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Bibliometric profiling of monograph authors in the Social Sciences and Humanities

(part 1: productivity)

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Highlights

Bibliometric Profiling of monograph authors: *Why?*

- How different from other authors?
- How diverse?

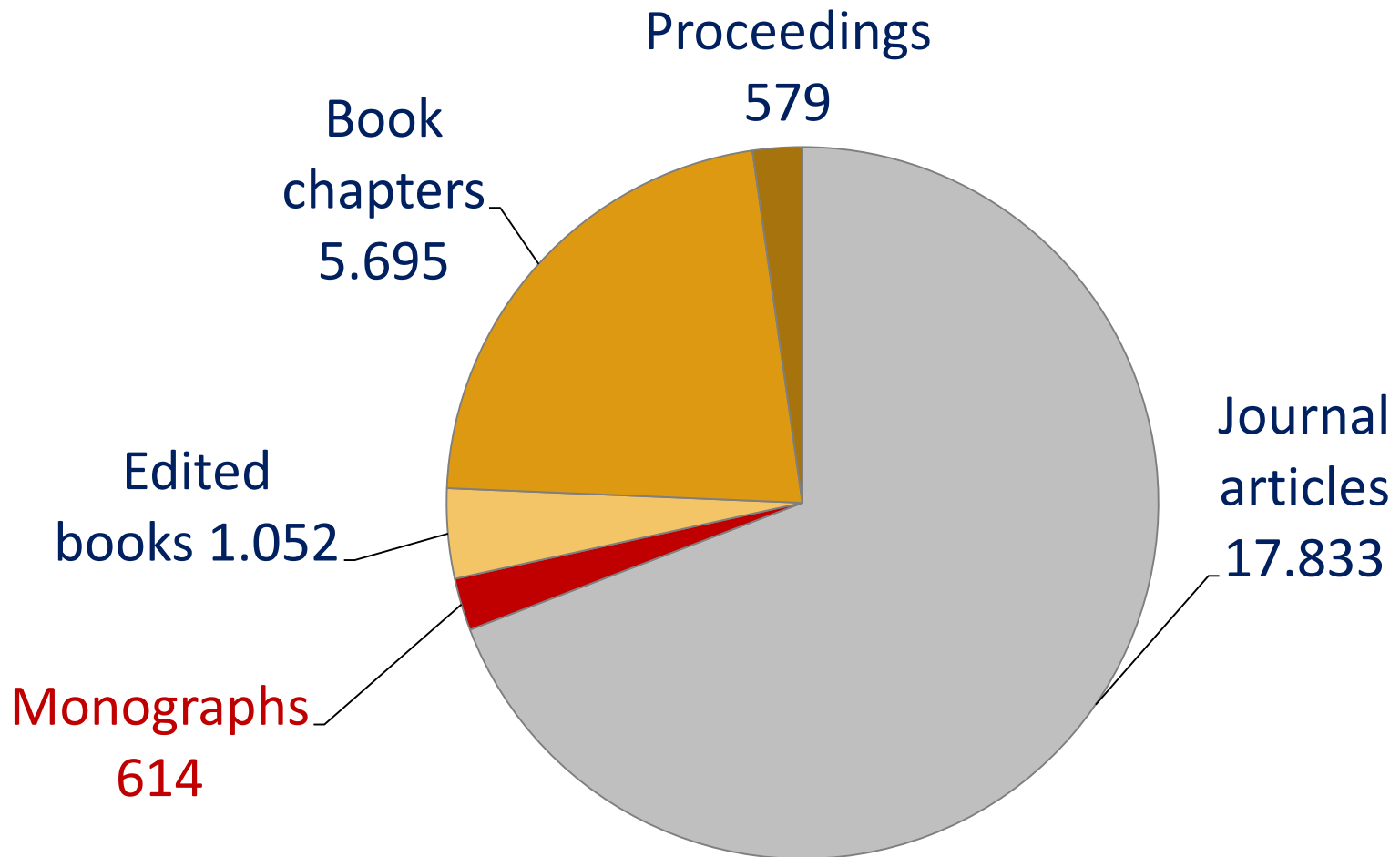
Full coverage SSH bibliographic cleaned dataset:

