

# Promotions, Tenures, and Publication Behaviours: Serbian Example

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## Introduction

Bibliometric indicators became a common tool for evaluating universities (Geuna & Martin, 2003). Furthermore, individual academics and researchers are also evaluated, promoted, and tenured based on their productivity, particularly the one visible in international databases such as the Web of Science (WoS). This methodology is widely accepted even in non-English speaking countries (Pajić, 2014).

Growing emphasis on bibliometric indicators is followed by a continuing debate on their suitability for the evaluation in social sciences and humanities (SS&H) (Nederhof, 2006). Secondary importance of journals and the prevalence of monographs are usually identified as the key features of "publication behaviour" in SS&H (Hicks, 2012). Economics and psychology are often considered to be more similar to sciences (Engels, Ossenblok, & Spruyt, 2012).

This paper presents initial results on the scientific productivity of professors promoted and tenured at the University of Novi Sad (UNS). The main goal was to analyse publication patterns in SS&H and their implications for the evaluation of individuals.

## Data and method

UNS is the second largest state university in Serbia. It consists of 14 faculties and 2 research institutes. Presented analysis was focused on the production of professors promoted or tenured in 2009-2013 at 6 UNS faculties in SS&H. Data were taken from the reports publicly available on the UNS website<sup>1</sup>. Each report contained bibliography provided by the candidate and was verified by the corresponding committee of at least three members.

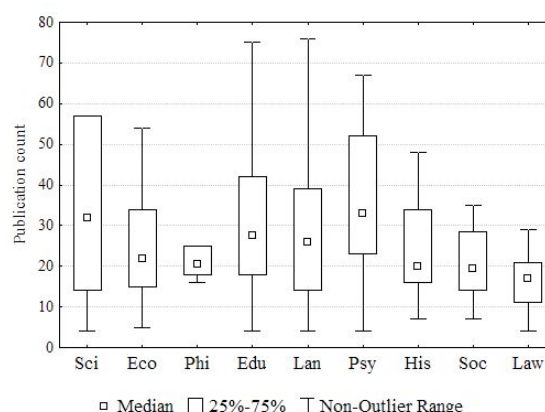
The sample included 297 professors in language and literature (99), education (62), economics (32), psychology (27), law (26), history (19), sociology (12), philosophy (10), and science (e.g. professors of chemistry at teachers colleges) (10). The total of 9007 publications were extracted and categorized according to the origin (national, international), and type (books, journal articles, proceedings, other). In order to balance the differences in the publication counts among the researchers of different academic rank, only publications from the last promotion period of 5 years were taken into account.

<sup>1</sup> <http://www.uns.ac.rs/sr/izborZvanje/bilteni.html> Reports were removed during the preparation of this paper and are no longer available online, but are available from the authors.

Since this is a preliminary analysis, it was mostly based on descriptive statistics. Because of skewed distributions, non-parametric tests were used to test the basic differences among disciplines.

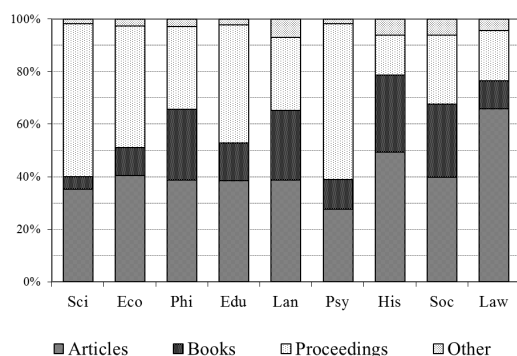
## Results and discussion

Kruskal-Wallis test indicates significant differences in scientific productivity among researchers from different fields:  $H(8, 297) = 22.99, p < .01$  (Figure 1). It is difficult to draw a solid conclusion, mainly because of highly skewed distributions and large individual differences, but clearly psychology and sciences have the highest median values, while the lowest scientific activity is that of the researchers in the field of law. The most pronounced individual differences were observed in the fields of language and literature, and educational sciences.



