

Citation Analysis in Research Evaluation

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Topics: New developments

- **Bibliometric rankings of world universities**
- **Research assessment in social sciences and humanities**
- **The effect of the use of indicators upon the behavior of authors and journal editors**
- **Bibliometrics and peer review**
- **Web of Science versus Scopus**

Bibliometric Rankings of World Universities

Available at: www.cwts.nl/hm

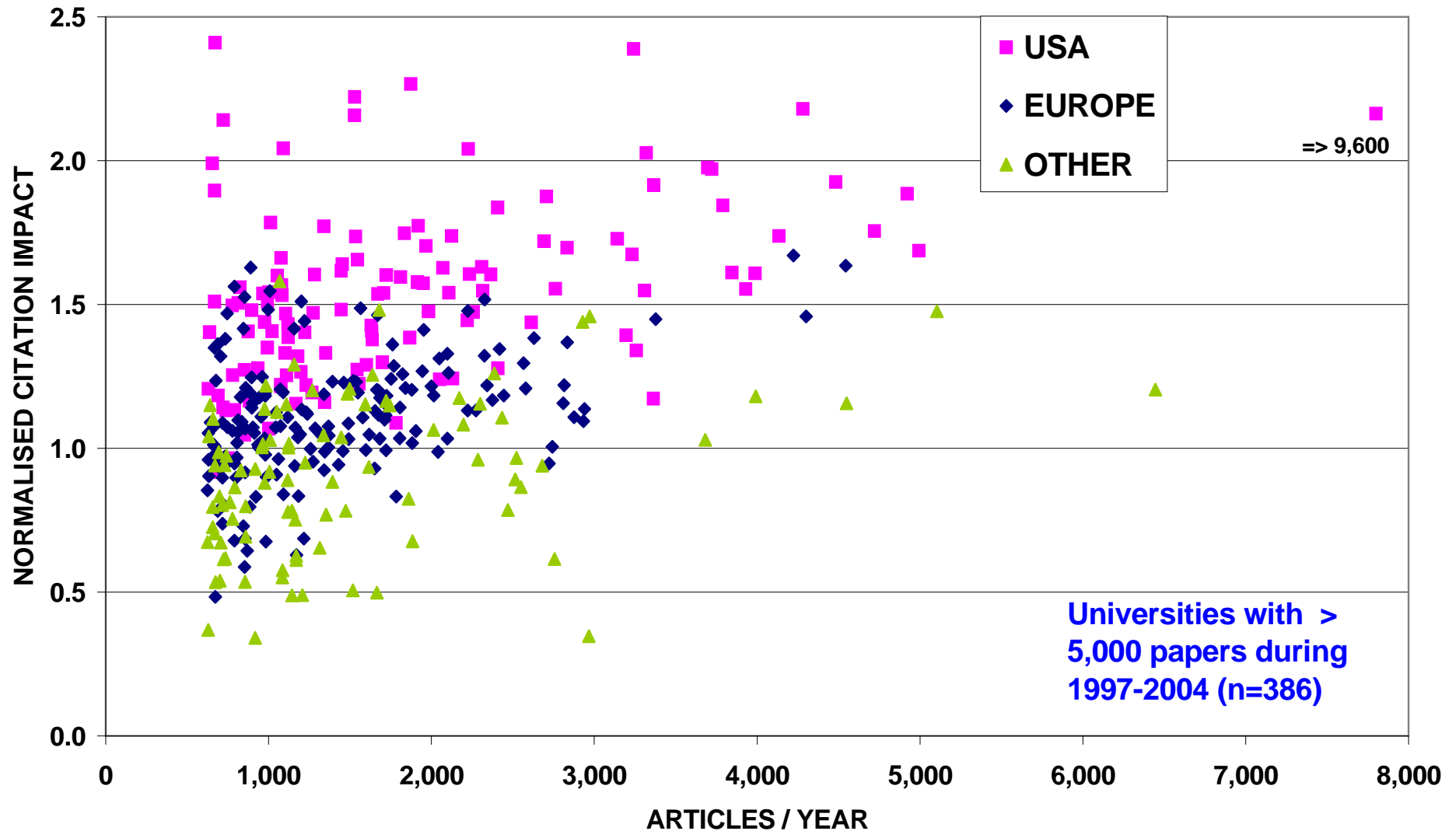
Top-down study on Universities

- **About 800 European universities**
- **Top 250 most frequently publishing non-European universities**
- **Time period covered: 1997-2004**
- **Papers assigned to universities on the basis of de-duplicated corporate addresses**
- **Sources: EUA; Univ. websites; Wikipedia**
- **Data were not (yet?) verified by institutions**