- over a decade (2000-2011) of data from VABB-SHW
- 5 publication types (incl. books)
- Analysis at the author level

Results (part 1: productivity):

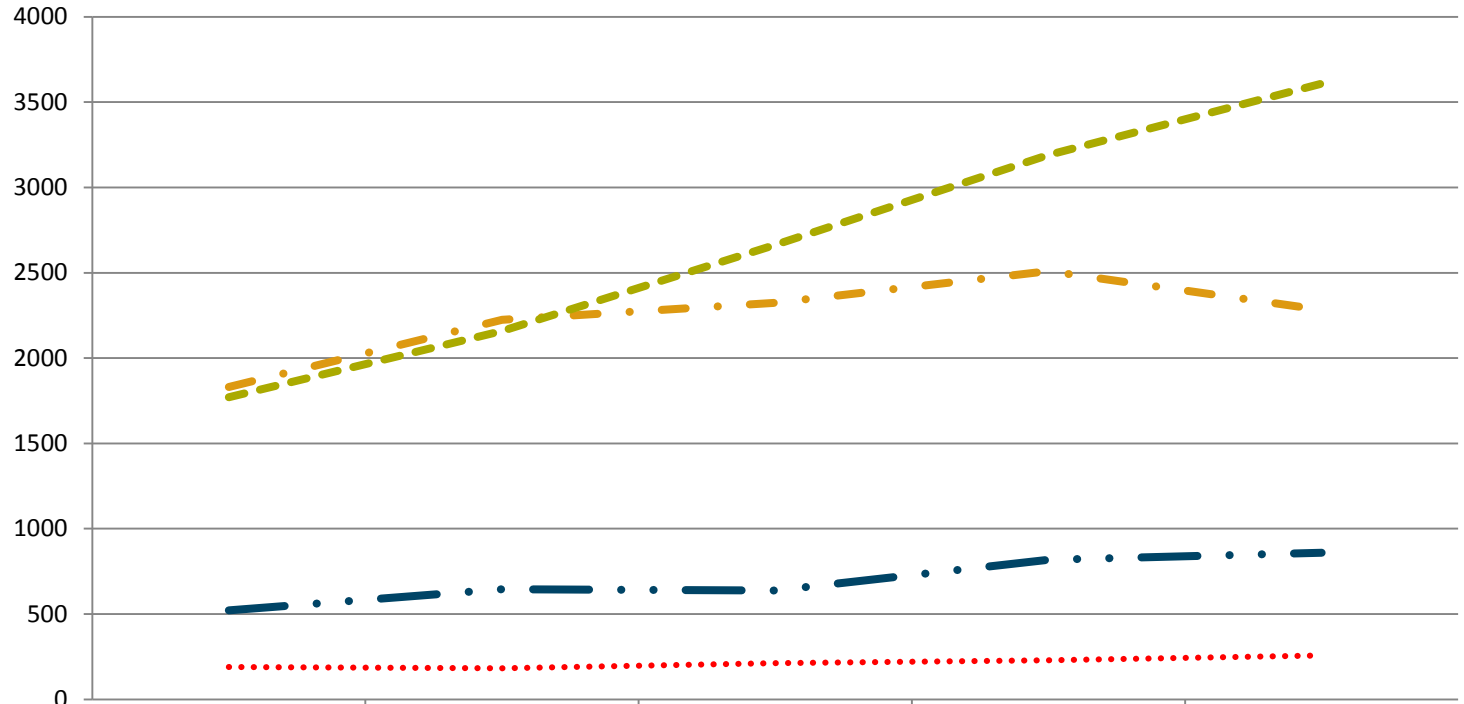
- Significant productivity gap between monograph authors and other authors

VABB-SHW: 2000-2011



Evolution of publication types

(Engels, Ossenblok and Spruyt, 2012)



