# University of Nebraska - Lincoln DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

12-19-2018

# SRELS Journal of Information Management: A Gender Analysis

GARIMA BISARIA Research scholar, Department of Library & Information Science, University of Luck now, garimabisaria37@gmail.com

Dr.Babita Jaiswal Associate Professor, Department of Library & Information Science, University of Luck now, Uttar Pradesh, drbabitajaiswal@gmail.com

Follow this and additional works at: https://digitalcommons.unl.edu/libphilprac Part of the <u>Library and Information Science Commons</u>

BISARIA, GARIMA and Jaiswal, Dr.Babita, "SRELS Journal of Information Management: A Gender Analysis" (2018). *Library Philosophy and Practice (e-journal)*. 2189. https://digitalcommons.unl.edu/libphilprac/2189

## **SRELS Journal of Information Management: A Gender Analysis**

Garima Bisaria

Research scholar, Department of Library & Information Science, University of Luck now,

Uttar Pradesh

E-mail: garimabisaria37@gmail.com

Dr. Babita Jaiswal

Associate Professor, Department of Library & Information Science, University of Luck now, Uttar Pradesh

E-mail: drbabitajaiswal@gmail.com

### Abstract

The SRELS Journal of Information Management has been playing vital role in the library and information science field since last fifty years. This paper presents the results of a bibliometric study of articles with a gender viewpoint from 2007-2017. The aim of the study is to examine the journal during the period 2007-2017 using bibliometric indicators with a gender perspective. The pattern of research output in 606 publications is analyzed in which 435(71.78%) articles are contributed by male authors and 171(28.21%) by female authors. The degree of collaboration in the publications of the journal is 0.66. Most of the articles i.e. (52.31%) are two authored articles. The male and female distribution by professional category indicates large number of contributing authors belonged to non-teaching category i.e. 389 out of which 292 (67.12%) are male authors and 97 (56.72%) female authors. Maximum number i.e. 222 (36.6%) contributions are under male-male authorship pattern followed by 153(25.2%) male solo papers. Citation study showed that 120 cited articles received 215 citations. Male authors contributed maximum number of articles in the subject category "bibliometrics analysis" whereas females authored large number of articles on the topic "use studies". Overall research productivity of male LIS professionals is higher than female authors.

**Keywords:** Bibliometrics, Gender, Research Productivity, Male-Female Research, SRELS Journal of Information Management, authorship pattern, professional category.

## Introduction

Research plays an important role in the social and economic development of academic workforce resulting in academic advancement and promotion. Therefore there has been an emphasis on research publication productivity by higher education authorities and it has been considered as evaluation criteria to assess academic staff in university system or for awarding grants and funds for research. The status of women in society has been no different in India when compared with rest of the world. Women at large, and specifically in higher education have not been equally represented in comparison to male authors. Previous research shows that gender differences are observed in all the academic disciplines in academia resulting in productivity differences in journal publications (Cole and Cole, 1973; Astin and Bayer, 1979; Cole,1979; Long and Fox ,1987). Along with productivity differences there has been evidence of citation bias favouring male authors in a large scale Norwegian study of different scientific fields (Aksnes et al., 2011). Few gender-citation studies found a trend where male and female authors tend to cite authors of their own gender (Ferber 1988; Mcelhinny et al.2003; Mitcheli et al.2013). Although some of the recent studies witnessed an increase in women's participation in research (Lewison 2001), but the current situation is far from satisfactory. The purpose of the present study is to quantify research contributions by male and female authors. The study explores the gender gap in the research productivity and citation pattern within the Library and information science field through analysis of publications contributed by male and female authors in the SRELS Journal of Information Management. The citation data related to SRELS Journal of Information Management which is a renowned bi-monthly journal have been extracted from Indian Citation Index (ICI) database.