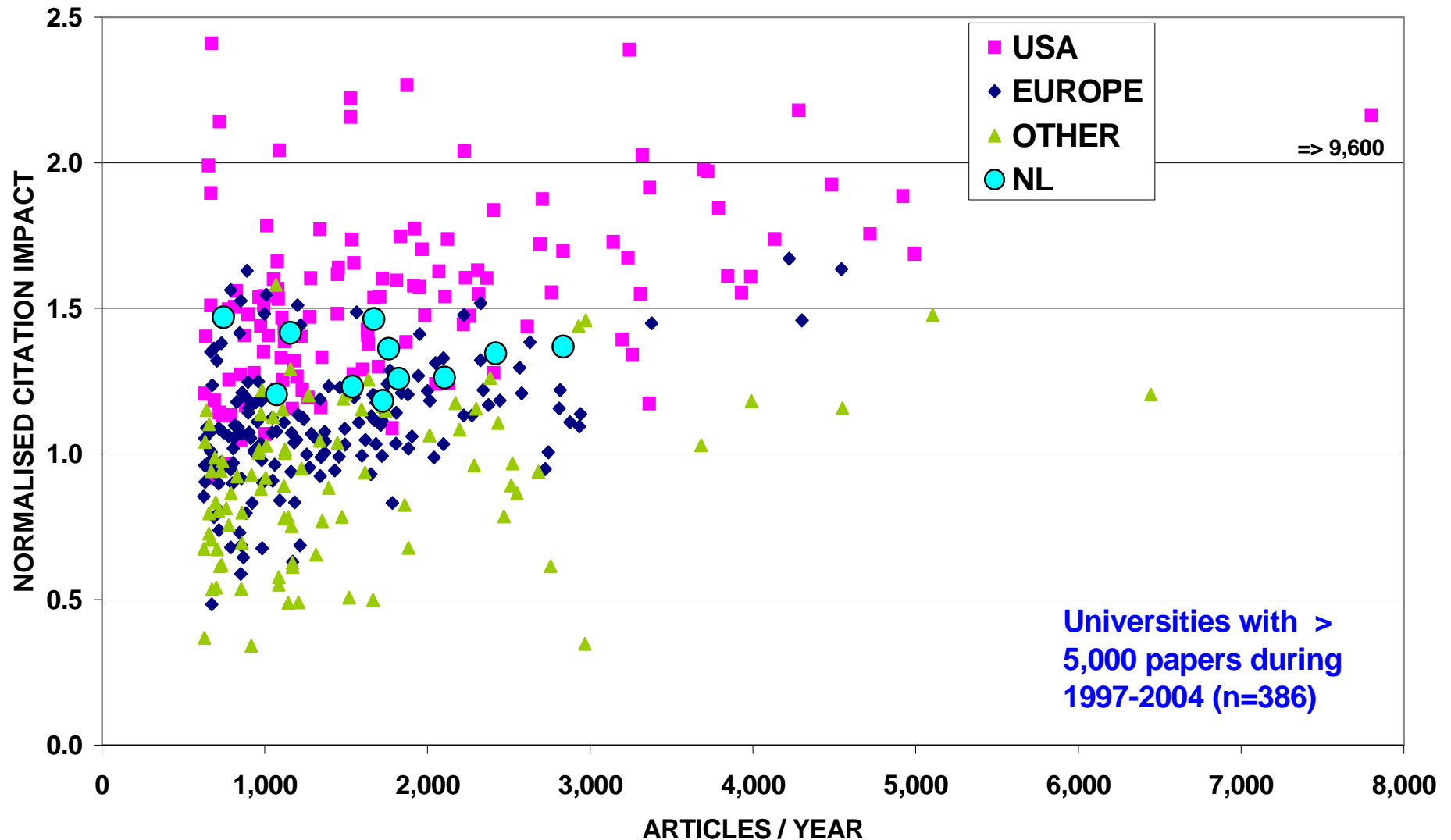
Rankings of world universities

- Are **one**-dimensional; weights of parameters in a compound index are **arbitrarily** chosen
- Disregard how the performance of one entity depends upon that of **others**
- Scholarly quality is **not** as straightforwardly measured and ranked as performance is in many other societal domains