	2000-2001	2002-2003	2004-2005	2006-2007	2008-2009
—•— Humanities articles	1831	2224	2324	2509	2282
— Humanities books	521	645	639	818	859
- - - Social sciences articles	1770	2159	2663	3190	3609
..... Social sciences books	190	183	212	230	258

Monograph author data in the VABB-SHW

Our current research: extraction and disambiguation of:

- 9.054 unique authors and editors (all publication types)
- 516 SSH unique monograph authors
- Publication counts per publication type per author

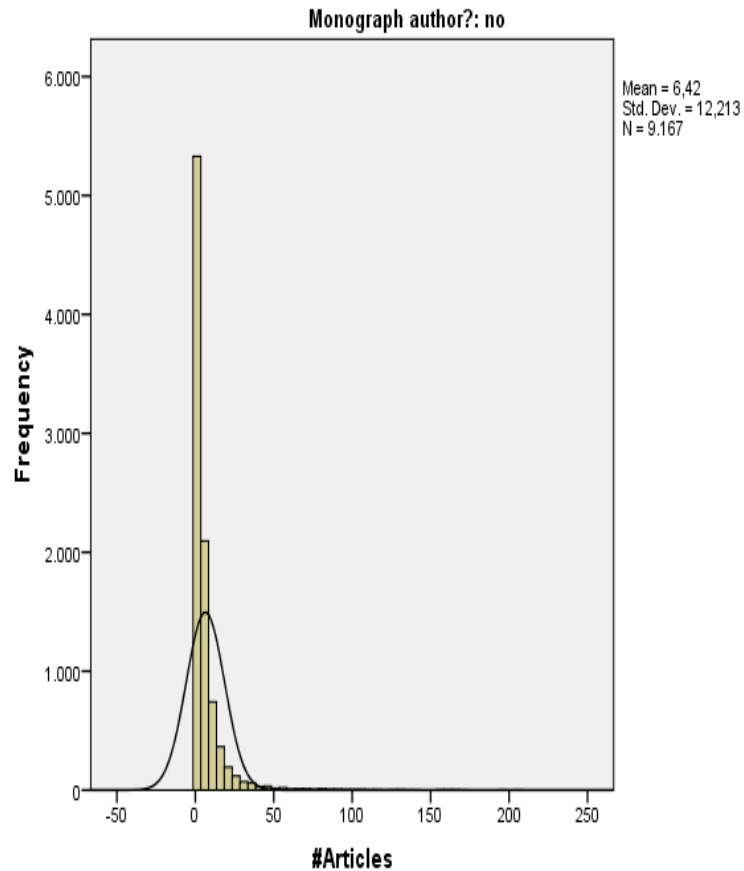
Question: Are monograph authors different from other authors?

Are they more or less productive than non-monograph authors?

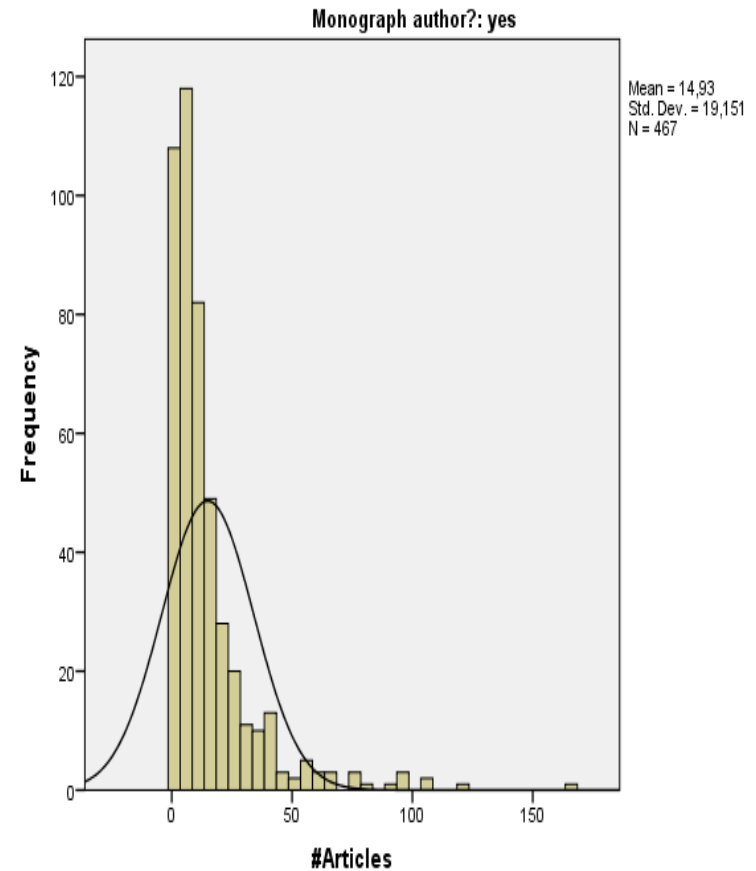
- Inspect distributions of other publication types for both groups
- Statistical test: are the medians/ranks of values in both distributions significantly different, and if so, how?
- Unweighted , then weighted comparison of groups

