

The growth rates are presented in Table 10. The total publication output from South Africa more than tripled over the past ten years. It grew by 240%, with an average annual increase of 6.6%. The main driving force of the growth was international collaboration: these outputs increased by 710%. Research publications arising from domestic collaboration grew by a 200%, whereas those produced by a single organisation lagged behind and increased by a 'mere' 70%. International collaboration is boosting the research performance from South Africa at the global level. Figure 10 shows the annual trends over time and its marked increase since 2003.

Table 10: Growth rates of publication output from South Africa (1996-2015)

	% total growth rate	% compound annual growth rate
All	240	6.6
International collaboration	710	11.6
National collaboration	200	6.0
Single organisation	70	2.9

Data source: CWTS TR WoS database (whole counting; research articles and letters)

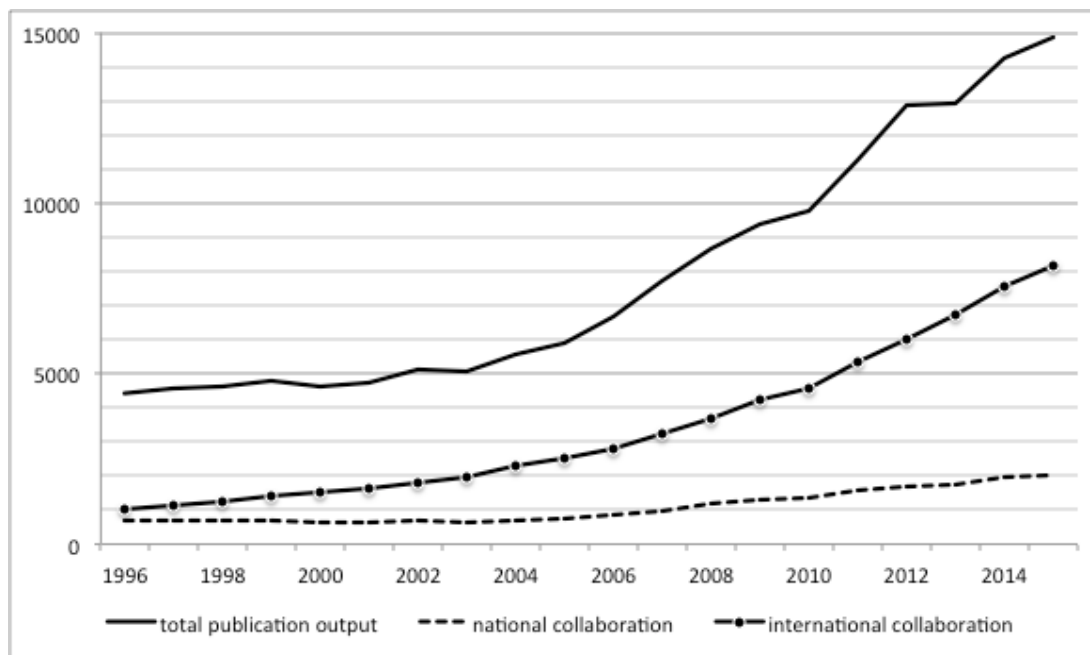


Figure 10: Annual trends in scientific publication output from South Africa

Data source: CWTS TR WoS database (whole counting; research articles and letters)

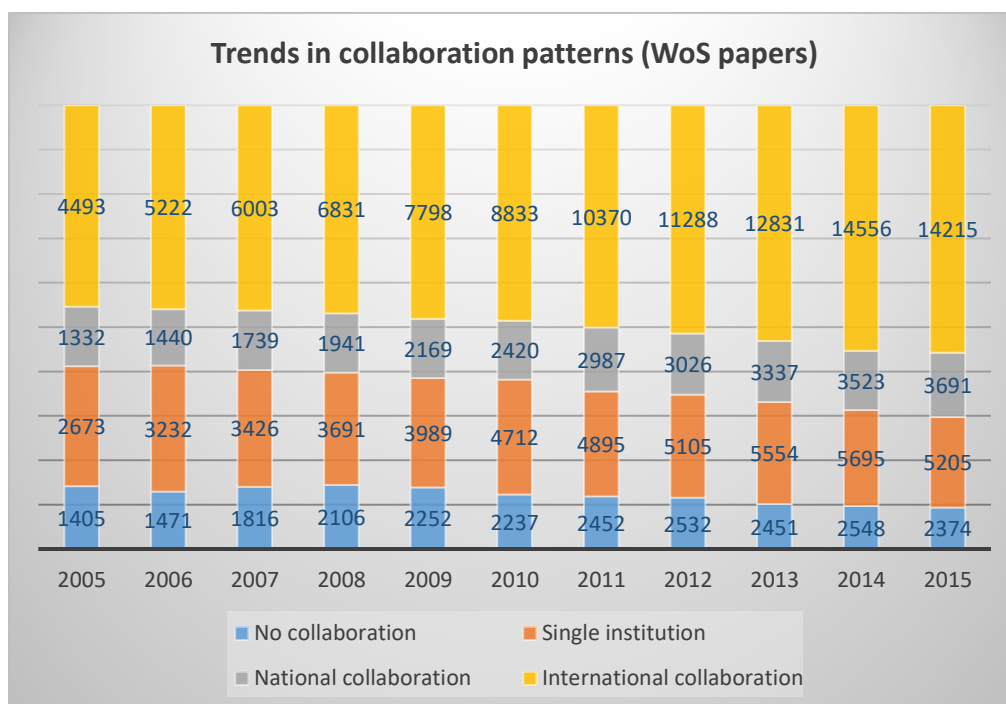


Figure 11: Trends in collaboration type (2005 – 2014)

2.6.2 Trends in collaborative publishing in non-WoS journals (local SA journals and journals indexed in IBSS)

The results in this section pertain to those articles that appeared in journals not indexed in the WoS, i.e. local SA journals and IBSS-indexed journals. This number adds up to 36 383 individual papers. In our coding of the collaboration categories for this subset of the data, we distinguished between ‘single-authored papers’ and “multi-authored papers”. The latter was further divided between collaboration with authors from other SA universities and collaboration with authors outside the HE system (science councils, government departments, national research facilities) and internationally. There were 18% of papers which we could not allocate to any of these categories.

Given the predominance of the social sciences, humanities and arts disciplines in local SA journals, the results are not entirely unexpected. More than 40% of these papers were single-authored papers. Nationally collaborative publishing accounts for one quarter of all papers with a relatively small proportion of 15% of the papers in this data set involving collaborations outside the university system.

Table 11: Collaborations in journals not indexed by WoS (2005 – 2014)		
	Number of Papers	%
Single-author papers	14949	41.1%
Collaboration within HEI system	9242	25.4%
Collaborations outside HEI system (other SA institution and/or international collaboration)	5504	15.1%
Collaboration unknown	6688	18.4%
	36383	

The field-specific patterns are presented in Table 12. The data is presented in descending order by proportions of papers that are single authored. These figures very clear show how dominant single authorship is in the Humanities and Arts (Religion, Languages, Law) and Social Sciences. At the other extreme, we find that collaborative publishing is more prevalent in Agriculture, Chemical Sciences and the Biological Sciences.

Table 12: Trends in co-authorship by scientific field

	Total papers	Single author/No collaboration	Collaboration within SA HE Sector	Collaboration outside SA HEI
Religion	3481	83.7%	12.4%	3.9%
Language and linguistics	2075	76.7%	16.6%	6.7%
Law	3625	69.6%	17.4%	13.0%
Other humanities and arts	2750	69.1%	19.2%	11.7%
Sociology and related studies	1646	50.6%	34.1%	15.2%
Education	2017	44.4%	35.5%	20.0%
Other social sciences	6385	44.3%	34.8%	21.0%
Basic health sciences	151	43.7%	22.5%	33.8%
Unknown	813	42.9%	37.9%	19.2%
Economic and management sciences	3264	36.7%	47.8%	15.5%
Multidisciplinary sciences	588	34.9%	41.0%	24.1%
Physical sciences	6	33.3%	16.7%	50.0%
Psychology	471	30.1%	48.2%	21.7%
Mathematical sciences and ICCT	348	22.4%	51.4%	26.1%
Earth sciences	189	18.5%	44.4%	37.0%
Clinical and public health	3501	17.3%	51.9%	30.8%
Engineering sciences and applied technology	467	14.6%	55.5%	30.0%
Biological sciences	28	10.7%	32.1%	57.1%
Chemical sciences	13	7.7%	69.2%	23.1%
Agricultural sciences	398	6.3%	70.4%	23.4%

Table 13: Collaboration profile of journals with more than 100 papers⁶

	Single author/No collaboration	Collaboration within SA HEI	Collaboration outside SA HEI	Unknown	Total papers
<i>South African Journal of Plant and Soil</i>	5%	43%	42%	10%	285
<i>Southern African Journal of Infectious Diseases</i>	11%	40%	39%	11%	192
<i>South African Journal of Clinical Nutrition</i>	11%	33%	37%	18%	210
<i>Occupational Health Southern Africa</i>	14%	42%	35%	10%	125
<i>Urban Forum</i>	38%	26%	32%	4%	186
<i>Current Allergy and Clinical Immunology</i>	42%	18%	31%	9%	153
<i>South African Journal of Occupational Therapy</i>	16%	38%	30%	16%	147
<i>African Journal of Primary Health Care and Family Medicine</i>	12%	54%	29%	5%	132

⁶ Cells that record some form of collaboration with 30% or more articles have been coded light blue. Cells that record no collaboration with 30% or more articles have been coded light green.

<i>Acta Structilia: Journal for the Physical and Development Sciences</i>	9%	47%	29%	14%	112
<i>AJPHRD: African Journal for Physical, Health Education Recreation and Dance</i>	12%	46%	28%	14%	1248
<i>AJRMSTE: African Journal of Research in Mathematics, Science and Technology Education</i>	22%	32%	28%	19%	172
<i>South African Journal of Sport Medicine</i>	11%	50%	28%	11%	142
<i>South African Family Practice: Official Journal of the South African Academy of Family Physicians</i>	19%	40%	27%	14%	645
<i>Health SA Gesondheid</i>	7%	41%	27%	25%	229
<i>Pythagoras: Journal of the Association for Mathematics Education of South Africa</i>	28%	29%	27%	16%	120
<i>Gender and Behaviour</i>	29%	43%	26%	2%	117
<i>SA Orthopaedic Journal</i>	14%	42%	25%	20%	251
<i>International Journal of Educational Sciences</i>	45%	30%	25%	0%	187
<i>South African Journal of Physiotherapy</i>	3%	44%	24%	30%	186
<i>SA Journal of Radiology</i>	10%	56%	24%	10%	147
<i>Africa Journal of Nursing and Midwifery</i>	5%	55%	24%	16%	128
<i>Journal of Human Ecology</i>	33%	44%	23%	1%	283
<i>Curationis</i>	12%	37%	23%	29%	258
<i>Management Dynamics: Contemporary Research Journal of the Southern Africa Institute for Management Scientists</i>	13%	49%	23%	15%	124
<i>Journal of Social Sciences</i>	41%	37%	22%	0%	487
<i>Journal of Education</i>	41%	19%	22%	19%	140
<i>Indilinga: African Journal of Indigenous Knowledge Systems</i>	36%	28%	22%	14%	138
<i>South African Journal of Information Management</i>	14%	40%	22%	23%	132
<i>Africa Insight</i>	47%	24%	21%	8%	234
<i>Perspectives in Education</i>	33%	29%	20%	18%	312
<i>Journal for New Generation Sciences</i>	28%	42%	20%	10%	210
<i>Africa Education Review</i>	30%	31%	19%	21%	221
<i>Southern African Journal of Anaesthesia and Analgesia</i>	33%	35%	19%	13%	172
<i>Social Work/Maatskaplike Werk: A Professional Journal for the Social Worker</i>	25%	30%	18%	27%	292
<i>SA Journal of Human Resource Management</i>	11%	60%	18%	11%	181
<i>SADJ: Journal of the South African Dental Association</i>	12%	32%	17%	39%	526
<i>South African Law Journal</i>	56%	9%	17%	17%	310
<i>Southern African Public Law</i>	42%	7%	17%	34%	272
<i>Annual Survey of South African Law</i>	50%	16%	17%	18%	214

<i>Social Work Practitioner-Researcher/Maatskaplikewerk Navorsers-Praktisyn</i>	24%	30%	17%	28%	194
<i>African Journal of Public Affairs</i>	46%	35%	17%	2%	134
<i>TD: Journal for Transdisciplinary Research in Southern Africa</i>	52%	30%	16%	2%	176
<i>African Vision and Eye Health</i>	40%	40%	16%	4%	161
<i>South African Journal of African Languages/Suid-Afrikaanse Tydskrif vir Afrikatale</i>	48%	12%	15%	25%	195
<i>Journal of Contemporary Management</i>	24%	56%	15%	4%	181
<i>Acta Commercii</i>	19%	50%	15%	16%	153
<i>Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa</i>	30%	30%	15%	25%	100
<i>South African Journal of Higher Education</i>	37%	31%	14%	18%	817
<i>Journal of Educational Studies</i>	34%	24%	14%	28%	172
<i>SAIEE Africa Research Journal</i>	5%	49%	14%	33%	170
<i>South African Review of Sociology</i>	62%	14%	14%	10%	132
<i>Transformation: Critical Perspectives on Southern Africa</i>	62%	10%	14%	14%	111
<i>Journal of Public Administration</i>	41%	19%	13%	27%	622
<i>Administratio Publica</i>	46%	33%	13%	9%	246
<i>Mousaion: South African Journal of Information Studies</i>	29%	27%	13%	30%	205
<i>Southern African Journal for Folklore Studies</i>	51%	19%	13%	18%	154
<i>Journal of Economic and Financial Sciences</i>	29%	58%	13%	1%	126
<i>International Business and Economics Research Journal</i>	26%	55%	12%	8%	239
<i>Southern African Business Review</i>	16%	37%	12%	36%	194
<i>South African Journal of Libraries and Information Science</i>	21%	23%	12%	44%	160
<i>Art South Africa</i>	80%	3%	12%	5%	154
<i>Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa</i>	43%	27%	11%	19%	456
<i>Acta Academica</i>	50%	25%	11%	14%	423
<i>Acta Criminologica: Southern African Journal of Criminology</i>	33%	25%	11%	31%	309
<i>SA Journal of Industrial Psychology/Tydskrif vir Bedryfsielkunde</i>	13%	53%	11%	23%	256
<i>Corporate Ownership and Control</i>	34%	51%	10%	4%	268
<i>Stellenbosch Law Review</i>	60%	10%	10%	21%	224
<i>Communicatio: South African Journal for Communication Theory and Research</i>	46%	20%	10%	24%	167
<i>Progressio: South African Journal for Open and Distance Learning Practice</i>	46%	42%	10%	2%	119

<i>South African Computer Journal</i>	15%	48%	10%	26%	118
<i>PER: Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad</i>	54%	22%	9%	15%	304
<i>African Human Rights Law Journal</i>	47%	10%	9%	33%	127
<i>Politeia: Journal for Political Science and Public Administration</i>	35%	17%	9%	38%	127
<i>South African Baptist Journal of Theology</i>	69%	14%	9%	8%	118
<i>Child Abuse Research in South Africa</i>	33%	31%	9%	27%	113
<i>Journal for Juridical Science/Tydskrif vir Regswetenskap</i>	45%	24%	9%	22%	109
<i>LitNet Akademies/Academic</i>	72%	17%	8%	3%	325
<i>Journal of Contemporary Roman-Dutch Law</i>	40%	10%	7%	43%	538
<i>De Jure</i>	42%	9%	7%	43%	342
<i>SAALT: Journal for Language Teaching/Tydskrif vir Taalonderrig</i>	48%	25%	7%	20%	152
<i>Law, Democracy and Development</i>	45%	9%	7%	38%	107
<i>Muziki: Journal of Music Research in Africa</i>	46%	4%	7%	43%	102
<i>Tydskrif vir die Suid-Afrikaanse Reg/Journal of South African Law</i>	66%	8%	6%	20%	464
<i>Obiter</i>	48%	24%	6%	22%	419
<i>Journal of Theology for Southern Africa</i>	65%	3%	6%	26%	143
<i>Tydskrif vir Letterkunde</i>	68%	9%	6%	18%	141
<i>Scrutiny2: Issues in English Studies in Southern Africa</i>	74%	4%	6%	16%	114
<i>Journal of Economics and Behavioral Studies</i>	30%	59%	6%	5%	110
<i>SA Mercantile Law Journal/SA Tydskrif vir Handelsreg</i>	46%	6%	5%	42%	346
<i>Journal for Christian Scholarship/Tydskrif vir Christelike Wetenskap</i>	69%	14%	5%	12%	284
<i>Historia: Journal of the Historical Association of South Africa</i>	62%	9%	5%	23%	164
<i>Current Writing</i>	79%	4%	5%	13%	127
<i>Meditari: Accountancy Research</i>	32%	31%	5%	32%	111
<i>Architecture South Africa: Journal of the South African Institute of Architects</i>	75%	14%	5%	6%	101
<i>In Die Skriflig</i>	68%	12%	4%	17%	433
<i>Koers: Bulletin for Christian Scholarship/Bulletin vir Christelike Wetenskap</i>	59%	18%	4%	20%	263
<i>South African Journal of Art History</i>	65%	13%	4%	19%	262
<i>Journal for Semitics/Tydskrif vir Semistiek</i>	69%	6%	4%	21%	258
<i>Journal of Literary Studies/Tydskrif vir Literatuurwetenskap</i>	73%	5%	4%	19%	182
<i>Comparative and International Law Journal of South Africa</i>	49%	6%	4%	41%	150

<i>Journal of Constructive Theology: Gender, Religion and Theology in Africa</i>	64%	21%	4%	11%	118
<i>English in Africa</i>	75%	3%	4%	18%	116
<i>Communitas: Journal for Community Communication and Information Impact</i>	54%	35%	4%	8%	113
<i>South African Journal of Criminal Justice</i>	62%	10%	3%	25%	229
<i>New Contree: A Journal of Historical and Human Sciences for Southern Africa</i>	66%	12%	3%	19%	144
<i>Speculum Juris</i>	59%	10%	3%	28%	138
<i>STJ: Stellenbosch Theological Journal</i>	76%	10%	2%	12%	564
<i>Verbum et Ecclesia</i>	63%	13%	2%	22%	418
<i>Literator</i>	64%	12%	2%	22%	232
<i>South African Journal of Cultural History</i>	57%	13%	2%	28%	134
<i>Religion and Theology: A Journal of Contemporary Religious Discourse</i>	58%	3%	2%	37%	103
<i>Studia Historiae Ecclesiasticae: Journal of the Church History Society of Southern Africa</i>	61%	6%	1%	32%	355
<i>Scriptura: International Journal of Bible, Religion and Theology in Southern Africa</i>	73%	5%	1%	21%	321
<i>Pharos Journal of Theology</i>	66%	15%	1%	18%	163
<i>Journal of Early Christian History: A Journal for the Study of Early Christianity and Late Antiquity</i>	65%	8%	1%	25%	157
<i>Stilet: Tydskrif vir Afrikaanse Letterkundevereniging</i>	69%	12%	1%	17%	150
<i>English Academy Review</i>	72%	4%	1%	22%	141
<i>Missionalia: Journal of the Southern African Missiological Society/Tydskrif Van Die Suider-Afrikaanse Werkgemeenskap Vir Sendingwetenskap</i>	50%	6%	1%	43%	115
<i>Old Testament Essays (New Series): Journal of the Old Testament Society of South Africa</i>	67%	4%	0%	29%	351
<i>Fundamina: A Journal of Legal History</i>	50%	5%	0%	45%	131

2.7 The citation impact of South African-authored papers over the period 2005 – 2014

Citations to scientific papers are generally understood as indicators of scientific recognition and the visibility of the scientist and his or her work. We present two kinds of citation statistics in the next sections:

1. Citation indicators of articles from SA in WoS journals
2. Citations in the WoS to SA journals not indexed in the WoS.

2.7.1 Citation impact of SA papers in WoS journal papers

The visibility and appreciation worldwide for South African science is partially captured by looking at the number of times research publications are referenced ('cited') in the publications of other researchers working in the same discipline or related fields. The number of citations is partially dependent on the research fields (some fields are 'fast', while others are 'slow') and need to be corrected for fair cross-field comparisons. This is what the 'field-normalised citation impact' score does. The other source of citation impact data, highly-cited publications, is generally seen as a mark of significant research impact on the scientific community.

Table 14. The share of South African science in global science – in total and by discipline* (1996-2015)

Share of South African research publications in ...			
	world publication output	top 10% cited worldwide	top 1% cited worldwide
All fields in total	0.6%	7.1%	0.6%
Medical and life sciences	0.6%	6.8%	0.7%
Natural sciences	0.5%	8.6%	0.7%
Engineering sciences	0.4%	7.8%	0.5%
Social and behavioural sciences	1.0%	4.0%	0.2%
Arts, humanities and law	1.1%	9.7%	1.2%
Language and communication	1.0%	3.5%	0.1%

Data source: CWTS TR WoS database (whole counting; research articles and letters)

* Selected broad disciplines originate from the NOWT classification system developed at CWTS, Leiden University.

Table 14 presents the share of South African (co-)authored research publications in world science. Across all disciplines of science it amounts to 0.6% during the period 1996 – 2015. Some disciplines of SA science are better represented than others: we find a 1% share of SA publications in the social sciences and humanities. As for the collective citation impact of all those publications together, the field-normalised citation impact for South Africa has gone up very gradually from 0.66, for the 4-year citation-window 1996 – 1999, to an impact score of 1.03 for the period 2011 – 2014. Keeping in mind that a score of 1.00 on this performance indicator represents world average citation impact (determined

mainly by the US and the leading nations of the world), our country has moved up from a performance level 'below par' to 'international level' in fewer than two decades.

Highly-cited publications are those that get noticed (and appreciated) among peers. These are the publications that make a difference in scientific progress and knowledge creation. South Africa contributes significantly to the top 1% and top 10% most highly cited publications of the world. Across all disciplines of science, we find that 7.1% of all South African research publications are among the top 10% cited in their respective discipline. SA produces 9.7% of publications in arts, humanities and law. The natural sciences in SA also produce fairly large numbers of highly-cited publications. Moving up to the top 1% cited in the world in their discipline, citations of South African articles account for 0.6% of that upper segment. SA publications in arts, humanities and law are again well-presented, along with natural sciences, but so are medical and life sciences from South Africa.

Many highly-cited publications represent a new discovery or another novelty that spark further research or open up new topics or areas of scientific enquiry. Some may lay the foundation for novel medical treatments or 'game changing' technologies. There is therefore a fair chance that the top 10% or top 1% contains these 'breakthrough discoveries'⁷. By their very nature these publications are quite rare. We applied CWTS-developed algorithms to identify those particular publications and determine the SA share in the breakthroughs (Figure 12).

⁷ The algorithms and a comparative analysis of their results are described in more detail in Winnink et al. (*PlosOne* 2016, forthcoming)

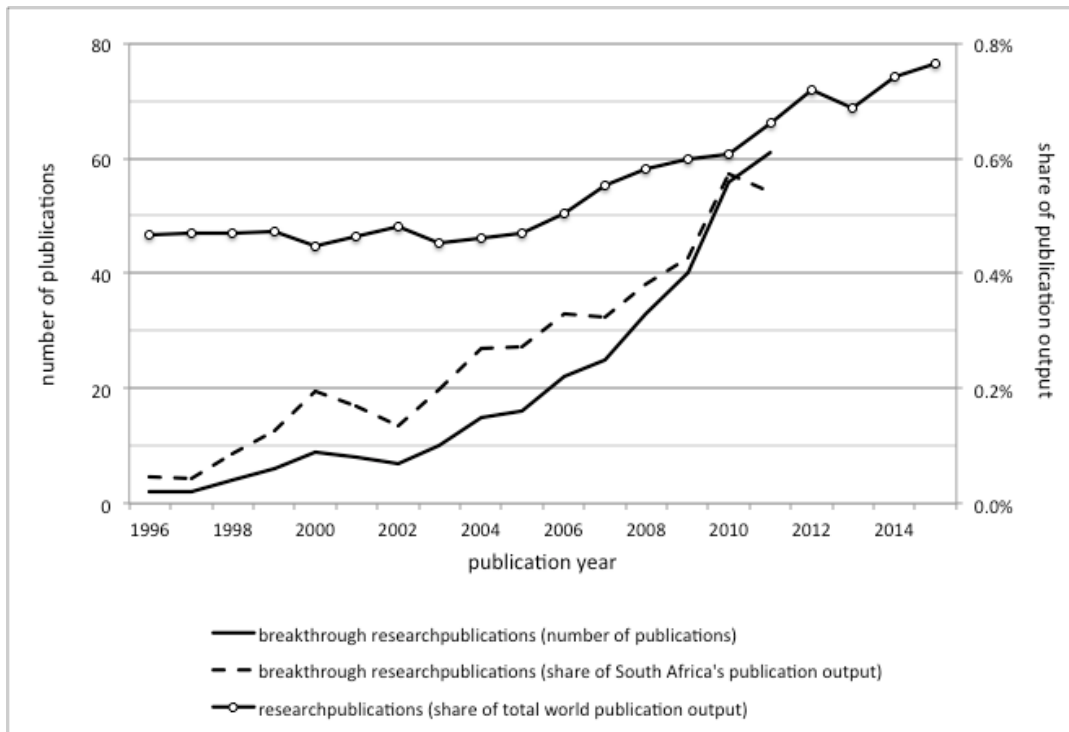


Figure 12: Annual trend in the share of South Africa of the world publication output and within breakthrough research publications

Data source: CWTS TR WoS database (whole counting; research articles and letters)

The internationalisation of our science system and its rapid growth in publication output are also reflected in the increase of highly-cited SA publications and breakthroughs. Figure 13 displays some the annual trends. South Africa has almost doubled its share in world science since 1996, up from 0.45% to 0.80% in 2015. The trend in SA (co-produced) breakthrough publications is also upwards. Not only are the numbers of these publications increasing, their share in South African output has gone up significantly from almost zero to 0.6% in 2012.

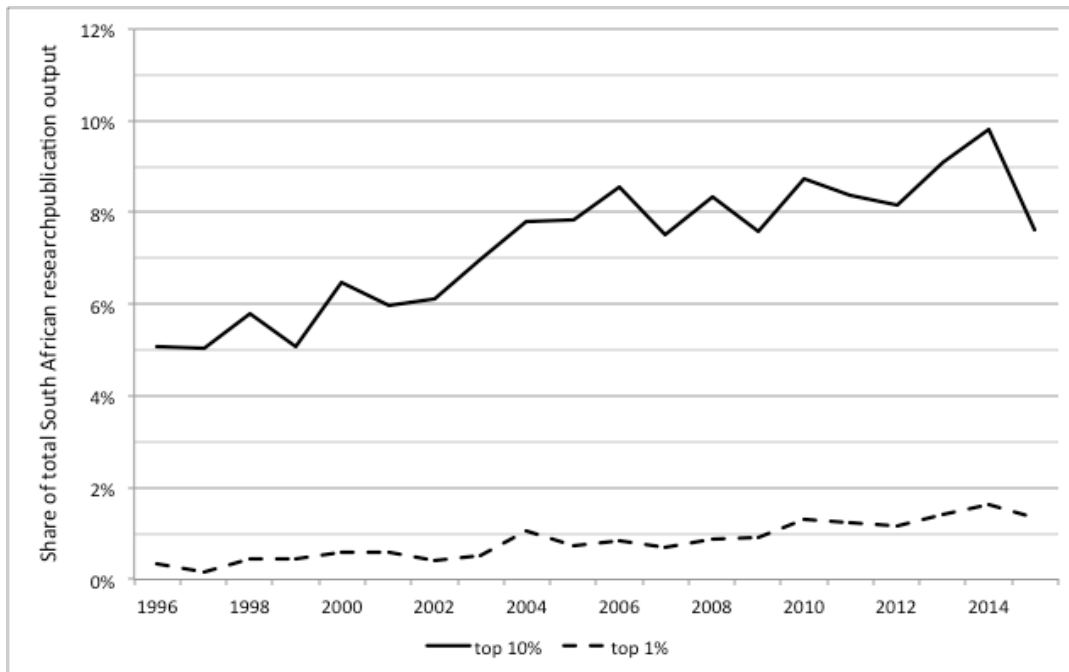


Figure 13: Annual trend in the share of South Africa of highly-cited publications within its total publication output

Data source: CWTS TR WoS database (whole counting; research articles and letters)

Figure 13 describes the related annual development with regards to the share of South Africa in the top 1% and top 10% most highly-cited research publications of the world. The upward trend lines mark an increase in the share of these very highly-cited publications, which is of course one of the driving forces of the overall increase of the research impact of South Africa. The output share in the top-10% segment is still below 10%, fluctuating around 8%. By contrast, South African science has managed a significant increase in top-1% cited publications over the years. That share is now well above 1% of the total publication output of South Africa. In other words, our country is 'over-represented' in the upper echelons of world science. Many of those extremely highly-cited publications are the product of international scientific cooperation.

2.7.2 Journal-level citation statistics

In this section we report on journal-level citation statistics for the SA journals that are currently indexed in the WoS. We present the information by journal (in alphabetical order). The following information is provided.

Publication and citation windows: We present all statistics for two windows: from 2005 to 2009 and 2010 to 2014

Comparison between all papers published in the journal and SA-authored papers (at least one author with a SA affiliation) during these window periods

Counting method: Full-paper count for all articles and review articles

Citations: Citations to the papers in the publication window (citations sourced from all journals in the WoS)

Self-citations: Author-self-citations

Ncs = Average number of citations for the citation period

Relative citation rate:

% of SA authors: Proportion of papers produced during publication window by SA authors

Self-citations as % of all citations: Author-self-citations as proportion of all citations.

In addition we provide some background facts about the journal, including the latest available JIF (TR Journal Citations Report) score where available.

EXAMPLE:



Journal facts: *Acta Theologica* (ISSN Print 1015-8758 ISSN on-line 2309-9089) is the official journal of the Faculty of Theology of the University of the Free State, Bloemfontein, South Africa. It is published by the UFS. It was established in 1980.

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	101	5	0	0%	0.05		
RSA PAPERS (2005 – 2009)	81	5	0	0%	0.06	1.25	80%
ALL PAPERS (2010 – 2014)	238	27	4	15%	0.10		
RSA PAPERS (2010 – 2014)	203	24	4	17%	0.10	1.02	85%

Interpretation of the table

- The proportion of authors publishing in the journal with a SA affiliation and the comparative trend (80% increasing to 85% in more recent publication window)
- The proportion of self-citations to all citations (0% and 15% respectively)
- The average number of citation (ncs) range between 0.05 and 0.10 (very low citation scores)
- The relative citation rates: This compares whether the SA-authored papers are being cited more or less relatively to the non-SA-authored papers. A rate of 1.00 would mean that the citation rates are identical. In this case there is very little difference in the relative citation rates of these two groups of authors.

Overall assessment: *Acta Theologica* remains a predominantly local SA journal (with between 80 and 85% of all papers authored by at least one SA author). The average number of citations is very low which would translate in a very low JIF.

Table 15: Summary overview of journal-level indicators

Journal	% self-citations (2010 – 2014)	Ncs (2010 – 2014)	Relative Citation rate	JCR JIF	% SA authors
<i>Acta Theologica</i>	17%	0.10	1.02		85%
<i>African Entomology</i>	19%	0.92	1.49	0.521	57%
<i>African Journal of Aquatic Science</i>	26%	1.37	1.22	0.806	55%
<i>African Journal of Marine Science</i>	22%	2.83	1.02	1.058	74%
<i>African Journal of Psychiatry</i>	18%	2.44	1.19		60%
<i>African Journal of Zoology</i>	51%	0.66	1.14	0.739	73%
<i>African Journal of Wildlife</i>	21%	0.96	1.06	1.641	81%
<i>Agrekon</i>	10%	0.65	1.00	0.250	80%
<i>African Journal of Aids Research</i>	24%	1.25	1.11	0.716	52%
<i>Cardiovascular Journal of Africa</i>	9%	1.96	1.45	1.022	30%
<i>Development South Africa</i>	18%	1.24	1.07	0.424	78%
<i>Education as Change</i>	30%	0.51	0.98	0.313	81%
<i>Journal of Energy in Southern Africa</i>	28%	0.26	1.28	0.237	65%
<i>Journal of Psychology in Africa</i>	44%	0.16	0.98	0.207	91%
<i>JSAVA</i>	13%	0.51	0.98	0.273	72%
<i>SAIMM</i>	39%	0.20	0.90	0.121	53%
<i>Onderstepoort Journal Veterinary Science</i>	35%	0.33	0.76	0.603	52%
<i>Ostrich</i>	46%	0.60	0.94	0.418	53%
<i>SA Journal for Research in Sport, Physical Education and Recreation</i>	34%	0.17	1.06	0.244	72%

<i>SA Journal of Animal Science</i>	38%	0.52	0.86	0.511	56%
<i>SA Journal of Business Management</i>	19%	0.20	0.99	0.200	74%
<i>SA Journal of Chemistry</i>	50%	0.40	1.33	0.667	46%
<i>SA Journal of Economic and Management Sciences</i>	24%	0.12	1.16	0.185	82%
<i>SA Journal of Economics</i>	25%	0.70	1.22	0.441	57%
<i>SA Journal of Education</i>	12%	0.68	1.10	0.560	86%
<i>SA Journal of Geology</i>	13%	1.93	0.94	0.909	82%
<i>SA Journal of Industrial Engineering</i>	50%	0.08	0.71	0.188	62%
<i>Ostrich</i>	45%	0.56	0.94	0.418	53%
<i>SA Journal of Psychiatry</i>	13%	0.60	1.15	0.193	65%
<i>SA Journal of Psychology</i>	13%	0.88	1.03	0.532	87%
<i>SA Journal of Surgery</i>	18%	0.75	0.96	0.462	70%
<i>SA Journal of HIV Medicine</i>	9%	0.74	1.05	0.529	78%
<i>Southern African Linguistic and Applied Language Studies</i>	29%	0.37	1.01	0.188	85%
<i>Tydskrif vir Geesteswetenskappe</i>	43%	0.07	1.01	0.322	92%
<i>SA Medical Journal</i>	14%	2.03	1.02	1.500	90%
<i>HTS</i>	36%	0.14	1.02		98%
<i>SA Journal of Science</i>	23%	0.80	1.09	0.902	86%
<i>SA Journal of Botany</i>	15%	2.93	0.96	1.244	61%
<i>Water SA</i>	24%	1.23	1.05	0.851	58%

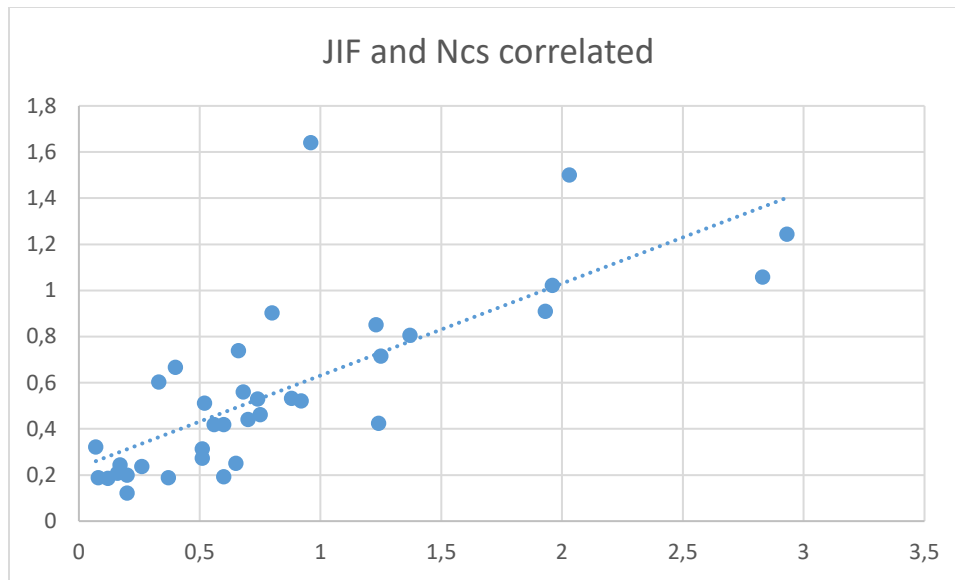


Figure 14: Spearman rank order correlation of average number of citations and JIF

Correlating the average number of citations and Journal Impact Factor for these journals show a high correlation as one would expect.

2.7.3 Citations in the WoS to SA journals not indexed in the WoS

In order for a journal to have a detailed citation profile and specifically to produce a JIF, it has to be indexed in a citation index such as WoS or Scopus. The calculation of various citation indicators (such as the JIF, cited-half life, immediacy index) is then based on the citations to articles in the indexed journal (such as the SA Journal of Science) from other articles that are published in WoS-indexed journals.

However, the WoS also includes citations from journal not indexed in it. These are referred to as ‘non-source’ citations. So, for example, citations from a SA Journal such as *Curia-tonis* (which is not indexed in the WoS) will appear in WoS-indexed journals. This feature of the WoS allowed us to do an additional set of analyses, viz. to see what the numbers of citations are from non-source SA-journals to articles in the WoS. This is an interesting indicator as it tells us that, although a specific journal is currently not indexed in the WoS, it has some visibility in WoS-journals. In fact, TR monitors these citations from non-source items as one strategy to include a new journal in the future. If a specific journal that is currently not indexed in the WoS generates a large number of citations within the WoS, TR may decide to start indexing that journal. An example of exactly this phenomenon appears in our table below. The very first entry in the table, African Natural History, generated such a large number of references in WoS-indexed journals (under its previous name “Annals of the South African Museum”) that TR decided to include in from 2014 onwards.

The table below lists SA journals currently NOT indexed in the WoS (both the ‘cited work name’ in the WoS and its current name with the number of citations to that journal over the past 25 years. It is evident that the vast majority of SA journals that are not in the WoS do not have great visibility in the WoS. However, at the same time, there are also a number of journals which regularly get cited in WoS-indexed journals. We have highlighted in green the journals that were cited more than 200 times in the WoS over the past 25 years⁸.

⁸ Note that changes to the names of the journal (such as *Marine Orithology*) have to be factored in, when summing all the citations generated of the journals.