Distribution of universities among regions



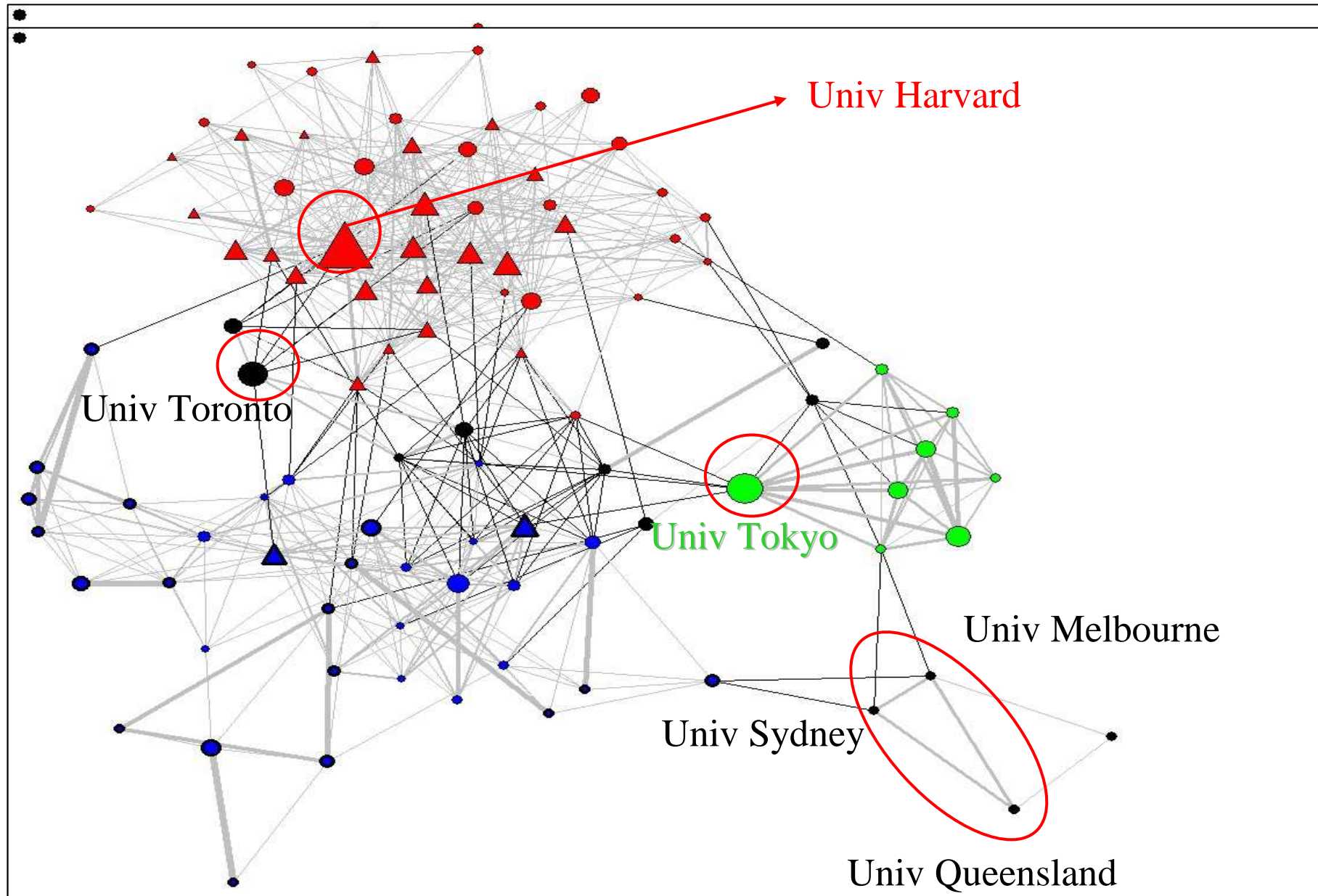
Distribution of universities among regions