Comparison of journal article output

Other authors

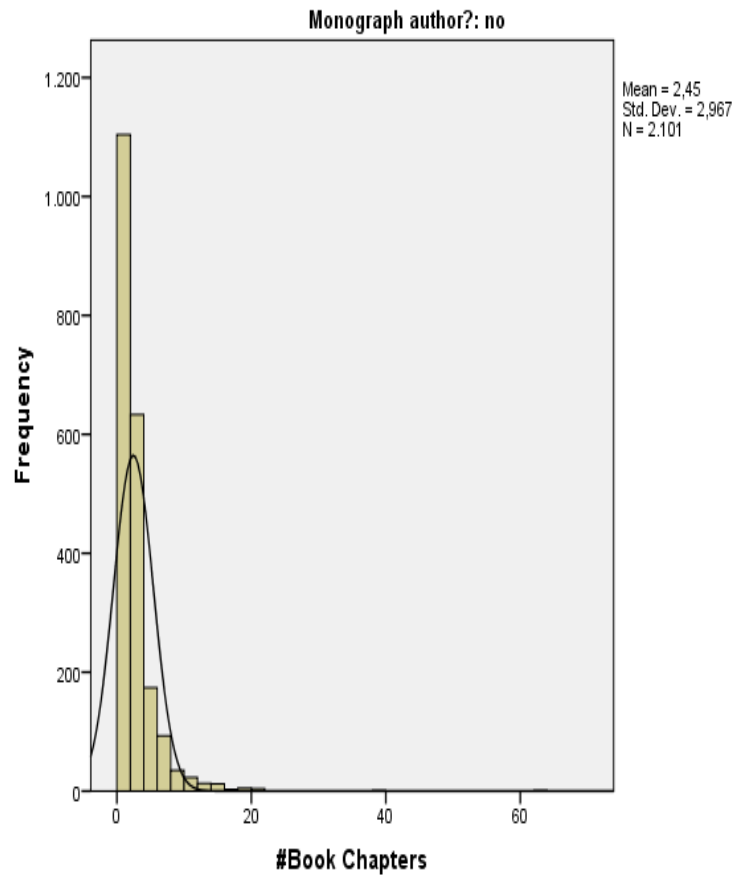


Monograph authors

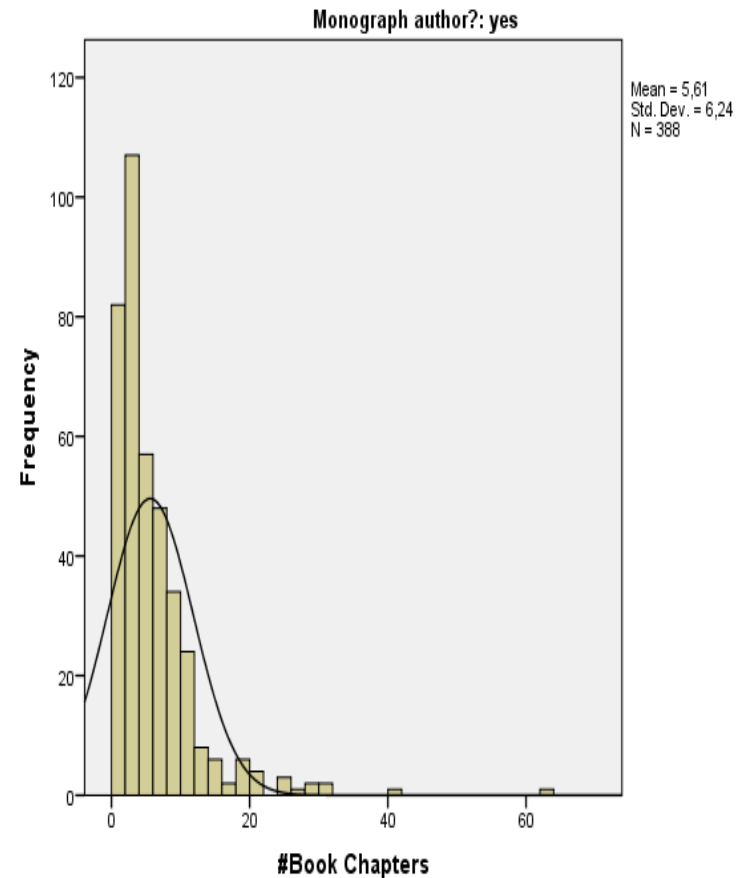


Comparison of book chapter output

Other authors



Monograph authors



Statistical test (unweighted): Mann-Whitney U

Rank-based nonparametric test, compares medians or ranks, depending on similarity/disimilarity of distributions

Differences between two groups, continuous or ordinal dependent variable(s) – here:

- article output
- Book chapter output
- Edited book output

Seperate analysis for SS and H

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of #Articles is the same across categories of Monograph author Y/N.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
2	The distribution of #Book Chapters is the same across categories of Monograph author Y/N.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
3	The distribution of #Edited Books is the same across categories of Monograph author Y/N.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Test Statistics^a

SS of H of andere		#Articles	#Book Chapters	#Edited Books
Social Sciences	Mann-Whitney U	215647,000	142722,000	319065,500
	Wilcoxon W	16315622,000	16242697,000	16419040,500
	Z	-10,165	-19,827	-16,511
	Asymp. Sig. (2-tailed)	,000	,000	,000
Humanities	Mann-Whitney U	357985,500	277732,000	384939,500
	Wilcoxon W	4460665,500	4380412,000	4487619,500
	Z	-10,219	-16,736	-13,528
	Asymp. Sig. (2-tailed)	,000	,000	,000