Table 16: Citations from non-source SA journals to articles in the WoS

Cited work	Current name	Total citations
Annals of the South African Museum	African Natural History	6750
Palaeontologia Africana	Palaeontologia Africana	3651
Marine Ornithology	Marine Ornithology: An International Journal of Seabird Research and Conservation	2897
South African Journal of Plant and Soil	South African Journal of Plant and Soil	2100
Annals of the Transvaal Museum	Annals of the Ditsong National Museum of Natural History	1747
Development Southern Africa	Development Southern Africa	1517
Curationis	Curationis	1382
Transactions of the Royal Society of South Africa	Transactions of the Royal Society of South Africa	1125
Historia	Historia	757
Navorsinge van die Nasionale Museum (Bloemfontein)	Navorsinge van die Nasionale Museum, Bloemfontein	497
Cormorant	Marine Ornithology: An International Journal of Seabird Research and Conservation	471
Journal of the Southern African Wildlife Management Association	African Journal of Wildlife Research	448
Urban Forum	Urban Forum	366
Agenda	Agenda: Empowering Women for Gender Equity	336
Journal of Education	Journal of Education	327
Theoria	Theoria: A Journal of Social and Political Theory	290
South African Journal of Wildlife Research	African Journal of Wildlife Research	285
SA Journal of Industrial Psychology	South African Journal of Industrial Psychology	285
Journal of Contemporary History	Journal for Contemporary History	279
South African Family Practice	South African Family Practice	262
Innovation	Innovation : A Journal for Appropriate Librarianship and Information Work in Southern Africa	243
South African Journal of Library and Information Science	South African Journal of Libraries and Information Science	225
Innovations	Innovation : A Journal for Appropriate Librarianship and Information Work in Southern Africa	217
Africa Insight	Africa Insight	216
South African Journal of Higher Education	South African Journal of Higher Education	204
Transformation	Transformation : Critical Perspectives on Southern Africa	198
Journal of Child and Adolescent Mental Health	Journal of Child and Adolescent Mental Health	195

ORiON	ORiON	190
African Journal of Agricultural and Resource Economics	African Journal of Agricultural and Resource Economics	189
Industrial Law Journal	Industrial Law Journal including Industrial Law Reports	184
Alternatives		153
African Security Review	African Security Review	145
Journal of Engineering, Design and Technology	Journal of Engineering, Design and Technology	126
Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie	Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie/South African Journal of Science and Technology	126
Kronos	Kronos: Southern African Histories	124
African Population Studies	African Population Studies	123
South African Journal of International Affairs	South African Journal of International Affairs	123
Journal of Islamic Studies	Journal for Islamic Studies	118
Transactions of the South African Institute of Electrical Engineers	SAIEE Africa Research Journal	111
South African Journal of Industrial Psychology	South African Journal of Industrial Psychology	106
Health SA Gesondheid	Health SA Gesondheid	99
TRANSFORMER	Transformation : Critical Perspectives on Southern Africa	95
Innovate	Innovation : A Journal for Appropriate Librarianship and Information Work in Southern Africa	91
South African Review of Sociology	South African Review of Sociology	90
South African Computer Journal	South African Computer Journal	85
Journal of the Dental Association of South Africa	South African Dental Journal	85
South African Journal of African Languages	South African Journal of African Languages	76
Transformations	Transformation : Critical Perspectives on Southern Africa	76
South African Journal of Obstetrics and Gynaecology	South African Journal of Obstetrics and Gynaecology	72
Verbum et Ecclesia	Verbum et Ecclesia	70
Journal of Theology for Southern Africa	Journal of Theology for Southern Africa	70
Flowering Plants of Africa	Flowering Plants of Africa	70
Navorsing van die Nasionale Museum Bloemfontein	Navorsing van die Nasionale Museum, Bloemfontein	68
South African Journal of Sports Medicine	South African Journal of Sports Medicine	68
Journal of Public Administration	Journal of Public Administration - SAIPA / SAAPM	67
Annals of the Durban Museum	Durban Natural Science Museum Novitates	66
Acta Juridica	Acta Juridica	64
Old Testament Essays	Old Testament Essays	64
Perspectives in Education	Perspectives in Education	64
Politeia	Politeia	63

Neotestamentica	Neotestamentica	63
African Sociological Review	African Sociological Review	63
English in Africa	English in Africa	60
Journal of Psychology in Africa	Journal of Psychology in Africa	60
Alternation	Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa	59
Southern African Field Archaeology	Southern African Field Archaeology	58
African Human Rights Law Journal	African Human Rights Law Journal	58
Missionalia	Missionalia : Southern African Journal of Missiology	57
South African Law Journal	South African Law Journal	57
Management Dynamics	Management Dynamics : Journal of the Southern African Institute for Management Scientists	57
Psychology in Society	Psychology in Society	56
Scriptura	Scriptura : International Journal of Bible, Religion and Theology in Southern Africa	55
Feminist Africa	Feminist Africa	55
African Safety Promotion	African Safety Promotion	55
Acta Criminologica	Acta Criminologica: South African Journal of Criminology	54
South African Journal of Zoology	Journal for Contemporary History	51
African Natural History	African Natural History	51
Africa Education Review	Africa Education Review	50
Southern African Business Review	Southern African Business Review	49
Journal of Literary Studies	Journal of Literary Studies	48
Meditari Accountancy Research	Meditari Accountancy Research	48
Transformation: Critical Perspectives on Southern Africa	Transformation : Critical Perspectives on Southern Africa	46
South African Journal of Occupational Therapy	South African Journal of Occupational Therapy	46
Society in Transition	South African Review of Sociology	44
Educar	Africa Education Review	42
South African Health Review	South African Health Review SAHR	40
Pythagoras	Pythagoras	40
Studia Historiae Ecclesiasticae	Studia Historiae Ecclesiasticae	39
SA Crime Quarterly	South African Crime Quarterly	39
Current Writing	Current Writing : Text and Reception in Southern Africa	38
African Music	African Music: Journal of the International Library of African Music	38
Indo-Pacific Journal of Phenomenology	Indo-Pacific Journal of Phenomenology	37

Stellenbosch Law Review	Stellenbosch Law Review	37
South African Journal of Information Management	South African Journal of Information Management	37
SA Orthopaedic Journal	SA Orthopaedic Journal	36
SA Journal of Human Resource Management	SA Journal of Human Resource Management	36
Mousaion	Mousaion	35
Journal of Industrial Psychology	South African Journal of Industrial Psychology	35
Review of Development Finance	Review of Development Finance	35
Journal of Northwest Semitic Languages	Journal of Northwest Semitic Languages	34
Journal of the South African Speech and Hearing Association	South African Journal of Communication Disorders, The	34
South African Journal of Human Resource Management	SA Journal of Human Resource Management	33
Safundi: The Journal of South African and American Studies	Safundi : The Journal of South African and American Studies	33
Stellenbosch Papers in Linguistics	Stellenbosch Papers in Linguistics - SPiL	33
Communicatio	Communicatio : South African Journal for Communication Theory and Research	33
Journal of Family Ecology and Consumer Sciences	Journal of Family Ecology and Consumer Sciences	32
Per linguam	Per Linguam : A Journal of Language Learning	32
Acta Academica	Acta Academica : Critical views on Society, Culture and Politics	31
Agenda: Empowering Women for Gender Equity	Agenda: Empowering Women for Gender Equity	31
South African Journal of Libraries and Information Science	South African Journal of Libraries and Information Science	29
South African Journal of Clinical Nutrition	South African Journal of Clinical Nutrition	29
Historiae	Historia	29
Law, Democracy and Development	Law, Democracy & Development	29
Jamba: Journal of Disaster Risk Studies	Jamba: Journal of Disaster Risk Studies	29
African Historical Review	African Historical Review	29
South African Journal of Agricultural Extension	South African Journal of Agricultural Extension	29
Tydskrif vir Natuurwetenskappe	Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie / South African Journal of Science and Technology	29
Akroterion	Akroterion	28
Journal of Educational Studies	Journal of Educational Studies	28
Progressio	Progressio: South African Journal for Open and Distance Learning Practice	27
Scrutiny	Scrutiny2: Issues in English Studies in Southern Africa	27

African Journal of Primary Health Care and Family Medicine	African Journal of Primary Health Care & Family Medicine	27
African Journal on Conflict Resolution	African Journal on Conflict Resolution	26
Alternative		26
Annals of the Ditsong National Museum of Natural History	Annals of the Ditsong National Museum of Natural History	26
Communicatio: South African Journal for Communication Theory and Research	Communicatio: South African Journal for Communication Theory and Research	26
Literator	Literator: Journal of Literary Criticism, Comparative Linguistics and Literary Studies	26
South African Journal of Child Health	South African Journal of Child Health	26
Journal for Language Teaching	Journal for Language Teaching	25
Constitutional Court Review	Constitutional Court Review	24
South African Crime Quarterly	South African Crime Quarterly	24
Journal of Natal and Zulu history	Journal of Natal and Zulu History	23
Strategic Review for Southern Africa	Strategic Review for Southern Africa	23
Journal for Islamic Studies	Journal for Islamic Studies	23
Language Matters	Language Matters: Studies in the Languages of Southern Africa	22
Litnet Akademies	Litnet Akademies	22
Journal for the Study of Religion	Journal for the Study of Religion	22
South African Theatre Journal	SATJ: South African Theatre Journal	22
Current Writing: Text and Reception in Southern Africa	Current Writing: Text and Reception in Southern Africa	21
African Journal of Research in Mathematics, Science and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	21
Religion & Theology	Religion and Theology	21
Communicare	Communicare: Journal for Communication Science in Southern Africa	21
Southern African Review of Education	Southern African Review of Education	21
De Jure	De Jure	21
South African Journal of Labour Relations	South African Journal of Labour Relations	20
Koers	Koers : Bulletin for Christian Scholarship/Koers : Bulletin vir Christelike Wetenskap	20
South African Journal of Bioethics and Law	South African Journal of Bioethics and Law, The	20
Kleio	African Historical Review	20
Educare	Africa Education Review	20
Nomina Africana	Nomina Africana: Journal of the Names Society of Southern Africa	20
Historia	Historia	20

English Academy Review	English Academy Review: Southern African Journal of English Studies	19
South African Journal of Criminal Justice	South African Journal of Criminal Justice	19
Journal for Semitics	Journal for Semitics	19
Acta Commercii	Acta Commercii	19
African Journal of Disability	African Journal of Disability	19
South African Journal of Geomatics	South African Journal of Geomatics	19
African Journal of Primary Health Care & Family Medicine	African Journal of Primary Health Care & Family Medicine	18
SA Journal of Information Management	South African Journal of Information Management	17
Water Wheel	Water Wheel	17
International Journal of African Renaissance Studies	International Journal of African Renaissance Studies: Multi-, Inter- and Transdisciplinarity, The	16
New Contree	New Contree	16
Journal of Contemporary Management	Journal of Contemporary Management	15
African Finance Journal	African Finance Journal	15
Quaestiones Informaticae	South African Computer Journal	15
Journal of Child & Adolescent Mental Health	Journal of Child and Adolescent Mental Health	15
Town and Regional Planning	Town and Regional Planning	15
African Journal of Science, Technology, Innovation and Development	African Journal of Science, Technology, Innovation and Development	15
South African Statistical Journal	South African Statistical Journal	14
Theoria: A Journal of Social and Political Theory	Theoria: A Journal of Social and Political Theory	14
African Review of Economics and Finance	African Review of Economics & Finance	14
South African Journal for Librarianship and Information Science	South African Journal of Libraries and Information Science	14
African Journal of Emergency Medicine	African Journal of Emergency Medicine	14
South African Journal of Childhood Education	South African Journal of Childhood Education	14
South African Journal of Physiotherapy	South African Journal of Physiotherapy, The	14
Law, Democracy & Development	Law, Democracy & Development	14
English Academy Review: Southern African Journal of English Studies	English Academy Review: Southern African Journal of English Studies	13
Social Work/Maatskaplike Werk	Social Work/Maatskaplike Werk	13
Navorsing van die Nasionale Museum, Bloemfontein	Navorsing van die Nasionale Museum, Bloemfontein	13
De Arte	De Arte	13
The Social Work Practitioner-Researcher	Social Work Practitioner-Researcher, The	13
African Journal of Business Ethics	African journal of Business Ethics	13

Religion and Theology	Religion and Theology	13
Potchefstroom Electronic Law Journal	Potchefstroom Electronic Law Journal	13
Communitas	Communitas: Journal for Community Communication and Information Impact	13
Journal for New Generation Sciences	Journal for New Generation Sciences	12
Africa Journal of Nursing and Midwifery	Africa Journal of Nursing and Midwifery	12
Journal of Dietetics and Home Economics	Journal of Family Ecology and Consumer Sciences	12
South African Pharmaceutical Journal	SA Pharmaceutical Journal	12
Obiter	OBITER	12
Comparative and International Law Journal of Southern Africa	Comparative and International Law Journal of Southern Africa	12
Southern African Journal of Demography	Southern African Journal of Demography	12
South African Journal of Sociology	South African Review of Sociology	12
Journal of African Elections	Journal of African Elections	11
Journal for Studies in Economics and Econometrics	Journal for Studies in Economics and Econometrics	11
Ecquid Novi	African Journalism Studies	11
Muziki: Journal of Music Research in Africa	Muziki: Journal of Music Research in Africa	11
Ekklesiastikos Pharos	Pharos Journal of Theology	11
Acta Germanica	Acta Germanica: German studies in Africa	11
Scrutiny2	Scrutiny2: Issues in English Studies in Southern Africa	10
Stellenbosch Papers in Linguistics Plus	Stellenbosch Papers in Linguistics Plus – SPiL Plus	10
Stilet	Stilet: Tydskrif vir die Afrikaanse Letterkundevereniging	10
Scientia Militaria	Scientia Militaria: South African Journal of Military Studies	10
Fundamina	Fundamina: A Journal of Legal History	10
African Journal of Conflict Resolution	African Journal on Conflict Resolution	10
In Die Skriflig	In die Skriflig	10
South African Journal of Art History	South African Journal of Art History	10
The Journal for Transdisciplinary Research in Southern Africa	The Journal for Transdisciplinary Research in Southern Africa	10
Obstetrics and Gynaecology Forum	Obstetrics and Gynaecology Forum	9
Acta Patristica et Byzantina	Journal of Early Christian History: A Journal for the Study of Early Christianity and Late Antiquity	9
Journal of Economic and Financial Sciences	Journal of Economic and Financial Sciences	9
Reading & Writing	Reading & Writing – Journal of the Reading Association of South Africa	9
Journal of Family Ecology and Consumer Science	Journal of Family Ecology and Consumer Sciences	9
Medical Technology SA	Medical Technology SA	9

South African Yearbook of International Law	South African Yearbook of International Law	9
Image & Text	Image & Text	8
South African Journal of Higher Education	South African Journal of Higher Education	8
SAIEE Africa Research Journal	SAIEE Africa Research Journal	8
Journal for Juridical Science	Journal for Juridical Science	8
Journal of South African Law	Journal of South African Law/Tydskrif vir die Suid-Afrikaanse Reg	8
Southern African Journal of Environmental Education	Southern African Journal of Environmental Education	8
ESARBICA Journal	ESARBICA Journal: Journal of the Eastern and Southern Africa Regional Branch of the International Council on Archives	8
Acta Structilia	Acta Structilia	8
Shakespeare in Southern Africa	Shakespeare in Southern Africa	8
Southern African Journal of Child and Adolescent Mental Health	Journal of Child and Adolescent Mental Health	7
Southern African Journal of Accountability and Auditing Research	Southern African Journal of Accountability and Auditing Research	7
South African Dental Journal	South African Dental Journal	7
Tydskrif vir Letterkunde	Tydskrif vir Letterkunde	7
South African Journal of Accounting Research	South African Journal of Accounting Research	7
South African Journal of Radiology	SA Journal of Radiology	7
Journal for Studies in Economics and Econometrics	Journal for Studies in Economics and Econometrics	7
Skrif en Kerk	Verbum et Ecclesia	7
African Journal of Hospitality, Tourism and Leisure	African Journal of Hospitality, Tourism and Leisure	7
Psychology and Society	Psychology in Society	7
Transformers	Transformation: Critical Perspectives on Southern Africa	7
Child Abuse Research in South Africa	Child Abuse Research in South Africa	7
Tydskrif vir Christelike Wetenskap	Journal for Christian Scholarship/Tydskrif vir Christelike Wetenskap	6
ESARBICA Journal: Journal of the Eastern and Southern Africa Regional Branch of the International Council on Archives	ESARBICA Journal: Journal of the Eastern and Southern Africa Regional Branch of the International Council on Archives	6
Literator	Literator: Journal of Literary Criticism, Comparative Linguistics and Literary Studies	6
Tydskrif vir Nederlands en Afrikaans	Tydskrif vir Nederlands en Afrikaans	6
Theologia Viatorum	Theologia Viatorum: Journal of Theology and Religion in Africa	6
Southern African Journal of Critical Care	Southern African Journal of Critical Care	6
Kronos: Southern African Histories	Kronos: Southern African Histories	6
Scrutiny2: Issues in English Studies in Southern Africa	Scrutiny2: Issues in English Studies in Southern Africa	6

Reading Writing	Reading & Writing – Journal of the Reading Association of South Africa	6
South African Journal of Communication Disorders	South African Journal of Communication Disorders, The	6
SA Pharmaceutical Journal	SA Pharmaceutical Journal	6
African Journal of Health Professions Education	African Journal of Health Profession Education	6
Psycho-Analytic Psychotherapy In South Africa	Psycho-Analytic Psychotherapy in South Africa	6
Meditari Accounting Research	Meditari Accountancy Research	6
Journal of Education	Journal of Education	5
Contree	New Contree	5
South African Gastroenterology Review	South African Gastroenterology Review	5
Southern African Journal of Anaesthesia and Analgesia	Southern African Journal of Anaesthesia and Analgesia	5
Journal for Contemporary History	Journal for Contemporary History	5
Innovating	Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa	5
Journal of Disaster Risk Studies	Jamba: Journal of Disaster Risk Studies	5
Phronimon	Phronimon	5
Koers - Bulletin for Christian Scholarship	Koers: Bulletin for Christian Scholarship/Koers: Bulletin vir Christelike Wetenskap	5
Journal of Education Studies	Journal of Educational Studies	5
South African Actuarial Journal	South African Actuarial Journal	5
Journal of Transport and Supply Chain Management	Journal of Transport and Supply Chain Management	5
Tydskrif vir die Suid-Afrikaanse Reg	Journal of South African Law/Tydskrif vir die Suid-Afrikaanse Reg	5
South African Journal of Library & Information Science	South African Journal of Libraries and Information Science	5
Journal of Early Christian History	Journal of Early Christian History: A Journal for the Study of Early Christianity and Late Antiquity	5
Indilinga: African Journal of Indigenous Knowledge Systems	Indilinga: African Journal of Indigenous Knowledge Systems	5
South African Sociological Review	African Sociological Review	5
Navorsing van die Nasionale Museum	Navorsing van die Nasionale Museum, Bloemfontein	5
Journal of Education and Training	Perspectives in Education	5
Literator	Literator: Journal of Literary Criticism, Comparative Linguistics and Literary Studies	5
English Usage in Southern Africa	Language Matters: Studies in the Languages of Southern Africa	5
Religion in Southern Africa	Journal for the Study of Religion	5
Psychoanalytic Psychotherapy in South Africa	Psycho-analytic Psychotherapy in South Africa	5
South African Museums Association Bulletin	South African Museums Association Bulletin	4
South African Mercantile Law Journal	SA Mercantile Law Journal	4

Journal of Gender and Religion in Africa	Journal of Gender and Religion in Africa	4
Annual Survey of South African Law	Annual Survey of South African Law	4
African Journal of Public Affairs	African Journal of Public Affairs	4
Journal of Music Research in Africa	Muziki: Journal of Music Research in Africa	4
Urban Forum,	Urban Forum	4
Transform	Transformation: Critical Perspectives on Southern Africa	4
Theologia Evangelica	Religion and Theology	4
SAMUS	SAMUS: South African Music Studies	4
International Journal for Religious Freedom	International Journal for Religious Freedom	4
Scientia Militaria: South African Journal of Military Studies	Scientia Militaria: South African Journal of Military Studies	4
Ensovoort	Ensovoort: Tydskrif vir Kultuurstudies/Journal for Cultural Studies	4
Speculum Juris	Speculum Juris	4
Administratio Publica	Administratio Publica	4
Scrutiny 2: Issues in English Studies in Southern Africa	Scrutiny2: Issues in English Studies in Southern Africa	4
Concrete Beton	Concrete Beton	4
African Journal for Research in Mathematics Science and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	4
South African Health Review.	South African Health Review SAHR	3
Southern African Journal for Folklore Studies	Southern African Journal for Folklore Studies	3
Transformation: Critical Perspective on Southern Africa	Transformation: Critical Perspectives on Southern Africa	3
Journal of Child and Adolescent Mental Health	Journal of Child and Adolescent Mental Health	3
Ergonomics SA	Ergonomics SA	3
SA Waterbulletin	Water Wheel	3
Southern African Public Law	Southern African Public Law	3
African Journal of Information and Communication	African Journal of Information and Communication	3
African Journal of Research in Mathematics Science and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	3
Indilinga: African Journal of Indigenous Knowledge Systems	Indilinga: African Journal of Indigenous Knowledge Systems	3
South African Journal of Libraries & Information Science	South African Journal of Libraries and Information Science	3
Africa Educational Review	Africa Education Review	3
Current Allergy and Clinical Immunology	Current Allergy & Clinical Immunology	3
Engineer IT	Engineer IT	3
Current Allergy & Clinical Immunology	Current Allergy & Clinical Immunology	3

Altern		3
South African Journal of Plant Soil	South African Journal of Plant and Soil	3
Journal of Endocrinology, Metabolism and Diabetes of South Africa	Journal of Endocrinology, Metabolism and Diabetes of South Africa	3
SAALT Journal for Language Teaching	Journal for Language Teaching	3
New Agenda	New Agenda: South African Journal of Social and Economic Policy	3
African Journalism Studies	African Journalism Studies	3
Transform!	Transformation: Critical Perspectives on Southern Africa	3
Perspective in Education	Perspectives in Education	3
Indilinga: African Journal of Indigenous Knowledge Systems	Indilinga: African Journal of Indigenous Knowledge Systems	3
Stellenbosch Papers in Linguistics	Stellenbosch Papers in Linguistics – SPiL	3
Social Work Practitioner-Researcher	Social Work Practitioner-Researcher, The	3
Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa	Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa	3
Scriptura: International Journal of Bible, Religion and Theology in Southern Africa	Scriptura: International Journal of Bible, Religion and Theology in Southern Africa	3
Muziki	Muziki: Journal of Music Research in Africa	3
Communicare: Journal for Communication Sciences in Southern Africa	Communicare: Journal for Communication Sciences in Southern Africa	3
South African Journal of Cultural History	South African Journal of Cultural History	3
Occupational Health Southern Africa	Occupational Health Southern Africa	3
The South African Optometrist	African Vision and Eye Health Journal	3
Communicar	Communicare: Journal for Communication Science in Southern Africa	3
International Journal of African Renaissance Studies: Multi-, Inter- and Transdisciplinarity	International Journal of African Renaissance Studies: Multi-, Inter- and Transdisciplinarity, The	3
Commonwealth Youth and Development	Commonwealth Youth and Development	3
Journal for South African Law	Journal of South African Law/Tydskrif vir die Suid-Afrikaanse Reg	3
Koers: Bulletin for Christian Scholarship	Koers: Bulletin for Christian Scholarship/Koers: Bulletin vir Christelike Wetenskap	3
Journal of Gender & Religion in Africa	Journal of Gender and Religion in Africa	3
Read Write	Reading & Writing – Journal of the Reading Association of South Africa	3
Development: Southern Africa	Development Southern Africa	2
Journal of New Generation Sciences	Journal for New Generation Sciences	2
Communicatio: South African Journal of Communication Theory and Research	Communicatio: South African Journal for Communication Theory and Research	2

Perspectives in Education	Perspectives in Education	2
African Security Review	African Security Review	2
Acta Germanica: Jahrbuch des Germanistenverbandes im sudlichen Afrika	Acta Germanica: German Studies in Africa	2
SAIPA Journal of Public Administration	Journal of Public Administration – SAIPA/SAAPM	2
Management Dynamics: Journal of the Southern African Institute for Management Scientists	Management Dynamics: Journal of the Southern African Institute for Management Scientists	2
Theoria	Theoria: A Journal of Social and Political Theory	2
Social Work Practitioner/Researcher	Social Work Practitioner-Researcher, The	2
Southern African Journal of Information and Communication	African Journal of Information and Communication	2
SA Mercantile Law Journal	SA Mercantile Law Journal	2
South African Journal of Industrial Psychology.	South African Journal of Industrial Psychology	2
Transformation: Critical Perspectives in Southern Africa	Transformation: Critical Perspectives on Southern Africa	2
ACTA Criminologica: South African Journal of Criminology	Acta Criminologica: South African Journal of Criminology	2
South African Journal of Epidemiology and Infection	Southern African Journal of Infectious Diseases	2
Transformation	Transformation: Critical Perspectives on Southern Africa	2
South African Journal of:Higher Education	South African Journal of Higher Education	2
South African Journal of Physiotherapy.	South African Journal of Physiotherapy, The	2
Indilinga: African Journal of Indigenous Knowledge System	Indilinga: African Journal of Indigenous Knowledge Systems	2
SPIL	Stellenbosch Papers in Linguistics – SPiL	2
Historiae	Historia	2
Jamba	Jamba: Journal of Disaster Risk Studies	2
Social Work/Maatskaplike Werk	Social Work/Maatskaplike Werk	2
African Sociology Review	African Sociological Review	2
South African Journal of Bioethics & Law	South African Journal of Bioethics and Law, The	2
AlterNative.		2
Journal of Contemporary Roman-Dutch Law	Journal of Contemporary Roman-Dutch Law	2
Transformer.	Transformation: Critical Perspectives on Southern Africa	2
Image & Text	Image & Text	2
Journal of contemporary management.	Journal of Contemporary Management	2
Journal of Construction	Journal of Construction	2
African Journal of Hospitality, Tourism, and Leisure	African Journal of Hospitality, Tourism and Leisure	2

Etude de la population Africaine		2
Theoria: A Journal of Social and Political Theory	Theoria: A Journal of Social and Political Theory	2
South African Journal of Wild-life Research	African Journal of Wildlife Research	2
African Journal of Primary Health Care& Family Medicine	African Journal of Primary Health Care & Family Medicine	2
Scrutiny 2	Scrutiny2: Issues in English Studies in Southern Africa	2
Innovations.	Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa	2
South African Journal of Art and Architectural History	South African Journal of Cultural History	2
South African Journal of Chemical Engineering	South African Journal of Chemical Engineering	2
R&D Journal	R&D Journal	2
Journal for Studies in Economics & Econometrics	Journal for Studies in Economics and Econometrics	2
South African Nursing Journal	Curationis	2
South African Journal of Military Studies	Scientia Militaria: South African Journal of Military Studies	2
Journal of Musical Research in Africa	Muziki: Journal of Music Research in Africa	2
Journal for Christian Scholarship	Journal for Christian Scholarship/Tydskrif vir Christelike Wetenskap	2
Journal for New Generation Science	Journal for New Generation Sciences	2
South African Journal of Environmental Law and Policy	South African Journal of Environmental Law and Policy	2
Scientia Militaria.	Scientia Militaria: South African Journal of Military Studies	2
The Journal of Transdisciplinary Research in Southern Africa	TD : The Journal for Transdisciplinary Research in Southern Africa	2
Innovative	Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa	2
African East-Asian Affairs	African East-Asian Affairs	2
Health SA Gesondheid.	Health SA Gesondheid	2
Journal of Child and Adolescent Mental Health	Journal of Child and Adolescent Mental Health	2
Literator	Literator: Journal of Literary Criticism, Comparative Linguistics and Literary Studies	2
Koers: Bulletin for Christian Scholarship	Koers: Bulletin for Christian Scholarship/Koers: Bulletin vir Christelike Wetenskap	2
Architecture South Africa	Architecture South Africa	2
Management Dynam.	Management Dynamics: Journal of the Southern African Institute for Management Scientists	2
African Journal of Agriculture and Resource Economics	African Journal of Agricultural and Resource Economics	2
Journal of North-west Semitic Languages	Journal of Northwest Semitic Languages	2
French Studies in Southern Africa	French Studies in Southern Africa	2

African Music: Journal of the International Library of African Music	African Music: Journal of the International Library of African Music	2
Water Sewage and Effluent	Water sewage & effluent	2
Journal of Semitics	Journal for Semitics	2
SA Journal of Radiology	SA Journal of Radiology	2
Per Linguam: A Journal of Language Learning	Per Linguam: A Journal of Language Learning	2
Indilinga	Indilinga: African Journal of Indigenous Knowledge Systems	2
Journal for Northwest Semitic Languages	Journal of Northwest Semitic Languages	2
Musicus	Musicus	2
South African Computer Journal,	South African Computer Journal	2
Journal of Contemporary Roman-Dutch Law	Journal of Contemporary Roman-Dutch Law	2
African Journal for Rhetoric	African Journal of Rhetoric	1
African Journal of Research in Mathematics, Science, and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	1
Annals of the Transvaal Museum	Annals of the Ditsong National Museum of Natural History	1
Journal for Studies in Economics and Econometrics	Journal for Studies in Economics and Econometrics	1
Scientia Militaria – South African Journal of Military Studies	Scientia Militaria: South African Journal of Military Studies	1
African Journal of Rhetoric	African Journal of Rhetoric	1
African Journal of Research in Mathematics, Science & Technology Education	African Journal of Research in Mathematics, Science and Technology Education	1
South African Journal of African Languages	South African Journal of African Languages	1
Tydskrif Vir Hedendaagse Romeins- Hollandse Reg	Journal of Contemporary Roman-Dutch Law	1
Tydskrif vir Taalonderrig	Journal for Language Teaching	1
curationis no.	Curationis	1
African Journal of Laboratory Medicine	African Journal of Laboratory Medicine	1
South African Journal of Science and Technology	Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie/South African Journal of Science and Technology	1
Journal of Theology and Religion in Africa	Theologia Viatorum: Journal of Theology and Religion in Africa	1
Scientia Militaria – South African Journal of Military Studies	Scientia Militaria: South African Journal of Military Studies	1
Psycho-Analytical Psychotherapy in South Africa	Psycho-analytic Psychotherapy in South Africa	1
Educational Research for Social Change	Education Research for Social Change (ESRC)	1
Language Matters: Studies in the Languages of Southern Africa	Language Matters: Studies in the Languages of Southern Africa	1
Journal of Public Administration	Journal of Public Administration – SAIPA/SAAPM	1

TD: The Journal for Transdisciplinary Research in Southern Africa	TD: The Journal for Transdisciplinary Research in Southern Africa	1
Journal of Language Teaching	Journal for Language Teaching	1
South African Nurses Journal	Curationis	1
South African Music Studies	SAMUS: South African Music Studies	1
The Independent Journal of Teaching and Learning	The Independent Journal of Teaching and Learning	1
SA Family Practice	South African Family Practice	1
Innovation	Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa	1
Reading & Writing	Reading & Writing – Journal of the Reading Association of South Africa	1
Perspectives on Education	Perspectives in Education	1
Southern African Business Review	Southern African Business Review	1
English in Africa	English in Africa	1
Pharos Journal of Theology	Pharos Journal of Theology	1
SA Law Journal	South African Law Journal	1
Image & Text	Image & Text	1
Current Writing: Text and reception in Southern Africa	Current Writing: Text and Reception in Southern Africa	1
Quarterly bulletin of the South African Library/Kwartaalblad van die Suid-Afrikaanse Biblioteek	Bulletin of the National Library of South Africa	1
Acta Academica	Acta Academica: Critical views on Society, Culture and Politics	1
Journal of Education	Journal of Education	1
South African Journal for Open and Distance Learning Practice	Progressio: South African Journal for Open and Distance Learning Practice	1
Curationis	Curationis	1
DEJURE	De Jure	1
Social Work Practitioner-Researcher	Social Work Practitioner-Researcher, The	1
Development Southern Africa	Development Southern Africa	1
Cormorant	Marine Ornithology: An International Journal of Seabird Research and Conservation	1
Koers: Bulletin for Christian Scholarship	Koers: Bulletin for Christian Scholarship/Koers: Bulletin vir Christelike Wetenskap	1
South African-Journal of African Languages	South African Journal of African Languages	1
African Journal of Agricultural & Resource Economics	African Journal of Agricultural and Resource Economics	1
African Journal of Agricultural and Resource Economics	African Journal of Agricultural and Resource Economics	1

South African Journal of Libraries & Information Science	South African Journal of Libraries and Information Science	1
Acta Academica	Acta Academica: Critical views on Society, Culture and Politics	1
Water Sewage Effluent	Water sewage & effluent	1
International journal of shoulder surgery	International Journal of Shoulder Surgery	1
Meditari Accountancy Research	Meditari Accountancy Research	1
Innovation	Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa	1
Journal for Studies in Economics and Econometrics.	Journal for Studies in Economics and Econometrics	1
The Journal of South African and American Studies	Safundi: the Journal of South African and American Studies	1
Journal of Engineering, Design & Technology	Journal of Engineering, Design and Technology	1
International Journal of Religious Freedom	International Journal for Religious Freedom	1
SA Journal of Information Management	South African Journal of Information Management	1
South African Orthopaedic Journal	SA Orthopaedic Journal	1
Speculum Juris	Speculum Juris	1
Law, Democracy & Development	Law, Democracy & Development	1
Annals of the South African Museum	African Natural History	1
Tydskrif vir Bedryfsielkunde	South African Journal of Industrial Psychology	1
Official Journal of the Dental Association of South Africa	South African Dental Journal	1
Indilinga: African Journal of Indigenous Knowledge Systems	Indilinga: African Journal of Indigenous Knowledge Systems	1
Law, Democracy, and Development	Law, Democracy & Development	1
Scriptura	Scriptura: International Journal of Bible, Religion and Theology in Southern Africa	1
Journal of the Southern African Institute for Management Scientists	Management Dynamics: Journal of the Southern African Institute for Management Scientists	1
SA Journal of Accounting Research	South African Journal of Accounting Research	1
Image & Text	Image & Text	1
SA Journal of Human Resource Management	SA Journal of Human Resource Management	1
Annals of the South African Museum	African Natural History	1
Journal for South African Law	Journal of South African Law/Tydskrif vir die Suid-Afrikaanse Reg	1
Missionalia: Southern African Journal of Missiology	Missionalia: Southern African Journal of Missiology	1
A Journal of Language Learning	Per Linguam: A Journal of Language Learning	1
South African Journal of International Affairs	South African Journal of International Affairs	1
African Yearbook on International Humanitarian Law	African Yearbook on International Humanitarian Law	1

Historia I	Historia	1
Spil Plus	Stellenbosch Papers in Linguistics Plus – SPiL Plus	1
African Review for Economics and Finance	African Review of Economics & Finance	1
Social Work/Maatskaplikewerk	Social Work/Maatskaplike Werk	1
Scrutiny	Scrutiny 2 : Issues in English Studies in Southern Africa	1
African Journal of Primary Healthcare and Family Medicine	African Journal of Primary Health Care & Family Medicine	1
Safundi: The Journal of South African and American Studies	Safundi: the Journal of South African and American Studies	1
South African Journal of Criminal Law and Criminology	South African Journal of Criminal Justice	1
South African Journal of Surveying and Mapping	South African Journal of Geomatics	1
African East Asian Affairs	African East-Asian Affairs	1
Quarterly Bulletin of The South African Library	Bulletin of the National Library of South Africa	1
Strategic Review of Southern Africa	Strategic Review for Southern Africa	1
Current Writing: Text and Reception in Southern Africa.	Current Writing: Text and Reception in Southern Africa	1
Progressio: South African Journal for Open and Distance Learning Practice	Progressio: South African Journal for Open and Distance Learning Practice	1
South African Heart Journal	SA Heart Journal	1
Indopacific Journal of Phenomenology	Indo-Pacific Journal of Phenomenology	1
Nomina Africana: Journal of the Names Society of Southern Africa	Nomina Africana: Journal of the Names Society of Southern Africa	1
Geneeskunde	South African Family Practice	1
Agendas	Agenda: Empowering Women for Gender Equity	1
Innovator	Innovation: A Journal for Appropriate Librarianship and Information Work in Southern Africa	1
IMIESA	IMIESA	1
Militaria	Scientia Militaria: South African Journal of Military Studies	1
Industry Law Journal	Industrial Law Journal including Industrial Law Reports	1
Scientia Militaria: South African Journal of Military Studies	Scientia Militaria: South African Journal of Military Studies	1
Journal for Psychology in Africa	Journal of Psychology in Africa	1
South African Statistics Journal	South African Statistical Journal	1
Concrete/Beton	Concrete/Beton	1
Reading & Writing	Reading & Writing: Journal of the Reading Association of South Africa	1
Tydskrif vir Nederlands en Afrikaans	Tydskrif vir Nederlands en Afrikaans	1

Safundi: The Journal of South African and American Studies	Safundi: the Journal of South African and American Studies	1
Southern African Journal of Anaesthesia & Analgesia	Southern African Journal of Anaesthesia and Analgesia	1
Historia	Historia	1
TransforMed	Transformation: Critical Perspectives on Southern Africa	1
Reading & Writing: Journal of the Reading Association of South Africa	Reading & Writing: Journal of the Reading Association of South Africa	1
Ergonomics SA.	Ergonomics SA	1
South African Journal of Clinical Nutrition	South African Journal of Clinical Nutrition	1
South African Journal on Higher Education	South African Journal of Higher Education	1
Southern African Journal of Entrepreneurship & Small Business Management	Southern African Journal of Entrepreneurship and Small Business Management, The	1
South African Baptist Journal of Theology	South African Baptist Journal of Theology	1
Critical Perspectives on Southern Africa	Transformation: Critical Perspectives on Southern Africa	1
Journal of Contemporary History	Journal for Contemporary History	1
South African Journal for African Languages	South African Journal of African Languages	1
African Population Studies	African Population Studies	1
Theoria	Theoria: A Journal of Social and Political Theory	1
South African Journal for Art History	South African Journal of Art History	1
SA Journal of Criminal Justice	South African Journal of Criminal Justice	1
Journal for African Elections	Journal of African Elections	1
Journal for Transdisciplinary Research in Southern Africa	TD: The Journal for Transdisciplinary Research in Southern Africa	1
Southern African Journal of Folklore Studies	Southern African Journal for Folklore Studies	1
Acta Commercii	Acta Commercii	1
African Journal for Research in Mathematics, Science and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	1
Scrutinies	Scrutiny 2: Issues in English Studies in Southern Africa	1
Journal of Economic & Financial Sciences	Journal of Economic and Financial Sciences	1
South African Review of Sociology.	South African Review of Sociology	1
TD: The Journal for Transdisciplinary Research in Southern Africa	TD: The Journal for Transdisciplinary Research in Southern Africa	1
INDILINGA: African Journal of Indigenous Knowledge Systems	Indilinga: African Journal of Indigenous Knowledge Systems	1
Journal of Economic and Financial Sciences	Journal of Economic and Financial Sciences	1
EngineerIT	EngineerIT	1

Koers: Bulletin vir Christelike Wetenskap	Koers: Bulletin for Christian Scholarship/Koers: Bulletin vir Christelike Wetenskap	1
African Journal of Primary Healthcare & Family Medicine	African Journal of Primary Health Care & Family Medicine	1
African Security Review	African Security Review	1
Journal of Endocrinology, Metabolism, and Diabetes of South Africa	Journal of Endocrinology, Metabolism and Diabetes in South Africa	1
Theologia Viatorum: Journal of Theology and Religion in Africa	Theologia Viatorum: Journal of Theology and Religion in Africa	1
SA Journal of Child Health	South African Journal of Child Health	1
Tegnikon	Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie/South African Journal of Science and Technology	1
TD: The Journal for Transdisciplinary Research in Southern Africa	TD: The Journal for Transdisciplinary Research in Southern Africa	1
African Journal of Agricultural and Resources Economics	African Journal of Agricultural and Resource Economics	1
Journal of Engineering, Design and Technology	Journal of Engineering, Design and Technology	1
Industrial Law Journal	Industrial Law Journal including Industrial Law Reports	1
Town & Regional Planning	Town and Regional Planning	1
Muziki: Journal of Music Research in Africa	Muziki: Journal of Music Research in Africa	1
Journal of the Names Society of Southern Africa	Nomina Africana: Journal of the Names Society of Southern Africa	1
Acta Academica,	Acta Academica: Critical views on Society, Culture and Politics	1
South African Journal of Information Management	South African Journal of Information Management	1
Journal of the Southern African Association for Research in Mathematics, Science and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	1
Pythagoras	Pythagoras	1
Image and Text	Image & Text	1
SA Journal of Information Management	South African Journal of Information Management	1
Indilinga: African Journal of Indigenous Knowledge System	Indilinga: African Journal of Indigenous Knowledge Systems	1
Journal of Educational Study	Journal of Educational Studies	1
SA Journal of Physiotherapy	South African Journal of Physiotherapy, The	1
African Journal of Science, Technology, Innovation, and Development	African Journal of Science, Technology, Innovation and Development	1
Vir die Musiekleier	Vir die Musiekleier	1

Orion	ORiON	1
Tydskrif vir die Suid Afrikaanse Reg	Journal of South African Law / Tydskrif vir die Suid-Afrikaanse Reg	1
South African Journal of Plant and Soil	South African Journal of Plant and Soil	1
Crime, Punishment and Corrections		1
South African Journal of Culture and Art History	South African Journal of Art History	1
Journal for Studies in Economics, and Econometrics	Journal for Studies in Economics and Econometrics	1
South African Rorschach Journal	South African Rorschach Journal	1
Etudes de la Population Africaine		1
African Journal of Research in Mathematics, Science and Technology Education	African Journal of Research in Mathematics, Science and Technology Education	1

Disaggregation by year (Figure 15 below) shows that there has been a steady increase in citations from these non-source journals. However, it is also important to keep in mind that the large number of citations to the journal *African Natural History* (which is now indexed) skews this picture somewhat.