**Are European research universities
'mediocre'?**

	<i>Top 25 % universities in</i>	
	<i>Europe</i>	<i>USA</i>
% Universities among the <i>world</i> top 25 % in at least one discipline	100 %	100 %
Average number of <i>world</i> 'top' disciplines per university	5.4	12.3

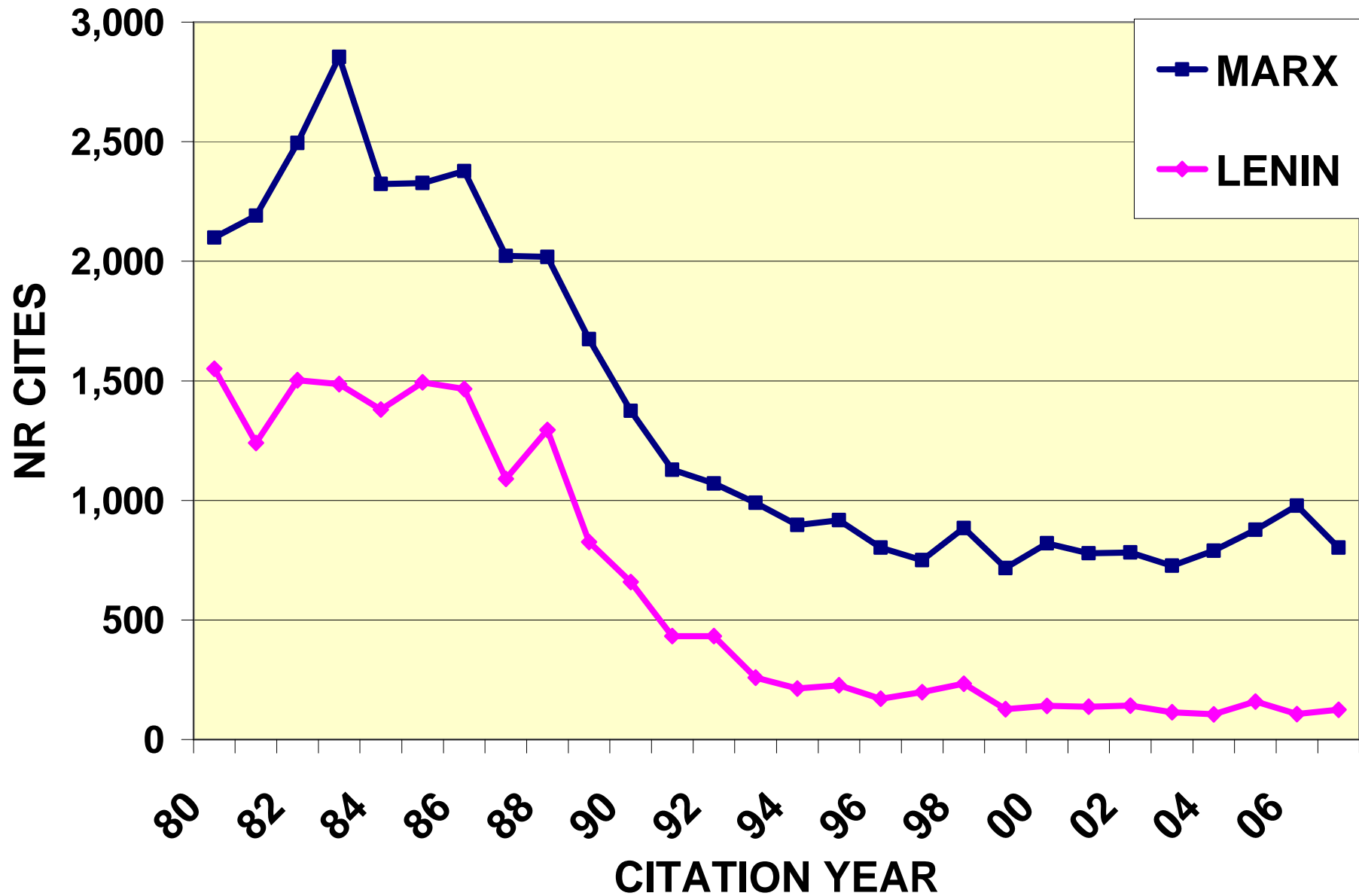
BIGGEST 100 WORLD UNIVERSITIES (Calero et al., 2006)