a. Grouping Variable: Monograph author Y/N

Ranks

SS of H of andere		Monograph Y/N?	N	Mean Rank	
Soc.Sc.	#Articles	no	5674	2875,51	
		yes	147	4281,01	
		Total	5821		
	#Chapters	no	5674	2862,65	
		yes	147	4777,10	
		Total	5821		
	#Edited	no	5674	2893,73	
		yes	147	3577,49	
		Total	5821		
Humanities	#Articles	no	2864	1557,49	
		yes	369	2078,85	
		Total	3233		
	#Chapters	no	2864	1529,47	
		yes	369	2296,34	
		Total	3233		
	#Edited	no	2864	1566,91	
		Books	yes	369	2005,80
		Total	3233		

Future step: weighted comparison of groups

Weighting of publication types in the VABB-SHW/BOF-key:

- Articles, book chapters, edited books: weight = 1
- Proceedings: weight = 0,5
- Monographs: weight = 4

Question: are monograph authors still more productive after weighting?

- Output of 4 other publication types
- Wherein lies the difference? (comparing distributions)

Statistical test (weighted): Wilcoxon signed rank test

Variant of paired samples : determine if there are differences between *matched pairs*:

- It is possible to match individuals on a similar characteristic so that they are no longer considered to be independent cases.
- Here: matching based on overall productivity (5 publ. Types, 2000-2011) after weighting:
 - Monograph author with overall productivity x
-> *matched with*:
 - Other author with same productivity x
- Result: wherein lies the difference?
 - Spread over publication types?
 - Spread over time?

Questions and suggestions