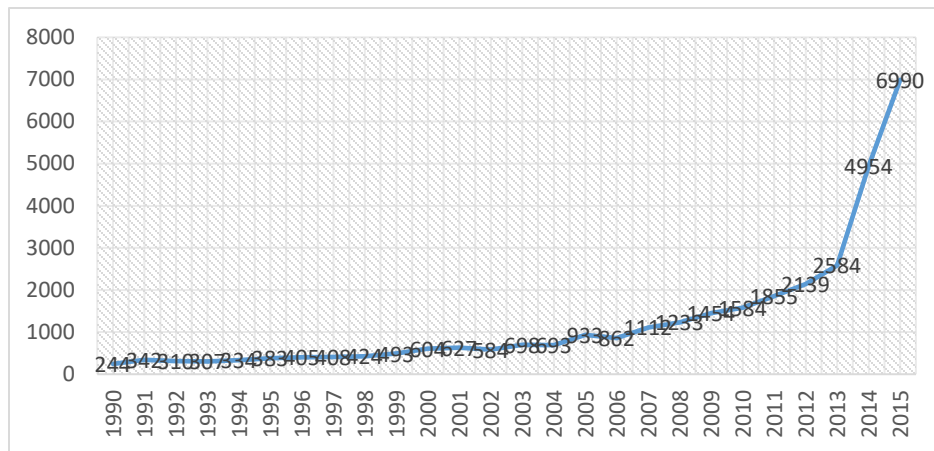


Figure 15: Annual counts of citations to non-WoS SA journals (1990 – 2015)

The value of this kind of analysis extends beyond the summary overview given above. There is also a direct value to editors of specific journals. If one includes the title of the citing journal (which is a source item in the WoS), together with the cited work (the non-source SA journal) we can see which journals in the WoS are in fact citing these SA journals.

An example of the value of this analysis is given below. This example is from the field of law. The time period is from 2000 to 2015. In this table we list the names of the citing journals (in the WoS) and the article identified and the cited works (outside of the WoS). So, for example we see that a journal such as *Acta Juridica* which is currently not in the WoS has in fact been cited by articles in WoS journals 31 times. If we further disaggregate the citing journals between foreign and SA WoS journals, we see that 12 of the citing journals are SA journals and the remaining 19 are foreign journals.

Table 17: Citing journals and cited works in the field of law (2000 to 2015)

Citing article	Citing journal	Cited work	Publication year	Year cited
WOS:000360844400002	FEMINIST LEGAL STUDIES	Acta Juridica	2001	2015
WOS:000359506800007	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Acta Juridica	2003	2015
WOS:000367322200007	TYDSKRIF VIR DIE SUID-AFRIKAANSE REG	Acta Juridica	2004	2015
WOS:000352803000006	ASHGATE RESEARCH COMPANION TO FEMINIST LEGAL THEORY	Acta Juridica	2005	2013
WOS:000353572200006	TAKING RESPONSIBILITY, LAW AND THE CHANGING FAMILY	Acta Juridica	2005	2011
WOS:000359180300006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Acta Juridica	2005	2014
WOS:000366395400001	INTERNATIONAL JOURNAL OF LAW POLICY AND THE FAMILY	Acta Juridica	2005	2015
WOS:000340239200004	ICON-INTERNATIONAL JOURNAL OF CONSTITUTIONAL LAW	Acta Juridica	2006	2014
WOS:000342593600003	VICTIMS OF VIOLENCE AND RESTORATIVE PRACTICES: FINDING A VOICE	Acta Juridica	2007	2014
WOS:000342593600008	VICTIMS OF VIOLENCE AND RESTORATIVE PRACTICES: FINDING A VOICE	Acta Juridica	2007	2014
WOS:000342593600002	VICTIMS OF VIOLENCE AND RESTORATIVE PRACTICES: FINDING A VOICE	Acta Juridica	2007	2014
WOS:000351636400009	FROM CAPE TOWN TO KABUL: RETHINKING STRATEGIES FOR PURSUING WOMEN'S HUMAN RIGHTS	Acta Juridica	2008	2012
WOS:000359180300005	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Acta Juridica	2008	2014
WOS:000345777200008	OXFORD JOURNAL OF LEGAL STUDIES	Acta Juridica	2008	2014
WOS:000294655400003	DIVERSITY AND DISTRIBUTIONS	Acta Juridica	2009	2011
WOS:000350938100005	TECHNOVATION	Acta Juridica	2009	2015
WOS:000345891300005	EUROPEAN JOURNAL OF INTERNATIONAL LAW	Acta Juridica	2009	2014
WOS:000359372300001	TRANSNATIONAL LEGAL ORDERS	Acta Juridica	2009	2015
WOS:000365131900001	JOURNAL OF SOUTHERN AFRICAN STUDIES	Acta Juridica	2011	2015
WOS:000367322200007	TYDSKRIF VIR DIE SUID-AFRIKAANSE REG	Acta Juridica	2012	2015
WOS:000352116000004	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Acta Juridica	2012	2014
WOS:000368608200014	AIDS CARE-PSYCHOLOGICAL AND SOCIO-MEDICAL ASPECTS OF AIDS/HIV	Acta Juridica	2013	2016
WOS:000349106700003	ADAPTIVE BEHAVIOR	Acta Juridica	2013	2015
WOS:000361377800006	SOCIAL DYNAMICS: A JOURNAL OF AFRICAN STUDIES	Acta Juridica	2013	2015
WOS:000365257900003	GENDER & SOCIETY	Acta Juridica	2013	2015

WOS:000358141400004	ANTHROPOLOGY SOUTHERN AFRICA	Acta Juridica	2013	2015
WOS:000365130900002	JOURNAL OF SOUTHERN AFRICAN STUDIES	Acta Juridica	2013	2015
WOS:000367810900002	SOUTH AFRICAN REVIEW OF SOCIOLOGY	Acta Juridica	2013	2015
WOS:000366395400001	INTERNATIONAL JOURNAL OF LAW POLICY AND THE FAMILY	Acta Juridica	2013	2015
WOS:000358416200008	CULTURE, HEALTH & SEXUALITY	Acta Juridica	2013	2015
WOS:000359506800008	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Acta Juridica	2015	2015
WOS:000359975800009	PAN-AFRICANISM AND INTERNATIONAL LAW	African Human Rights Law Journal	2001	2014
WOS:000329841200010	EXTRATERRITORIAL APPLICATION OF THE HUMAN RIGHT TO WATER IN AFRICA	African Human Rights Law Journal	2001	2014
WOS:000356176300001	EAST ASIA'S RENEWED RESPECT FOR THE RULE OF LAW IN THE 21ST CENTURY: THE FUTURE OF LEGAL AND JUDICIAL LANDSCAPES IN EAST ASIA	African Human Rights Law Journal	2001	2015
WOS:000324822300003	MIGRATION AND NATIONAL IDENTITY IN SOUTH AFRICA, 1860-2010	African Human Rights Law Journal	2002	2013
WOS:000329841200010	EXTRATERRITORIAL APPLICATION OF THE HUMAN RIGHT TO WATER IN AFRICA	African Human Rights Law Journal	2002	2014
WOS:000363039300003	TRANSNATIONAL ENVIRONMENTAL LAW	African Human Rights Law Journal	2003	2015
WOS:000359975800009	PAN-AFRICANISM AND INTERNATIONAL LAW	African Human Rights Law Journal	2003	2014
WOS:000329841200010	EXTRATERRITORIAL APPLICATION OF THE HUMAN RIGHT TO WATER IN AFRICA	African Human Rights Law Journal	2004	2014
WOS:000329841200010	EXTRATERRITORIAL APPLICATION OF THE HUMAN RIGHT TO WATER IN AFRICA	African Human Rights Law Journal	2005	2014
WOS:000359975800009	PAN-AFRICANISM AND INTERNATIONAL LAW	African Human Rights Law Journal	2005	2014
WOS:000332050900007	COGNITIVE DEVELOPMENT	African Human Rights Law Journal	2005	2014
WOS:000355277700002	JOURNAL OF MODERN AFRICAN STUDIES	African Human Rights Law Journal	2005	2015
WOS:000353036700005	HUMAN RIGHTS OF CHILDREN: FROM VISIONS TO IMPLEMENTATION	African Human Rights Law Journal	2005	2011
WOS:000354685500001	JOURNAL OF ASIAN AND AFRICAN STUDIES	African Human Rights Law Journal	2005	2014

WOS:000348284200009	REFORMING LAW AND ECONOMY FOR A SUSTAINABLE EARTH: CRITICAL THOUGHT FOR TURBULENT TIMES	African Human Rights Law Journal	2005	2015
WOS:000360769600004	INTERNATIONAL POLITICAL SOCIOLOGY	African Human Rights Law Journal	2005	2015
WOS:000332309100006	CANADIAN JOURNAL OF OCCUPATIONAL THERAPY-REVUE CANADIENNE D ERGOTHERAPIE	African Human Rights Law Journal	2005	2014
WOS:000357948800010	DEVELOPMENT AND CHANGE	African Human Rights Law Journal	2005	2015
WOS:000353036700005	HUMAN RIGHTS OF CHILDREN: FROM VISIONS TO IMPLEMENTATION	African Human Rights Law Journal	2006	2011
WOS:000357212900001	HUMANITARIAN ACTION: GLOBAL, REGIONAL AND DOMESTIC LEGAL RESPONSES	African Human Rights Law Journal	2006	2015
WOS:000364630400003	CULTURE AND INTERNATIONAL ECONOMIC LAW	African Human Rights Law Journal	2006	2015
WOS:000354325000015	CAPITAL PUNISHMENT: NEW PERSPECTIVES	African Human Rights Law Journal	2006	2013
WOS:000359975800009	PAN-AFRICANISM AND INTERNATIONAL LAW	African Human Rights Law Journal	2006	2014
WOS:000329841200010	EXTRATERRITORIAL APPLICATION OF THE HUMAN RIGHT TO WATER IN AFRICA	African Human Rights Law Journal	2006	2014
WOS:000337677300005	INTERNATIONAL & COMPARATIVE LAW QUARTERLY	African Human Rights Law Journal	2007	2014
WOS:000364969200002	REVIEW OF INTERNATIONAL POLITICAL ECONOMY	African Human Rights Law Journal	2007	2015
WOS:000302485700008	WEST EUROPEAN POLITICS	African Human Rights Law Journal	2007	2012
WOS:000359180300004	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	African Human Rights Law Journal	2008	2014
WOS:000358810900006	HUMAN RIGHTS QUARTERLY	African Human Rights Law Journal	2008	2015
WOS:000354325000015	CAPITAL PUNISHMENT: NEW PERSPECTIVES	African Human Rights Law Journal	2008	2013
WOS:000209468700009	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	African Human Rights Law Journal	2008	2013
WOS:000356156800005	HUMAN RIGHTS AND DEVELOPMENT: LEGAL PERSPECTIVES FROM AND FOR ETHIOPIA	African Human Rights Law Journal	2008	2015

WOS:000364117900009	RASTAFARI AND THE ARTS: AN INTRODUCTION	African Human Rights Law Journal	2008	2015
WOS:000361304000005	JOURNAL OF AFRICAN LAW	African Human Rights Law Journal	2008	2015
WOS:000350247500008	CHANGING ROLE OF NATIONALITY IN INTERNATIONAL LAW	African Human Rights Law Journal	2009	2013
WOS:000329841200010	EXTRATERRITORIAL APPLICATION OF THE HUMAN RIGHT TO WATER IN AFRICA	African Human Rights Law Journal	2009	2014
WOS:000354325000015	CAPITAL PUNISHMENT: NEW PERSPECTIVES	African Human Rights Law Journal	2009	2013
WOS:000342223000007	AFRICAN STUDIES REVIEW	African Human Rights Law Journal	2010	2014
WOS:000352115100005	ASIAN WOMEN	African Human Rights Law Journal	2010	2015
WOS:000340829100009	PUBLIC-PRIVATE PARTNERSHIPS AND RESPONSIBILITY UNDER INTERNATIONAL LAW: A GLOBAL HEALTH PERSPECTIVE	African Human Rights Law Journal	2010	2014
WOS:000354325000015	CAPITAL PUNISHMENT: NEW PERSPECTIVES	African Human Rights Law Journal	2010	2013
WOS:000353249600005	TYDSKRIF VIR GEESTESWETENSKAPPE	African Human Rights Law Journal	2011	2015
WOS:000361304000003	JOURNAL OF AFRICAN LAW	African Human Rights Law Journal	2011	2015
WOS:000359731600010	JOURNAL OF INTERNATIONAL CRIMINAL JUSTICE	African Human Rights Law Journal	2011	2015
WOS:000354325000015	CAPITAL PUNISHMENT: NEW PERSPECTIVES	African Human Rights Law Journal	2011	2013
WOS:000209468600008	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	African Human Rights Law Journal	2012	2013
WOS:000353380000015	JURIDIFICATION AND SOCIAL CITIZENSHIP IN THE WELFARE STATE	African Human Rights Law Journal	2012	2014
WOS:000357728500001	CURRENT LEGAL PROBLEMS	African Human Rights Law Journal	2012	2014
WOS:000342809000007	PLANNING THEORY	African Human Rights Law Journal	2012	2014
WOS:000352801000024	ASHGATE RESEARCH COMPANION TO INTERNATIONAL CRIMINAL LAW: CRITICAL PERSPECTIVES	African Human Rights Law Journal	2012	2013

WOS:000350128900001	SOCIAL AND ECONOMIC RIGHTS IN THEORY AND PRACTICE: CRITICAL INQUIRIES	African Human Rights Law Journal	2012	2015
WOS:000356397600001	JOURNAL OF COMPARATIVE FAMILY STUDIES	African Human Rights Law Journal	2012	2015
WOS:000209468700009	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	African Human Rights Law Journal	2012	2013
WOS:000366937500014	JURIDICAL TRIBUNE-TRIBUNA JURIDICA	African Human Rights Law Journal	2013	2015
WOS:000365969900004	JOURNAL OF THE INTERNATIONAL AIDS SOCIETY	African Human Rights Law Journal	2013	2015
WOS:000362950400029	AMERICAN JOURNAL OF PUBLIC HEALTH	African Human Rights Law Journal	2013	2015
WOS:000361304000003	JOURNAL OF AFRICAN LAW	African Human Rights Law Journal	2013	2015
WOS:000367495400005	AMERICAN JOURNAL OF COMPARATIVE LAW	African Human Rights Law Journal	2014	2015
WOS:000345542000001	INTERNATIONAL JOURNAL OF LAW AND PSYCHIATRY	DE JURE	2010	2014
WOS:000352799500006	PARTICIPATION IN CRIME: DOMESTIC AND COMPARATIVE PERSPECTIVES	De Jure	2004	2013
WOS:000367318500008	TYDSKRIF VIR DIE SUID-AFRIKAANSE REG	De Jure	2005	2015
WOS:000209468700006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	De Jure	2006	2013
WOS:000358141400004	ANTHROPOLOGY SOUTHERN AFRICA	De Jure	2007	2015
WOS:000361377800006	SOCIAL DYNAMICS: A JOURNAL OF AFRICAN STUDIES	De Jure	2007	2015
WOS:000357955300001	INTERNATIONAL INSOLVENCY REVIEW	De Jure	2008	2015
WOS:000368928000017	INTERNATIONAL JOURNAL OF DISASTER RISK REDUCTION	De Jure	2009	2015
WOS:000359506800009	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	De Jure	2011	2015
WOS:000367322200006	TYDSKRIF VIR DIE SUID-AFRIKAANSE REG	De Jure	2011	2015
WOS:000209468700006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	De Jure	2011	2013
WOS:000209468700006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	De Jure	2012	2013
WOS:000352020600006	PROPERTY AND SOVEREIGNTY: LEGAL AND CULTURAL PERSPECTIVES	De Jure	2013	2013
WOS:000347771500008	INTERNATIONAL JOURNAL OF EDUCATIONAL DEVELOPMENT	De Jure	2013	2014
WOS:000367318000007	TYDSKRIF VIR DIE SUID-AFRIKAANSE REG	De Jure	2013	2015
WOS:000367358500003	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	De Jure	2013	2015
WOS:000291664300001	SOCIAL POLITICS	Industrial Law Journal	2000	2011

WOS:000353484000012	CHALLENGES OF JUSTICE IN DIVERSE SOCIETIES: CONSTITUTIONALISM AND PLURALISM	Industrial Law Journal	2000	2011
WOS:000246592100004	CURRENT ANTHROPOLOGY	Industrial Law Journal	2000	2007
WOS:000337079000001	HOMO OECONOMICUS UND SEINE VORURTEILE: EINE ANALYSE DES ZIVILRECHTLICHEN BENACHTEILIGUNGSVERBOTS	Industrial Law Journal	2000	2014
WOS:000343048700001	RECONCEPTUALIZATION OF EUROPEAN UNION CITIZENSHIP	Industrial Law Journal	2001	2014
WOS:000327406300184	2013 INTERNATIONAL CONFERENCE ON MANAGEMENT SCIENCE AND ENGINEERING (ICMSE)	Industrial Law Journal	2001	2013
WOS:000337577200004	DEVELOPMENT POLICY REVIEW	Industrial Law Journal	2001	2014
WOS:000351242000001	EUROPEAN JOURNAL OF MIGRATION AND LAW	Industrial Law Journal	2001	2015
WOS:000354072600004	COMMON MARKET LAW REVIEW	Industrial Law Journal	2001	2015
WOS:000353830500011	RELIGIOUS EXPRESSION IN THE WORKPLACE AND THE CONTESTED ROLE OF LAW	Industrial Law Journal	2001	2015
WOS:000330597400003	PUNISHMENT & SOCIETY: INTERNATIONAL JOURNAL OF PENOLOGY	Industrial Law Journal	2002	2014
WOS:000361765600005	ORGANIZATION STUDIES	Industrial Law Journal	2002	2015
WOS:000307082100003	SOUTH AFRICAN JOURNAL OF BUSINESS MANAGEMENT	Industrial Law Journal	2002	2012
WOS:000364537500010	ENVIRONMENT AND PLANNING C-GOVERNMENT AND POLICY	Industrial Law Journal	2003	2015
WOS:000353830500011	RELIGIOUS EXPRESSION IN THE WORKPLACE AND THE CONTESTED ROLE OF LAW	Industrial Law Journal	2003	2015
WOS:000347066600007	RIGHT TO EQUALITY IN EUROPEAN HUMAN RIGHTS LAW: THE QUEST FOR SUBSTANCE IN THE JURISPRUDENCE OF THE EUROPEAN COURTS	Industrial Law Journal	2003	2015
WOS:000339551300001	JOURNAL OF INSTITUTIONAL ECONOMICS	Industrial Law Journal	2003	2014
WOS:000347414000001	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2003	2015
WOS:000349689500002	INTERNATIONAL SMALL BUSINESS JOURNAL	Industrial Law Journal	2003	2015
WOS:000348921000006	MANAGING BURNOUT IN THE WORKPLACE: A GUIDE FOR INFORMATION PROFESSIONALS	Industrial Law Journal	2004	2013
WOS:000328004800010	REVISTA DE CERCETARE SI INTERVENTIE SOCIALA	Industrial Law Journal	2004	2013
WOS:000368435200002	SOCIAL POLITICS	Industrial Law Journal	2004	2015
WOS:000357431800006	HUMAN RESOURCE MANAGEMENT JOURNAL	Industrial Law Journal	2005	2015
WOS:000341152000009	HUMAN RESOURCE MANAGEMENT AND THE INSTITUTIONAL PERSPECTIVE	Industrial Law Journal	2005	2014
WOS:000357728500008	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2005	2014

WOS:000346067600010	WORK, EMPLOYMENT AND SOCIETY	Industrial Law Journal	2005	2014
WOS:000291820200002	WORK, EMPLOYMENT AND SOCIETY	Industrial Law Journal	2005	2011
WOS:000293650900011	ANTIPODE	Industrial Law Journal	2005	2011
WOS:000355930500005	JOURNAL OF BUSINESS ETHICS	Industrial Law Journal	2005	2015
WOS:000336497900008	BRITISH JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2005	2014
WOS:000366159700001	ENVIRONMENT AND PLANNING C-GOVERNMENT AND POLICY	Industrial Law Journal	2005	2015
WOS:000342161900003	SINGAPORE ECONOMIC REVIEW	Industrial Law Journal	2005	2014
WOS:000349454000008	WORK, EMPLOYMENT AND SOCIETY	Industrial Law Journal	2005	2015
WOS:000354263700008	BRITISH JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2005	2015
WOS:000347066600007	RIGHT TO EQUALITY IN EUROPEAN HUMAN RIGHTS LAW: THE QUEST FOR SUBSTANCE IN THE JURISPRUDENCE OF THE EUROPEAN COURTS	Industrial Law Journal	2006	2015
WOS:000348385300016	SOCIAL POLICY REVIEW 25: ANALYSIS AND DEBATE IN SOCIAL POLICY, 2013	Industrial Law Journal	2006	2013
WOS:000369340300002	HUMAN RESOURCE MANAGEMENT JOURNAL	Industrial Law Journal	2006	2016
WOS:000369518800008	EUROPEAN LAW REVIEW	Industrial Law Journal	2006	2015
WOS:000361670500013	RETHINKING WORKPLACE REGULATION: BEYOND THE STANDARD CONTRACT OF EMPLOYMENT	Industrial Law Journal	2006	2013
WOS:000347114100007	ECONOMIC AND INDUSTRIAL DEMOCRACY	Industrial Law Journal	2006	2014
WOS:000336497900008	BRITISH JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2006	2014
WOS:000352201800004	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2006	2015
WOS:000353589000005	WORK, EMPLOYMENT AND SOCIETY	Industrial Law Journal	2006	2015
WOS:000349808300007	CORPORATE GOVERNANCE WITH REFERENCE TO THE ROLE OF WHISTLEBLOWING IN MALAYSIA	Industrial Law Journal	2007	2013
WOS:000358887700003	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2007	2015
WOS:000366691700008	ECONOMIC AND INDUSTRIAL DEMOCRACY	Industrial Law Journal	2007	2015
WOS:000347066600007	RIGHT TO EQUALITY IN EUROPEAN HUMAN RIGHTS LAW: THE QUEST FOR SUBSTANCE IN THE JURISPRUDENCE OF THE EUROPEAN COURTS	Industrial Law Journal	2007	2015
WOS:000358887700001	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2007	2015
WOS:000312108100002	SOCIAL POLITICS	Industrial Law Journal	2007	2012
WOS:000348738100004	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2007	2015
WOS:000363203000002	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2007	2015
WOS:000328365700005	EUROPEAN LAW JOURNAL	Industrial Law Journal	2007	2014
WOS:000344313900002	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2007	2014

WOS:000361670500013	RETHINKING WORKPLACE REGULATION: BEYOND THE STANDARD CONTRACT OF EMPLOYMENT	Industrial Law Journal	2007	2013
WOS:000361411000008	WORK: A JOURNAL OF PREVENTION, ASSESSMENT & REHABILITATION	Industrial Law Journal	2007	2015
WOS:000368554500002	SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH	Industrial Law Journal	2007	2016
WOS:000361304000006	JOURNAL OF AFRICAN LAW	Industrial Law Journal	2007	2015
WOS:000358887700006	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2007	2015
WOS:000353062300009	EUROPEAN LAW JOURNAL	Industrial Law Journal	2008	2015
WOS:000361304000006	JOURNAL OF AFRICAN LAW	Industrial Law Journal	2008	2015
WOS:000354263700001	BRITISH JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2008	2015
WOS:000347066600007	RIGHT TO EQUALITY IN EUROPEAN HUMAN RIGHTS LAW: THE QUEST FOR SUBSTANCE IN THE JURISPRUDENCE OF THE EUROPEAN COURTS	Industrial Law Journal	2008	2015
WOS:000353830500011	RELIGIOUS EXPRESSION IN THE WORKPLACE AND THE CONTESTED ROLE OF LAW	Industrial Law Journal	2008	2015
WOS:000349222400010	SOCIO-LEGAL INTEGRATION: POLISH POST-2004 EU ENLARGEMENT MIGRANTS IN THE UNITED KINGDOM	Industrial Law Journal	2008	2012
WOS:000354072600004	COMMON MARKET LAW REVIEW	Industrial Law Journal	2008	2015
WOS:000353589000005	WORK EMPLOYMENT AND SOCIETY	Industrial Law Journal	2008	2015
WOS:000349168200011	HORIZONTAL EFFECT REVOLUTION AND THE QUESTION OF SOVEREIGNTY	Industrial Law Journal	2008	2014
WOS:000366909900007	LEGAL STUDIES	Industrial Law Journal	2008	2015
WOS:000350005400010	COMMON MARKET LAW REVIEW	Industrial Law Journal	2008	2015
WOS:000352870100002	LAW, CORPORATE GOVERNANCE AND PARTNERSHIPS AT WORK: A STUDY OF AUSTRALIAN REGULATORY STYLE AND BUSINESS PRACTICE	Industrial Law Journal	2008	2011
WOS:000361670500006	RETHINKING WORKPLACE REGULATION: BEYOND THE STANDARD CONTRACT OF EMPLOYMENT	Industrial Law Journal	2008	2013
WOS:000352201800004	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2008	2015
WOS:000332733700006	OXFORD JOURNAL OF LEGAL STUDIES	Industrial Law Journal	2008	2014
WOS:000359319600018	FUNCTION OF PROPORTIONALITY ANALYSIS IN EUROPEAN LAW	Industrial Law Journal	2008	2015
WOS:000352201800001	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2008	2015
WOS:000353830500011	RELIGIOUS EXPRESSION IN THE WORKPLACE AND THE CONTESTED ROLE OF LAW	Industrial Law Journal	2009	2015
WOS:000361765600005	ORGANIZATION STUDIES	Industrial Law Journal	2009	2015

WOS:000347695500008	ANTIPODE	Industrial Law Journal	2009	2015
WOS:000357728500008	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2009	2014
WOS:000366691700008	ECONOMIC AND INDUSTRIAL DEMOCRACY	Industrial Law Journal	2009	2015
WOS:000348385300016	SOCIAL POLICY REVIEW 25: ANALYSIS AND DEBATE IN SOCIAL POLICY, 2013	Industrial Law Journal	2009	2013
WOS:000325560700008	LAW AS ENGINEERING: THINKING ABOUT WHAT LAWYERS DO	Industrial Law Journal	2009	2013
WOS:000358887700001	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2009	2015
WOS:000332263700005	BRITISH POLITICS	Industrial Law Journal	2009	2014
WOS:000358887700003	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2009	2015
WOS:000352974500009	RELIGION IN PUBLIC SPACES: A EUROPEAN PERSPECTIVE	Industrial Law Journal	2009	2012
WOS:000307834700012	SOCIAL FAILURES OF EU ENLARGEMENT: A CASE OF WORKERS VOTING WITH THEIR FEET	Industrial Law Journal	2009	2012
WOS:000342003300007	PERSONNEL REVIEW	Industrial Law Journal	2009	2014
WOS:000361670500006	RETHINKING WORKPLACE REGULATION: BEYOND THE STANDARD CONTRACT OF EMPLOYMENT	Industrial Law Journal	2009	2013
WOS:000298554600006	JOURNAL OF SERVICE RESEARCH	Industrial Law Journal	2009	2011
WOS:000334589800003	INTERNATIONAL LABOUR REVIEW	Industrial Law Journal	2010	2014
WOS:000361670500019	RETHINKING WORKPLACE REGULATION: BEYOND THE STANDARD CONTRACT OF EMPLOYMENT	Industrial Law Journal	2010	2013
WOS:000337187500001	WEST EUROPEAN POLITICS	Industrial Law Journal	2010	2014
WOS:000365136900009	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2010	2015
WOS:000360898800013	BEYOND THE UN GLOBAL COMPACT: INSTITUTIONS AND REGULATIONS	Industrial Law Journal	2010	2015
WOS:000360369000001	FROM ECONOMY TO SOCIETY? PERSPECTIVES ON TRANSNATIONAL RISK REGULATION	Industrial Law Journal	2010	2013
WOS:000352201800002	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2010	2015
WOS:000347695500008	ANTIPODE	Industrial Law Journal	2010	2015
WOS:000333205700001	FEMINIST LEGAL STUDIES	Industrial Law Journal	2010	2014
WOS:000334897200006	EUROPEAN CONSTITUTIONAL LAW REVIEW	Industrial Law Journal	2010	2014
WOS:000343589800003	LOCAL GOVERNMENT STUDIES	Industrial Law Journal	2010	2014
WOS:000352201800007	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2011	2015
WOS:000353830500011	RELIGIOUS EXPRESSION IN THE WORKPLACE AND THE CONTESTED ROLE OF LAW	Industrial Law Journal	2011	2015
WOS:000356153900016	SOUTH AFRICAN JOURNAL OF EDUCATION	Industrial Law Journal	2011	2015
WOS:000349454000005	WORK EMPLOYMENT AND SOCIETY	Industrial Law Journal	2011	2015

WOS:000328496500006	ECCLESIASTICAL LAW JOURNAL	Industrial Law Journal	2011	2014
WOS:000366280500001	INTERNATIONAL REVIEW OF SOCIAL HISTORY	Industrial Law Journal	2011	2015
WOS:000329919000002	SOCIAL & LEGAL STUDIES	Industrial Law Journal	2012	2013
WOS:000352811200008	JCMS: JOURNAL OF COMMON MARKET STUDIES	Industrial Law Journal	2012	2015
WOS:000359822300006	NEW POLITICAL ECONOMY	Industrial Law Journal	2012	2015
WOS:000352201800008	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2012	2015
WOS:000344517600005	RELATIONS INDUSTRIELLES-INDUSTRIAL RELATIONS	Industrial Law Journal	2012	2014
WOS:000357728500007	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2012	2014
WOS:000357728500008	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2012	2014
WOS:000366623000003	EUROPEAN JOURNAL OF INTERNATIONAL LAW	Industrial Law Journal	2012	2015
WOS:000365554000006	POLITISCHE VIERTELJAHRESSCHRIFT	Industrial Law Journal	2012	2015
WOS:000363435900001	NEW LEFT REVIEW	Industrial Law Journal	2012	2015
WOS:000347435800002	COMPARATIVE EUROPEAN POLITICS	Industrial Law Journal	2012	2015
WOS:000354558500002	EUROPEAN JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2012	2015
WOS:000349112300006	JOURNAL OF EUROPEAN SOCIAL POLICY	Industrial Law Journal	2012	2015
WOS:000350229000012	GREEK CAPITALISM IN CRISIS: MARXIST ANALYSES	Industrial Law Journal	2012	2015
WOS:000353657000014	HANDBOOK OF THE INTERNATIONAL POLITICAL ECONOMY OF MONETARY RELATIONS	Industrial Law Journal	2012	2014
WOS:000365622600002	ECONOMIC AND LABOUR RELATIONS REVIEW	Industrial Law Journal	2012	2015
WOS:000344140400001	JOURNAL OF EUROPEAN INTEGRATION	Industrial Law Journal	2012	2014
WOS:000358877000009	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2012	2015
WOS:000365681100001	JOURNAL OF EUROPEAN PUBLIC POLICY	Industrial Law Journal	2012	2016
WOS:000347331700001	SOCIAL POLICIES AND SOCIAL CONTROL: NEW PERSPECTIVES ON THE NOT-SO-BIG SOCIETY	Industrial Law Journal	2012	2014
WOS:000352005100007	JOURNAL OF INTERNATIONAL ECONOMIC LAW	Industrial Law Journal	2012	2015
WOS:000348427700011	EUROPEAN CONSTITUTIONAL LAW REVIEW	Industrial Law Journal	2012	2014
WOS:000344845500001	DISABILITY & SOCIETY	Industrial Law Journal	2013	2014
WOS:000348427700011	EUROPEAN CONSTITUTIONAL LAW REVIEW	Industrial Law Journal	2013	2014
WOS:000359154100008	EUROPEAN CONSTITUTIONAL LAW REVIEW	Industrial Law Journal	2013	2015
WOS:000352201800005	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2013	2015
WOS:000350542600001	MODERN LAW REVIEW	Industrial Law Journal	2013	2015
WOS:000353589000005	WORK, EMPLOYMENT AND SOCIETY	Industrial Law Journal	2013	2015
WOS:000337636500010	JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2013	2014
WOS:000328254100007	OXFORD JOURNAL OF LEGAL STUDIES	Industrial Law Journal	2013	2013
WOS:000355067100005	UNIVERSITY OF ILLINOIS LAW REVIEW	Industrial Law Journal	2013	2015
WOS:000365136900009	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2013	2015

WOS:000368232600008	PROCEEDINGS OF THE 9TH INTERNATIONAL CONFERENCE: ACCOUNTING AND MANAGEMENT INFORMATION SYSTEMS	Industrial Law Journal	2013	2014
WOS:000352201800001	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2013	2015
WOS:000357728500008	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2013	2014
WOS:000354072600004	COMMON MARKET LAW REVIEW	Industrial Law Journal	2014	2015
WOS:000352201800005	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2014	2015
WOS:000352201800001	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2014	2015
WOS:000359378400001	JOURNAL OF LAW AND SOCIETY	Industrial Law Journal	2014	2015
WOS:000344784600007	BRITISH JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2014	2014
WOS:000352201800015	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2014	2015
WOS:000357804100001	ILR REVIEW	Industrial Law Journal	2014	2015
WOS:000365136900009	CURRENT LEGAL PROBLEMS	Industrial Law Journal	2014	2015
WOS:000352201800004	CAMBRIDGE JOURNAL OF ECONOMICS	Industrial Law Journal	2014	2015
WOS:000365740500002	EUROPEAN JOURNAL OF INDUSTRIAL RELATIONS	Industrial Law Journal	2014	2015
WOS:000333152400005	AUSTRALIAN JOURNAL OF POLITICS AND HISTORY	Industrial Law Journal	2006	2014
WOS:000364955100004	JOURNAL OF EUROPEAN PUBLIC POLICY	Industry Law Journal	2008	2015
WOS:000344050300001	JOURNAL OF AFRICAN LAW	Journal for Juridical Science	2000	2014
WOS:000344050300001	JOURNAL OF AFRICAN LAW	Journal for Juridical Science	2003	2014
WOS:000367205500011	TYDSKRIF VIR GEESTESWETENSKAPPE	Journal for Juridical Science	2004	2015
WOS:000361304000005	JOURNAL OF AFRICAN LAW	Journal for Juridical Science	2004	2015
WOS:000346798304144	EDULEARN13: 5TH INTERNATIONAL CONFERENCE ON EDUCATION AND NEW LEARNING TECHNOLOGIES	Journal for Juridical Science	2009	2013
WOS:000362424300012	SOUTH AFRICAN JOURNAL OF EDUCATION	Journal for Juridical Science	2010	2015
WOS:000361212800002	SOUTH AFRICAN JOURNAL OF PHILOSOPHY	Journal for Juridical Science	2012	2015
WOS:000356953800014	RETHINKING THE LAW SCHOOL: EDUCATION, RESEARCH, OUTREACH AND GOVERNANCE	Journal for Juridical Science	2013	2014
WOS:000367205500003	TYDSKRIF VIR GEESTESWETENSKAPPE	Journal for South African Law	2006	2015