#### **Objectives**

The major objectives of the present study are the following:

- Year wise distribution of articles
- Year wise distribution of authors
- Year wise distribution of authorship pattern and degree of collaboration.
- Gender wise authorship pattern
- Male and female collaboration pattern

- Professional category according to gender
- Cited and uncited articles in different male and female authorship combinations
- Citations received by different male and female authorship combinations
- Level of collaboration by gender
- Most prolific male and female authors
- Subject interests among male and female authors

### **Literature Review**

Projesky (2008) conducted a study of a South African database to identify gender gap in journal publications. The analysis proved male authors to be more productive in terms of publications than females. Brissel (2015) examined authorship and co-authorship in the journal "School Library Research" and found an increase in the publication of females as solo authors as well as female co-authored articles compared to males in SLR between 1998 -2012. Bhattacharya & Shapiro (2000) analysed Otolaryngology literature to quantify female authorship over three decades and concluded that out of total 2,463 articles percentage of female first authors and unidentified first authors increased which had a positive impact on career and speciality of the female authors in Otolaryngology literature. Aksnes et.al (2011) found less impact of articles authored by females with low citation rate compared to males. The reasons attributed were productivity differences and cumulative advantage effect associated with research output. Evans & Moulder (2011) studied authorship in top four political science journals to determine gender ratio, methods adopted and funding. They concluded that female publication ratio was comparable to female representation in the field. Although female as lead authors of the articles were quite less. The most often used method by both the genders was content analysis in journal publications. Herubel (1992) investigated the journal articles of libraries and culture to explore scholarly production of men and women over the period covering 23 years. The study revealed prominence of females over males in terms of publications. Lockheed and Stein (1980) studied publication of educational research journals to determine the count of articles authored by women as well as related to women education. They found that although there was an increase in number of articles on women and education, but not a substantial increase was there in count of articles by women due to which status of women in the field of education did not improved. Rigg (2012) in a fifteen year study of select geography journals stated that gender gaps lessened in the journals

chosen, but still many barriers exists for women to overcome, if they want to succeed in academia. The present study is an attempt to analyse and ascertain the gender differences in scholarly production and citation pattern.

### Methodology

SRELS Journal of Information Management was founded by Dr. S.R.Ranganathan. It is a bimonthly peer reviewed journal and is being published from India since 1964. The journal publishes scholarly articles of practical use in the library and information science and services. The journal completed 50 years in 2013. The sample of the study constitutes articles published from 2007-2017 The data consists of only research articles. Total number of 606 articles were identified and coded. The coding included multiple categories like gender of the authors (only first and second author's gender), professional category, collaboration type, citation data, and subject interests regarding male and female data in each article has been considered. To identify gender of the contributing author's searches were carried out by using Google and visiting author's affiliated institution websites. First and second authors are considered for collaboration type and for data related to authorship combination. For the purpose of categorization of publications DDC 23<sup>rd</sup> edition has been consulted. The citation data related to cited and uncited papers and citations received by them are extracted from the database of Indian Citation Index (ICI) developed by "The Knowledge Foundation" and published from India.

#### **Data Analysis**

Year	No. of Articles	Growth Rate
2007	36	-
2008	50	28
2009	45	-11.11
2010	62	27.41
2011	61	-1.64
2012	66	7.58
2013	69	4.34
2014	46	-50
2015	60	23.33
2016	64	6.25
2017	47	-36.17
Total	606	-

Table 1 examined year wise distribution of articles with total number of 606 articles, with the highest number of articles in the year 2013 i.e. 69. The number decreased in the following years 2009, 2011, 2014 and 2017 with negative growth rate i.e. -11.11, -1.64, -50 and -36.17 respectively.

Year	Number. of Authors	Percentage
2007	62	5.57
2008	91	8.17
2009	77	6.91
2010	119	10.68
2011	116	10.41
2012	120	10.77
2013	120	10.77
2014	99	8.89
2015	106	9.52
2016	124	11.13
2017	80	7.18
Total	1114	100

Table 2: Year wise author distribution

Table 2 depicts the total number of authors who contributed research articles in the journal irrespective of their position in the concerned article i.e. as first, second or positioned at any other number. Total of 1114 authors contributed during 2007-2017. The lowest count of authors (5.57%) was in the year 2007. The highest number of authors contributed in the year 2016 with 124(11.13%) followed by 120(10.77%) in both the consecutive years 2012 and 2013. The author count shows an uprising trend since 2007 with a slight decrease in number in 2009(6.91%), 2014(8.89%) and 2017(7.18%).

 Table 3: Year wise distribution of Authorship Pattern

Number of Authors	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total	%
Single	17	16	16	19	19	23	24	9	21	24	19	207	34.16
Two	15	28	26	32	33	36	39	25	33	26	24	317	52.31
More than two	4	6	3	11	9	6	6	12	6	14	4	82	13.53
Total	36	50	45	62	61	69	69	46	60	64	47	606	100

Table 3 shows that maximum number i.e. 52.31% of the research contributions in the journal is by two authors followed by 34.16% single author contributions and 13.53% of the papers are by more than two authors. The authorship trend shows authors preference towards collaborative papers.