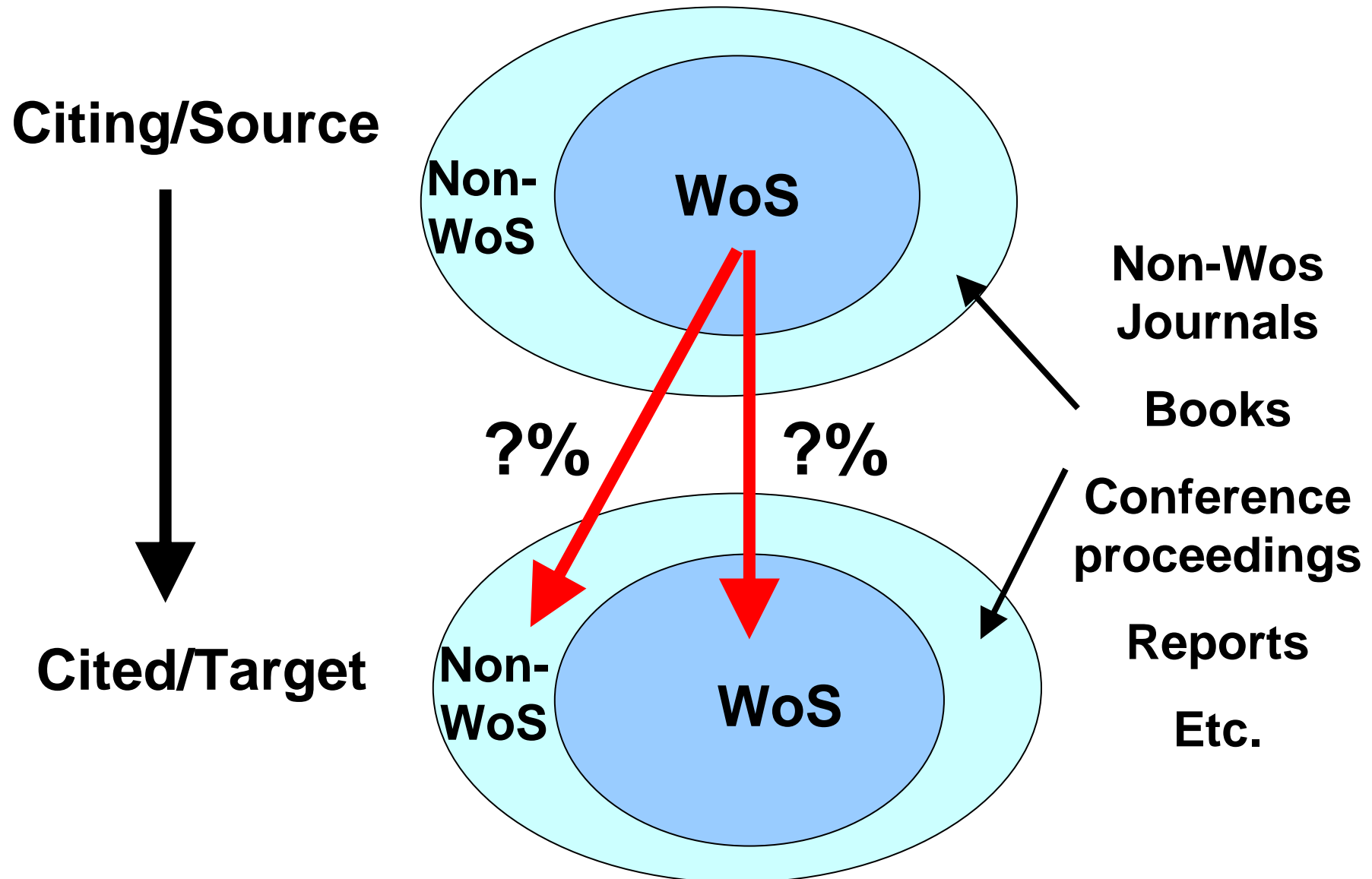
Research assessment in social sciences and humanities