WOS:000356817200015	INTERNATIONAL PERSPECTIVES ON EDUCATION, RELIGION AND LAW	JOURNAL FOR SOUTH AFRICAN LAW	2008	2014
WOS:000369123000007	JOURNAL OF WORLD TRADE	Journal for South African Law	2013	2015
WOS:000349168200011	HORIZONTAL EFFECT REVOLUTION AND THE QUESTION OF SOVEREIGNTY	Journal for South African Law no	2003	2014
WOS:000354209700010	INTERNATIONAL INSOLVENCY LAW: REFORMS AND CHALLENGES	Journal of South African Law	2002	2013
WOS:000209372800007	COMPUTER LAW & SECURITY REVIEW	Journal of South African Law	2003	2012
WOS:000341322800006	MELBOURNE UNIVERSITY LAW REVIEW	Journal of South African Law	2004	2014
WOS:000367417200001	TIJDSCHRIFT VOOR RECHTSGESCHIEDENIS/REVUE D'HISTOIRE DU DROIT/THE LEGAL HISTORY REVIEW	Journal of South African Law	2009	2015
WOS:000352799500025	PARTICIPATION IN CRIME: DOMESTIC AND COMPARATIVE PERSPECTIVES	Journal of South African Law	2011	2013
WOS:000356241300012	JOURNAL OF INTERNATIONAL CRIMINAL JUSTICE	Journal of South African Law	2013	2015
WOS:000359180300006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy and Development	2001	2014
WOS:000207994800004	STANFORD JOURNAL OF INTERNATIONAL LAW	Law Democracy and Development	2001	2009
WOS:000359372300009	TRANSNATIONAL LEGAL ORDERS	Law Democracy and Development	2001	2015
WOS:000367318000003	TYDSKRIF VIR DIE SUID-AFRIKAANSE REG	Law Democracy and Development	2003	2015
WOS:000337776400021	GEOFORUM	Law Democracy and Development	2004	2014
WOS:000358810900006	HUMAN RIGHTS QUARTERLY	Law Democracy and Development	2004	2015
WOS:000354685900006	JOURNAL OF ASIAN AND AFRICAN STUDIES	Law Democracy and Development	2004	2014
WOS:000359180300006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy and Development	2004	2014
WOS:000338994900001	NEW CONSTITUTIONALISM AND WORLD ORDER	Law Democracy and Development	2006	2014

WOS:000354209700010	INTERNATIONAL INSOLVENCY LAW: REFORMS AND CHALLENGES	Law Democracy and Development	2007	2013
WOS:000359180300006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy and Development	2007	2014
WOS:000350392300008	ASIAN JOURNAL OF SOCIAL SCIENCE	Law Democracy and Development	2008	2015
WOS:000354973100007	WATER POLICY	Law Democracy and Development	2008	2015
WOS:000337194100009	RETHINKING THE SOUTH AFRICAN CRISIS: NATIONALISM, POPULISM, HEGEMONY	Law Democracy and Development	2008	2013
WOS:000343827300009	SOCIAL DYNAMICS: A JOURNAL OF AFRICAN STUDIES	Law Democracy and Development	2008	2014
WOS:000334894000009	AMERICAN ETHNOLOGIST	Law Democracy and Development	2008	2014
WOS:000346337100009	POLITIKON	Law Democracy and Development	2008	2014
WOS:000329291100009	CULTURAL ANTHROPOLOGY	Law Democracy and Development	2008	2013
WOS:000332456900001	JOURNAL OF AGRARIAN CHANGE	Law Democracy and Development	2010	2014
WOS:000337194100009	RETHINKING THE SOUTH AFRICAN CRISIS: NATIONALISM, POPULISM, HEGEMONY	Law Democracy and Development	2010	2013
WOS:000336259200005	ENVIRONMENT AND PLANNING A	Law Democracy and Development	2010	2014
WOS:000342326000009	JOURNAL OF PEASANT STUDIES	Law Democracy and Development	2010	2014
WOS:000327726900005	JOURNAL OF AGRARIAN CHANGE	Law Democracy and Development	2010	2014
WOS:000364488300010	REFRAMING CLIMATE CHANGE: CONSTRUCTING ECOLOGICAL GEOPOLITICS	Law Democracy and Development	2010	2016
WOS:000346757400002	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy and Development	2011	2014
WOS:000361304000005	JOURNAL OF AFRICAN LAW	Law Democracy Development	2000	2015
WOS:000330220800001	INTERNATIONAL JOURNAL OF PRESS-POLITICS	Law Democracy Development	2001	2013

WOS:000342449000004	SOCIAL JUSTICE AND THE UNIVERSITY: GLOBALIZATION, HUMAN RIGHTS, AND THE FUTURE OF DEMOCRACY	Law Democracy Development	2002	2014
WOS:000359180300006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2003	2014
WOS:000340275600003	POLITIKON	Law Democracy Development	2004	2014
WOS:000359180300004	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2006	2014
WOS:000359506800004	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2006	2015
WOS:000209468600007	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2006	2013
WOS:000368363600002	CHILD ABUSE REVIEW	Law Democracy Development	2008	2015
WOS:000367358500003	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2009	2015
WOS:000352011500004	SOUTH AFRICAN JOURNAL OF EDUCATION	Law Democracy Development	2009	2015
WOS:000354441700014	UNTIL DEBT DO US PART: SUBNATIONAL DEBT, INSOLVENCY, AND MARKETS	Law Democracy Development	2009	2013
WOS:000209468700005	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2010	2013
WOS:000361304000007	JOURNAL OF AFRICAN LAW	Law Democracy Development	2012	2015
WOS:000346757400006	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Law Democracy Development	2013	2014
WOS:000346019500006	JOURNAL OF LIBRARIANSHIP AND INFORMATION SCIENCE	Potchefstroom Electronic Law Journal	2008	2014
WOS:000336465700026	LANDSCAPE AND URBAN PLANNING	Potchefstroom Electronic Law Journal	2008	2014
WOS:000349192000012	ACTA HISTORIAE	Potchefstroom Electronic Law Journal	2008	2014
WOS:000349502800007	COMPUTER LAW & SECURITY REVIEW	Potchefstroom Electronic Law Journal	2008	2015
WOS:000352005100004	JOURNAL OF INTERNATIONAL ECONOMIC LAW	Potchefstroom Electronic Law Journal	2010	2015

WOS:000332728900014	COMBATING CORRUPTION: LEGAL APPROACHES TO SUPPORTING GOOD GOVERNANCE AND INTEGRITY IN AFRICA	Potchefstroom Electronic Law Journal	2011	2014
WOS:000361304000005	JOURNAL OF AFRICAN LAW	Potchefstroom Electronic Law Journal	2012	2015
WOS:000366734600010	INTERNATIONAL JOURNAL OF AFRICAN RENAISSANCE STUDIES	Potchefstroom Electronic Law Journal	2012	2015
WOS:000356662000002	DEVELOPMENT SOUTHERN AFRICA	Potchefstroom Electronic Law Journal	2012	2015
WOS:000363007900013	HEALTH POLICY AND PLANNING	Potchefstroom Electronic Law Journal	2013	2015
WOS:000369088600053	SUSTAINABILITY	Potchefstroom Electronic Law Journal	2013	2015
WOS:000346832100004	WATER INTERNATIONAL	Potchefstroom Electronic Law Journal	2013	2015
WOS:000360307900009	JOURNAL OF PSYCHOLOGY IN AFRICA	Potchefstroom Electronic Law Journal	2013	2015
WOS:000367205500008	TYDSKRIF VIR GEESTESWETENSKAPPE	Stellenbosch Law Review	2000	2015
WOS:000365257900003	GENDER & SOCIETY	Stellenbosch Law Review	2003	2015
WOS:000340275600007	POLITIKON	Stellenbosch Law Review	2003	2014
WOS:000362157700005	SOUTH AFRICAN JOURNAL OF BUSINESS MANAGEMENT	Stellenbosch Law Review	2003	2015
WOS:000347321200008	LAWYERS AND SAVAGES: ANCIENT HISTORY AND LEGAL REALISM IN THE MAKING OF LEGAL ANTHROPOLOGY	Stellenbosch Law Review	2005	2015
WOS:000342809000007	PLANNING THEORY	Stellenbosch Law Review	2006	2014
WOS:000346035600007	ICON: INTERNATIONAL JOURNAL OF CONSTITUTIONAL LAW	Stellenbosch Law Review	2006	2014
WOS:000301689400006	TYDSKRIF VIR GEESTESWETENSKAPPE	Stellenbosch Law Review	2006	2012
WOS:000366937500014	JURIDICAL TRIBUNE/TRIBUNA JURIDICA	Stellenbosch Law Review	2006	2015
WOS:000350128900001	SOCIAL AND ECONOMIC RIGHTS IN THEORY AND PRACTICE: CRITICAL INQUIRIES	Stellenbosch Law Review	2006	2015
WOS:000361304000005	JOURNAL OF AFRICAN LAW	Stellenbosch Law Review	2007	2015
WOS:000301689400006	TYDSKRIF VIR GEESTESWETENSKAPPE	Stellenbosch Law Review	2007	2012
WOS:000364749600006	ALBIE SACHS AND TRANSFORMATION IN SOUTH AFRICA: FROM REVOLUTIONARY ACTIVIST TO CONSTITUTIONAL COURT JUDGE	Stellenbosch Law Review	2007	2014
WOS:000366979800004	INTERNATIONAL JOURNAL OF HUMAN RESOURCE MANAGEMENT	Stellenbosch Law Review	2009	2016

WOS:000364749600006	ALBIE SACHS AND TRANSFORMATION IN SOUTH AFRICA: FROM REVOLUTIONARY ACTIVIST TO CONSTITUTIONAL COURT JUDGE	Stellenbosch Law Review	2009	2014
WOS:000366937500014	JURIDICAL TRIBUNE/TRIBUNA JURIDICA	Stellenbosch Law Review	2009	2015
WOS:000334931200008	JOURNAL OF AFRICAN LAW	Stellenbosch Law Review	2010	2014
WOS:000348764900021	STUDY OF MIXED LEGAL SYSTEMS: ENDANGERED, ENTRENCHED OR BLENDED	Stellenbosch Law Review	2010	2014
WOS:000209468700003	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	STELLENBOSCH LAW REVIEW	2011	2013
WOS:000209468600008	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Stellenbosch Law Review	2011	2013
WOS:000361304000005	JOURNAL OF AFRICAN LAW	Stellenbosch Law Review	2011	2015
WOS:000209468700005	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	STELLENBOSCH LAW REVIEW	2011	2013
WOS:000359506800007	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	Stellenbosch Law Review	2011	2015
WOS:000366650200005	SOCIAL DYNAMICS: A JOURNAL OF AFRICAN STUDIES	Stellenbosch Law Review	2011	2015
WOS:000349168200011	HORIZONTAL EFFECT REVOLUTION AND THE QUESTION OF SOVEREIGNTY	Stellenbosch Law Review	2011	2014
WOS:000353249600005	TYDSKRIF VIR GEESTESWETENSKAPPE	Stellenbosch Law Review	2011	2015
WOS:000353380300013	WATER AND THE LAW: TOWARDS SUSTAINABILITY	STELLENBOSCH LAW REVIEW	2011	2014
WOS:000351636400009	FROM CAPE TOWN TO KABUL: RETHINKING STRATEGIES FOR PURSUING WOMEN'S HUMAN RIGHTS	STELLENBOSCH LAW REVIEW	2011	2012
WOS:000367358500005	SOUTH AFRICAN JOURNAL ON HUMAN RIGHTS	STELLENBOSCH LAW REVIEW	2011	2015
WOS:000350128900001	SOCIAL AND ECONOMIC RIGHTS IN THEORY AND PRACTICE: CRITICAL INQUIRIES	Stellenbosch Law Review	2011	2015
WOS:000350128900001	SOCIAL AND ECONOMIC RIGHTS IN THEORY AND PRACTICE: CRITICAL INQUIRIES	Stellenbosch Law Review	2012	2015
WOS:000350128900001	SOCIAL AND ECONOMIC RIGHTS IN THEORY AND PRACTICE: CRITICAL INQUIRIES	Stellenbosch Law Review	2013	2015

2.8 Trends in the demographics of SA journal article authors

In 2001 CREST published three statistics on the demographics of active publishing scientists and scholars at SA universities. Table 18 compares this historical data (for 1990 and 1998) with the most recent available year (2014).⁹.

Table 18: Headline demographics

	1990	1998	2014
% of scientific papers published by female authors	10%	20%	32%
% of scientific papers published by black authors	3.5%	10%	32%
% of scientific papers published by authors above the age of 50 years	18%	45%	45%

Data source: SA Knowledgebase (SAK), CREST

The next three figures present more detailed trend data for the past decade. As far as gender and race of the authors are concerned, it is clear that we have been successful in creating a more representative and inclusive human resource base for South African science. As far as age of the author is concerned (Figure 18), the very steep increase in the number of publishing authors over the age of 50 years that was recorded between 1990 and 1998 (from 18% to 45%) seems to have remained constant. In 2005 this proportion was 42% and in 2014 it was very similar at 45%. Conversely the proportion of publishing scientists in the youngest age category has not increased significantly.

⁹ Statistics that are presented here refer to scientists and scholars at South African universities. Given that the HE sector produces nearly 90% of all scientific papers in the SA science system, we believe that this is a reasonable sample to use.

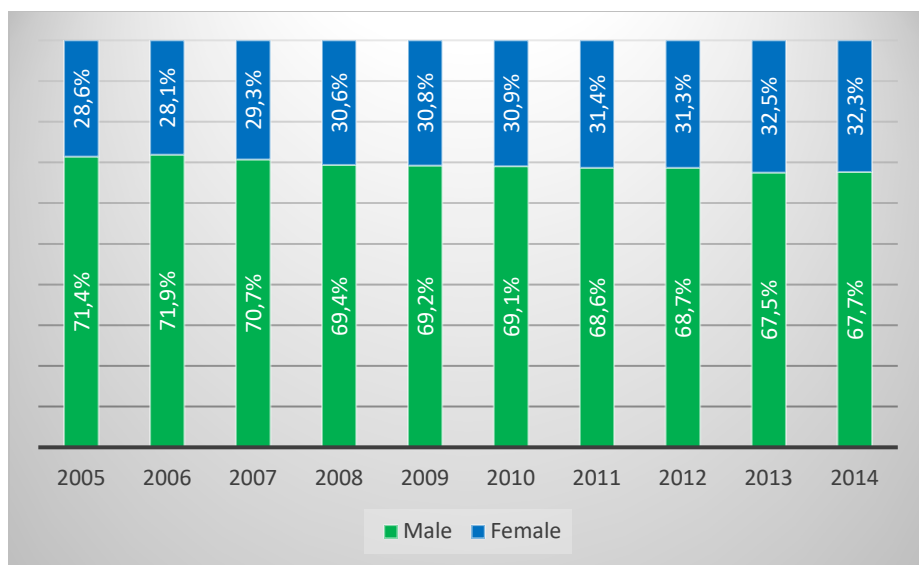


Figure 16: Gender of authors of scientific papers: 2005 to 2014

Source: SAK¹⁰

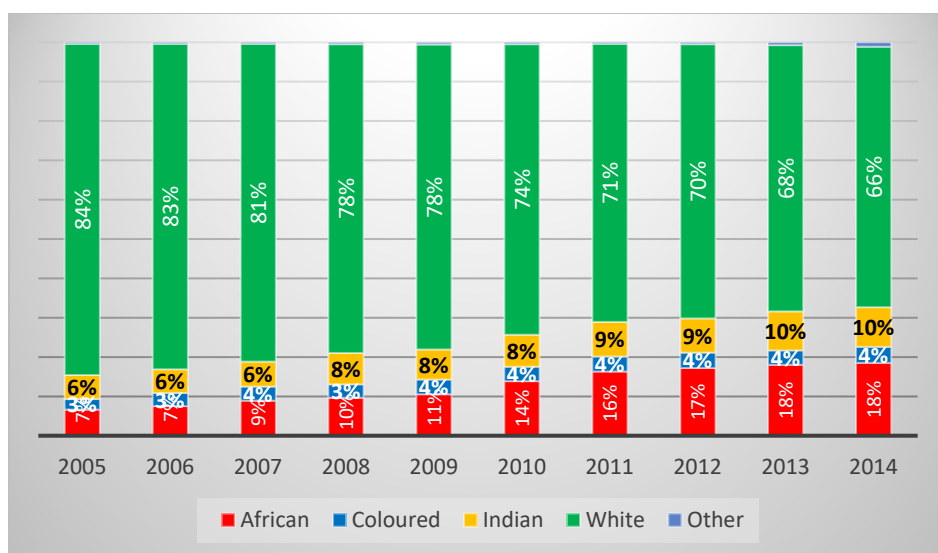


Figure 17: Race of authors of scientific papers: 2005 to 2014¹¹

Data source: SAK

¹⁰ This graph is based on an analysis of 65% of all scientific articles produced by SA academics over this period. Because of the methodology followed in linking author demographics to scientific papers, we would suggest that this data underestimates the number of female-authored papers.

¹¹ This graph is based on an analysis of 62% of all scientific articles produced by SA academics over this period. Because of the methodology followed in linking author demographics to scientific papers, we would suggest that this data underestimates the number of black-authored papers. 'Black' refers to African, coloured or Indian authors.

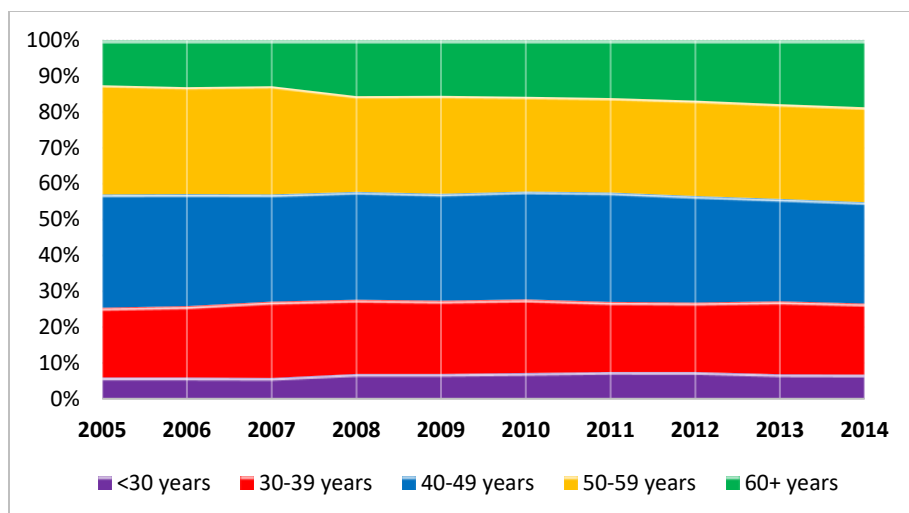


Figure 18: Age at publication of authors of scientific papers: 2005 to 2014¹²

Data source: SAK

2.9 Ethics and journal publishing

Two separate themes are addressed in this section. The advent and scope of predatory publishing amongst SA academics is discussed in the first sub-section (2.9.1). A more general discussion of questionable publication practices is presented in the second sub-section (2.9.2).

2.9.1 Predatory publishing

There has been a surge of interest in predatory publishing and its effects in recent years. Two kinds of ‘studies’ have appeared in recent years. The first are scholarly publications that analyse the nature and dynamics of predatory publishing. Included in this category are studies by Bohannon (2013), Bowman (2014), Djuric (2015), Gasparyan, Yessirkepov, Diyanova and Kitas (2015), Jalalian and Mahboobi (2014), Kozak, Iefremova and Hartley, J (2016), Nelson and Huffman (2015), Shen, and Björk, (2015), Sipka (2012), Svab and Makivic (2015), Tin, Ivana, Biljana, Ljubica, Dragan, and Dusan (2014), Xia (2014) and Xia, Harmon, Connolly, Donnelly, Anderson, and Howard (2015). Arguably the most comprehensive of these is a report in 2012 by Frank Truth entitled ‘Pay big to publish fast: Academic journal rackets’¹⁶.

¹² This graph is based on an analysis of 62% of all scientific articles produced by SA academics during this period. Because of the methodology followed in linking author demographics to scientific papers, we would suggest that this data underestimates the proportions of younger scientists and scholars in the system.

The second category of articles on predatory publishing is found in editorials and commentaries in journals which are more polemical and critical in nature. Articles of this kind are typically written by prominent scholars and editors of journals and point to the increasing prevalence of predatory publishing and its far-reaching consequences for scholarly publishing and specifically the peer review system in science. Examples of the latter are by Robert E Bartholomew (2014) in an editorial in the *Journal of the Royal Society of Medicine*¹⁷, and David Moher and Anubhav Srivastava (2015) in a correspondence note in BMC (BioMed Central).

Predatory publishing: a threat to peer review?

Peer review in science has been around for at least three centuries. The short comings of peer review have been well documented. These include bias in the review process (institutional bias, gender bias), conflicts of interests between reviewers and authors, rejection of very innovative (radical) research, and so on. However, none of this evidence suggests the whole-scale rejection of the peer review mechanism. But a number of recent events have re-opened debates on peer review.

- The continuing growth in the demand for publishing journal articles (consider the role of new big players such as India and China).
- Increased competition to publish (the effect of continuing globalisation and the role of ranking systems).
- The new opportunities to publish through the availability of online journals (and specifically mega-journals such as *Plos*).

The enormous pressure to publish and publish fast, preferably in the very best journals, influences both authors and editors. This pressure exists almost everywhere, but is particularly intense in Asia, for example in China and India. It is therefore no surprise that the most inventive ways to game the peer-review system to get manuscripts published have come from China and India (Lin¹⁹). The companies that provide fake peer reviews come from countries in South-East Asia, and most of the authors involved in these cases come from the same areas. However, it would be a mistake to look at this as a Chinese or Asian problem. This situation is no less true in South Africa where we have for some time now become aware (even if anecdotally) of the pervasive, and in some cases also perverse, effects of the DHET funding system.

Although there is now widespread awareness and presumably also knowledge of what predatory publishing is, it is still important to have a clear understanding of what is meant by predatory publishing and how it is defined.

What is predatory publishing?

The term is usually attributed to the work of Jeffrey Beall (2012) a librarian the University of Colorado in Denver. Beall, who is now generally regarded as the unofficial ‘watchdog’ of predatory publishing, administers a website (<https://scholarlyoa.com/>) entitled *Scholarly Open Access: Critical analysis of scholarly open-access publishing*. In his first major publication on the topic published in Nature in 2012, Beall provided a first description of what is meant by predatory publishing.

Then came predatory publishers, which publish counterfeit journals to exploit the open-access model in which the author pays. These predatory publishers are dishonest and lack transparency. They aim to dupe researchers, especially those inexperienced in scholarly communication. They set up websites that closely resemble those of legitimate online publishers, and publish journals of questionable and downright low quality. Many purport to be headquartered in the United States, United Kingdom, Canada or Australia but really hail from Pakistan, India or Nigeria. Some predatory publishers spam researchers, soliciting manuscripts but failing to mention the required author fee. (Beall²⁰)

It is perhaps useful to summarise what is meant when scholars refer to predatory journals and/or predatory publishing. In the table below we compare the criteria or rules that we believe apply to standard (and ethical) scholarly publishing practices and those that are found in predatory publishing.

Table 19: Comparing good practise in scholarly publishing with predatory publishing

Category	Standard publishing practice	Predatory publishing
Business model and Author Processing Charges (APCs)	Legitimate scholarly journals do not exist solely for profit and usually charge reasonable APCs.	Predatory journals are OA journals that exist for the sole purpose of profit. These journals very often (not always) charge excessive author fees for submission and publication
Origin of papers	Authors usually submit manuscripts to journals out of their own accord.	Predatory journals typically solicit manuscripts by spamming researchers (especially using their Yahoo and Gmail accounts).
Journal titles	Legitimate journals usually have field- and discipline-appropriate titles.	Predatory journals often have bizarrely broad (e.g. the <i>Global Journal of Advanced Research</i>) or disjointed scopes titles (e.g. the <i>Journal of Economics and Engineering</i>).
Time to publication	Publication lag time is often correlated with the status of the journal (with the best journals taking more time to get to	These journals boast extremely rapid (and unrealistic) response (review) and publication times. They often also publish extremely high numbers of papers per year. This is arguably one of

	production because of high demand).	the best indicators of whether a journal is predatory or not, as it speaks to the capacity of any editor to handle literally hundreds of submissions per year through proper peer review.
Journal metrics	Journals indexed in TR WoS and Elsevier Scopus have well-defined and transparent impact factor values.	These journals boast extraordinary and often fake JIFs as well as false claims about where the journal is indexed.
Peer review (stature of editorial board)	Legitimate journals have editorial boards and editorial procedures that properly oversee the process of peer review.	Predatory journals very often have fake editorial boards or, at best, editorial boards that consist of a small number of individuals from the same organisation or country. They often enlist members of editorial boards that are not experts in the field. They also often include scholars on an editorial board without their knowledge or permission.
Contact information	Legitimate journals provide accurate and appropriate contact information about their journal and editorial board.	Predatory journals often list false or insufficient contact information, including contact information that does not clearly state the headquarters location or misrepresents the headquarters location (e.g. through the use of addresses that are actually mail drops)

In the remainder of this section we report on the results and consequences of our analysis of predatory publishing in South Africa.

The source for our analysis is the proprietary database of CREST, SAK, that contains a list of all SA publications (articles, books, book chapters and conference proceedings) that have been submitted for funding to the DHET for the period 2005 to 2014. This database contains information about 116 373 papers authored by SA academics in 8 060 journals over this period that are recognised by the DHET for subsidy purposes. The database contains information about the authors, their institutional affiliations, journal titles, publication year, the journal list in which the paper was published (WoS, IBSS or DHET SA-accredited journals) and the subject category of scientific field/discipline (linked to the journal). In order to conduct the analysis for this paper, we consulted Beall's list on predatory journals and predatory publishers and tagged all journals in our database as belonging to either.

It is important to emphasise that Jeffrey Beall maintains two lists: a list of stand-alone predatory journal titles (1220 titles at the time of writing this paper) and a list of predatory publishers. The former list is simply a list of individual journals which, according to Beall, are predatory journals. For some of these he provides additional information in support of his judgement. The latter list is much more comprehensive, but at the same time arguably less reliable. This is a list of journal (and sometimes also

book and proceedings) publishers. In this instance, Beall usually argues that a particular publishing house (such as *Academic Journals* or *OMICS*) has a demonstrated history of publishing questionable journal titles. Because of this, all journal titles listed by the publisher are hence regarded as being predatory journals. We estimated that there are currently just more than 900 active publishers on Beall's list (this list changes nearly daily). If one adds up the number of journals listed under these publishers, the number comes to a staggering number of 23 400 titles. However, as we will argue below, it is not always clear that every one of these journal titles should be 'tagged' as predatory.

Defining 'predatory'

Even though Beall's listing is relatively new, there have already been a number of contestations around whether his classification of specific journals is in fact correct. He has also been criticised by a small number of scholars for his methodology and subsequent classification of predatory journals (Coyle²¹, Crawford²²). As part of this study we decided not to take Beall's classification at face value, but to undertake a more in-depth assessment of the journals, tagged by him as predatory, in which SA-authored papers have been published.

If we take Beall's list as definitive, we end up with 58 journal titles in which 4 246 SA-authored papers have appeared between 2005 and 2014. We assessed each of these 58 titles and subsequently assigned each of the titles to one of four categories.

1. Not predatory: In these cases we believe that Beall is simply wrong in his classification of the journal or there is insufficient evidence to make such a claim.
2. Strong evidence for predatory: In these cases we concur with Beall's classification.
3. Weak evidence for predatory: In these cases we found some evidence that the journal might be a predatory journal, but do not think the evidence is strong enough to make a definitive judgment.
4. Insufficient evidence: In these cases we simply could not find any pertinent evidence to make a judgment either way. If one assumes that the 'burden of proof' in these cases is on the 'assessor', these journals should probably be tagged as 'not predatory', at least for the time being.

The results of our classification of the journals is summarised in Table 20.

Table 20: ‘Predatory’ journals with SA authored papers: 2005 – 2014

Journal	Not predatory	Insufficient evidence	Predatory – weak evidence	Predatory – strong evidence	Number of papers
<i>Actual Problems of Economics</i>	9				9
<i>African Journal of Agricultural Research</i>			251		251
<i>African Journal of Biotechnology</i>			472		472
<i>African Journal of Business Management</i>				451	451
<i>African Journal of Food Science</i>			2		2
<i>African Journal of Microbiology Research</i>			105		105
<i>African Journal of Pharmacy and Pharmacology</i>			61		61
<i>Aging-US</i>			1		1
<i>American International Journal of Contemporary Research</i>				2	2
<i>Anthropologist: International Journal of Contemporary and Applied Studies of Man</i>				180	180
<i>Archives Des Sciences Journal</i>				15	15
<i>Asian Journal of Chemistry</i>				33	33
<i>Banks and Bank Systems</i>		21			21
<i>Canadian Journal of Pure and Applied Sciences</i>				1	1
<i>Cellular and Molecular Biology</i>				2	2
<i>Corporate Board: Role, Duties and Composition</i>				10	10
<i>Corporate Ownership and Control</i>				270	270
<i>Environmental Economics</i>		30			30
<i>European Journal of Science and Theology</i>			3		3
<i>European Journal of Sustainable Development</i>			1		1
<i>European Scientific Journal</i>			3		3
<i>International Business and Economics Research Journal</i>				241	241
<i>International Journal of Advanced Computer Technology</i>			1		1

<i>International Journal of Computer Applications</i>			2		2
<i>International Journal of Educational Sciences</i>				191	191
<i>International Journal of Electrochemical Science</i>	232				232
<i>International Journal of Engineering and Applied Sciences</i>				1	1
<i>International Journal of Sustainable Development</i>				14	14
<i>Investment Management and Financial Innovations</i>		9			9
<i>Journal of Animal and Plant Sciences (Nairobi)</i>	12				12
<i>Journal of Applied Business Research</i>				72	72
<i>Journal of Communication (Delhi)</i>				20	20
<i>Journal of Economics (Delhi)</i>				25	25
<i>Journal of Economics and Behavioral Studies</i>			111		111
<i>Journal of Environmental Biology</i>			1		1
<i>Journal of Governance and Regulation</i>				34	34
<i>Journal of Human Ecology</i>				289	289
<i>Journal of Industrial and Intelligent Information</i>			1		1
<i>Journal of Information Management</i>		1			1
<i>Journal of Media and Communication Studies</i>		1			1
<i>Journal of Medicinal Plants Research</i>				98	98
<i>Journal of Natural Products (India)</i>				3	3
<i>Journal of Physical Therapy Science</i>				1	1
<i>Journal of Psychology (Delhi)</i>				12	12
<i>Journal of Social Sciences</i>				502	502
<i>Journal of Sociology and Social Anthropology</i>				68	68
<i>Mathematical and Computational Applications</i>	21				21

<i>Mediterranean Journal of Social Sciences</i>				72	72
<i>Oncotarget</i>				2	2
<i>Problems and Perspectives in Management</i>				68	68
<i>Risk Governance and Control: Financial Markets and Institutions</i>				42	42
<i>Romanian Biotechnological Letters</i>				1	1
<i>Scientific Research and Essays</i>				73	73
<i>Studies of Tribes and Tribals</i>				66	66
<i>Studies on Ethno-Medicine</i>				32	32
<i>Technics Technologies Education Management</i>				1	1
<i>Turkish Online Journal of Educational Technology</i>		3			3
Grand total	274	65	1015	2863	4246

Before presenting further detailed results, we elaborate on our categorisation in the table.

Not predatory

First, there are clear-cut cases where Beall has incorrectly ‘tagged’ a journal as being ‘predatory’.

Arguable the best case is Beall’s inclusion of the *International Journal of Electrochemical Science* as a predatory journal. In response to an enquiry in January 2014 why Beall classified this journal as predatory, he responded by saying that the journal had lost its impact factor in the TR Journal Citation Reports in 2012 http://0-admin-apps.webofknowledge.com.skyline.ucdenver.edu/JCR/static_html/notices/notices.htm.

From this exchange it seems that one of the reasons for including the journal on his list was because Beall discovered that it was “suppressed by Thomson Reuters in 2012”. However, the current information on the Journal Citation Reports web page reports citation data and specifically journal ranking data for this journal every year since 2013. It is simply the case that TR decided not to report on the journal citation profile in 2012. However, it is in fact standard bibliometric practice by the WoS to omit citation profile information when a particular journal does not record a minimum number of citations during a particular year. It certainly should not (and Beall should have known this) be interpreted as some fraudulent practice on the part of the journal itself.

We also do not believe that the *Journal of Animal and Plant Sciences* which is published by the **Biosciences Unit of F.a.C.T Ltd, Nairobi, Kenya (since 2002)** is a predatory journal. There is another journal with the identical name which has been published in Pakistan since 1991 (<https://scholarlyoa.com/2012/11/07/more-duplicate-journal-titles/>), but we did not see any evidence that this is a hijacked journal as well. The journal does not list the name of its editor (which is taken as evidence by Beall of a predatory journal), but for the remainder we could not find other evidence of it being predatory.

Similarly, we could not find any evidence that the journal *Mathematical and Computational Applications* is a predatory journal. On the contrary it seems to be a well-established journal in a number of European countries and is being published by the Multidisciplinary Digital Publishing Institute, an academic open-access publisher with headquarters in Basel, Switzerland.

Distinction between weak and strong evidence for a journal being predatory

Based on our inspection of the remaining 48 titles we would argue that it is not always a clear-cut and unambiguous decision whether a journal is in fact a predatory journal. More investigation and a more precise 'scoring' or 'assessment' system whereby suspected predatory journals are subjected to rigorous scrutiny is needed. One way to do this would be to take the current criteria for identifying predatory journals (Table 33 above) and develop a set of operational rules according to which suspected journals could be assessed. In this assessment we used three sources of evidence:

1. Beall's blogs on specific journals
2. Scholarly journals that refer to specific journals or publishers
3. Our own case-by-case inspection.

As to the first source of evidence, Beall often has specific blog entries where he discusses why he has categorised a specific journal as being predatory. Where we could find such blog entries (there are not entries for all the predatory titles), we looked at the evidence and if we concurred with his assessment, we would classify this as strong evidence. One example refers to a journal, the *African Journal of Business Management (AJBM)*, in which SA authors has published quite prodigiously. Beall has an extensive blog on the AJBM (<https://scholarlyoa.com/2012/01/15/the-continuing-story-of-the-african-journal-of-business-management/>). He describes a scam which involved the review process as follows:

An author submitting a paper was asked to provide the names and email addresses of two potential reviewers. Some authors reportedly abused this process and created two fake identities, along with two new email addresses, submitting these names and emails as the two reviewers. Not surprisingly, these bogus reviewers praised the papers they reviewed, and the papers were published in the journal. Eventually some began to learn of and reveal the scam.

As to the second type of evidence, there are a number of scholarly studies where specific 'case' investigations have been made of specific journals (Tin¹³, Truth¹⁶). Again, our approach was to look at these studies and then make a judgment on whether the evidence supports the classification of a specific journal or publisher as being predatory.

The final source of evidence was our own inspection of each of the journal titles. And in this case, we looked for the following 'indicators' that the journal is predatory:

1. The completeness and accuracy of editorial board information (both the editor and individual members of the editorial board)
2. Whether any fake claims were being posted about indexing of the journal or JIF
3. Growth in the number of papers accepted for publication.

It is important to emphasise that we would typically attempt to find evidence on at least two or all three of the indicators referred to above. The second indicator (making fake claims) was taken to be a very strong indicator. On the other hand, the first indicator (editorial board information) by its own would not be viewed a sufficient evidence to make a judgment about the predatory 'status' of the journal.

We give some examples of how these criteria were applied.

Information provided by the *African Journal of Pharmacy and Pharmacology* on their editors are suspect to say the least. The information on the editor does not correspond to the link to his name. The journal editor, Himanshu, K. is listed as being affiliated to the Department of Pharmacy Practice at the University of Toledo. But when one follows the link to his name, it takes one to the Ministry of Defence, Government of India at the Department of Nuclear Medicine in New Delhi. Another editor listed is Shreesh Kumar Ojha. She is listed as being with the University of Arizona, but the link to her name takes

you to: United Arab Emirates University, Department of Pharmacology and Therapeutics, Al Ain, United Arab Emirates. We could not find her name on the staff list of the University of Arizona.

Three of the journals represented in our list are all from Kamla-Raj Enterprises – the *International Journal of Education Sciences (INJES)*, the *Journal of Human Ecology (JHE)* and the *Journal of Social Sciences (JSS)* – are examples of where blatantly false claims about the members of their editorial boards are made. For example, Prof Kenneth Kennedy who is listed as editorial member of the JHE died in 2014 and Prof Richard Brown who is listed as an editorial member of the JSS died in 2003. Another tell-tale sign of predatory publishing is the overlap in the names of editorial board members across various predatory journals. This is also true here. Dr. Bryan Hiebert who is listed as an editorial member of the INJES is also listed as an editorial member of the *International Scholars Journal*, which is also identified by Beall as most likely a predatory journal. The same applies to three other Nigerian academics who also appear on the editorial boards of both journals: Dr. Alfred A. Adegoke, Dr. Godson C. Igborgbor and Dr. Oyaziwo Aluede.

A very common example of false claims relate to claims that predatory journals make about indexing and JIFs. An example from our list is the *Journal of Natural Products (India)*. The journal on our list is published in India by <http://journalofnaturalproducts.com/> and is not to be confused with a legitimate journal with the same title which is produced by ACS or the Natural Products Journal published by the Bentham Institute. On their website the journal cites two impact factor values for 2013 (1.265) purportedly produced by a company called the [Universal Impact Factor](#), and another value for the same year produced by another company called [Global Impact Factor-Institute for Information Resources](#). Neither of these companies exists or is in the business of producing legitimate journal impact factors.