Year	Single	Collaborative	DC*
2007	17	19	0.53
2008	16	34	0.68
2009	16	29	0.64
2010	19	43	0.69
2011	19	42	0.69
2012	23	43	0.65
2013	24	45	0.65
2014	9	37	0.8
2015	21	39	0.65
2016	24	40	0.63
2017	19	28	0.6
Total	207	399	0.66

 Table 4: Year wise Degree of Collaboration

\* Degree of Collaboration

In table 4 the degree of collaboration has been calculated for the following years 2007 to 2017. The single author contributions are 207 while 399 are collaborative works. The degree of collaboration falls within the range 0.53 to 0.69 and for the period studied as a whole it is 0.66. It shows library science professional have strong collaborative networks.

Table 5: Year wise distribution of Average male and Average female per paper

Year	Male	Female	Total	AMPP*	AFPP**
2007	25	11	36	0.69	0.31
2008	34	17	50	0.68	0.34
2009	33	12	45	0.73	0.27
2010	42	20	62	0.68	0.32
2011	47	14	61	0.77	0.23
2012	45	21	66	0.68	0.32
2013	51	18	69	0.74	0.26
2014	30	16	46	0.65	0.35
2015	42	18	60	0.7	0.3
2016	51	12	64	0.8	0.19

2017	35	12	47	0.74	0.26						
Total	435	171	606	0.72	0.28						
* Aver	* Average Male per paper **Average female per paper										

Table 5 calculates average number of male and female in each article. The minimum count of AMPP (0.65) is in the year 2014 and highest figure (0.77) is obtained in 2011. While AFPP is largest (0.34) in 2008, it is less in 2016 with lowest count (0.19). Overall AMPP count is 0.72 and AFPP is 0.28.

Year	Male	%	Female	%
2007	25	5.75	11	6.43
2008	34	7.82	17	9.94
2009	33	7.59	12	7.02
2010	42	9.66	20	11.7
2011	47	10.8	14	8.19
2012	45	10.34	21	12.28
2013	51	11.72	18	10.53
2014	30	6.9	16	9.34
2015	42	9.66	18	10.53
2016	51	11.72	12	7.02
2017	35	8.04	12	7.02
Total	435	100	171	100

 Table 6: Year wise distribution of authors by gender

Table 6 analyses gender wise contributions. The decade study of the journal represents that out of total 606 research papers 435(71.78%) are male researchers and 171(28.21%) female researchers. Male authors outperform female authors in the number of occurrences in the journal.

Table 7: Year wise male and female collaboration pattern

Year	Μ	%	M-M	%	M-F	%	F	%	F-M	%	F-F	%	Total
2007	12	33.33	11	30.56	1	2.78	6	16.67	4	11.11	2	5.56	36
2008	8	16.00	22	44.00	2	4.00	9	18.00	5	10.00	4	8.00	50
2009	11	24.44	17	37.78	5	11.11	6	13.33	5	11.11	1	2.32	45
2010	14	22.58	19	30.64	9	14.52	5	8.07	14	22.58	1	1.61	62
2011	14	22.95	24	39.34	9	14.75	5	8.20	7	11.48	2	3.28	61
2012	16	24.24	28	42.42	1	1.52	7	10.61	7	10.61	7	10.61	66
2013	17	24.64	25	36.23	9	13.04	7	10.14	8	11.59	3	4.35	69
2014	8	17.39	19	41.30	3	6.52	1	2.17	13	28.26	2	4.35	46

	2015	17	28.33	18	13.33	7	11.67	4	6.67	11	18.33	3	5.00	60
ĺ	2016	18	28.13	27	42.19	7	10.94	6	9.38	4	6.25	2	3.13	64
ĺ	2017	18	38.30	12	25.53	5	10.64	1	2.13	6	12.77	5	10.64	47
	Total	153	25.25	222	36.63	58	9.57	57	9.41	84	13.86	32	5.28	606

\*\* M= Male; M-M= Male-Male; M-F= Male-Female; F=Female; F-M= Female-Male; F-F=Female-Female

Table 7 shows that there has been an increase in male solo authors (M) (38.30%) in the year 2017 accompanied by male-male collaborative papers (44%) in 2008. Male as lead authors (M-F) in joint authorship published in large number i.e. (11.11%) in 2009 whereas female as lead authors (F-M) with male co- authorship contributed highest number of research papers(28.26%) in 2014. Female authored articles (F) are in high measure (18%) in 2008 and female-female (F-F) association produced (10.64%) in 2017 which is the highest. Overall male-male co-authorship gave highest number of articles (36.63%) followed by single male authored papers (25.2%).While female with male collaborations are (13.86%) followed by same gender co-authored articles i.e. (5.28%), the lowest in all.