**Figure 1. Differences in scientific productivity among researchers in nine scientific fields.**

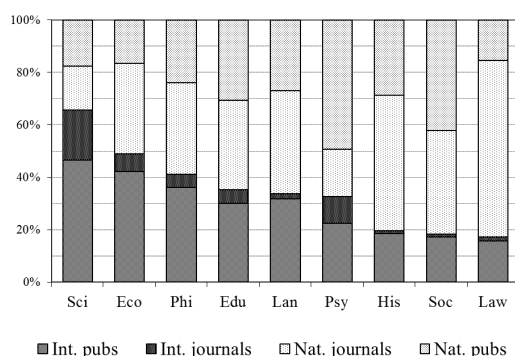
Distributions of the major types of publications among scientific fields differ significantly:  $\chi^2(16, 8492), p < .01$  (Figure 2). The share of articles is somewhat unusually high in humanities, and ranges around 40% in all fields. Contrary to usual beliefs, psychology and sciences have the lowest proportion of journal articles within the total number of publications. On the other hand, the highest proportion was detected in the field of law where journal articles account for almost 2/3 of all publications. However, the list of the most frequent journal titles revealed that more than half of the articles were from a journal published by the same faculty where the candidates were promoted or tenured.



**Figure 2. Proportions of different types of publications in nine scientific fields.**

Our results have confirmed the importance of book chapters and monographs in humanities, although this type of publication is not predominant in any of the fields. Conference abstracts and proceedings are the most frequent type of publication in four out of nine analyzed fields.

Figure 3 shows the proportions of (inter)national publications across scientific fields. The strongest focus on international sources is noticeable in the sciences, and the lowest in history, sociology, and law. The results that are not in line with the usual beliefs are rather nationally oriented publication behavior of Serbian psychologists, and a relatively high ratio of international sources in philosophy.



**Figure 3. Proportions of national and international publications in nine scientific fields.**

Professors at the faculties in Serbia are required to have one to three papers published in WoS journals prior to promotion or tenure. Table 1 shows the list of the 15 most common (allegedly) WoS journals reported in 297 reports. The majority of journals are actually national or regional WoS journals with the rather low impact factor values (IF). The disturbing fact is that several professors were promoted based on their articles published in journals of dubious quality, those that were dropped from WoS because of academic malpractice (e.g. *HealthMED*, *TTEM*, *Metalurgia Int*) or were never indexed by WoS nor any major international bibliographic database (e.g. *Brit Amer Stud*). In addition, 12 other journals were falsely reported as top ranked WoS titles.

**Table 1. Most common (allegedly) WoS journals listed in 297 promotion and tenure reports.**

Journal title	%	Country	IF
Psihologija	17.50	SRB	0.188
TTEM	5.83	B&H	drop.
HeathMED	5.13	B&H	drop.
Croat J Educ	3.03	CRO	0.034
Roman J Eng Stud	2.30	ROM	-
Med Sport	2.30	ITA	0.125
Vojnosan pregl	2.10	SRB	0.269
New Edu Rev	1.63	POL	drop.
Filoz istraživanja	1.63	CRO	AHCI
Brit Amer Stud	1.40	ROM	-
Panoeconomicus	1.16	SRB	0.778
Riječ	1.16	CRO	-
Didactica Slov	0.93	SLO	drop.
ICCCC	0.93	ROM	0.694
Metalurgia Int	0.93	ROM	drop.

drop. - dropped from WoS

## Conclusion

Our results have shown that SS&H are clearly more nationally oriented compared to sciences. However, journals as knowledge dissemination channels seem to be equally important across all fields. Apart from the conference proceedings, journal articles are the most common type of publications. It's obvious that the current promotion and tenure rules affect the professors' publication behaviour. Such patterns are not determined simply by the characteristics of a discipline, but in some cases by the ease of access to particular sources, e.g. journals having a rather lenient editorial policy.

Science policy institutions should be aware that the evaluation is a dynamic process that must combine both the rules and the means to assess the effects of those rules and to monitor their implementation.

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