Predatory journals are, by definition, in the business of primarily of making money whilst not adhering to good publication and editorial practices. Such journals hence engage in various strategies to solicit business (most often by spamming potential authors) and publishing as many papers as they can. As a result one often sees that predatory journals record exponential increases in the number of publications over very short time frames thereby raising the question about their capacity to undertake rigorous and appropriate peer reviews. The *African Journal of Business Management (AJBM)* is a case in point. Truth¹⁶ records how the journal has expanded exponentially between 2007 and 2011:

In 2011 it reached a startling 13,579 pages, and has grown by some 28% in 2012. In 2010, its total volume was 4,229 pages, while in 2009 it had 997 pp., in 2008 242 pp., and in its founding year 2007, 243 pp'. Thomson-Reuters was asked in 2010 to review the AJBM and finally removed the journal from its list in Feb. 2012, some 18 months after serious questions regarding the journal's practices were submitted to the knowledge firm.

Other journals by the same publisher, Academic Journals, which is based in Lagos, Nigeria exhibit similar characteristics leading us to categorise them as 'probably predatory'. Two examples are the *African Journal of Agricultural Research* (242 papers) and the *African Journal of Biotechnology* (452). The *African Journal of Agricultural Research* shows on its website that it has published 5 242 articles since 2006. This translates into an average of 476 articles per year. The same applies to the *African Journal of Biotechnology* which indicates on its website that it has published 11 688 articles since it was established in 2002. This translates into an average of 780 papers per year! Both these journals currently charge between \$550 and \$650 for submitted articles. Even if we work on a lower average of \$500 per submission, it means that these two Journals have generated \$2.6 million and \$5.8 million in revenue respectively for their owners. Academic Online currently has 111 journals in its stable.

Results

Using this fourfold classification allowed us to estimate what the overall extent of predatory publishing in South Africa is. For this estimate we excluded the 339 papers in the 10 journals that we have classified as being either 'not predatory' or for which we have 'insufficient evidence' to make a judgement. This left a total number of 3 907 papers, which constitute 3.4% of the total article production over the past 10 years. The disaggregation by evidence categories is as follows: 2 863 papers (or 2.5%) appeared in journals which we classified as *probably* predatory (strong supporting evidence) and 1 015 (or 0.09%) appeared in journals which we classified as *possibly* predatory (weak supporting evidence).

In the remainder of the paper we present further analyses of these results over time, by university and also subject category.

Predatory publishing over time

A cursory inspection of data presented in the table shows that the biggest increase has occurred in recent years, especially since 2011. This is specifically true for article output in those journals that we have classified as being probably predatory. We present these trends in Figure 19 below.

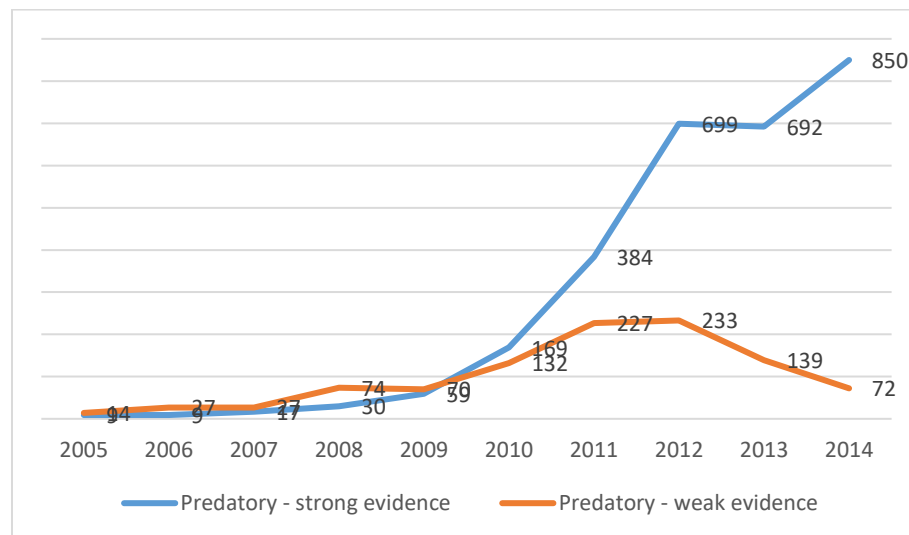


Figure 19: Increase in number of papers published by SA authors in predatory journals (2005 – 2014)

Source: SAK, CREST

The spread of predatory publishing by university

Is predatory publishing in the SA HE confined to certain universities only? To address this question we disaggregated the number of papers by university. The results (Table 21) show clearly that academics at all SA universities are engaging in this practice. But is predatory publishing more prevalent at some universities than others? In order to achieve a comparison across universities that differ in size (amongst other things) we decided to normalize the number of articles in predatory journals by the total article production of university. The results reveal quite large differences.

Table 21: ‘Predatory’ papers by SA University (2005 – 2014)

University	Predatory – strong evidence	Share of total papers	Predatory – weak evidence	Share of total papers	Total ‘predatory’	Share of total papers	Total number of papers
CPUT	107	7.9%	80	5.9%	187	13.8%	1358
CUT	71	13.4%	11	2.1%	82	15.5%	528
DUT	86	10.5%	51	6.2%	137	16.7%	819
MUT	22	16.3%	13	9.6%	35	25.9%	135
NMMU	41	1.8%	8	0.4%	49	2.2%	2268
NWU	357	4.7%	51	0.7%	408	5.4%	7520

RU	11	0.3%	18	0.4%	29	0.7%	4286
SU	126	0.9%	20	0.1%	146	1.0%	14005
TUT	93	4.5%	26	1.3%	119	5.8%	2051
UCT	40	0.3%	4	0.0%	44	0.3%	14533
UFH	220	14.7%	160	10.7%	380	25.4%	1496
UFS	115	1.9%	36	0.6%	151	2.5%	6105
UJ	224	4.3%	18	0.3%	242	4.6%	5256
UKZN	269	1.9%	167	1.2%	436	3.0%	14449
UL	151	7.7%	68	3.5%	219	11.2%	1960
UNISA	546	6.9%	44	0.6%	590	7.5%	7863
UNIVEN	164	14.9%	74	6.7%	238	21.7%	1097
UP	108	0.7%	74	0.5%	182	1.2%	15348
UWC	50	1.3%	25	0.7%	75	2.0%	3801
UZ	33	3.7%	22	2.4%	55	6.1%	900
VUT	42	7.3%	12	2.1%	54	9.4%	573
WITS	63	0.5%	32	0.2%	95	0.7%	12929
WSU	76	16.0%	43	9.1%	119	25.1%	475
Total	3015	2.5%	1057	0.9%	4072	3.4%	119755

Source: SAK, CREST

If we focus on the first two columns (strong evidence category), small proportions of papers (less than the mean of 2.5%) were produced at the major research universities (UCT, SU, UP, WITS, RU, UKZN, UFS and UWC) and one comprehensive university, NMMU. At the other end of the spectrum we find that relatively large proportions (more than 10%) of all papers produced over the past ten years at WSU, MUT, UFH, UNIVEN, DUT, CUT, CPUT, UL, UZ, UJ and VUT appeared in predatory journals. The pattern of predatory publishing in the category of ‘possible predatory journals’ (weak evidence) is mostly similar with UFH, MUT, WSU, DUT, CPUT, UNIVEN and UL recording proportions of papers significantly above the national average.

Predatory publishing by scientific field

Our final analysis focused on the subject categories or scientific fields in which these papers were published. Using the link between journal title and subject field (as in the TR WoS database), each predatory journal was linked to a single subject category or scientific field. Although the assignment of journals to a single subject category is not always straightforward (even though we have used a category entitled ‘Multidisciplinary science’) we believe that the general picture that emerged from this analysis presents a reasonably accurate picture of the spread of papers by subject category. We again disaggregated the papers by journal classification (probable and possible predatory journals).

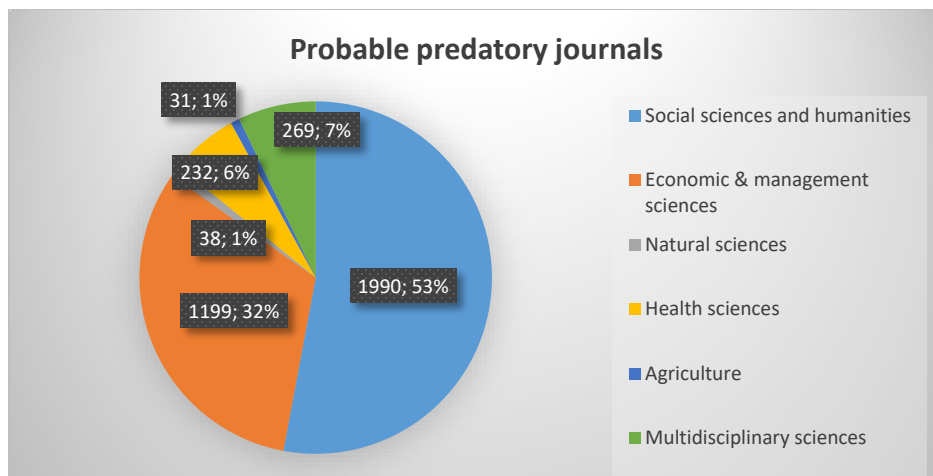


Figure 20: Distribution of predatory articles by subject category (Probably predatory: strong evidence)

Source: SAK, CREST

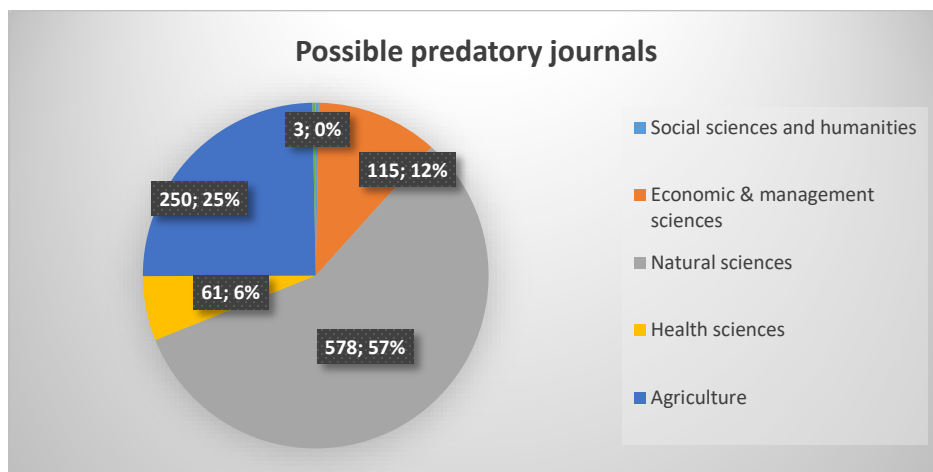


Figure 21: Distribution of predatory articles by subject category (Possibly predatory: weak evidence)

Source: SAK, CREST

A comparison of these graphs reveals some differences, but the overall picture that emerges from this analysis is not dissimilar. In both cases, articles in the social sciences and humanities and the economic and management sciences dominate. This result is also consistent with our disaggregation by university and why predatory publishing at some of the top research universities with large medical and natural sciences faculties are less common. Of course, the bigger question is why predatory publishing in South Africa is so much more prevalent in the broad field of the human sciences rather than in other fields.

Discussion

Scholarly publishing in South African is heavily influenced by the DHET system of paying subsidies to universities for research publications. This, as we have argued elsewhere (Mouton²³), is the major driver behind the huge increase in publication output since 2005 and has become the major incentive for many academics to publish, and publish as many articles as quickly as they can. If we assume that all the papers that we have identified as predatory received funding (at an average of around R100 000 per full counted paper), an amount of between R100 and R300 million (depending on whether we base our calculation on possible or probable journals) have been paid to universities for publications that have appeared in predatory journals as classified by Beall. This is clearly cause for concern.

It is important to emphasise that it is not the view or intention of the authors to lay blame on individual academics who have published in predatory journals. There is enough evidence to indicate that many academics are quite unaware of these practices. Young and inexperienced scholars are often advised by senior academics to publish in such journals without knowing that this may compromise their academic careers. It is equally important to point out that all of the 48 journals identified as actual or possible predatory journals in our database were at the time included in one of the three lists (the majority appears in the ProQuest IBSS list) recognised by the DHET for funding purposes. This means that academics (and their university research offices) were within their right to submit these papers for subsidy purposes and no 'rule' of the funding framework was violated. However, this rather 'bureaucratic' position misses a main point of this report, viz. that SA academics should not become complicit in predatory publishing on ethical grounds. Most of these journals do violate the basic rules of ethical publishing and research integrity and should therefore be avoided.

In a recent development the US Federal Trade Commission has taken an interest in these 'predatory' publishers. More specifically, they have targeted the OMICS Group, a global conglomerate based in India and incorporated in Nevada that boasts more than 700 'leading-edge, peer-reviewed' open-access journals. All the evidence provided by Beall on OMICS makes it very clear that it is in fact a predatory publisher. As reported "In a historic first for the FTC, the agency is suing the company, alleging that it misrepresented the legitimacy of its publications, deceived researchers, and obfuscated sizeable publication fees". <https://www.wired.com/2016/09/ftc-cracking-predatory-science-journals/>

The results of our study have consequences at the systemic, institutional and individual levels.

At the systemic level national departments and agencies such as the DHET, CHE and NRF will have to take actions to ensure that predatory publishing does not become the norm at SA universities, especially in the human sciences, and compromise the quality of scientific and scholarly publishing in the country.

Arguably the main responsibility lies with the DHET who will have to take a stand on whether it will in the future fund papers that have appeared in journals that have unequivocally been identified to meet all or most of the criteria of a predatory journal. Their response to the case of the *Mediterranean Journal of the Social Sciences* suggests that they would decide not to do so. In order to discourage the practice of publishing in predatory journals and bringing the SA-HE system into disrepute, we believe that the DHET should, as a matter of urgency, revisit the lists that are currently approved for subsidy purposes (most notably the IBSS) and even consider placing a moratorium on the continued accreditation of those journals that are suspected of being predatory.

But it is also an issue that the CHE, who has the systemic responsibility to assure quality in higher education, will have to take up and act upon. Perhaps the time has come to organise a national indaba where all universities and stakeholders are represented to discuss this issue and measures to address the 'scourge' of predatory publishing and other questionable publication practices by SA academics. And finally, it is very clear that the NRF will have to take an explicit position on this matter as it is not inconceivable that academics, and especially young academics, could in future apply for funding and ratings with CVs that include any number of papers in predatory journals and conference proceedings. In a recent communication by Dr Gansen Pillay from the NRF to the first author, he indicated that the NRF is about to release a statement on this matter.

A number of SA universities have already taken steps to alert their staff to the dangers of predatory publishing, but a quick scan of the universities reveals that this applies more to the established research universities where predatory publishing is less common. It is clear that the research offices at all SA universities need pro-actively to alert all their staff about the implications of predatory publishing. Equally important is the imperative to improve their validation procedures before papers are submitted for subsidy to the DHET.

Finally, at the individual scholar level, we would argue that it is a specific responsibility for senior academics and specifically supervisors to be alert to the dangers of predatory publishing. In the same way that senior academics and supervisors inform and guide their younger colleagues and doctoral students about research ethics and the imperatives of conforming to good practice in research integrity, it now becomes an additional responsibility to guide young academics in their publication strategies and choices. It is well documented (Xia, 2015; Xia, Harmon, Connolly, Donnelly, Anderson & Howard, 2015) that young scholars, and very often doctoral graduates, are targeted by these predators. Unless they are properly informed and guided in their publication strategies, young scholars could find themselves building a CV that is increasingly based on publishing in questionable journals. There is even the danger that journal articles that are submitted as part of a doctoral study (so-called 'PhD by paper') may end up in predatory journals and hence compromise the quality assurance process of the doctorate.

In the final analysis, it is clear that predatory publishing poses a significant threat to science in South Africa. If it continues to increase at the rate of growth of the past five years, predatory publishing may well become the norm in some disciplines and at some universities. Not only will this affect the very fabric of the science system (our confidence in the peer review system), but it will also undermine the trust and confidence of the general public in science and its products.

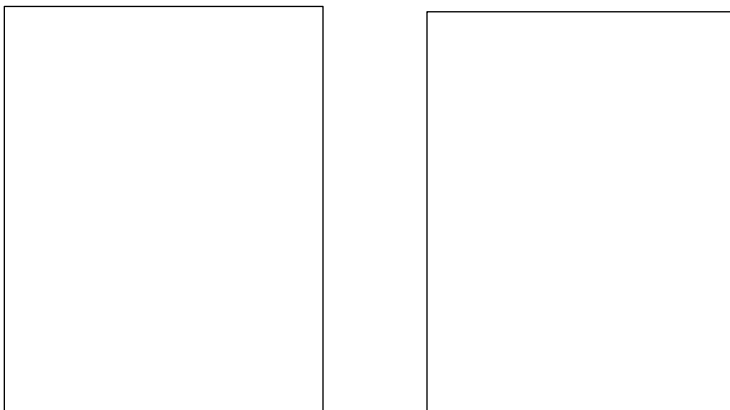
2.9.2 Questionable publication practices

There are at least three publication practices which we believe should be regarded as questionable (if not unethical):

- Unacceptable levels of publication intensity by the editor or a member of the editorial board (in the journal)
- Unacceptable publication intensity by an individual in the journal (for example, publication of excessively large number of papers (more than 2 papers in the same issue))
- 'Publication cartels' where two or more individuals (sometimes also members of the editorial board) co-author repeatedly in the same journal.

Why not use the term 'unethical practices'? In our view the term 'unethical' assumes some notion of 'intent to defraud' or 'intent to break the rules' which in turn presupposes some knowledge of the rules of the game. But we believe that there is not sufficient consensus in the field of scholarly publishing on all the 'rules of appropriate publication behaviour'. There is still some degree of ambiguity surrounding these rules. This applies both to the rules or criteria of accreditation and Beall's rules about predatory journals and publishing.

Case 1: Journal A



Journal A is a refereed journal published quarterly (March, June, September and December) by Publisher A. The editor-in-chief and the editorial committee serve as a review board in conjunction with appointed reviewers throughout Africa and overseas for special topics. The current editor-in-chief is ***** from the Department of ***** at *****. He recently succeeded ***** from the university of ***** as editor.

Figure 22 shows the number of papers published each year from 2005 to 2015..

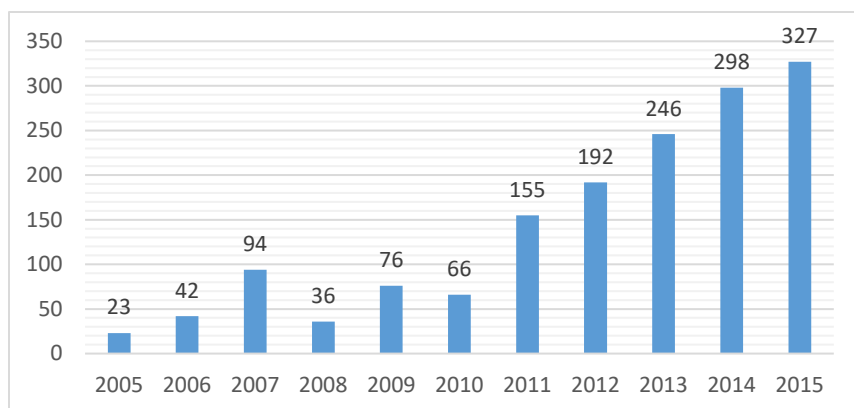


Figure 22:
Number of papers in Journal A by year*

The steep increase in the number of papers in Journal A since 2011 requires further investigation. A breakdown by address of the authors is presented in Figure 23.

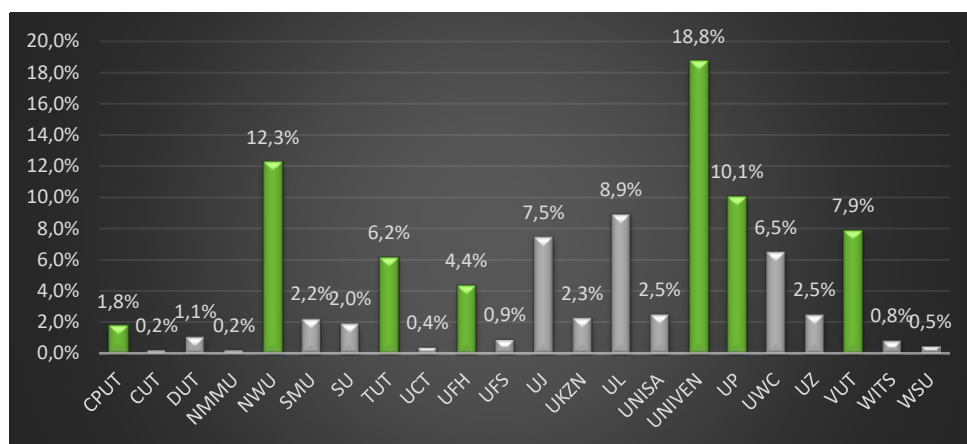


Figure 23: Institutional affiliations of Journal A authors*The breakdown by institutional affiliation gave a first indication of some questionable publication practices with 64% of all authorships produced by members of the editorial board (indicated in green in the figure) of the journal. The disaggregation by individual author (Table 22 below) presents an even more disturbing picture.

Table 22: Most prolific Journal A authors in descending order*

Author	Papers	Institution	Share	Cum %
*****	113	****	3.3%	3.3%
*****	77	****	2.2%	5.5%

*****	58	****	1.7%	7.1%
*****	58	****	1.7%	8.8%
*****	57	****	1.6%	10.4%
*****	50	****	1.4%	11.9%
*****	42	****	1.2%	13.1%
*****	41	****	1.2%	14.3%
*****	41	****	1.2%	15.4%
*****	38	****	1.1%	16.5%
*****	37	****	1.1%	17.6%
*****	30	****	0.9%	18.5%

It is already of some concern that the previous editor in chief, ***** published 58 articles in the journal (the same applies to the current editor, *****). However, what is most striking is the publication profile of Prof ***** , who is also a member of the editorial board.

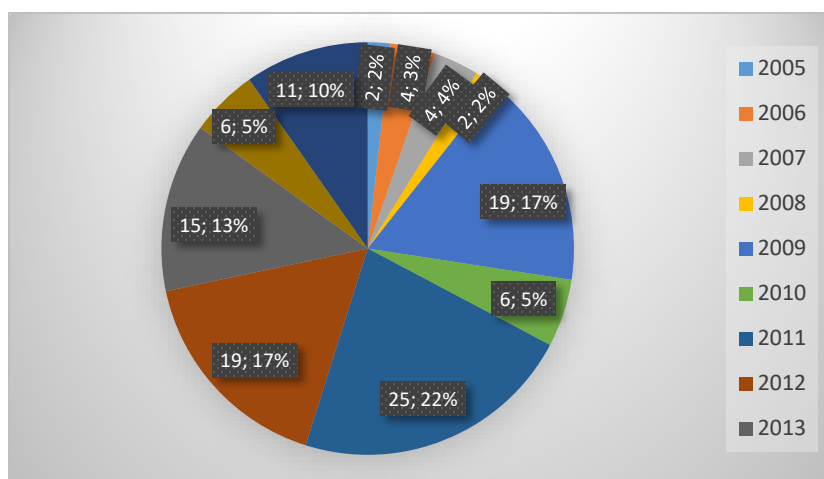



Figure 24: Publication profile of *****

It is not just the sheer volume of output in one journal that is striking, but even in the same issue. In October 2011, he published 11 out of 15 articles in one issue. We believe that these are very clear examples of questionable publication practices.**Case 2: Journal B***



to a startling 13 579 pages in 2011. TR was asked in 2010 to review Journal B and finally removed the journal from its list in February 2012, some 18 months after serious questions regarding practices at the journal were submitted to the knowledge firm. A total of 451 papers were published in the journal in recent years. These papers were produced by a total of 443 unique authors. The vast majority of authors produced only one or a fraction of a paper. A few authors produced larger numbers. Table 23 lists the authors (in descending order) who have published five or more papers in the journal.

Journal	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
African Journal of Business Management				3	22	53	122	225	26	451	

Surname	Initial	Number of papers
*****	**	69
*****	*	14
*****	**	9
*****	**	7
*****	*	7
*****	*	7
*****	*	6
*****	*	6
*****	**	6
*****	*	5
*****	**	5

*****	**	5
*****	**	5
*****	**	5
*****	**	5
*****	*	5
*****	**	5
*****	*	5
*****	*	4

Two names stand out: ***** and ***** . The former is the editor-in-chief of the journal. In 2011, he authored or co-authored 23 articles and in 2012 he contributed 41 papers to his own journal. It is believed that this is a clear case of a questionable publication practice.

Summary

The enormous pressure to publish and publish fast, preferably in the very best journals, influences both authors and editors. This pressure exists almost everywhere, but is particularly intense in Asia, especially in China and India. It is therefore no surprise that the most inventive ways to game the peer-review system to get manuscripts published have come from China and India. This situation is no less true in South Africa where we have for some time now seen the pervasive effects of the DHET-funding system in combination with the NRF-rating system.

The problem is the perverse incentive systems in scientific publishing. As long as authors are (mostly) rewarded for publishing many articles and editors are (mostly) rewarded for publishing them rapidly, new ways of gaming the traditional publication models will be invented more quickly than new control measures can be put in place.

- We need to establish more timely alert systems to assist universities (and their research offices) to identify cases of clear predatory publishing before submitting for publication subsidies.
- We need an ongoing analysis of SA publication practices to identify cases of questionable publication and again to alert the DHET and university research offices to such practices.
- We need to run more workshops in basic bibliometrics (understanding the publication and citation behaviour, the dangers of unethical and questionable practices in scientific authorship and especially of predatory publishing) for all students and emerging scholars.

It is imperative that we protect the integrity of our publication system and hence also of the funding system. Growth in output must go hand in hand with proper quality and ethical 'surveillance'.

Part Three: Book publishing

3.1 High-level trends in scientific book (monograph) publishing in South Africa

The process for paying subsidies for book and book chapters (and also conference proceedings) is quite different from the way in which subsidies for journal articles are paid to universities. The latter, as discussed in Part 2, is based on a set of three accredited journal lists and subsidies are paid to universities for any article submission that conform to a journal on any of these lists (after verification by the relevant university). However, there is currently no similar list of ‘accredited’ publishers that are used for the assessment of book and book chapter submissions. This means that universities would typically make submissions in these categories (according to the relevant rules) to the DHET which would then convene a panel to review each submission individually. In the recent past, ASSAf had been requested to undertake such a peer-review process through a range of panels and then advise the DHET accordingly. However, this arrangement was suspended for the most recent period (since the 2015 submissions).

In this section we will present information of three kinds.

1. The approved subsidy-units for books and book chapters (combined) for the period 2005 – 2014 as provided by the DHET.
2. The book and book chapter submissions made to the DHET over the same period.
3. An analysis of the recommendations made (by ASSAf) and decisions taken by the DHET for the most recent years. We have been provided with this information both by ASSAf and the DHET. This analysis allows us to compare the submissions made with the final decisions taken by DHET at a finer level of analysis.

Our first results refer to the high-level trends in approved subsidy-units for books and book chapters (Figure 25) and clearly show the increase (especially since 2011) in outputs in these two categories.

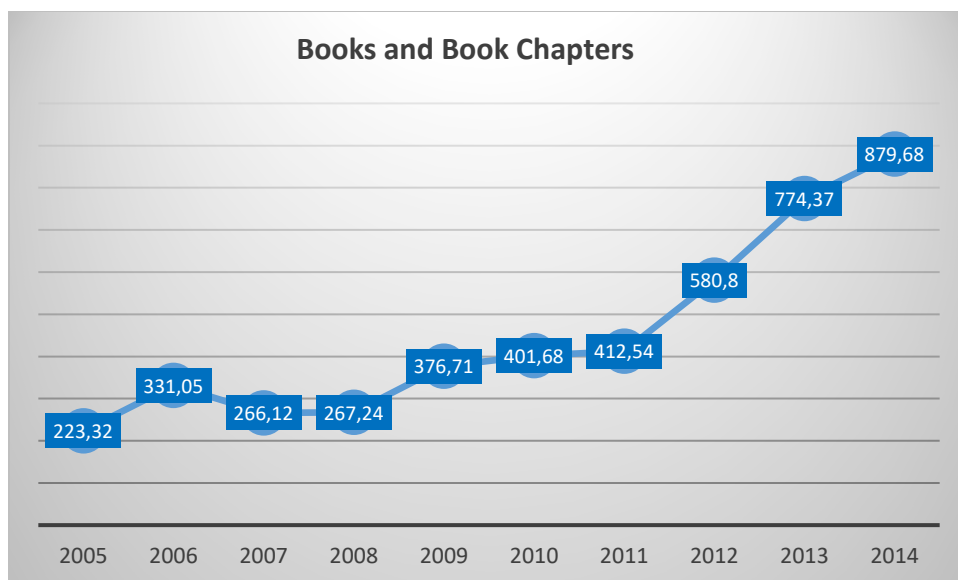


Figure 25: Increase in book and book chapter units (2005 – 2014)

Book and book chapter subsidy units constitute approximately 4.3% of total publication output over the past ten years (Figure 26). The trend line over this period (Figure 27) shows a gradual increase in its share – a trend that may increase with the introduction of new book subsidy values in 2017.

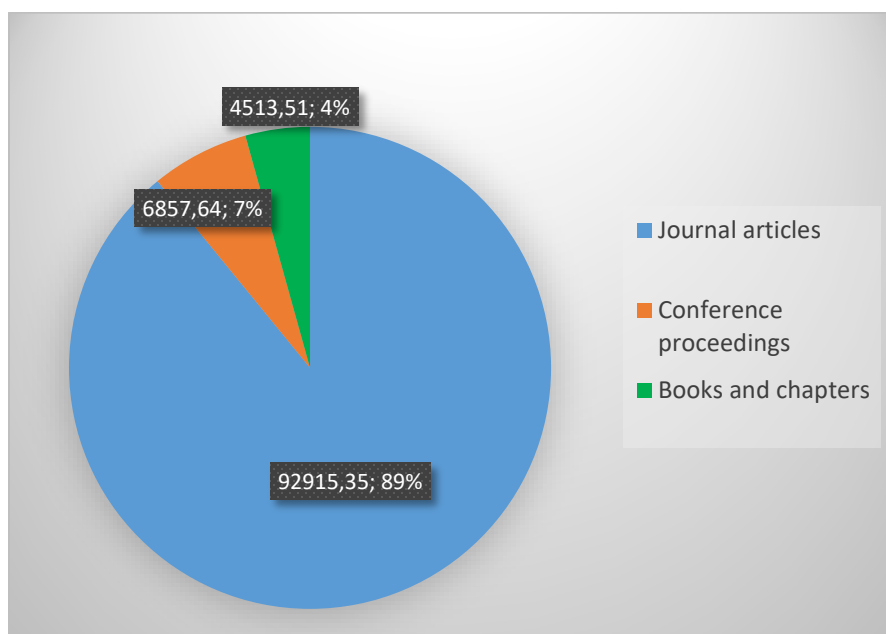


Figure 26: Proportional share of the three publication categories (2005 – 2014)

Data source: SA Knowledgebase (SAK), CREST

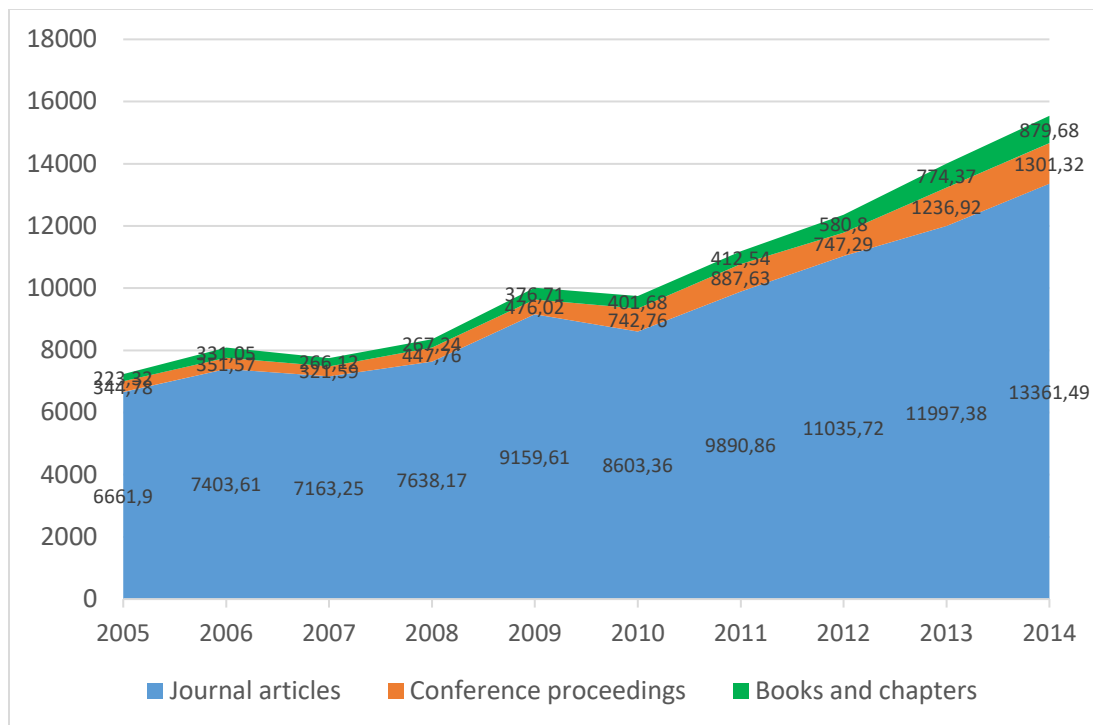


Figure 27: Relative share of book/chapter and conference proceedings of overall publication output

Data source: SA Knowledgebase (SAK), CREST

A breakdown by the book and chapter shares of the individual universities for the same period is given in Figure 28.

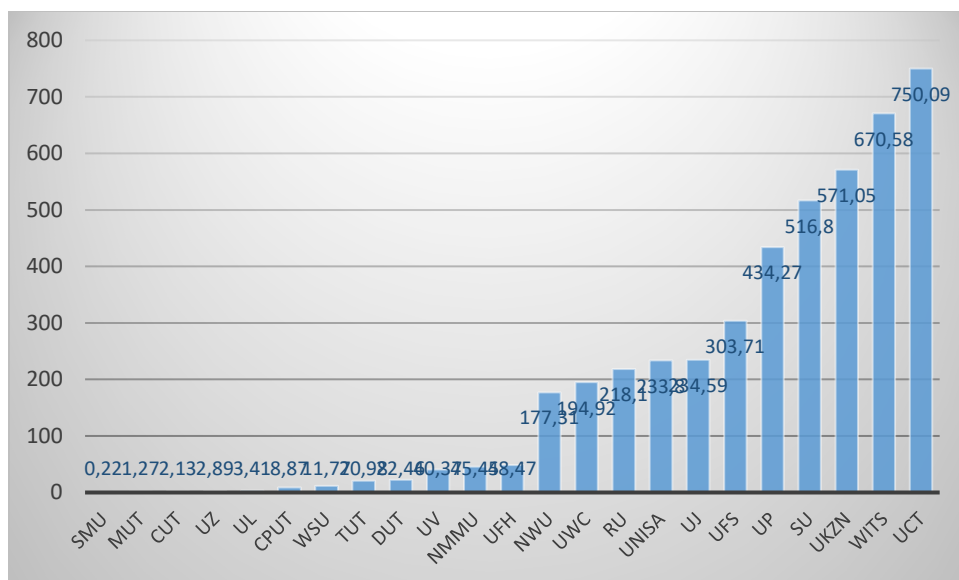


Figure 28: University shares in book and book chapter production (2005 – 2014)

Data source: SA Knowledgebase (SAK), CREST

3.2 Book and book chapter submissions (2005 – 2014)

We now turn to a discussion of the trends in book and book chapter submissions as made by the individual universities over this time period. The ‘raw’ data submitted by the individual universities were collated and integrated into SAK for the purpose of these analyses.

Methodological note: Cleaning and standardisation of this dataset had its own challenges. This is mainly due to the fact that book titles, titles of contributions to books as well as names of publishers were not submitted in a standard and unified manner by the individual universities. At the level of publishers, CREST also had to invest a huge amount of time in ensuring the correct publisher name (and not a division or subsidiary of the publisher) was entered.

Table 24: Overview of book and book chapter submissions (2005 – 2014)

Document type	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Grand Total
Book authorships	38	28	64	70	94	112	124	161	156	181	1047
Book (unique titles)	33	22	60	62	84	95	107	147	134	162	906
Chapter (authorships)	201	220	676	608	816	940	1332	1972	1825	2123	10850
Chapters (unique titles)	98	95	278	280	399	439	567	853	840	964	4813

Note: We distinguished (both as far as book and book chapters are concerned) between unique titles (full document count) and authorships (fractional counting at the author level).

The general trends are quite clear. The number of unique book titles submitted for funding increased from only 33 in 2005 to 162 in 2014. At the same time the number of unique chapters in books increased from 98 to 964.

3.2.1 Book submissions

Our database contains information about 923 unique book titles submitted during the period 2005 to 2014. These 923 book titles were published by 323 unique publishers. In Table 25 we list the names of the publishers of these book titles in descending order (for 3 or more titles).

Table 25: Number of unique book titles by publishers (descending order for 3 and more titles)

Publisher name	Number of titles
Juta	32
Palgrave Macmillan	32
Wits University Press	32
AFRICAN SUN MeDIA	28
Oxford University Press	27
LAP Lambert Academic Publishing	25
Cambridge University Press	23
Springer	23
Jacana Media	22
Routledge	22
HSRC Press	18
Protea Boekhuis	18
University of KwaZulu Natal Press	16
LexisNexis	15
Brill	12
Unisa Press	12
VDM Publishing	12
UCT Press	11
Ashgate Publishing	10
Tafelberg	10
Van Schaik Publishers	9
Pretoria University Law Press (PULP)	8
ATHENA-Verlag	7
L'Harmattan	7

Mohr Siebeck	7
Nova Science Publishers	7
Wolters Kluwer Law & Business	7
Cambridge Scholars Publishing	6
Cluster Publications	6
Hart Publishing Ltd	6
Peter Lang	6
World Scientific	6
CRC Press	5
David Publishing Company	5
Juta Law	5
Peeters Publishers	5
University of Chicago Press	5
Wiley	5
Wiley-Blackwell	5
Bloomsbury Continuum	4
Chandos Publishing	4
Jonathan Ball	4
Rodopi	4
Sense Publishers	4
Acumen Publishing Limited	3
Archaeopress	3
Birkhauser	3
Bloomsbury Publishing	3
Bloomsbury T&T Clark	3
Columbia University Press	3
Earthscan	3
Fordham University Press	3
Indiana University Press	3
James Currey	3
Kraal Uitgewers	3
LINCOM GmbH	3
Magnolia Press	3
Manchester University Press	3
Martinus Nijhoff Publishers	3
Potchefstroomse Teologiese Publikasies	3
Publish America	3
The Edwin Mellen Press	3
Vandenhoeck & Ruprecht	3

The top-20 publishers are presented in Figure 29. The individual shares of different publishers are evenly spread with no single publisher dominating. The list includes both local academic publishers and university presses, together with a small number of prominent international publishers.