Professional Category	Male	Female	Total
Teaching	115(26.43%)	62(36.25%)	177
Non-Teaching	292(67.12%)	97(56.72%)	389
Research Scholar	24(5.51%)	12(7.01%)	36
Student	2(0.45%)	0	2
Others	2(0.45%)	0	2
Total	435	171	606

Table 8: Professional category wise distribution of male and female authors

In Table 8 the analysis of the table describes that 389 contributing authors belonged to nonteaching category with 292(67.12%) males and 97(56.72%) females. While teaching category has 177 authors comprising 115(26.43%) males and 62(36.25%) females. This shows better research productivity by non-teaching male as well as female LIS professionals compared to teaching professional category of both male 115(26.43%) and female 62(36.25%) library professionals.

Table 9: Cited and uncited count of articles in various authorship patterns

	Male	Male-	Male-Male	Female	Female-	Female-	Total
		Female			Male	Female	
Cited	17(14.16%)	11(9.16%)	58(48.33%)	6(5%)	22(18.33%)	6(5%)	120(19.8%)
Uncited	136(27.98%)	47(9.67%)	164(33.74%)	51(10.49%)	62(12.75%)	26(5.34%)	486(80.19%)

Total	153	58	222	57	84	32	606
Articles							

In table 9 the citation data analysis shows that out of total 606 articles only 120 are cited while 486 are yet to be cited. Maximum percentage of male-male authored articles 58(48.33%) are cited followed by female-male 22(18.33%) and the least cited authorship patterns are both female solo and female-female i.e. 6 (5%) authorship. The uncited data shows that 164(33.74%) male-male co-gender articles are highest proceeded by male only authors 136(27.98%). This connotes that as more number of articles are penned down by male authors which leads to inflation in the figures of cited and uncited articles.

	Male	Male-	Male-Male	Female	Female-	Female-	Total
		Female			Male	Female	
Total Citations	27(12.55%)	16(7.44%)	118(54.88%)	10(4.65%)	35(16.27%)	9(4.18%)	215
Number of	17	11	58	6	22	6	120
cited papers							

Table 10 Total number of 120 cited articles received 215 citations out of 606 total number of article contributions. The male-male co-authorship shows greater percentage of citations 118(54.88%) succeeded by female-male collaboration 35(16.27%). The female as single author as well as in same gender co-authorship received less number of citations i.e. 10 (4.65%) and 9(4.18%) respectively.

Table 11: Ger	nder wise leve	l of collaboration
---------------	----------------	--------------------

Level of	Gender				
collaboration	Male	Female	Total		
National	257(71.98%)	100(28.01%)	357(100%)		
International	27(64.28%)	15(35.71%)	42(100%)		
Total	284	115	399		

The above table interprets gender wise type of collaboration. The total count of 357 papers is collaborated at a national level while only 42 papers at an international level. Both the gender

collaborated large number of papers at national level i.e. male 257(71.98%) and female 100(28.01%) with less number of collaborations at international level by both the genders.

Sl.	Prolific ma	le authors	Prolific female authors			
No.	Male	No. of Articles	Rank	Female	No. of Articles	Rank
1	B. U. Kannappanavar	7	1	Amritpal Kaur	8	1
2	C. Baskaran	7	1	N. Parvathamma	5	2
3	K. M. Krishna	7	1	A. Thirumagal	4	3
4	Partha Pratim Ray	7	1	Ritu Gupta	4	3
5	M. P. Satija	6	2	Asha Narang	3	4
6	S. Thanuskodi	5	3	B. Mini Devi	3	4
7	B. M. Gupta	4	4	K. T. Anuradha	3	4
8	ManjunathLohar	4	4	Ketki Bhatia	3	4
9	N. S. Harinarayana	4	4	Lalitha K. Sami	3	4
10	Nirmal Singh	4	4	P. Saraswathi	3	4
11	P. Balasubramanian	4	4	S. Gayathri Devi	3	4
12	Raymond WafulaOngus	4	4	18 Author	2	5
13	16 Author	3	3	93 Author	1	6
14	46 Author	2	2			
15	232 Author	1	1			

Table 12: Most prolific male and female authors

Table 12 represents the most prolific male authors holding first rank are B. U. Kannappanavar, C Baskaran and S M Krishna with 7 articles each and female most prolific author with 8 articles is Amritpal Kaur holds first rank followed by N Parvathamma with 5 papers at second position.

Table 13: Subject distribution of articles according to gender

Sl. No.	Subjects	Number of Males	Subjects	Number of Females
1	bibliometric analysis	48	use studies	20
2	use studies	40	bibliometric analysis	17
3	user study	38	user study	17
4	scientometric	31	scientometric	8
5	knowledge management	10	information literacy	7
6	citation analysis	8	information services	6
7	collction development	8	digital preservation	5

Sl. No.	Subjects	Number of Males	Subjects	Number of Females
8	e-journals	8	consortia	4
9	library services	8	digital library	4
10	reading habits	8	knowledge management	4
11	consortia	7	librarianship	4
12	digital library	7	classification	3
13	open access	7	citation analysis	2
14	LIS education	6	collection development	2
15	social networking	6	copyright	2
16	college libraries	5	digital divide	2
17	colon classification	5	e-journals	2
18	digital preservation	5	e-resources	2
19	information services	5	open access	2
20	public library	5	personnel management	2
21	webometrics	5	plagiarism	2
22	Others	165	portal	2
23			public library	2
24			web logs	2
25			Others	48

In Table 13 the analysis shows that men contributed highest number i.e.48 articles in the field of "bibliometric analysis" followed by "use studies" at second place with 40 contributions. While women preferred "use studies" with 20 article contributions followed by "bibliometric analysis" with 17 papers during the studied period.

## Conclusion

- The year wise growth of articles have been found more or less consistent during the studied period 2007-2017 with negative growth rate observed in some of the years. This could be due to journal's policy regarding selection criteria of the articles for publication to maintain quality.
- The count of authors increased from 2007 to 2016 from 62(5.57%) to 124(11.13%) which shows keenness of LIS professionals to get their articles published in the prestigious journal.
- The collaborative works are (65.84%) while (34.16%) are single authored papers in total of 435 research articles. Degree of collaboration is calculated as 0.66. The LIS

professionals have strong collaborative research networks and prefer to do research jointly.

- Gender wise count of authors represents (71.78%) male researchers and (28.21%) female authors. Male authors are prominent in the journal articles compared to females.
- Average male per paper is 0.72 while average female per paper is 0.28.
- The articles found under male-male authorship combinations are i.e. (36.6%) which is highest, against 32 (5.28%) female-female combinations as lowest. This connotes that male LIS researchers prefer to co-author with the same gender.
- Gender divided by professional category represents both male (67.12%) and female (56.72%) contributions belonging to non-teaching category with a total of 389 authors. Whereas in teaching category out of 177 total articles (26.43%) male academics and (36.25%) female non-academic library professionals contributed papers. Both the genders in non-teaching category outnumbered teaching male-female population in terms of research publications.
- Out of 606 articles 120 are cited while 486 are yet to be cited. This could be because SRELS Journal of Information Management has a subscription based access and it's not an open access journal. The male-male co-authorship (48.33%) is highly cited followed by female-male author combination i.e.(18.33%) among other authorship patterns. As articles in large number are contributed under male solo (153) and male-male author combinations (222), the large quantity of papers contributed increases the chances of being cited more than other author associations which has less number of article contributions.
- Total of 215 article citations are received under different authorship combinations. Male-male author combination received (54.88%) citations followed by female-male authorship (16.27%). The citation pattern shows that female as single author (4.65%) and female with female co-gender authorship got only (4.18%) citations.
- The data showed more number of national collaborations by both the gender, though females reported less percentage i.e. (28.01%) of national collaborations while men accounted for (71.98%) articles. The findings reveals that women and men both collaborated less internationally which manifest weak international collaborative networks but strong national ties.

- The most prolific male authors are B. U. Kannappanavar, C Baskaran and S M Krishna and female authors are Amritpalkaur, N. Parvathamma and A. Thirumagal.
- Men LIS professionals contributed highest number of articles i.e. (48) in the area of "bibliometric analysis" followed by "Use studies" with (40) articles while women preferred to contribute articles by submitting maximum papers on the topic "Use studies (20) followed by "bibliometric analysis" with (17) articles.