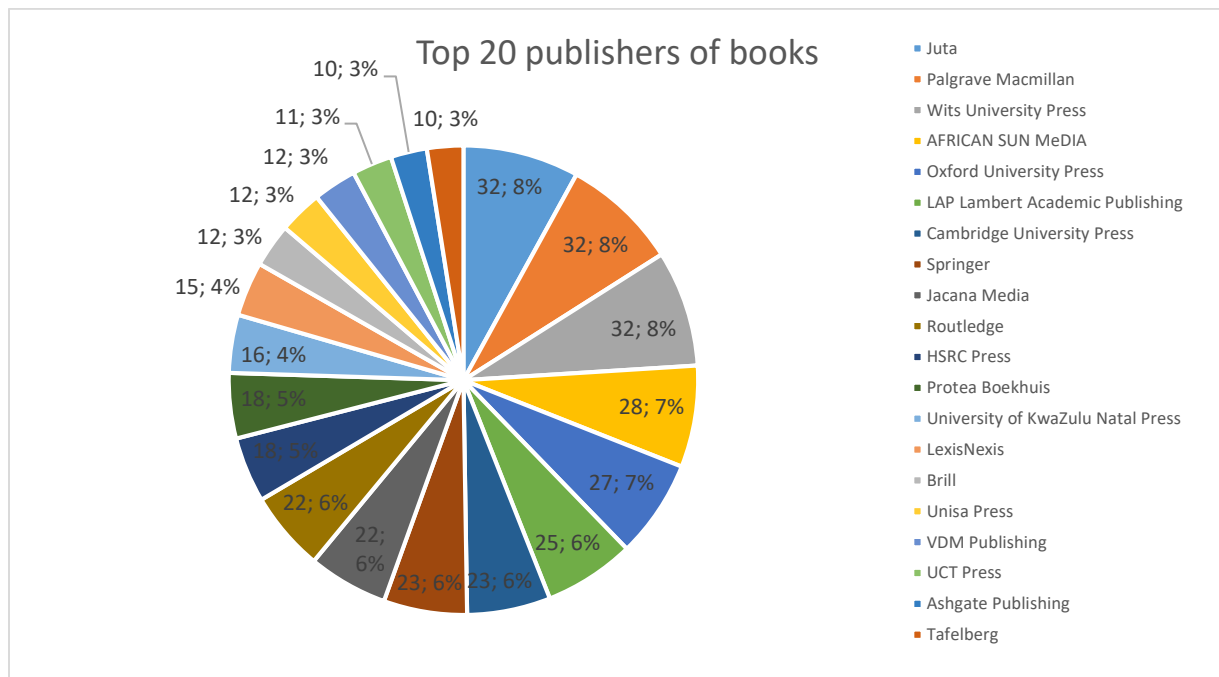


Figure 29: Top-20 book publishers

The next table lists, in descending order, the names of the most prolific book authors of these submissions.

Table 26: Number of book authors in descending order (3 or more books)

Surname	Initials	Nr of titles
Kannemeyer	JC	7
Boaduo	NA-P	7
Van Der Walt	AJ	6
Schoeman	K	6
Steeb	W-H	5
Ferreira	OJO	5
Horn	PR	5
Mukuka	GS	5
Thobejane	TD	5
Marwala	T	4
Horn	AC	4

Choma	HJ	4
Wessels	A	4
Mostert	H	4
Choma	H	4
Cornille	J-L	4
Schutte	GJ	4
Samways	MJ	4
De Koker	AP	4
Runia	DT	4
Dragomir	SS	4
Cilliers	JH	4
Allen	P	4
Loubser	MM	3
Williams	DT	3
Boeyens	JCA	3
Ndlovu-Gatsheni	S	3
De Gruchy	J	3
Ogden	D	3
Henning	JJ	3
Acharya	A	3
Louw	DJ	3
Waghid	Y	3
Grundlingh	AM	3
Lewis-Williams	JD	3
Mphasha	LE	3

3.2.2 Submissions of chapters in edited books/collections

Our database includes a list of 4 868 book chapter titles as submitted for the period between 2005 and 2014. Table 27 presents information on book chapter submissions and their publishers (more than 10 titles), whilst Table 41 presents information on the most prolific authors of book chapters.

Table 27: Chapters in books (more than 10 titles in descending order, by publisher)

Publisher name	Number of titles
Springer	458
AFRICAN SUN MeDIA	414
Routledge	373
Oxford University Press	322
HSRC Press	299
Cambridge University Press	280
Wits University Press	280

Juta	208
Palgrave Macmillan	203
University of KwaZulu Natal Press	177
Brill	154
Van Schaik Publishers	143
LexisNexis	142
Unisa Press	142
UCT Press	141
InTech	137
Nova Science Publishers	134
Jacana Media	125
Ashgate Publishing	119
Springer Science+Business Media	106
Africa Institute of South Africa	103
Elsevier	102
Wiley-Blackwell	100
Pretoria University Law Press (PULP)	89
Cambridge Scholars Publishing	87
CRC Press	83
Rodopi	82
Sense Publishers	81
Peter Lang	77
Pearson	66
Mohr Siebeck	65
Edward Elgar	64
John Benjamins	55
Africa World Press, Inc. & The Red Sea Press, Inc.	52
Wiley	40
Information Science Reference	39
De Gruyter	38
International Association of IT Lawyers (IAITL)	36
Juta Law	36
Knowres Publishing (Pty) LTD	30
Cluster Publications	29
Earthscan	28
Zed Books	28
CABI	27
LIT Verlag	27
Society of Biblical Literature	27
Emerald Group Publishing	26
IGI Global	26
Berghahn Books	25

International Union for the Scientific Study of Population (IUSSP)	25
Wageningen Academic Publishers	25
Bloomsbury T&T Clark	24
Bloomsbury Continuum	22
Edinburg University Press	22
Manchester University Press	22
Nomos Verlagsgesellschaft	22
Wolters Kluwer Law & Business	22
AndCork Publishers	21
Intersentia	21
Sage Publications	21
Multilingual Matters	20
Orient Black Swan	19
Peeters Publishers	18
SANBI	17
Bloomsbury Publishing	16
Health Systems Trust	16
Ibadan University Press	16
Ohio University Press	16
Common Ground Publishing	15
DOT Matrix Publications	15
Geological Society of South Africa	15
Klaus Hess Verlag	15
MIT Press	15
University of Pretoria	15
CODESRIA	14
Inter-Disciplinary Press	14
Lexington Books	14
South African Education Law Association	14
South African National Biodiversity Institute	14
Taylor & Francis	14
Barbara Budrich Publishers	13
Evangelische Verlagsanstalt	13
Indiana University Press	13
Martinus Nijhoff Publishers	13
PsySSA Psychological Society of South Africa	13
Waxmann Verlag	13
Wiley-Scrivener	13
Centraalbureau voor Schimmelcultures (CBS)	12
Fanele	12
Fundisa	12
Global HELP Organization	12

Hart Publishing Ltd	12
Information Age Publishing	12
World Scientific	12
Acrodile Publishing Limited	11
Geological Society of America	11
Geological Society of London	11
Heinemann	11
International Labour Office	11
L'Harmattan	11
Pickering & Chatto	11
Trentham Books	11
Wiley-VCH	11
ATINER Athens Institute for Education and Research	10
Borntraeger Science Publishers	10
Caister Academic Press	10
Churchill Livingstone Elsevier	10
Council on Higher Education	10
James Currey	10
Libri Publishing	10
MacMillan	10
Pluto Press	10
Research Institute for Theology and Religion University of South Africa	10
SAPES books	10
Siber Ink	10
University of Michigan Press	10
Woodhead Publishing	10
World Bank	10

If we focus on the top-20 publishers, we find that a small number of international publishing houses dominate the list (Figure 30). This is different from the picture that emerged from our analysis of book titles. Whereas the publication of books (mostly monographs) tend to happen with local publishers (and quite a number of university presses and the HSRC), the patterns with regard to book chapter contributions is rather ‘international’.

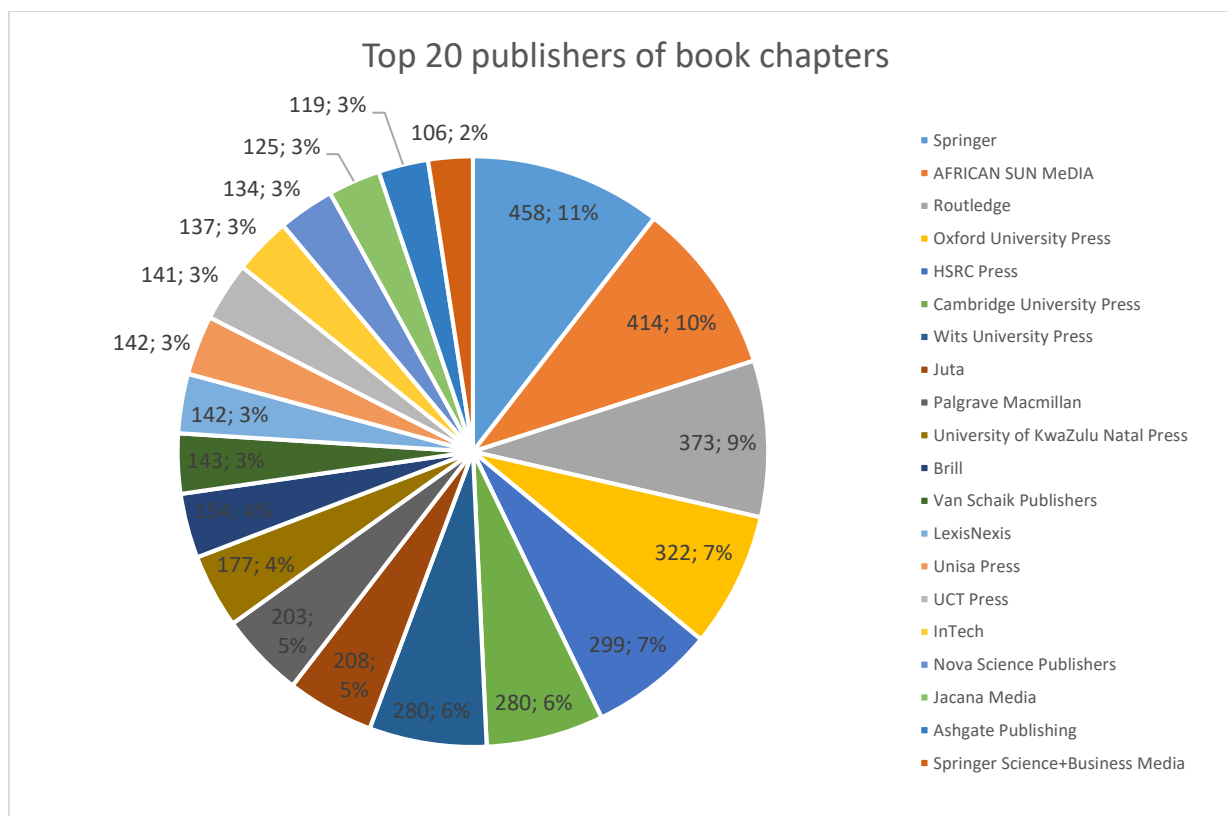


Figure 30: Top 20 publishers of book chapters

Table 28: Most productive authors of book chapters (10 and more)

Surname	Initials	Nr of chapter titles
Smit	DJ	37
Woolman	SC	34
Van Der Merwe	CG	27
Mishra	AK	24
Mesthrie	R	24
Henning	JJ	23
Hess-Lüttich	EWB	21
Punt	J	19
Parnell	S	19
Gagiano	AH	19
Nhamo	G	18
Saunders	CC	17
Mishra	SB	17
Moultrie	T	17
Ross	DA	17
Wasserman	HJ	16

Tiwari	A	16
Mucina	L	16
Obi	A	16
Wingfield	MJ	16
Vahed	G	16
Du Plessis	JE	15
Davis	D	15
Melber	H	15
De Lange	N	15
Stipp	H-J	14
von Maltzan	CH	14
Labahn	M	14
Cochrane	JR	14
Du Plessis	A	14
Roodt	G	14
Webster	EC	13
Richardson	DM	13
Strydom	H	13
Du Plessis	SS	13
Maree	JG	13
Wynberg	RP	13
Swart	SS	13
Hassan	RM	13
Melber	HHM	13
Ntsebeza	L	12
Landsberg	C	12
Ruiters	G	12
Pieterse	EA	12
Ruppel	OC	12
Moodley	K	12
Friedman	S	12
Marais	JGL	12
Alant	E	12
Swart	I	12
Biberauer	T	12
Hebinck	P	12
Bozalek	V	11
Smythe	DL	11
Van Averbek	W	11
Vally	S	11
Hamann	R	11
Viviers	W	11
Bond	P	11

Howie	SJ	11
Sehoole	MT	11
Wissing	MP	11
Waghid	Y	11
Bennett	TW	11
Mattes	RB	11
Ndlovu	SM	11
Landau	LB	11
Schwikkard	PJ	11
Shefer	T	11
Corder	HM	11
Solms	M	11
Saloojee	H	11
Shackleton	CM	10
Shackleton	SE	10
Stein	DJ	10
Southall	RJ	10
Westwood	T	10
Swartz	L	10
Koopman	NN	10
Morrell	RG	10
Cock	JE	10
Rohleder	P	10
Viljoen	FJ	10
Williams	MA	10
Everatt	D	10
Van As	AB	10
De Beer	AS	10
Seekings	JF	10

3.3 'Ranking' of different publishing houses

One of the aims of this study was to look into the matter of the quality and reputation of the publishers in which SA academics publish. A review of the literature shows that there are very few generally accepted 'rankings' of publishers. We could find only two: the SENSE ranking and the ranking by the NSD done for the Norwegian Research Council. There are, however, numerous studies that have been done where scientists and scholars themselves were surveyed to rate the best publishers in their specific disciplines. We found such studies for the disciplines of Political Science (Lewis, 2000 and Garand, 2011), the social sciences and humanities in general (Giminez-Toledo, 2013), Chemistry and Sociology (Volkman, 2014) and History (Zucalla, 2014). For the purposes of this study, where we needed a rating or

ranking system that covers all scientific fields, we did not have a choice but to revert to the Sense and NSD rankings.

Our database contains 11 890 unique book and book chapter titles that had been submitted for subsidy during the period 2005 to 2014. When linking these titles to the Sense and NSD ratings (or their associated publishers), we found the following.

- 29% of these titles were published by publishers that were not rated by either of these 'systems'.
- 35% of these titles were published by publishers rated by SENSE.
- 71% of these titles were published by publishers rated by NSD.

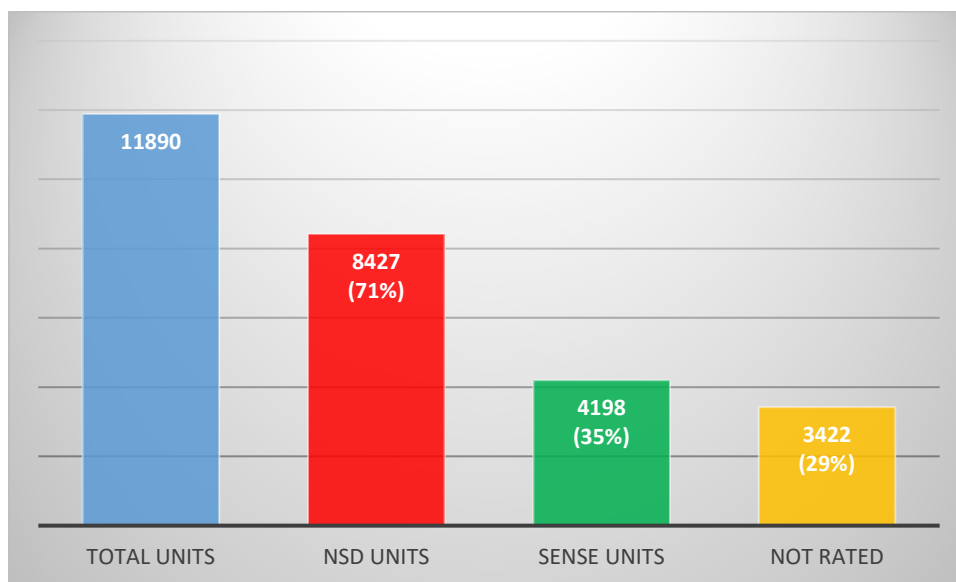


Figure 31: Comparing Sense and NSD ratings at the level of book and chapter titles

3.3.1 The Sense ranking of publishers

The SENSE Research School for Socio-Economic and Natural Sciences of the Environment (SENSE) is a joint venture of the environmental research institutes of more than ten Dutch universities and research organisations. SENSE provides a disciplinary and multidisciplinary research programme aimed at advanced understanding of environmental problems and advanced training of PhD candidates in this field. SENSE was formally accredited by the Royal Netherlands Academy of Arts and Sciences (KNAW) for the period 1997 to 2001 and was subsequently re-accredited in 2002 and 2008.

SENSE distinguishes between A, B, and C journals, and for books between A, B, C, D and E publishers:

- A. Refereed book publications by the top publishers in the world
- B. Refereed book publications published by the semi-top publishers in the world
- C. Refereed book publications by other publishers
- D. Non-refereed book publications published for an academic public
- E. Non-refereed book publications mainly published for a non-academic (general) public.

The SENSE list for 2015 was imported into SAK and linked to both book and book chapter submissions. Table 29 summarises the number of book authorships by publisher and according to the SENSE ranking. We have only listed the first three ranking categories for refereed book publications. Table 43 presents the same list for book-chapter-authorship submissions.

Table 29: Publishers and their Sense ratings for book titles

Publisher name	Number of titles	SENSE rating
Academica Press	1	A
Cambridge University Press	23	A
Columbia University Press	3	A
MIT Press	1	A
Oxford University Press	27	A
University of Chicago Press	5	A
Ashgate Publishing	10	B
Brill	12	B
CRC Press	5	B
Edward Elgar	1	B
Elsevier	1	B
Lexington Books	1	B
Palgrave Macmillan	32	B
Routledge	22	B
Springer	23	B
Springer Science+Business Media	1	B
University of Pennsylvania Press	2	B
Wiley	5	B
Wiley-Blackwell	5	B
World Scientific	6	B
Zed Books	2	B
Amsterdam University Press	1	C
Berghahn Books	1	C
CABI	1	C

Cambridge Scholars Publishing	6	C
CBS-KNAW Fungal Biodiversity Centre	1	C
Centraalbureau voor Schimmelcultures (CBS)	1	C
Fordham University Press	3	C
I.B. Tauris	1	C
Intersentia	2	C
Nova Science Publishers	7	C

Table 30: Publishers and their Sense ratings of chapter titles

Publisher name	Number of titles	SENSE rating
Academica Press	1	A
Cambridge University Press	23	A
Columbia University Press	3	A
MIT Press	1	A
Oxford University Press	27	A
University of Chicago Press	5	A
Academic Press	9	A
Cambridge University Press	280	A
Columbia University Press	3	A
MIT Press	15	A
Oxford University Press	322	A
University of Chicago Press	2	A
Ashgate Publishing	10	B
Brill	12	B
CRC Press	5	B
Edward Elgar	1	B
Elsevier	1	B
Lexington Books	1	B
Palgrave Macmillan	32	B
Routledge	22	B
Springer	23	B
Springer Science+Business Media	1	B
University of Pennsylvania Press	2	B
Wiley	5	B
Wiley-Blackwell	5	B
World Scientific	6	B
Zed Books	2	B
Ashgate Publishing	119	B
Brill	154	B
CRC Press	83	B
Edward Elgar	64	B

Elsevier	102	B
Lexington Books	14	B
Nomos Verlagsgesellschaft	22	B
Palgrave Macmillan	203	B
Routledge	373	B
Springer	458	B
Springer Gabler	1	B
Springer Science+Business Media	106	B
Springer Verlag	2	B
University of Pennsylvania Press	2	B
Wiley	40	B
Wiley-Blackwell	100	B
Wiley-Interscience	2	B
Wiley-Scrivener	13	B
Wiley-VCH	11	B
World Scientific	12	B
Zed Books	28	B
Amsterdam University Press	1	C
Berghahn Books	1	C
CABI	1	C
Cambridge Scholars Publishing	6	C
CBS-KNAW Fungal Biodiversity Centre	1	C
Centraalbureau voor Schimmelcultures (CBS)	1	C
Fordham University Press	3	C
I.B. Tauris	1	C
Intersentia	2	C
Nova Science Publishers	7	C
Aalborg University Press	3	C
Amsterdam University Press	5	C
Benthan Science	1	C
Berghahn Books	25	C
CABI	27	C
Cambridge Scholars Publishing	87	C
Centraalbureau voor Schimmelcultures (CBS)	12	C
FAO	2	C
Food and Agriculture Organization of the United Nations (FAO)	1	C
Fordham University Press	2	C
I.B. Tauris	2	C
Intersentia	21	C
IOS Press	2	C
Nova Science Publishers	134	C
Nsemia Inc	1	C

Oxbow Books	4	C
Wageningen Academic Publishers	25	C
WIT Press	4	C
World Bank	10	C

3.3.2 The NSD ranking of publishers

The Norwegian Centre for Research Data (NSD) has the responsibility for the maintenance and operations of the Norwegian Register for Scientific Journals, Series and Publishers. The register forms the basis for research publications that have an impact on the weighted funding model of the Norwegian Research Council. New scientific publication channels can be submitted continuously. The submissions mainly come from researchers and librarians, but anyone can submit a new publication channel for consideration.

The Higher Education Institution (UHR) in Norway has been commissioned by the Ministry of Education to establish a permanent publication committee. This committee, the National Publishing Committee, has the responsibility for the development and technical operation of the system for documenting academic publishing. This includes the approval of new scientific publication channels, the responsibility for nomination and approval of publication channels in Level 2, as well as securing implementation according to established criteria and standards.

Level 1 is everything that can be included from the definition of academic publishing.

Level 2 is limited to publication channels (scientific journals, series, yearbooks, websites and book publishers) perceived to be the most leading in broad professional settings, which publish the most significant publications from different countries and scientists, and which together publish about one - fifth (20%) of the scientific publications. The fifth section on Level 2 is calculated as a percentage of the articles from the entire world in the subjects where international statistics from journals (ISI) are available and reasonably accurate. In other fields a discretionary assessment is made of statistics from the Norwegian higher education sector compared to international statistics while taking into account the subjects of the book published. Each year the specialised strategic bodies nominated to level 2 receive updated publishing statistics on their trade as a substrate for nominations. The National Publishing Committee receives proposals for change in level 2 and takes the final decision. Decisions on

level changes that are nominated during 2015 will be published in early 2016 and will take effect from 2017.

Table 31: Publishers and their NSD ratings for book authorships

NSD ranking	Publisher name	Number of book titles
1	Academica Press	1
1	Acumen Publishing Limited	3
1	Africa World Press, Inc. & The Red Sea Press, Inc.	2
1	AFRICAN SUN MeDIA	36
1	AMS - American Mathematical Society	2
1	Amsterdam University Press	1
1	Archaeopress	3
1	ATHENA-Verlag	9
1	Atlantis Press	1
1	Baker Publishing Group	1
1	Basler Afrika Bibliographien	1
1	Baylor University Press	2
1	C. Hurst and Co. Publishers	2
1	CABI	1
1	Cambridge Scholars Publishing	7
1	Carolina Academic Press	1
1	Chandos Publishing	9
1	Cluster Publications	7
1	CRC Press	7
1	CSIRO	1
1	De Gruyter	2
1	Earthscan	3
1	Edwin Mellen Press	1
1	Eisenbrauns	1
1	Elsevier	1
1	Evangelische Verlagsanstalt	1
1	Fordham University Press	3
1	Fortress Press	1
1	Frank & Timme	1
1	Garant Publisher	1
1	Gorgias Press	1
1	Gower	2
1	Gütersloher Verlagshaus	1
1	Hampton Press	1
1	Heinemann	1
1	Hendrickson Publishers	1

1	Herder	2
1	HSRC Press	23
1	Indiana University Press	4
1	Jessica Kingsley Publishers	3
1	Karthala	1
1	Left Coast Press	1
1	Lexington Books	1
1	LexisNexis	20
1	L'Harmattan	7
1	Magnolia Press	3
1	McGill-Queen's University Press	2
1	Michigan State University Press	1
1	Nordiska Afrikainstitutet	1
1	Nova Science Publishers	13
1	OECD	1
1	Ohio University Press	2
1	Peter Lang	6
1	Pickwick Publications	1
1	Pluto Press	2
1	Polity Press	2
1	Pretoria University Law Press (PULP)	9
1	Random House Struik	2
1	Rowman & Littlefield	1
1	Rozenberg Publishers	2
1	Scarecrow Press	1
1	SCM R. Brockhaus	1
1	Sense Publishers	4
1	Sheffield Phoenix Press	2
1	Society of Biblical Literature	2
1	Springer	26
1	Springer Science+Business Media	1
1	Symposium Books	2
1	Temple University Press	2
1	Thames & Hudson	3
1	Trentham Books	1
1	UCT Press	13
1	Unisa Press	12
1	University of Arizona Press	2
1	University of North Carolina Press	1
1	University of Toronto Press	2
1	UPA University of Washington Press	2
1	Verlag Karl Alber	1
1	Wayne State University Press	1

1	Wiley	11
1	Wiley-Blackwell	8
1	Willan Publishing	1
1	Wissenschaftliche Buchgesellschaft	1
1	Wits University Press	39
1	Wolf Legal Publishers	1
1	Wolters Kluwer Law & Business	9
1	World Scientific	8
2	Ashgate Publishing	10
2	Berg Publishers	1
2	Berghahn Books	1
2	Bloomsbury T&T Clark	3
2	Brill	12
2	Cambridge University Press	27
2	Columbia University Press	4
2	Cornell University Press	2
2	Edinburg University Press	2
2	Edward Elgar	1
2	Franz Steiner Verlag	1
2	Hart Publishing Ltd	6
2	Harvard University Press	1
2	I.B. Tauris	1
2	Intellect Books	1
2	Intersentia	2
2	James Currey	3
2	John Benjamins	1
2	Librairie Droz	1
2	LIT Verlag	1
2	Manchester University Press	3
2	MIT Press	1
2	Mohr Siebeck	7
2	Multilingual Matters	1
2	Oxford University Press	35
2	Palgrave Macmillan	34
2	Peeters Publishers	6
2	Routledge	24
2	Sage Publications	1
2	Saint-Paul	1
2	Stanford University Press	1
2	University of California Press	2
2	University of Chicago Press	5
2	University of Pennsylvania Press	2
2	Walter de Gruyter	1

2	Yale University Press	1
2	Zed Books	2

Table 32: Publishers and their NSD ratings for book chapter titles

NSD ranking	Publisher name	Number of titles
1	Aakar Books	1
1	Aalborg University Press	4
1	Academia Press	4
1	Academic Foundation	1
1	Academic Press	13
1	Acton Publishers	1
1	Acumen Publishing Limited	1
1	Adonis & Abbey Publishers	3
1	Africa Institute of South Africa	119
1	Africa World Press, Inc. & The Red Sea Press, Inc.	61
1	African Minds	5
1	AFRICAN SUN MeDIA	531
1	American Chemical Society	10
1	AMS - American Mathematical Society	5
1	Amsterdam University Press	5
1	Anthem Press	1
1	Aracne Editrice Srl	6
1	Archaeopress	10
1	Archetype Publications	2
1	ASM Press - American Society for Microbiology	9
1	Australian Centre for Geomechanics	3
1	Australian National University Press	2
1	Baker Publishing Group	5
1	Basler Afrika Bibliographien	2
1	Bauhaus-Universitätsverlag	1
1	Black Dog Publishing	2
1	BMJ Books	1
1	Böhlau Verlag	2
1	British Library	1
1	Brooking Institution Press	2
1	C. Hurst and Co. Publishers	1
1	CABI	50
1	Cambria Press	1
1	Cambridge Scholars Publishing	96
1	Camden House	4
1	Carolina Academic Press	8
1	Chandos Publishing	3

1	Channel View Publications	2
1	Cluster Publications	31
1	CRC Press	120
1	CSIRO	1
1	CSLI Publications	1
1	De Gruyter	41
1	Earthscan	35
1	Ediciones UCSH	2
1	Edwin Mellen Press	3
1	Eisenbrauns	5
1	Elsevier	192
1	Emerald Group Publishing	35
1	Ergon	4
1	Evangelische Verlagsanstalt	16
1	Fordham University Press	2
1	Fortress Press	9
1	Fountain Publishers	3
1	Four Courts Press	2
1	Garant Publisher	8
1	Geological Society of London	22
1	Georg Olms Verlag	3
1	Global Science Books	5
1	Gorgias Press	4
1	Gower	4
1	Greenleaf Publishing	3
1	Gunter Narr Verlag Tübingen	1
1	Gütersloher Verlagshaus	3
1	Gyldendal Norsk Forlag	1
1	Hampton Press	6
1	Heinemann	11
1	HSRC Press	368
1	Humana Press	6
1	Ibidem	5
1	iConcept Press Ltd	1
1	IDRC	1
1	IGI Global	45
1	Indiana University Press	17
1	InEER	1
1	Information Age Publishing	17
1	Information Science Reference	57
1	InTech	260
1	Inter-Disciplinary Press	19
1	IOS Press	2

1	Irish Academic Press	1
1	Island Press	8
1	IWA PUBLISHING	2
1	Karthala	2
1	Kasperek Verlag	1
1	Kent State University Press	1
1	Kew Publishing	1
1	Left Coast Press	4
1	Les Presses de Sciences Po	1
1	Leuven University Press	1
1	Lexington Books	14
1	LexisNexis	169
1	L'Harmattan	11
1	Linton Atlantic Books	2
1	Lippincott Williams & Wilkins	1
1	Liverpool University Press	3
1	Lynne Rienner Publishers	9
1	MacMillan	13
1	Maney Publishing	3
1	Manohar	2
1	Marcel Dekker	4
1	Marie Curie-Sklodowska University Press	1
1	McFarland & Company	5
1	McGill-Queen's University Press	8
1	McGraw-Hill	2
1	McGraw-Hill Education	3
1	Michigan State University Press	2
1	Modern Language Association of America	4
1	Monash University Publishing	1
1	Neukirchener	4
1	New York University Press	2
1	Nodus Publikationen	4
1	Nomos Verlagsgesellschaft	25
1	Nordicom	3
1	Nordiska Afrikainstitutet	3
1	Nova Science Publishers	256
1	Novus Press	1
1	OECD	2
1	Oficyna Wydawnicza ATUT	2
1	Ohio University Press	18
1	Open Book Publishers	2
1	Open Court	1
1	Open University Press	2

1	Orient Black Swan	27
1	Oxbow Books	4
1	Panozzo Editore	1
1	Paradigm Publishers	2
1	Passagen Verlag	1
1	Paternoster	3
1	Penn State Press	1
1	Peter Lang	81
1	Pharmaceutical Press	1
1	Pickering & Chatto	11
1	Pickwick Publications	8
1	Pluto Press	12
1	Presses Universitaires de Bordeaux	3
1	Presses Universitaires de Nancy	1
1	Pretoria University Law Press (PULP)	105
1	Psychology Press	3
1	PsySSA Psychological Society of South Africa	19
1	Radcliffe Publishing	1
1	Rainer Hampp Verlag	4
1	Regnum Books International	4
1	Rowman & Littlefield	14
1	Rozenberg Publishers	8
1	RSC Publishing	3
1	Rüdiger Köppe Verlag	2
1	Russell Sage Foundation	1
1	Rutgers University Press	2
1	Scarecrow Press	1
1	Schneider Verlag Hohengehren GmbH	1
1	Science Press	3
1	Science Publishers	1
1	SCM R. Brockhaus	1
1	Sense Publishers	98
1	Shaker Verlag	7
1	Sheffield Phoenix Press	9
1	Short Run Press Limited	1
1	Smithsonian Institution Scholarly Press	2
1	Social Science Research Council	1
1	Society for Industrial and Applied Mathematics	3
1	Society of Biblical Literature	28
1	Springer	665
1	Springer Gabler	1
1	Springer Science+Business Media	170
1	Springer Verlag	3

1	Suny Press	3
1	Sydney University Press	4
1	Symposium Books	1
1	Tartu University Press	1
1	Taylor & Francis	21
1	Temple University Press	1
1	Texas A&M University Press	2
1	Trentham Books	13
1	Tufnell Press	2
1	UCT Press	186
1	Ugarit-Verlag	4
1	UNESCO	5
1	UNIPUB	1
1	Unisa Press	155
1	United Nations University Press	3
1	University of Arizona Press	2
1	University of Arkansas Press	1
1	University of Calgary Press	1
1	University of Delaware Press	3
1	University of Nebraska Press	1
1	University of Notre Dame	3
1	University of Virginia Press	7
1	University of Wales Press	8
1	University of Warsaw	1
1	UPA University of Washington Press	5
1	Verlag Karl Alber	1
1	Verlag Marie Leidorf GmbH	2
1	Verlag Otto Sagner	1
1	Wageningen Academic Publishers	37
1	Wallflower Press	1
1	Weaver Press	5
1	Westview Press	1
1	Wiley	63
1	Wiley-Blackwell	143
1	Wiley-Interscience	2
1	Wiley-Scrivener	27
1	Wiley-VCH	19
1	Wilhelm Fink	8
1	Willan Publishing	5
1	William M Eerdmans Publishing Company	4
1	Wissenschaftlicher Verlag Trier	4
1	WIT Press	7
1	Wits University Press	352

1	Wolf Legal Publishers	4
1	Wolters Kluwer Law & Business	29
1	Woodhead Publishing	14
1	World Bank	12
1	World Bank Publications	1
1	World Scientific	19
2	Ashgate Publishing	135
2	Berg Publishers	1
2	Berghahn Books	25
2	Bloomsbury T&T Clark	25
2	Boydell & Brewer	5
2	Brill	166
2	Cambridge University Press	340
2	Columbia University Press	4
2	Edinburg University Press	23
2	edition text und kritik	2
2	Edward Elgar	84
2	Franz Steiner Verlag	1
2	Harrassowitz Verlag	7
2	Hart Publishing Ltd	12
2	Harvard University Press	1
2	I.B. Tauris	2
2	Intersentia	23
2	James Currey	21
2	John Benjamins	64
2	Lawrence Erlbaum Associates	1
2	Librairie Droz	1
2	LIT Verlag	32
2	Manchester University Press	24
2	MIT Press	15
2	MLA	1
2	Mohr Siebeck	65
2	Multilingual Matters	24
2	Oxford University Press	425
2	Palgrave Macmillan	241
2	Peeters Publishers	18
2	Praeger	6
2	Routledge	460
2	Sage Publications	23
2	Stanford University Press	5
2	Stauffenburg Verlag	3
2	University of California Press	6
2	University of Chicago Press	3

2	University of Michigan Press	11
2	University of Pennsylvania Press	2
2	Walter de Gruyter	9
2	Waxmann Verlag	14
2	Zed Books	37

The next graphs focus more closely on the publishers in our database and how many of them have SENSE and NSD ratings. Figure 32 shows that 26% of all book and book chapter submissions were submitted by publishers that have a SENSE rating. This group of titles (n=4244) were further disaggregated by the four highest SENSE categories (A, B, C and) in Figure 33. These results show that a relatively small proportion of titles are submitted that are published by the top ranked publishers in the world – at least according to the SENSE ranking.

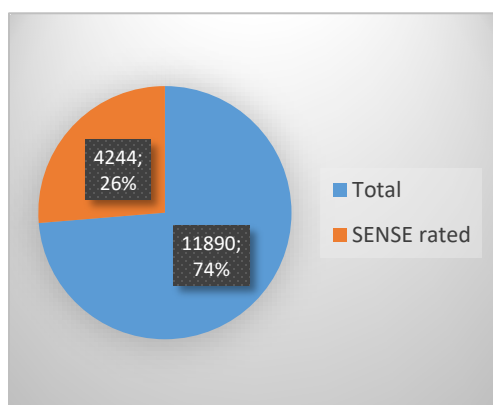


Figure 32: Number of books and chapters
Submissions in total

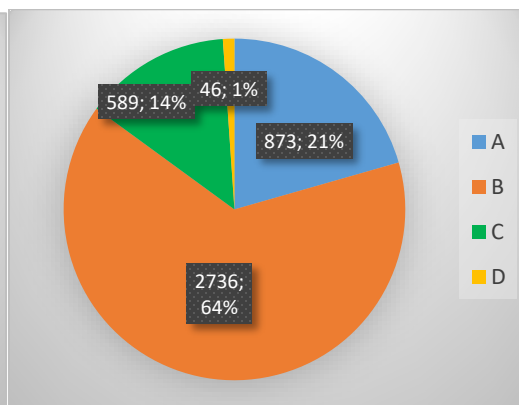


Figure 33: Number of books and chapters
Submissions by SENSE rating category

A similar comparison is provided in Figures 34 and 35 for titles submitted by NSD ranked publishers. The data shows that 40% of all titles submitted were produced by publishers that have a NSD rating. Of these, 30% were published by publishers in the highest ranked (Level 2) publishers.