The SRELS Journal of Information Management has female author count almost as half of male authors. The publication ratio of males as single author as well as malemale authorship combinations are high compared to female solo and collaborative papers which in turn leads to the opportunity of being cited more. The findings further indicates that Library and Information science is known as a female dominated profession but research productivity of women compared to men still lags far behind .To improve citation ratio of articles written by men and women, the quantity of papers by female professionals need to be increased as well as acknowledged. The LIS researchers are required to collaborate and participate more at international level to let their presence felt globally. LIS academic professionals should concentrate more on research along with teaching assignments to promote scholarly output. Overall men supersede women in terms of research publications in the SRELS Journal of Information Management. Further research is needed to explore underlying reasons for discrepancy in research output of both the gender as well as for low research productivity by academia.

#### References

Aksnes, D.W., K, Rorstad, F, F. Piro & G. Sivertsen. (2011). Are Female Researchers Less Cited? A Large-Scale Study of Norwegian Scientists. *Journal of the American Society for Information Science and Technology*. 62(4):628-36.doi: 10.1002/asi.21486

Astin,H. & A.E.Bayer. (1979). Pervasive Sex Differences in the Academic Reward System: Scholarship, Marriage and What Else? In Academic Rewards in Higher Education. D.R.Lewis and W.E.Becker (eds.). Cambridge,Mass:Ballinger Publishing Company.211-29.

Bhattacharyya,N. & Shapiro,N.L.(2000). Increased Female Authorship in Otolaryngology over the past three decades. *The Laryngoscope*, 111:358-361.doi: 10.1097/00005537-200003000-00005

Brisset, Marilyn M. (2015). Aspects of Authorship,Co-authorship and Productivity in School Library Research 1998-2012. Qualitative and Quantitative Methods in Libraries (QQML) Special Issue Bibliometrics and Scientometrics. 5-16.

Cole, J.R. & S.Cole. (1973). Social Strafication in Science . Chicago: The University of Chicago Press.

Cole, J.R. & H.Zukerman.(1984.) The Productivity Puzzle:Persistence and change in pattern of publication of Men and Women Scientists. In Advances in Motivation and Achievement. Edited by P.Maehr and M.W.SteinKamp (eds.). , 217-58,Greenwich,CT.:JAI Press

Cole, S. (1979). Age and Scientific Performance. *American Journal of Sociology*, 84:958-77.

Evans,H.K. & Moulder,A. (2011). Reflecting o n a Decade of Women's Publications in Four Top Political Science Journals, *Political Science and Politics*. 44(4):793-798.doi: 10.1177/1369148116658850

Ferber, M.A(.1988). Citations and Networking. *Gender and Society*. 2(1):82-89.doi: 10.1177/089124388002001006

Jean-Pierre V M Herubel.(1992). Authorship, Gender and Institutional Affiliation in Library History. *Behavioural and Social Sciences Librarian*. 11(1):49-54.doi: 10.1300/J103v11n01 04. Lockheed, M.E. & Stein, S.L. (1980). The Status of Women's Research in Educational Publications. *Educational Researcher*. 9(2):11-15.

Long,J. & F.Fox. (1995). Scientific Careers:Universalism and Particularism. Annual Review of Sociology. 21: 45-71.doi:10.1146/annurev.so.21.080195.000401
McElhinny, B.M.Hole, R.Holtzkerner,S.Unger & C.Hicks. (2003). Gender Publication and Citation in Sociolinguistics and Linguistic Anthropology. Language in Society. 32(3):299-328.

Mitchell,S., Mclaugin,S.Lange & H,Brus.(2013). Gendered Citation Patterns in International Relations Journals. *International Studies Perspectives*. 14(4):485-92. doi:10.111/insp.12026.

Projesky,Heidi.(2008).A Career-history analysis of Gender Differences in Publication Productivity among South African Academics. *Science Studies*. 21(2):47-67.doi:10.1080/21528586.2006.10419149

Rigg,L.S.,McCarragher,S. & Krmenec,A. (2012). Authorship, Collaboration and Gender:Fifteen Years of Publications Productivity in Selected Geography Journals. *The Professional Geographer*. 64(4):491-502.doi: 10.1080/00330124.2011.611434