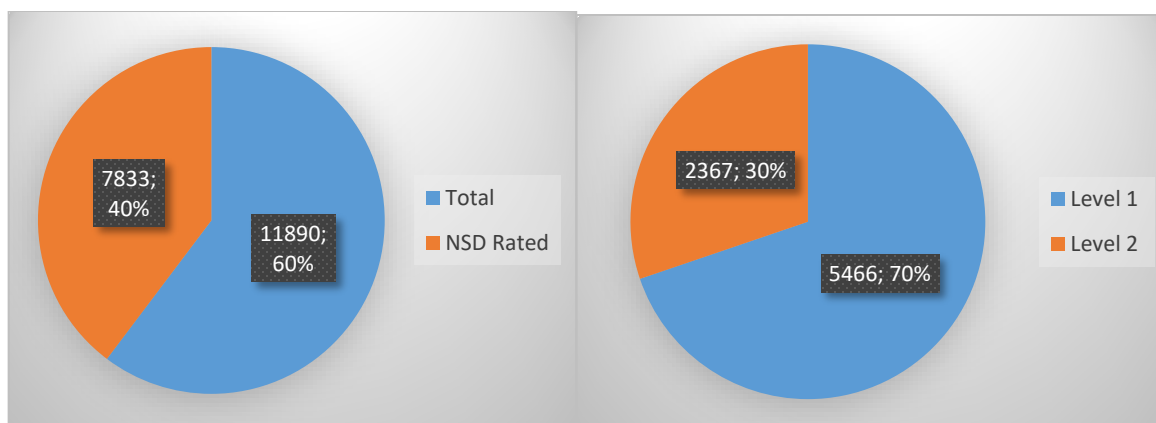


Figure 34: Number of books and chapters

Submissions in total

Figure 35: Number of books and chapters

Submissions by NSD rating category

In the final table we compare the SENSE/NSD rankings with the recommendations made by the ASSAf panels (2013 data only). The point about this comparison is to see if there is sufficient convergence between the more detailed reviews of book titles by the ASSAf panels and the international rankings of the relevant publishers. The last column in Table 46 lists the percentage YES recommendations (i.e. the ASSAf panel recommending that a specific title be subsidised) for that particular publisher. The results show that all titles submitted during that time period by books published by Wits UP, CUP, Palgrave MacMillan, UKZN Press and Jacana Media were recommended for subsidy (100% YES). The results are listed in descending order.

Table 33: Comparison between SENSE and NSD rankings and ASSAf recommendations

Publisher	No	Yes	Total	SENSE	NSD	% No	% Yes
Wits University Press		128	128		1	0%	100%
Cambridge University Press		94	94	A	2	0%	100%
Palgrave Macmillan		75	75	B	2	0%	100%
University of KwaZulu Natal Press		63	63			0%	100%
Jacana Media		47	47			0%	100%
Springer	27	184	211	B	1	13%	87%
Routledge	27	161	188	B	2	14%	86%
Oxford University Press	26	119	145	A	2	18%	82%
Juta	12	52	64			19%	81%

Africa Institute of South Africa	17	60	77		1	22%	78%
Brill	20	58	78	B	2	26%	74%
AFRICAN SUN MeDIA	40	98	138		1	29%	71%
HSRC Press	43	77	120		1	36%	64%
UCT Press	27	44	71		1	38%	62%
Nova Science Publishers	28	43	71	C	1	39%	61%
Pearson	16	24	40			40%	60%
Unisa Press	20	26	46		1	43%	57%
LexisNexis	32	16	48		1	67%	33%
InTech	54	21	75		1	72%	28%

The general picture that emerges from these comparisons would suggest that there is reasonable convergence between the ASSAf recommendations and the international rankings of publishers. On the whole, publishers that are ranked highly by SENSE (A, B or C) or by NSD (Level 2) produced titles that were found by the ASSAf panel worthy of subsidy.

We believe that this is an extremely significant result as it reaffirms the value of the ASSAf review process as an additional source of information in the decision-making process related to book and book chapters that should qualify for subsidy.

Part Four: Conference proceedings

4.1 High-level trends in publication of conference proceedings

As indicated in the previous section, the process for paying subsidies for published conference proceedings is quite different from the way in which subsidies for journal articles are paid to universities. The latter, as discussed in Part 2, is based on a set of three accredited journal lists and subsidies are paid to universities for any article submission that conform with a journal on any of these lists (after verification by the relevant university). However, there is currently no similar list of ‘accredited’ publishers that are used for the assessment of conference proceeding titles. This means that universities would typically make submissions in these categories (according to the relevant rules) to the DHET which would then convene a panel to review each submission individually.

We have already seen that Conference proceedings constituted 7% of all approved publication outputs over the past ten years. Figure 36 compares the actual subsidy units approved for conference proceedings over the period 2005 to 2014 with the number of submissions made. The results very clearly show that there has been a significant increase in the number of submission made (from around 500 in 2005 to over 3100 in 2014 (a six fold increase). However, the number of approved proceedings titles have not increased at the same rate.

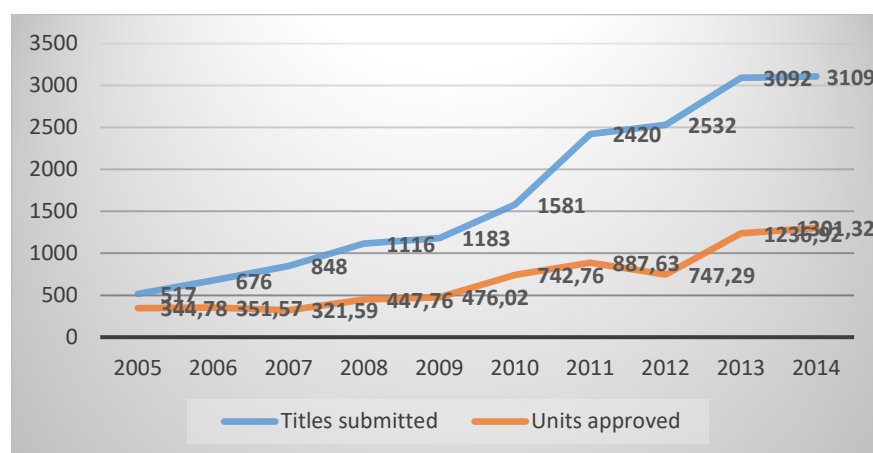


Figure 36: Conference proceedings approved compared to submissions (2005 to 2014)

Data source: SA Knowledgebase (SAK), CREST

The total number of submissions made for conference proceedings during the period 2005 to 2014 sums to 17214. These submissions related to the 6 723 unique conference titles (this process involved a huge data cleaning operation on the part of the CREST team). Table 34 below lists the first 100 of these unique conference titles in descending order by the number of submissions.

Table 34: Unique conference names in descending order (Top 100)

Conference name	Nr of titles	%	cum%
Conference of the Southern Africa Institute for Management Scientists	74	1.1%	1.1%
International Business Conference	54	0.8%	1.9%
Conference of the South African Institute of Computer Science and Information Technologists	50	0.7%	2.6%
IST-Africa	47	0.7%	3.3%
Annual Conference on World Wide Web Applications	46	0.7%	4.0%
Post Graduate conference on Construction Industry Development	42	0.6%	4.7%
Southern Africa Telecommunications Networks and Applications Conference	42	0.6%	5.3%
Global Business and Technology Association International Conference	41	0.6%	5.9%
World Academy of Science, Engineering and Technology	39	0.6%	6.5%
Annual Symposium of the Pattern Recognition Association of South Africa	39	0.6%	7.1%
Conference of the South African Institute of Physics	31	0.5%	7.5%
International Conference on e-Learning	31	0.5%	8.0%
Southern African Transport Conference	31	0.5%	8.4%
Built Environment Conference	29	0.4%	8.9%
Conference of the Southern African Association for Research in Mathematics, Science and Technology Education	28	0.4%	9.3%
Conference on the Domestic Use of Energy	28	0.4%	9.7%
International Development Informatics Association Conference	27	0.4%	10.1%
Quantity Surveying Research Conference	27	0.4%	10.5%
Conference of the Southern African Computer Lecturers' Association	27	0.4%	10.9%
IEEE AFRICON	26	0.4%	11.3%
Construction, Building and Real Estate Conference - Royal Institution of Chartered Surveyors	26	0.4%	11.7%
World Congress on Engineering & Computer Science	25	0.4%	12.0%
Conference on the Industrial and Commercial Use of Energy	25	0.4%	12.4%
Southern African Universities Power Engineering Conference	25	0.4%	12.8%
Annual Conference: Association of Researchers in Construction Management	24	0.4%	13.1%
South African Conference on Computational and Applied Mechanics	24	0.4%	13.5%
International Conference on Mathematics, Science and Technology education	23	0.3%	13.8%
Information Security for South Africa Conference	23	0.3%	14.2%
Portland International Center for Management of Engineering and Technology	23	0.3%	14.5%
Annual National Congress of the Association for Mathematics Education of South Africa	22	0.3%	14.9%
International Mine Water Association	22	0.3%	15.2%

International Conference on Computers & Industrial Engineering	22	0.3%	15.5%
NMMU Construction Management Conference	21	0.3%	15.8%
Pan Pacific Conference	20	0.3%	16.1%
Conference of the South African Accounting Association	19	0.3%	16.4%
International Conference of Education Research and Innovation	19	0.3%	16.7%
World Congress on Engineering	18	0.3%	17.0%
International Conference on Education and New Learning Technologies	18	0.3%	17.2%
International DEFSA conference	18	0.3%	17.5%
Conference of EASA - Education Association of South Africa	16	0.2%	17.7%
Conference of the South African Statistical Association	15	0.2%	18.0%
European Conference on Research Methodology for Business and Management Studies	15	0.2%	18.2%
International Mineral Processing Congress	15	0.2%	18.4%
International Conference on Design, Development & Research	15	0.2%	18.6%
IEEE International Conference on Industrial Engineering and Engineering Management	14	0.2%	18.8%
European Conference on Information Management and Evaluation	14	0.2%	19.0%
European Conference on E-government	14	0.2%	19.2%
World conference on E-Learning in Corporate, Government, Healthcare & Higher Education	14	0.2%	19.5%
Conference of the Academy of World Business, Marketing and Management Development	14	0.2%	19.7%
South Africa Planning Institute Conference	14	0.2%	19.9%
International Federation of Automatic Control	13	0.2%	20.1%
Project Management South Africa Conference	13	0.2%	20.3%
CIB World Building Congress	13	0.2%	20.5%
International Conference on Infrastructure Development in Africa	12	0.2%	20.6%
International Conference on Competitive Manufacturing	12	0.2%	20.8%
IBIMA International Business Information Management Association Conference	12	0.2%	21.0%
International Platinum Conference	12	0.2%	21.2%
Conference of South African Society for Atmospheric Sciences	12	0.2%	21.3%
West Africa Built Environment Research Conference	12	0.2%	21.5%
Conference of the South African Society for Engineering Education	12	0.2%	21.7%
International Technology, Education and Development Conference	12	0.2%	21.9%
Southern African Institute for Industrial Engineering Conference	12	0.2%	22.1%
International Cost Engineering Council World Congress	11	0.2%	22.2%
International Conference for the International Association of Management of Technology	11	0.2%	22.4%
World Conference on Educational Media & Technology	11	0.2%	22.5%
European Conference on Information Systems	11	0.2%	22.7%
International Conference on Infrastructure Development and Investment Strategies for Africa	11	0.2%	22.9%
Robotics and Mechatronics Conference	11	0.2%	23.0%
European Conference on Knowledge Management	11	0.2%	23.2%
International Business Information Management Association Conference	10	0.1%	23.4%

IEEE International Conference on Adaptive Science and Technology	10	0.1%	23.5%
International Academy of African Business and Development Conference	10	0.1%	23.7%
International Conference on Intellectual Capital, Knowledge Management and Organisational Learning	10	0.1%	23.8%
World Conference on Educational Multimedia, Hypermedia & Telecommunication	10	0.1%	23.9%
Geo-Information Society of South Africa Conference	10	0.1%	24.1%
International Conference on Engineering Education and Research / International Conference on Information Technology	10	0.1%	24.2%
South African Education Research Association	10	0.1%	24.4%
International Heat Transfer Conference	10	0.1%	24.5%
South African Association for Public Administration and Management Conference	10	0.1%	24.7%
International Symposium on High Voltage Engineering	9	0.1%	24.8%
International Conference for Applied Mineralogy	9	0.1%	25.0%
Cumulus Conference	9	0.1%	25.1%
People in Construction Conference	9	0.1%	25.2%
Society for Information Technology and Teacher Education	9	0.1%	25.4%
International Conference Entrepreneurship and Innovation	9	0.1%	25.5%
European Conference on Management Leadership and Governance	9	0.1%	25.6%
Urban Transport	9	0.1%	25.8%
IASTED Africa Conference on Modelling and Simulation	9	0.1%	25.9%
International MultiConference of Engineers and Computer Scientists	9	0.1%	26.0%
Advances in Hospitality and Tourism Marketing & Management Conference	9	0.1%	26.2%
World Congress of Architecture	9	0.1%	26.3%
International Symposium on Human Aspects of Information Security & Assurance	8	0.1%	26.4%
Conference of the International Speech Communication Association	8	0.1%	26.5%
Conference on Asphalt Pavements for Southern Africa	8	0.1%	26.7%
ANZMAC Australian and New Zealand Marketing Academy Conference	8	0.1%	26.8%
Informing Science and Information Technology Education Conference	8	0.1%	26.9%
International Conference on Clay and Clay Minerals in Africa / International Conference on Geophagia in Southern Africa	8	0.1%	27.0%
Pacific Association of Quantity Surveyors Congress	8	0.1%	27.1%
Conference of the Operations Research Society of South Africa	8	0.1%	27.2%

The 17 214 unique titles translated into 28 485 authorships. The number of unique authors of these titles are 11 696. We list the 100 most “prolific” authors in descending order by the number of their submissions in Table 48.

Table 35: Most prolific authors of proceeding submissions (Top 100)

Surname and initial	Nr of titles	%	Cum %
Thwala WD	80	0.3%	0.3%
Mbohwa C	67	0.3%	0.6%
Marwala T	64	0.2%	0.8%
Muzenda E	63	0.2%	1.0%
Aigbavboa CO	60	0.2%	1.3%
Pretorius L	60	0.2%	1.5%
Jimoh AA	49	0.2%	1.7%
Pretorius JHC	46	0.2%	1.8%
Ferreira HC	44	0.2%	2.0%
Venter HS	44	0.2%	2.2%
Terblanche NS	42	0.2%	2.3%
Chowdhury S	42	0.2%	2.5%
Chan HA	41	0.2%	2.7%
Smallwood JJ	41	0.2%	2.8%
VERSTER JJP	40	0.2%	3.0%
Chowdhury SP	40	0.2%	3.1%
Engelbrecht AP	39	0.1%	3.3%
Djouani K	38	0.1%	3.4%
van Wyk BJ	37	0.1%	3.5%
von Solms SH	37	0.1%	3.7%
Emuze FA	37	0.1%	3.8%
Folly KA	36	0.1%	4.0%
Akinlabi ET	36	0.1%	4.1%
Eloff JHP	36	0.1%	4.2%
Olivier MS	36	0.1%	4.4%
Van Greunen D	34	0.1%	4.5%
Van Belle JWGD	33	0.1%	4.6%
Shukla M	33	0.1%	4.7%
Nicolae DV	33	0.1%	4.9%
de Jager JW	33	0.1%	5.0%
Goede R	32	0.1%	5.1%
Botha RA	32	0.1%	5.2%
Marsden G	31	0.1%	5.3%
Kamper MJ	31	0.1%	5.5%
Adigun MO	31	0.1%	5.6%
Falowo OE	30	0.1%	5.7%
Ventura MJE	29	0.1%	5.8%
Nel AL	29	0.1%	5.9%
Windapo AO	29	0.1%	6.0%
Mouton HduT	28	0.1%	6.1%

Von Solms R	28	0.1%	6.2%
Haupt TC	28	0.1%	6.3%
Terzoli A	28	0.1%	6.4%
Kourie DG	28	0.1%	6.6%
Bagula AB	28	0.1%	6.7%
Jenkins KJ	27	0.1%	6.8%
Hamam Y	26	0.1%	6.9%
Kroeze JH	26	0.1%	7.0%
FLOWERDAY SV	26	0.1%	7.1%
HAUPTFLEISCH AC	25	0.1%	7.1%
Coetsee M	25	0.1%	7.2%
Suleman H	25	0.1%	7.3%
van Zijl GPAG	24	0.1%	7.4%
du Plessis M	24	0.1%	7.5%
Seymour L	23	0.1%	7.6%
Barnard E	23	0.1%	7.7%
Perks S	23	0.1%	7.8%
Pillay P	23	0.1%	7.9%
Cloete CE	23	0.1%	8.0%
HUISMAN HM	22	0.1%	8.0%
Atkinson-Hope G	22	0.1%	8.1%
Olugbara OO	22	0.1%	8.2%
Cattell KS	22	0.1%	8.3%
Akdogan G	22	0.1%	8.4%
Mutingi M	22	0.1%	8.5%
Boshoff WP	22	0.1%	8.5%
Kahn MTE	22	0.1%	8.6%
Khan MA	21	0.1%	8.7%
Ntuli F	21	0.1%	8.8%
Smallwood J	21	0.1%	8.9%
Retief JV	21	0.1%	8.9%
Aldrich C	21	0.1%	9.0%
Matthee MC	21	0.1%	9.1%
Agumba JN	21	0.1%	9.2%
Von Backström TW	21	0.1%	9.3%
Kurien AM	21	0.1%	9.3%
Sinha S	20	0.1%	9.4%
Maharaj BTJ	20	0.1%	9.5%
Pillay N	20	0.1%	9.6%
Belaid M	20	0.1%	9.6%
Swart TG	20	0.1%	9.7%
Eksteen JJ	20	0.1%	9.8%
Nixon KJ	20	0.1%	9.9%

Ndihokubwayo R	20	0.1%	9.9%
Wium JA	20	0.1%	10.0%
Clarke WA	20	0.1%	10.1%
Yadavalli VSS	19	0.1%	10.2%
Pretorius MW	19	0.1%	10.2%
Pottas D	19	0.1%	10.3%
Roberts-Lombard M	19	0.1%	10.4%
Eloff MM	19	0.1%	10.4%
Barendse PS	19	0.1%	10.5%
Niesler TR	19	0.1%	10.6%
Munda JL	19	0.1%	10.7%
Hancke GP	19	0.1%	10.7%
Zulch BG	19	0.1%	10.8%
Calitz A	19	0.1%	10.9%
Dehinbo OJ	19	0.1%	10.9%
Reader HC	19	0.1%	11.0%

4.2 Conference proceedings outputs by university

In this section we compare the subsidies as awarded for conference proceedings by university (source for this data is the DHET annual reports on research output) with the number of conference submissions made by each university. Figures 37 and 38 presents the data for each category separately.

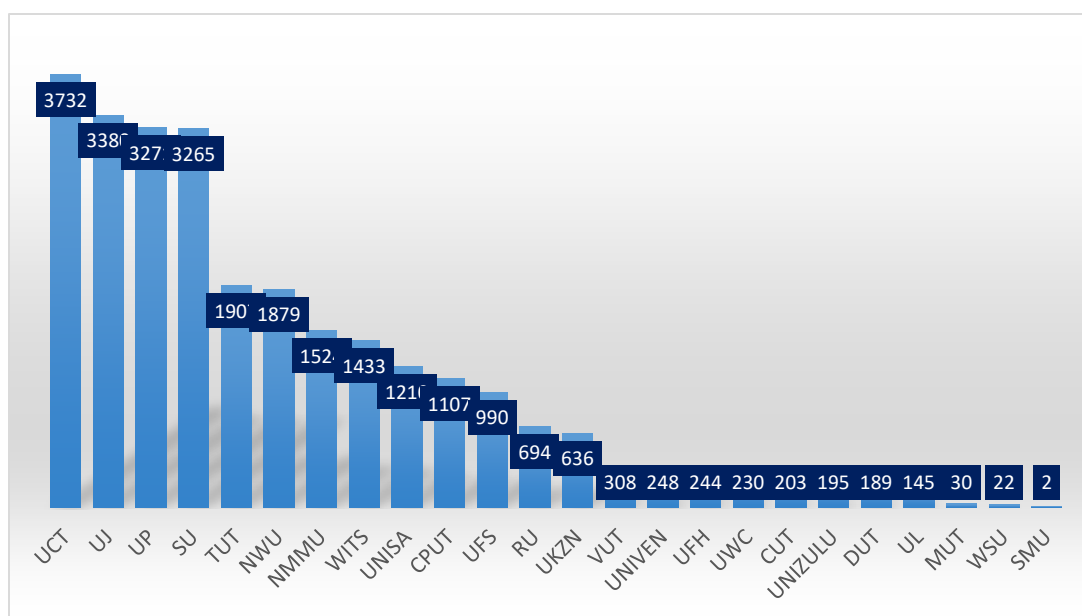


Figure 37: Conference proceedings titles submitted by university (2005 – 2014)

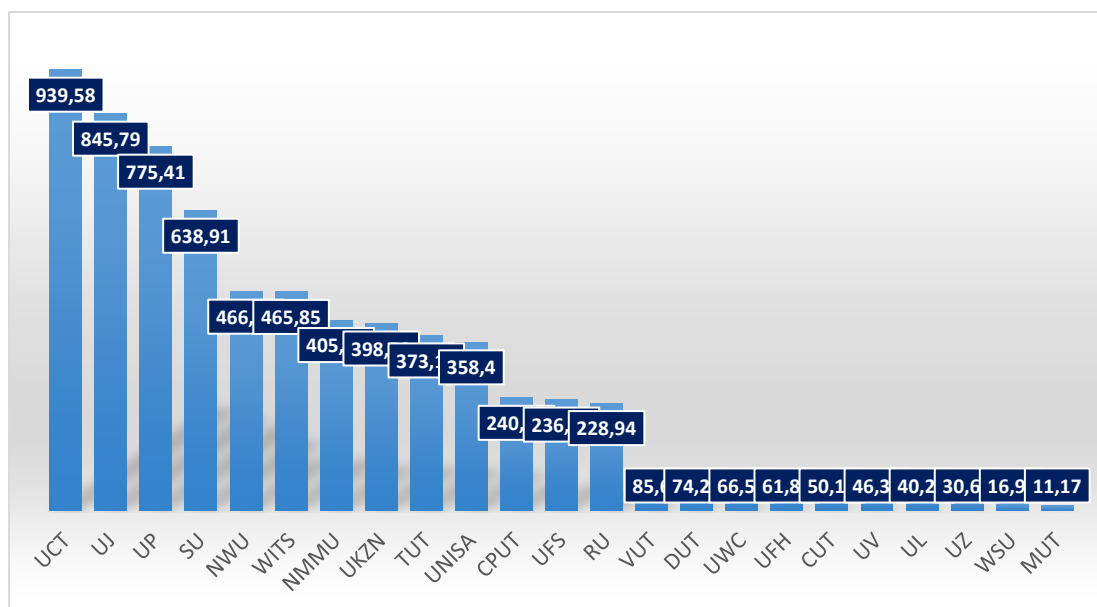


Figure 38: Conference proceedings subsidies awarded by university (2005 – 2014)

Over the period 2005 to 2014 a total of 6857.39 proceeding units were awarded to the universities. This constituted about 25% of the total number of titles ($n = 26842$) that were submitted for subsidy. The graph below shows what the “success rates” of the individual universities were over this period: listing the universities in order of the proportion of their subsidies awarded against titles submitted.

Cautionary note: Some of the universities (such as WSU, DUT and MUT) which recorded high “success rates” submitted very small numbers of titles. This means that the results in this graph should be read in conjunction with the results presented in the previous two graphs.

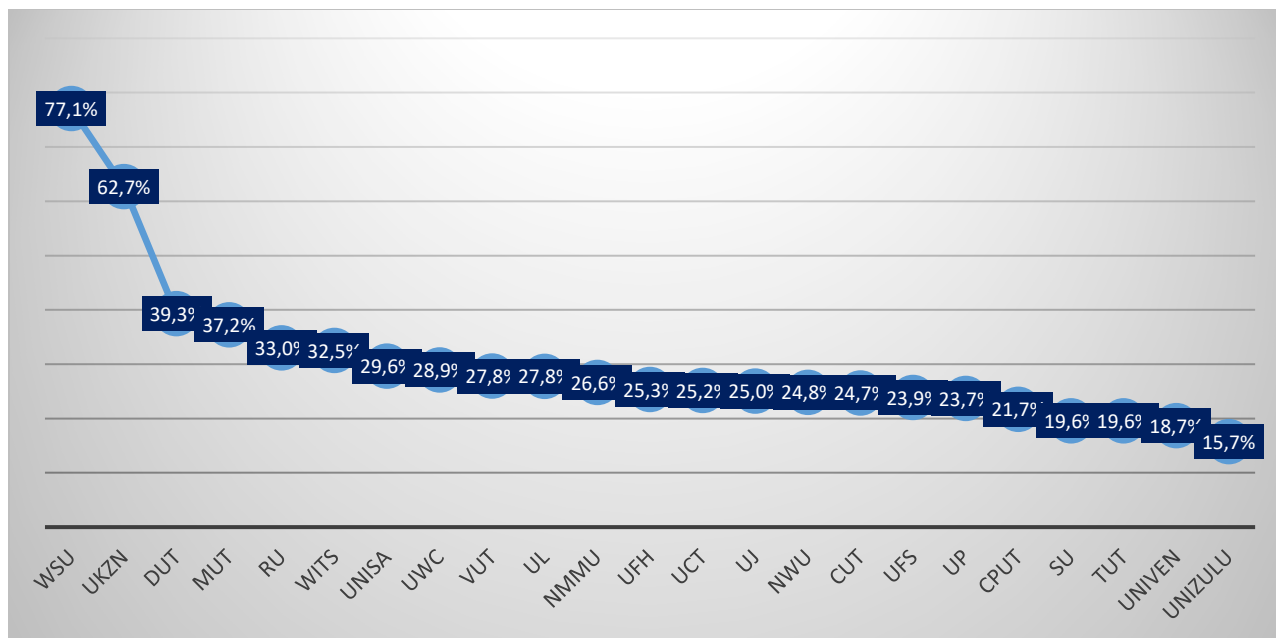


Figure 39: “Success rates” of universities in securing subsidy for conference proceedings

What is striking from this graph is the fact that the success rate of UKZN (62.7%) is some much higher than the average (25%) as well as that of the other top research universities (RU = 33%; WITS = 33%; UCT = 25%; UP = 24% and SU=20%)

4.3 The issue of quality in conference proceeding submissions

The only measure of the quality of conference submissions available to us were the ASSAf recommendations made during 2014 and 2015 (for titles submitted in 2013 and 2014). After cleaning the unique conference names we captured these recommendations (YES or NO) and generated Table 36 below. The table lists the simplified and cleaned proceedings names in descending order of percentage positive (YES) recommendations. We applied a threshold criterion to ensure robustness in the results and only included cases where at least 20 titles had been submitted.

Table 36: List of conference names in descending order by % positive recommendations by ASSAf (N>20 submissions)

Conference name	No	Yes	Grand Total	% YES
Conference of the Southern Africa Institute for Management Scientists		255	255	100.0%
Conference of the South African Institute of Computer Science and Information Technologists		181	181	100.0%
Annual Conference on World Wide Web Applications		179	179	100.0%
International Conference on Mathematics, Science and Technology education		121	121	100.0%
Annual Symposium of the Pattern Recognition Association of South Africa		110	110	100.0%
IEEE International Conference on Industrial Technology		102	102	100.0%
Southern African Universities Power Engineering Conference		97	97	100.0%
Information Security for South Africa Conference		93	93	100.0%
Southern African Transport Conference		85	85	100.0%
International Development Informatics Association Conference		80	80	100.0%
AMI Ferrous and base metals development network conference		64	64	100.0%
International Conference on Concrete Repair Rehabilitation and Retrofitting		64	64	100.0%
International Conference on Electrical Machines		59	59	100.0%
International Conference of the Planetary Scientific Research Centre		58	58	100.0%
International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics		58	58	100.0%
International Conference of the Southern African Society for Education		49	49	100.0%
South African Conference on Computational and Applied Mechanics		49	49	100.0%
All Africa Horticulture Congress		48	48	100.0%
International Conference on Infrastructure Development in Africa		47	47	100.0%
International Platinum Conference		42	42	100.0%
IBIMA International Business Information Management Association Conference		39	39	100.0%
International Conference on Aerospace, Mechanical, Automotive and Materials Engineering		37	37	100.0%
International Conference on Lightning Protection		36	36	100.0%
Conference of British Academy Management		35	35	100.0%
Conference on the Domestic Use of Energy		35	35	100.0%

IASTED Africa Conference on Modelling and Simulation	35	35	100.0%
Geo-Information Society of South Africa Conference	34	34	100.0%
IEEE Engineering in Medicine and Biology Society International Conference	34	34	100.0%
Southern African Solar Energy Conference	34	34	100.0%
International Conference on Engineering Education and Research / International Conference on Information Technology	33	33	100.0%
International Symposium on Human Aspects of Information Security & Assurance	33	33	100.0%
IEEE Engineering in Medicine and Biology Society International Conference / Conference of Japanese Society for Medical and Biological Engineering	32	32	100.0%
International Conference on Computer, Mining and Mechanical Engineering / International Conference on Chemical, Environmental and Metallurgical Engineering	32	32	100.0%
SolarPACES	31	31	100.0%
International Conference on Operations and Supply Chain Management	30	30	100.0%
IASTED African Conference on Power and Energy Systems	28	28	100.0%
IEEE International Conference on Power System Technology	27	27	100.0%
International Conference on Ambient Systems, Networks and Technologies	27	27	100.0%
International Conference on E-Leadership	27	27	100.0%
Conference of the Academy of World Business, Marketing and Management Development	26	26	100.0%
International Network Conference	26	26	100.0%
Annual Conference: Association of Researchers in Construction Management	25	25	100.0%
ANTS -International Conference on Swarm Intelligence	25	25	100.0%
IIE International Conference on Chemical Engineering and Advanced Computational Technologies	25	25	100.0%
International Symposium on Tools and Methods of Competitive Engineering	25	25	100.0%
International Conference on Advances in Engineering Sciences and Applied Mathematics	24	24	100.0%
Advances in Hospitality and Tourism Marketing & Management Conference	23	23	100.0%
International Conference on Sustainable Energy Technologies	23	23	100.0%
Enterprise Systems Conference	22	22	100.0%

IEEE International Conference on Intelligent Transportation Systems		21	21	100.0%
International Conference on Construction in the 21st Century		21	21	100.0%
Life in a changing urban landscape: Proceedings of the IGU Urban Geography Commission		21	21	100.0%
Conference of the South African Institute of Physics	6	502	508	98.8%
International Mineral Processing Congress	2	106	108	98.1%
Conference of the Southern African Association for Research in Mathematics, Science and Technology Education		128	131	97.7%
IST-Africa	2	72	74	97.3%
Southern Africa Telecommunications Networks and Applications Conference		332	342	97.1%
Construction, Building and Real Estate Conference - Royal Institution of Chartered Surveyors		66	68	97.1%
Conference of the South African Society for Engineering Education		32	33	97.0%
International Cost Engineering Council World Congress	1	59	61	96.7%
IEEE Power and Energy Society	5	127	132	96.2%
International Conference on Electromagnetics in Advanced Applications	3	74	77	96.1%
Portland International Center for Management of Engineering and Technology	3	119	124	96.0%
Pan Pacific Conference	4	181	190	95.3%
African Cyber Citizenship Conference	1	20	21	95.2%
International Conference on Wireless Networks		20	21	95.2%
International Conference on Latest Trends in Engineering and Technology / International Conference on Economics, Humanities, Bio-Technology and Environment Engineering	3	54	57	94.7%
International Conference on Computers & Industrial Engineering	7	124	131	94.7%
Conference on the Industrial and Commercial Use of Energy	10	168	178	94.4%
IEEE International Symposium on Power Line Communications and its Applications	4	65	69	94.2%
Conference of the South African Statistical Association	2	32	34	94.1%
IEEE International Conference on Adaptive Science and Technology	5	78	83	94.0%
International Conference on Construction Materials and Structures	5	69	74	93.2%
CIB World Building Congress		27	29	93.1%

Conference of the South African Accounting Association	2	53	57	93.0%
International Federation of Automatic Control	8	102	110	92.7%
People in Construction Conference	2	25	27	92.6%
IEEE Congress on Evolutionary Computation	2	23	25	92.0%
IEEE World Congress on Computational Intelligence	3	33	36	91.7%
South African Association for Public Administration and Management Conference	5	54	59	91.5%
e-Skills for Knowledge Production and Innovation Conference	4	42	46	91.3%
International Heat Transfer Conference	6	61	67	91.0%
ISHS Acta Horticulturae	5	50	55	90.9%
Cumulus Conference	2	20	22	90.9%
International Conference on ICT for Africa	2	20	22	90.9%
World Academy of Science, Engineering and Technology	4	99	109	90.8%
International Conference on Education and New Learning Technologies	2	29	32	90.6%
International Farm Management Association Congress	3	27	30	90.0%
International Conference on e-Learning	7	62	69	89.9%
World Congress on Engineering & Computer Science	10	94	105	89.5%
Built Environment Conference		42	47	89.4%
International Conference on Development Finance & Economic Transformation	3	24	27	88.9%
Southern African Institute for Industrial Engineering Conference	5	183	207	88.4%
International Conference on Engineering, Project and Production Management	1	30	34	88.2%
International Conference on Design, Development & Research	6	42	48	87.5%
World Congress on Engineering	5	75	86	87.2%
International DEFSa conference		27	31	87.1%
Ireland International Conference on Education	4	27	31	87.1%
World Conference on Educational Media & Technology	4	46	53	86.8%
International Conference on Industrial Technology	4	26	30	86.7%
International Conference on Infrastructure Development and Investment Strategies for Africa	4	26	30	86.7%
Quantity Surveying Research Conference	5	63	73	86.3%
World Congress of Architecture	4	24	28	85.7%
International Conference on e-Infrastructure and e-Services for Developing Countries	5	28	33	84.8%
South African Education Research Association	5	30	36	83.3%
Grand Total	2267	12980	15852	81.9%
NMMU Construction Management Conference	14	74	91	81.3%

Annual National Congress of the Association for Mathematics Education of South Africa	4	48	60	80.0%
International Conference on Industrial Engineering and Operations Management		32	40	80.0%
IEEE AFRICON		186	236	78.8%
AMI Light Metals Conference	13	47	60	78.3%
West Africa Built Environment Research Conference		21	27	77.8%
International Conference on Business and Economics	11	36	47	76.6%
International Conference on Information and communications technologies and development	6	19	25	76.0%
Post Graduate conference on Construction Industry Development	15	43	58	74.1%
Conference of the Operations Research Society of South Africa	21	70	95	73.7%
World Congress - Re-Engineering Total Cost Management	6	16	22	72.7%
International Conference on Rapid Product Development Association in South Africa	8	21	29	72.4%
International Conference on Competitive Manufacturing		52	72	72.2%
AfricaGEO Conference	9	23	32	71.9%
WasteCon Conference	6	15	21	71.4%
International Business Conference	120	304	427	71.2%
International Conference for the International Association of Management of Technology	11	29	41	70.7%
Conference of Botswana Institution of Engineers		19	27	70.4%
Conference of South African Society for Atmospheric Sciences	25	58	83	69.9%
IEEE Energy Conversion Congress & Exposition	14	32	46	69.6%
International Mine Water Association	16	38	55	69.1%
International MultiConference of Engineers and Computer Scientists		25	38	65.8%
Global Business and Technology Association International Conference	54	105	160	65.6%
Robotics and Mechatronics Conference	5	22	34	64.7%
South Africa Planning Institute Conference	12	20	32	62.5%
Conference of EASA - Education Association of South Africa	3	28	45	62.2%
International Scientific Index Conference	8	13	21	61.9%
Southern Africa Conference	2	19	32	59.4%
International Conference on Advances in Cement and Concrete Technology in Africa	10	14	24	58.3%
ASME Turbo Expo	12	14	26	53.8%

International Conference on M4D Mobile Communication for Development	11	10	21	47.6%
National Association for Clean Air	34	29	63	46.0%
International Council on Systems Engineering Conference	37	31	68	45.6%
International Conference of Education Research and Innovation	24	20	44	45.5%
Annual Symposium on Computing for Development	11	11	25	44.0%
International Universities' Power Engineering Conference	43	33	76	43.4%
IEEE International Conference on Industrial Engineering and Engineering Management	33	26	66	39.4%
European Conference on Research Methodology for Business and Management Studies	17	11	28	39.3%
Applied Research Conference in Africa	43	23	66	34.8%
Precious Metals Conference		9	39	23.1%
South African Sugar Technologists' Association Conference	20	5	25	20.0%
Progress In Electromagnetic Research Symposium	11	5	31	16.1%
Microscopy Society of Southern Africa	46	8	54	14.8%
International Conference on Structural Engineering, Mechanics and Computation	2	8	56	14.3%
International Conference on the Use of Mobile ICT in Africa	23	2	25	8.0%
International Symposium on High Voltage Engineering	25	2	27	7.4%
Advanced Research in Scientific Areas	3	1	24	4.2%
International Society for Magnetic Resonance in Medicine	30		30	0.0%
Global Telemedicine and eHealth Updates	28		28	0.0%

The results are interesting. Out of the 156 titles conference names in this table, ASSAf indicated that all the submission for 53 (or one third) of these should receive subsidy. Since we do not know of any ranking of conference names, these results could be regarded as a first step in developing such a ranking system for the DHET. Other measures, including a comparison with data from the WoS and Scopus databases could in due course be compared with such a ranking.

Conclusion

The increase in the number of submissions from published conference proceedings continued to increase over the study period of this report. The gap between submissions and subsidies awarded also increase. The sheer volume of submissions in itself will place increasing stress on the review process

within DHET (especially without ASSAf input). The domain of conference proceedings has its own challenges. Names of conferences and names of conference contributions are not standard. CREST invested a huge effort in cleaning both the names of the conferences as well as the linked contribution tiles.

We believe it is possible to develop a more rigorous and transparent process of reviewing conference submissions. CREST will continue to investigate alternative methods to achieve this goal but we also believe that it is essential that the reviews and subsequent recommendations made by ASSAf panels should remain part of the quality assurance process. We have made a similar point with regard to book and book chapter submissions. Although the smallest components of the subsidy system, these two components together account for 11% of all subsidies paid to the universities. This translates into significant rand value and hence should not be neglected in any future effort to strengthen the quality of the system.

Appendix 1: Bibliometric profiles of SA Journals indexed in the WoS



Journal facts: *Acta Theologica* (ISSN Print 1015-8758 ISSN on-line 2309-9089) is the official journal of the Faculty of Theology of the University of the Free State, Bloemfontein, South Africa. It is published by the UFS. It was established in 1980.

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	101	5	0	0%	0.05		
RSA PAPERS (2005 – 2009)	81	5	0	0%	0.06	1.25	80%
ALL PAPERS (2010 – 2014)	238	27	4	15%	0.10		
RSA PAPERS (2010 – 2014)	203	24	4	17%	0.10	1.02	85%



Journal facts: *African Entomology* (ISSN 1021-3589) replaced the old Journal of the Entomological Society of Southern Africa in 1993. The *Journal of the Entomological Society of Southern Africa* (ISSN 0013-8789) was published biannually from 1939 to 1992. A single volume consisting of two issues (March and September) is published annually. The journal is indexed in all major abstracting indexes.

WoS journal metrics:

It has been covered by the WoS since 1997. The WoS 2015 JIF = 0.521.

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	189	246	34	14%	1.12		
RSA PAPERS (2005 – 2009)	120	169	30	18%	1.16	1.03	63%
ALL PAPERS (2010 – 2014)	313	242	48	20%	0.62		
RSA PAPERS (2010 – 2014)	177	200	37	19%	0.92	1.49	57%



Journal facts:

Currently known as ***African Journal of Aquatic Science*** (2000 – current). Formerly known as *Southern African Journal of Aquatic Sciences* (1989 - 1999) and *Journal of the Limnological Society of Southern Africa* (1975 - 1988). It is published in association with the *Southern African Society of Aquatic Scientists*. The Southern African Society of Aquatic Scientists is a learned society concerned with the research, management and conservation of inland waters throughout southern Africa. It was established in 1964 as the Limnological Society of South Africa. Four issues per year.

WoS journal metrics: It has been indexed by the WoS since 2010. The WoS 2015 JIF = 0.806.

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	58	33	14	42%	0.33		
RSA PAPERS (2005 – 2009)	29	19	10	53%	0.31	0.95	50%
ALL PAPERS (2010 – 2014)	242	355	82	23%	1.13		
RSA PAPERS (2010 – 2014)	134	248	64	26%	1.37	1.22	55%



Currently known as the ***African Journal of Marine Science*** (2003 – current). Formerly known as *South African Journal of Marine Science* 1983-2002. The journal is produced by NISC in association with the Fisheries branch of the South African Department of Agriculture, Forestry and Fisheries (DAFF). Print ISSN: 1814-232X Online ISSN: 1814-2338. Four issues per year.

WoS journal metrics: It has been indexed by the WoS since 2003. The WoS 2015 JIF = 1.058.

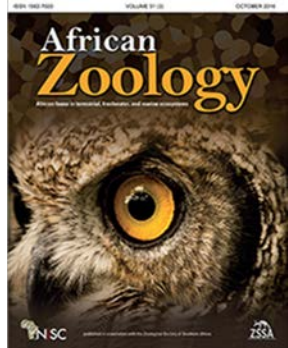
	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	296	1153	218	19%	3.16		
RSA PAPERS (2005 – 2009)	202	841	193	23%	3.21	1.02	68%
ALL PAPERS (2010 – 2014)	298	1032	207	20%	2.77		
RSA PAPERS (2010 – 2014)	222	810	181	22%	2.83	1.02	74%



Journal facts:

Previously published as the *South African Psychiatry Review* until Volume 10, Issue 2, May 2007, ISSN 1811-7805. First volume of the **African Journal of Psychiatry** published as Volume 10, Issue 3, Aug 2007, ISSN 1994-8220. Discontinued **Volume 16, Issue 6, Nov 2013**. Is now Journal of Psychiatry published by Omics. ISSN: 2378-5756

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	19	10	0	0%	0.53		
RSA PAPERS (2005 – 2009)	7	2	0	0%	0.29	0.54	37%
ALL PAPERS (2010 – 2014)	133	321	49	15%	2.05		
RSA PAPERS (2010 – 2014)	80	239	44	18%	2.44	1.19	60%

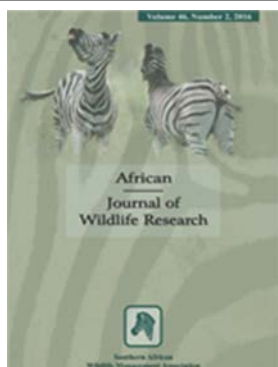


Journal facts

Currently known as *African Zoology* (2000 –current). Formerly known as *South African Journal of Zoology* (1979 - 1999) and *Zoologica Africana* (1965 - 1978). Print ISSN: 1562-7020, Online ISSN: 2224-073X, 4 issues per year. Published by NISC (Pty) Ltd in association with the *Zoological Society of Southern Africa*.

WoS journal metrics: It has been indexed by the WoS since 2001. The WoS 2015 JIF = 0.739

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	168	268	59	22%	1.24		
RSA PAPERS (2005 – 2009)	105	155	34	22%	1.15	0.93	63%
ALL PAPERS (2010 – 2014)	205	187	68	36%	0.58		
RSA PAPERS (2010 – 2014)	149	150	51	34%	0.66	1.14	73%

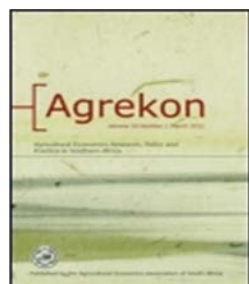


Journal facts:

The ***African Journal of Wildlife*** and has been published annually since 1971. Until 2014 the journal was known as the South African Journal of Wildlife Research. It is the official journal of ***The Southern African Wildlife Management Association (SAWMA)*** founded in 1970. Print ISSN: 2410-7220, Online ISSN: 2410-8200. Frequency: Bi-annually.

WoS journal metrics: It has been indexed by the WoS since 1997 . The WoS 2015 JIF = 1.641

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	117	220	31	14%	1.62		
RSA PAPERS (2005 – 2009)	100	184	25	14%	1.59	0.98	85%
ALL PAPERS (2010 – 2014)	130	159	41	26%	0.91		
RSA PAPERS (2010 – 2014)	105	128	27	21%	0.96	1.06	81%

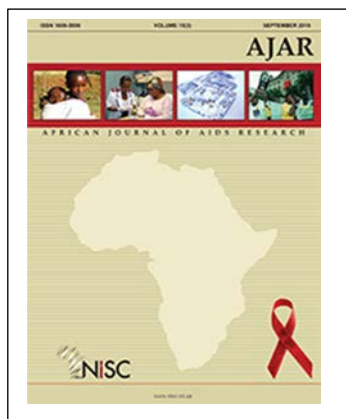


Agrekon has been published since 1962. It is a publication of the *Agricultural Economic Association of South Africa*. Published by Taylor & Francis/Unisa Press. ISSN print 0303-1853, ISSN electronic 2078-0400. Four issues per year.

WoS journal metrics:

It has been indexed by the WoS since 2010. The WoS 2015 JIF = 0.250

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	47	20	6	30%	0.30		
RSA PAPERS (2005 – 2009)	40	18	5	28%	0.33	1.09	85%
ALL PAPERS (2010 – 2014)	158	114	11	10%	0.65		
RSA PAPERS (2010 – 2014)	127	92	9	10%	0.65	1.00	80%



Journal facts:

AJAR-African Journal of AIDS Research was established in 2002. Print ISSN 1608-5906, Electronic ISSN 1727-9445. Published by NISC (Pty) Ltd. Four issues/year.

WoS journal metrics:

It has been indexed by the WoS since 2009. The WoS 2015 JIF = 0.716.

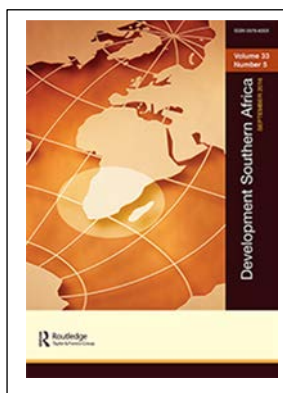
	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	117	127	41	32%	0.74		
RSA PAPERS (2005 – 2009)	60	89	37	42%	0.87	1.18	51%
ALL PAPERS (2010 – 2014)	228	331	73	22%	1.13		
RSA PAPERS (2010 – 2014)	118	195	47	24%	1.25	1.11	52%

Journal facts:

The ***Cardiovascular Journal of Africa (CVJA)*** is the official journal of the PASCAR (*Pan African Society of Cardiology*) and has been published since 1990. Published six times a year plus supplements by Clinics Cardive Publishing (Pty) Ltd. Print ISSN 1995-1892, Online ISSN 1680-0745. Weblink <http://www.cvja.co.za/>.

WoS journal metrics: It has been indexed by the WoS since 2010. The WoS 2015 JIF =1.022

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	86	63	8	13%	0.64		
RSA PAPERS (2005 – 2009)	37	35	4	11%	0.84	1.31	43%
ALL PAPERS (2010 – 2014)	395	567	34	6%	1.35		
RSA PAPERS (2010 – 2014)	120	257	22	9%	1.96	1.45	30%



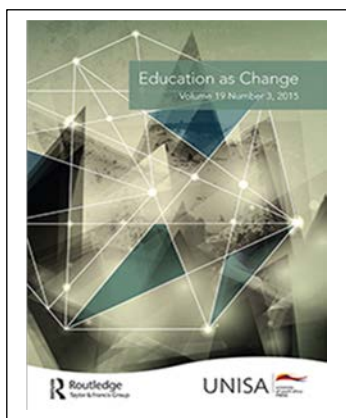
Journal facts:

Development Southern Africa (DSA) has been published since 1984. It is the journal of the Development Bank of Southern Africa. Published by Routledge – Taylor & Francis Group. Print ISSN: 0376-835X Online ISSN: 1470-3637. Six issues per year.

WoS journal metrics:

It has been indexed by the WoS since 2010. The WoS 2015 JIF = 0.424

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	86	37	12	32%	0.29		
RSA PAPERS (2005 – 2009)	47	19	6	32%	0.28	0.95	55%
ALL PAPERS (2010 – 2014)	282	407	79	19%	1.16		
RSA PAPERS (2010 – 2014)	221	336	62	18%	1.24	1.07	78%



Journal facts:

Education as Change has been published since 1997. Published by Taylor & Francis. Will be published by the *Centre for Education Rights and Transformation* at the University of Johannesburg from 2016. Print ISSN 1682-3206 Online ISSN 1947-9417.

WoS journal metrics:

Web of Science Indexed in WoS 1999, Th W 2015, IF 0.342

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	73	29	4	14%	0.34		
RSA PAPERS (2005 – 2009)	70	29	4	14%	0.36	1.04	96%
ALL PAPERS (2010 – 2014)	170	125	36	29%	0.52		
RSA PAPERS (2010 – 2014)	138	102	31	30%	0.51	0.98	81%

Journal facts:

Journal of Energy in Southern Africa is the publication of the *Energy Research Centre* of the University of Cape Town. It was started in November 1990 and the then National Energy Council (NEC) undertook the financial support for the first two years of the publication. The journal publishes four issues per annum. Key abbreviated title: J. energy South Afr. On-line version ISSN 2413-3051, Print version ISSN 1021-447X.

<http://www.erc.uct.ac.za/journals/jesa>

WoS journal metrics:

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	31	3	1	33%	0.06		
RSA PAPERS (2005 – 2009)	19	1	0	0%	0.05	0.82	61%
ALL PAPERS (2010 – 2014)	153	44	13	30%	0.20		
RSA PAPERS (2010 – 2014)	100	36	10	28%	0.26	1.28	65%



Journal facts:

The *Journal of Psychology in Africa (JPA)* is an *African Scholarship Development Enterprize (ASDE)* publication outlet and currently published by Taylor and Francis UK. Print ISSN 1433-0237, Online ISSN 1815-5626 Publication frequency: Six issues per year.

WoS journal metrics:

It has been indexed by the WoS since 2010. The WoS 2015 JIF = 0.207

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	155	63	32	51%	0.20		
RSA PAPERS (2005 – 2009)	134	58	29	50%	0.22	1.08	86%
ALL PAPERS (2010 – 2014)	499	141	59	42%	0.16		
RSA PAPERS (2010 – 2014)	452	130	57	44%	0.16	0.98	91%



JSAVA

JOURNAL OF THE SOUTH AFRICAN VETERINARY ASSOCIATION
TYDSKRIF VAN DIE SUID-AFRIKAANSE VETERINÊRE VERENIGING

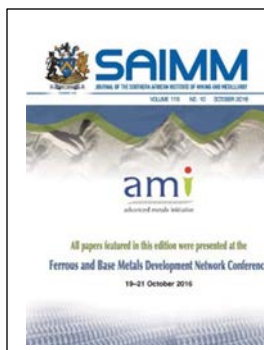
Journal facts:

Founded in 1927 the *Journal of the South African Veterinary Association* it is one of the oldest scientific journals in South Africa. The first issue of the Journal was published in August 1927. However, the volume number for 2016 is only 87 due to the fact that the first volume was published over a period of 3 years. Since 1931 the volume numbers changed with each calendar year. **Financial support and affiliation** is from the *South African Veterinary Association SAVA*. ISSN Print 1019-9128, ISSN electronic 2224-9435. Published four issues a year by AOSIS.

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.273

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	209	212	29	14%	0.88		
RSA PAPERS (2005 – 2009)	152	166	20	12%	0.96	1.10	73%
ALL PAPERS (2010 – 2014)	262	155	18	12%	0.52		
RSA PAPERS (2010 – 2014)	189	111	14	13%	0.51	0.98	72%



Journal facts:

The *Journal of the Southern African Institute of Mining and Metallurgy* was established in 1956. It is the official journal of the *Southern African Institute of Mining and Metallurgy*. Printed ISSN 2225-6253, Online ISSN 2411-9717. 12 issues/year. Abbreviated title: J. South. Afr. Inst. Min. Metall.

WoS journal metrics:

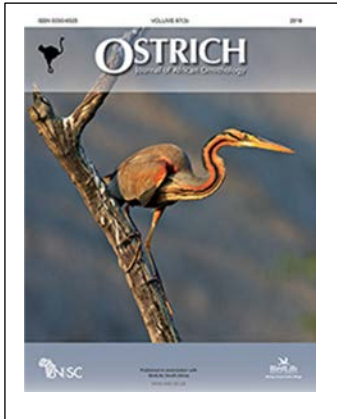
	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	396	194	24	12%	0.43		
RSA PAPERS (2005 – 2009)	183	110	19	17%	0.50	1.16	46%
ALL PAPERS (2010 – 2014)	617	188	53	28%	0.22		
RSA PAPERS (2010 – 2014)	329	107	42	39%	0.20	0.90	53%



Journal facts:

The ***Onderstepoort Journal of Veterinary Research***, is the official publication of the Onderstepoort Veterinary Institute. The *Onderstepoort Journal of Veterinary Research* is published by the Agricultural Research Council, ARC-OVI and the University of Pretoria. The first issue was published in 1933 as '*The Onderstepoort Journal of Veterinary Research and Animal Industry*' of which 24 volumes were published (1933–1950). In 1951 the title of the journal was yet again changed to what it is today, '*The Onderstepoort Journal of Veterinary Research*', or the OPJ/OJVR as it is known, and has remained so for the past 59 years. Up to 1977, the OPJ was an in-house journal. *On-line* ISSN 2219-0635, *Print* ISSN 0030-2465. Publishing frequency – irregular.

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	211	312	78	25%	1.11		
RSA PAPERS (2005 – 2009)	139	229	69	30%	1.15	1.04	66%
ALL PAPERS (2010 – 2014)	197	115	29	25%	0.44		
RSA PAPERS (2010 – 2014)	102	52	18	35%	0.33	0.76	52%



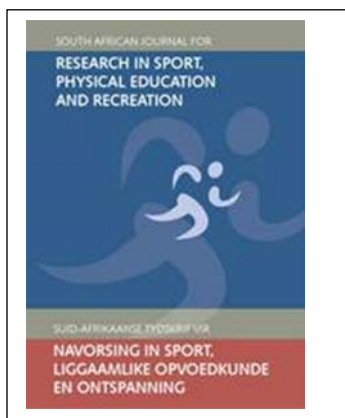
Journal facts:

Ostrich: Journal of African Ornithology – was established in 1930 and is the scientific journal of *BirdLife South Africa*. It is published by Taylor & Francis in association with NISC (Pty) Ltd and BirdLife South Africa. Print ISSN 0030-6525, Online ISSN 1727-947X
Publication frequency: 3 issues per year.

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.418

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	227	221	65	29%	0.69		
RSA PAPERS (2005 – 2009)	113	116	26	22%	0.80	1.16	50%
ALL PAPERS (2010 – 2014)	206	226	103	46%	0.60		
RSA PAPERS (2010 – 2014)	110	113	51	45%	0.56	0.94	53%



Journal facts:

South African Journal for Research in Sport, Physical Education and Recreation was established in 1978. It is published by University of Stellenbosch Department of Sport Science. Published bi-annually. ISSN: 0379-9069. Two issues/year.

WoS journal metrics:

It has been indexed by the WoS since 2010. The WoS 2015 JIF = 0.244

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	68	10	5	50%	0.07		
RSA PAPERS (2005 – 2009)	60	8	3	38%	0.08	1.13	88%
ALL PAPERS (2010 – 2014)	188	47	17	36%	0.16		
RSA PAPERS (2010 – 2014)	136	35	12	34%	0.17	1.06	72%

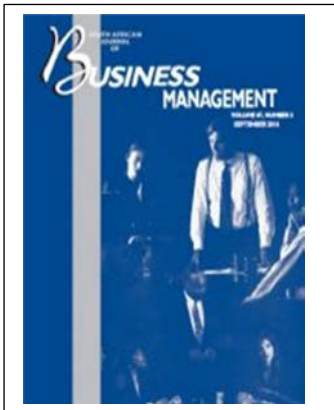


Journal facts:

The South African Journal of Animal Science is the official publication of *The South African Society for Animal Science, SASAS*. The South African Society of Animal Production (later changed to South African Society Animal Science/Suid-Afrikaanse Vereniging vir Veekunde) has, since the inception of the Society in 1961, published congress proceedings in the "Proceedings of the South African Society of Animal Production". The journal absorbed *Agroanimalia*. Publication started in 1971 with volume 1. Four issues a year. Occasionally, a 5th issue is published. The abbreviated title is *S. Afr. J. Anim. Sci.* On-line ISSN 2221-4062, Print ISSN 0375-1589.

WoS journal metrics:

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	268	305	77	25%	0.85		
RSA PAPERS (2005 – 2009)	138	153	61	40%	0.67	0.78	51%
ALL PAPERS (2010 – 2014)	403	341	98	29%	0.60		
RSA PAPERS (2010 – 2014)	226	189	72	38%	0.52	0.86	56%



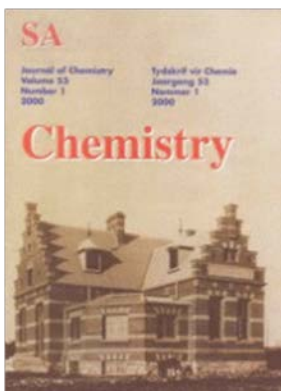
Journal facts:

South African Journal of Business Management is published by APM Association of Professional Managers in South Africa. It was established in 1979. ISSN Print 2078-5976, ISSN Electronic 2078-5585. Published quarterly.

WoS journal metrics:

It has been indexed by the WoS since 2009. The WoS 2015 JIF = 0.200

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	60	19	2	11%	0.28		
RSA PAPERS (2005 – 2009)	55	17	2	12%	0.27	0.96	92%
ALL PAPERS (2010 – 2014)	150	35	5	14%	0.20		
RSA PAPERS (2010 – 2014)	111	27	5	19%	0.20	0.99	74%



Journal facts:

The **South African Journal of Chemistry** is the official publication of **The South African Chemical Institute**. The journal publishes throughout the year on a rolling pass basis. The journal went fully electronic in 2000 and is freely available through open access online. Abbreviated title: S. Afr. j. chem. On-line ISSN 1996-840X, Print ISSN 0379-4350.

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.667

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	83	79	44	56%	0.42		
RSA PAPERS (2005 – 2009)	35	27	23	85%	0.11	0.27	42%
ALL PAPERS (2010 – 2014)	237	166	94	57%	0.30		
RSA PAPERS (2010 – 2014)	109	88	44	50%	0.40	1.33	46%

Journal facts:

The **South African Journal of Economic & Management Sciences (SAJEMS)** is hosted by the *Faculty of Economic and Management Sciences* at the University of Pretoria. It was founded in 1988 as a faculty journal at the University of Pretoria. Published quarterly. ISSN print 1015-8812, ISSN electronic 2222-3436.

<http://www.sajems.org/>

WoS journal metrics:

It has been indexed by the WoS since 2008. The WoS 2015 JIF = 0.185

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	146	44	10	23%	0.23		
RSA PAPERS (2005 – 2009)	114	37	8	22%	0.25	1.09	78%
ALL PAPERS (2010 – 2014)	216	31	8	26%	0.11		
RSA PAPERS (2010 – 2014)	178	29	7	24%	0.12	1.16	82%

Journal facts:

The ***South African Journal of Economics*** was established in 1925 and is the official journal of the *Economic Society of South Africa* (ESSA). Published by Wiley-Blackwell on behalf of the Economic Society of South Africa. Four issues/year. Online ISSN: 1813-6982

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.441

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	245	234	47	20%	0.76		
RSA PAPERS (2005 – 2009)	155	167	44	26%	0.79	1.04	63%
ALL PAPERS (2010 – 2014)	188	142	34	24%	0.57		
RSA PAPERS (2010 – 2014)	107	100	25	25%	0.70	1.22	57%

Journal facts:

South African Journal of Education is the official journal of the *Education Association of South Africa* (EASA). Established in 1981. Print ISSN 0256-01011, Electronic ISSN 2076-3433. Published quarterly.

WoS journal metrics:

It has been indexed by the WoS since 2008. The WoS 2015 JIF = 0.560

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	152	163	13	8%	0.99		
RSA PAPERS (2005 – 2009)	115	122	12	10%	0.96	0.97	76%
ALL PAPERS (2010 – 2014)	271	189	22	12%	0.62		
RSA PAPERS (2010 – 2014)	234	180	21	12%	0.68	1.10	86%



Journal facts:

The **South African Journal of Geology (SAJG)** is the journal of the *Geological Society of South Africa (GSSA)*. First published by the GSSA in 1895 as the *Transactions of the Geological Society of South Africa*, and then as the SAJG from 1987 (vol. 87).

Production, publication, and distribution of the journal are managed by the Geological Society of South Africa (GSSA). ISSN Print 1012-0750, ISSN Electronic 1996-8590.

Published monthly.

WoS journal metrics:

It has been indexed by the WoS since 1998. The WoS 2015 JIF = 0.909

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	173	497	95	19%	2.32		
RSA PAPERS (2005 – 2009)	139	388	74	19%	2.26	0.97	80%
ALL PAPERS (2010 – 2014)	142	338	45	13%	2.06		
RSA PAPERS (2010 – 2014)	116	257	33	13%	1.93	0.94	82%



Journal facts:

The ***South African Journal of Industrial Engineering*** is the official journal of the *Southern African Institute for Industrial Engineering*. Established in 1987. Online ISSN 2224-7890, Print ISSN 1012-277X. Three issues per year have been published since 2012.

WoS journal metrics:

It has been indexed by the WoS since 2009. The WoS 2015 JIF = 0.188

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	85	18	4	22%	0.16		
RSA PAPERS (2005 – 2009)	58	12	2	17%	0.17	1.05	68%
ALL PAPERS (2010 – 2014)	244	47	20	43%	0.11		
RSA PAPERS (2010 – 2014)	152	24	12	50%	0.08	0.71	62%



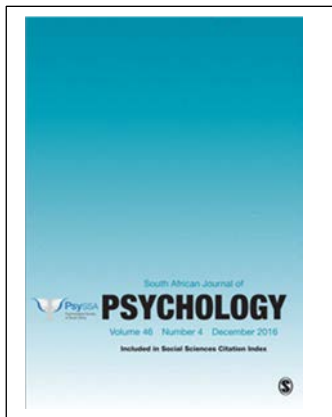
Journal facts:

The **South African Journal of Psychiatry** was launched in 1995 as an initiative of the *South African Society of Psychiatrists (SASOP)* and has since been the official scientific journal of SASOP. Published by AOSIS and issues since 2002 are available open-access and gratis under a Creative Commons (CC) license as well as in print version. ISSN 1608-9685 (PRINT), 2078-6786 ONLINE). Four issues/year

WoS journal metrics:

It has been indexed by the WoS since 2009. The WoS 2015 JIF = 0.193

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	39	21	3	14%	0.46		
RSA PAPERS (2005 – 2009)	33	19	3	16%	0.48	1.05	85%
ALL PAPERS (2010 – 2014)	120	70	7	10%	0.53		
RSA PAPERS (2010 – 2014)	78	54	7	13%	0.60	1.15	65%



Journal facts:

The ***South African Journal of Psychology*** was established in 1971. It is the official journal of the *Psychological Society of South Africa*. Published by Sage in Association with the society. eISSN: 2078-8208, ISSN: 0081-2463. Frequency: Quarterly

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.532

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	208	323	37	11%	1.38		
RSA PAPERS (2005 – 2009)	188	295	37	13%	1.37	1.00	90%
ALL PAPERS (2010 – 2014)	256	254	35	14%	0.86		
RSA PAPERS (2010 – 2014)	223	227	30	13%	0.88	1.03	87%



Journal facts:

The **South African Journal of Surgery** was established in 1963. It is the official journal of the *Association of Surgeons of South Africa (ASSA)*. Published quarterly. On-line ISSN 2078-5151, Print ISSN 0038-2361. Published by Medpharm Publications.

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.462

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	104	123	9	7%	1.10		
RSA PAPERS (2005 – 2009)	82	96	7	7%	1.09	0.99	79%
ALL PAPERS (2010 – 2014)	167	151	20	13%	0.78		
RSA PAPERS (2010 – 2014)	117	107	19	18%	0.75	0.96	70%



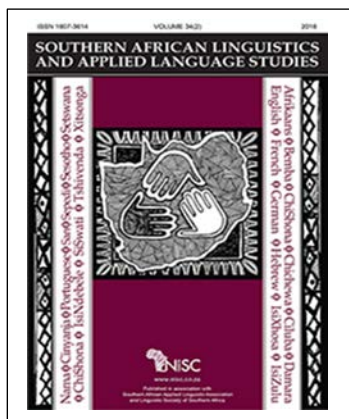
Journal facts:

Southern African Journal of HIV Medicine (SAJHIVMED) was established in 2000. Financial support and affiliation is from the *Southern African HIV Clinicians Society* (South Africa). Published quarterly until 2014, the journal now publishes at least one issue each year. Articles are published online when ready for publication and then printed in an end-of-year compilation. Published by AOSIS. Print ISSN 1608-9693, Electronic ISSN 2078-6751.

WoS journal metrics:

It has been indexed by the WoS since 2008. The WoS 2015 JIF = 0.529

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	61	4	2	50%	0.03		
RSA PAPERS (2005 – 2009)	46	4	2	50%	0.04	1.33	75%
ALL PAPERS (2010 – 2014)	147	113	10	9%	0.70		
RSA PAPERS (2010 – 2014)	114	92	8	9%	0.74	1.05	78%



Journal facts:

Southern African Linguistics and Applied Language Studies (2001 – current). Formerly known as *South African Journal of Linguistics* (1983 - 2000), and *Southern African Journal of Applied Language Studies* (1992 - 1999). It is the official publication of the *Linguistics Society of Southern Africa (LSSA)* and *Southern African Applied Linguistics Association (SAALA)*. 4 issues per year. Published by NISC (Pty) Ltd and Taylor & Francis Online. ISSN: 1607-3614 (Print), 1727-9461 (Online)

WoS journal metrics:

It has been indexed by the WoS since 2009. The WoS 2015 JIF = 0.188

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	92	46	21	46%	0.27		
RSA PAPERS (2005 – 2009)	86	44	19	43%	0.29	1.07	93%
ALL PAPERS (2010 – 2014)	194	100	30	30%	0.36		
RSA PAPERS (2010 – 2014)	164	84	24	29%	0.37	1.01	85%



Journal facts:

Tydskrif vir Geesteswetenskappe is published by the *Suid-Afrikaanse Akademie vir Wetenskap en Kuns*. The Academy formerly published one scientific journal entitled *Tydskrif vir Wetenskap en Kuns* which covered the natural sciences and the humanities. In 1961 it was decided to publish two separate journals, respectively for the natural sciences and the humanities. This led to the founding of the *Tydskrif vir Geesteswetenskappe* in 1961. Published Quarterly. On-line version ISSN 2224-7912, Print version ISSN 0041-4751. The journal is published four times per year. **WoS journal metrics:** It has been indexed by the WoS since 2011. The WoS 2015 JIF = 0.322

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	40	4	0	0%	0.10		
RSA PAPERS (2005 – 2009)	31	4	0	0%	0.13	1.29	78%
ALL PAPERS (2010 – 2014)	196	22	9	41%	0.07		
RSA PAPERS (2010 – 2014)	179	21	9	43%	0.07	1.01	91%



Journal facts:

The **South African Medical Journal** (SAMJ) is published under the auspices of the *South African Medical Association*, though it enjoys full editorial autonomy. The first issue of the SAMJ appeared in 1884. It is sponsored by the South African Medical Association and published by the association's publishing arm, the Health & Medical Publishing Group. ISSN Print 0256-9574, ISSN Electronic 2078-5135. Its abbreviated title is SAMJ, S. Afr. Med. J.

WoS journal metrics:

It has been indexed by the WoS since 2001 . The WoS 2015 JIF = 1.500

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	393	1197	121	10%	2.74		
RSA PAPERS (2005 – 2009)	341	1126	119	11%	2.95	1.08	87%
ALL PAPERS (2010 – 2014)	587	1344	178	13%	1.99		
RSA PAPERS (2010 – 2014)	527	1240	168	14%	2.03	1.02	90%



Journal facts:

HTS Teologiese Studies/Theological Studies was founded in 1943. Up until Volume 64 in 2008, four issues were published annually. In 2009, the journal *HTS Teologiese Studies/Theological Studies* and *Theology in South Africa* united and merged into *HTS Theological Studies/Theological Studies*, being permanently incorporated. *HTS Teologiese Studies/Theological Studies* is dedicated to the publication of articles themed and focused on practical theology and pastoral care, as well as on the history and development of the church in South Africa, commencing with Volume 65 of *HTS Teologiese Studies/Theological Studies*, the Netherdutch Reformed Church of Africa. The journal is published in partnership with African Online Scientific Information Systems (Pty) Ltd (AOSIS). The journal publishes three to four issues per year, each with a specific theme. *On-line version* ISSN 2072-8050, *Print version* ISSN 0259-9422. The abbreviated key title is Herv. Teol. Stud.

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	378	113	45	40%	0.18		
RSA PAPERS (2005 – 2009)	358	105	41	39%	0.18	0.99	95%
ALL PAPERS (2010 – 2014)	478	104	37	36%	0.14		
RSA PAPERS (2010 – 2014)	469	104	37	36%	0.14	1.02	98%

Journal facts:

The **South African Journal of Science** is the official publication of the *Academy of Science of South Africa*. Since 2001 the journal is published six times per year. The journal was established in 1903 as the proceedings of the annual meetings of the SA Association for the Advancement of Science. The annual volume became a monthly publication in August 1947. On-line version ISSN 1996-7489, Print version ISSN 0038-2353. The publication receives financial support from the Department of Science and Technology, South Africa. Abbreviated: S. Afr. J. Sci.

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.902

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	409	659	132	20%	1.29		
RSA PAPERS (2005 – 2009)	372	613	122	20%	1.32	1.02	91%
ALL PAPERS (2010 – 2014)	331	324	81	25%	0.73		
RSA PAPERS (2010 – 2014)	285	295	67	23%	0.80	1.09	86%



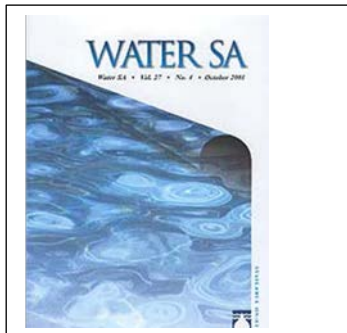
Journal facts:

The ***South African Journal of Botany*** (Afrikaans title: ***Suid-Afrikaanse tydskrif vir plantkunde***) is a bimonthly peer-reviewed scientific journal covering all aspects of botany as related to Southern Africa. It is published by Elsevier on behalf of the South African Association of Botanists, of which it is an official journal. It was established in 1982 and, after publishing three volumes, absorbed the *Journal of South African Botany* as of 1985. The latter journal had been established in 1935 and the merged journal continued the volume numbering of the older one. Abbreviated title *S. Afr. J. Bot.* ISSN: 0254-6299.

WoS journal metrics:

It has been indexed by the WoS since 1997. The WoS 2015 JIF = 1.244

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	409	1136	236	21%	2.20		
RSA PAPERS (2005 – 2009)	304	815	187	23%	2.07	0.94	74%
ALL PAPERS (2010 – 2014)	732	2513	288	11%	3.04		
RSA PAPERS (2010 – 2014)	443	1522	223	15%	2.93	0.96	61%



Journal facts:

Water SA Has been in publication since 1975. Frequency: Quarterly. Published by the *Water Research Commission*. From April 2005 onwards Water SA is being published primarily as an e-journal. The journal publishes four to five issues per year. ISSN Print 0378-4738.

WoS journal metrics: It has been indexed by the WoS since 1997. The WoS 2015 JIF = 0.851

	Articles	Citations	Self-citations	Proportion of self-citations	Ncs	Relative citation rate	Proportion of SA authors
ALL PAPERS (2005 – 2009)	415	1077	142	13%	2.25		
RSA PAPERS (2005 – 2009)	287	674	113	17%	1.95	0.87	69%
ALL PAPERS (2010 – 2014)	678	1052	254	24%	1.18		
RSA PAPERS (2010 – 2014)	392	634	150	24%	1.23	1.05	58%

References

- Bartholomew, R.E. 2014. Science for sale: The rise of predatory journals. *Journal of the Royal Society of Medicine*, 107(10):384–385. doi:10.1177/0141076814548526
- Beall, J. 2012. Predatory publishers are corrupting open access. *Nature*, 489:179. doi:10.1038/489179a
- Bohannon, J. 2013. Who's afraid of peer review? *Science*, 342:60–65. doi:10.1126/science.342.6154.60
- Bowman, J.D. 2014. Predatory publishing, questionable peer review, and fraudulent conferences. *American Journal of Pharmaceutical Education*, 78(10):176. doi:10.5688/ajpe7810176
- Coyle, K. 2013. Predatory publishers | Peer to peer review. *Library Journal*, 4 April. Retrieved from <http://lj.libraryjournal.com/2013/04/opinion/peer-to-peer-review/predatory-publishers-peer-to-peer-review/>
- Crawford, W. 2014. Ethics and access 1: The sad case of Jeffrey Beall. *Cites & Insights*, 14(4):1–14.
- De Jager, P., Van der Spuy, P. & De Kock, F. 2016. *Do not feed the predators*. Working paper, October. doi:10.13140/RG.2.2.20268.67203
- Djuric, D. 2015. Penetrating the omerta of predatory publishing: The Romanian connection. *Science and Engineering Ethics*, 21:183–202. doi:10.1007/s11948-014-9521-4
- Gasparyan, A.Y., Yessirkepov, M., Diyanova, S.N. & Kitas, G.D. 2015. Publishing ethics and predatory practices: A dilemma for all stakeholders of science communication. *Journal of Korean Medical Science*, 30:1010–1016. doi:10.3346/jkms.2015.30.8.1010
- Jalalian, M. & Mahboobi, H. 2014. Hijacked journals and predatory publishers: Is there a need to re-think how to assess the quality of academic research? *Walailak Journal of Science and Technology*, 11(5):389–394. doi:10.14456/WJST.2014.16
- Kozak, M.K., Iefremova, O. & Hartley, J. 2016. Spamming in scholarly publishing: A case study. *Journal of the Association of Information Science and Technology*, 67:2009–2015. doi:10.1002/asi.23521
- Lin, S. 2013. Why serious academic fraud occurs in China. *Learned Publishing*, 26(1):24–27. doi:10.1087/20130105
- Moher, D. & Srivastava, A. 2015. You are invited to submit ... *BMC Medicine*, 13:180. doi:10.1186/s12916-015-0423-3
- Mouton, J. & Gevers, W. 2008. Introduction. In *The state of science in South Africa*. Pretoria: ASSAf, 39–67.
- Nelson, N. & Huffman, J. 2015. Predatory journals in library databases: How much should we worry? *The Serials Librarian*, 69(2):169–192. doi:10.1080/0361526X.2015.1080782

- Shen, C. & Björk, B.-C. 2015. 'Predatory' open access: A longitudinal study of article volumes and market characteristics. *BMC Medicine*, 13:230. doi:10.1186/s12916-015-0469-2
- Sipka, P. 2012. *Legitimacy of citations in predatory publishing: The case of proliferation of papers by Serbian authors in two Bosnian WoS-indexed journals*. CEES occasional paper series no. 2012-12-2. Retrieved from <http://www.ceon.rs>
- Svab, I. & Makivic, I. 2015. Predators and hijackers in academic publishing. *European Journal of General Practice*, 21(2):95–96. doi:10.3109/13814788.2015.1037270
- Thomas, A. 2015. African academics are being caught in the predatory journal trap. *The Conversation*, 29 October. Retrieved from <https://theconversation.com/african-academics-are-being-caught-in-the-predatory-journal-trap-48473>
- Tin, L., Ivana, B.I., Biljana, B., Ljubica, I.B., Dragan, M. & Dusan, S. 2014. Predatory and fake scientific journals/publishers: A global outbreak with rising trend – a review. *Geographica Pannonica*, 18(3):69–81.
- Truth, F. 2012. Pay big to publish fast: Academic journal rackets. *Journal for Critical Education Policy Studies*, 10(2):54.
- Xia, J. 2015. Predatory journals and their article publishing charges. *Learned Publishing*, 28(1):69–74. doi:10.1087/20150111
- Xia, J., Harmon, J.L., Connolly, K.G., Donnelly, R.M., Anderson, M.R. & Howard, H.A. 2015. Who publishes in 'predatory' journals? *Journal of the Association for Information Science and Technology*, 66(7):1406–1417. doi:10.1002/asi.23265
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