**Work on Library Catalog Analysis
carried out by Daniel Torres Salinas
(Univ Navarra/Granada)**

Citation impact and ideology



Measurement of internal WoS Coverage



AU	Moed, HF; Garfield, E.	in W O S
TI	In basic science the percentage of 'authoritative' references decreases as bibliographies become shorter	
SO	SCIENTOMETRICS 60 (3): 295-303, 2004	Y
RF	<u>ABT HA, J AM SOC INF SCI T, v 53, p 1106, 2004</u>	Y
	GARFIELD, CITATION INDEXING, 1979 (BOOK!)	N
	GARFIELD, SAYS INFORMATION S, v 8, p 403, 1985	N
	<u>GILBERT GN, SOC STUDIES SCI, v 7, p 113, 1977</u>	Y
	<u>MERTZ, 1988</u>	Y
	<u>R, 43, p 63, 1998</u>	Y
	<u>ZUCKER, 1987</u>	Y

Not in WoS

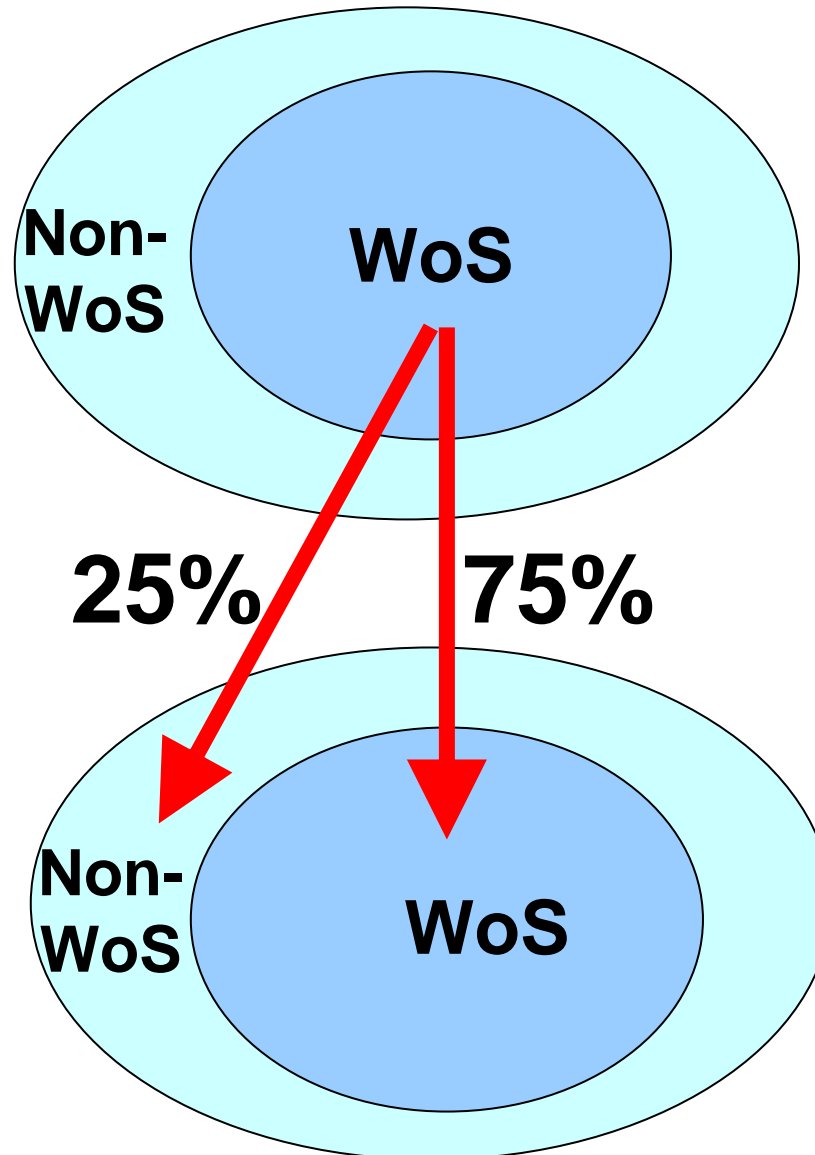
**WoS Coverage
= 5/7 = 71%**

Total ISI/WoS Database (2002)

Citing/Source

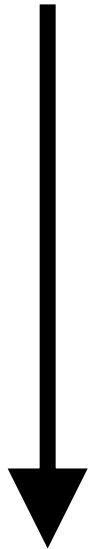


Cited/Target

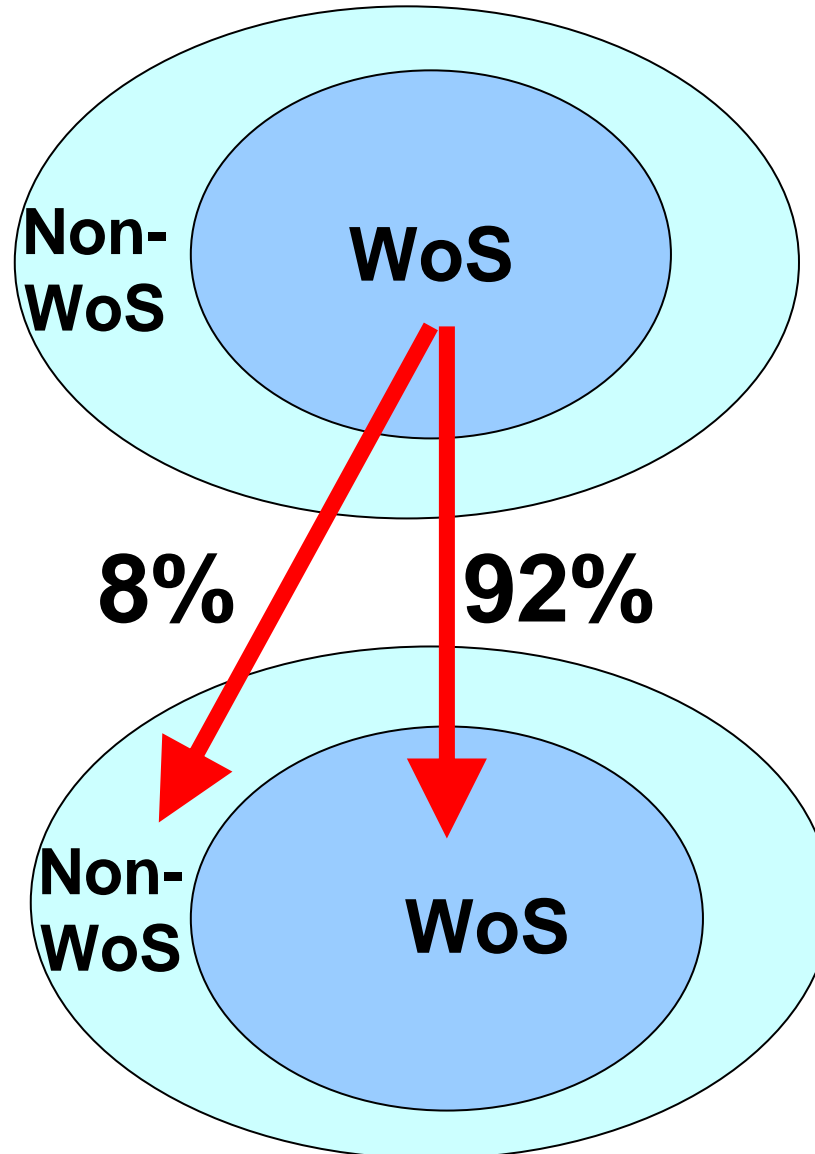


Molecular Biol & Biochem

Citing/Source



Cited/Target

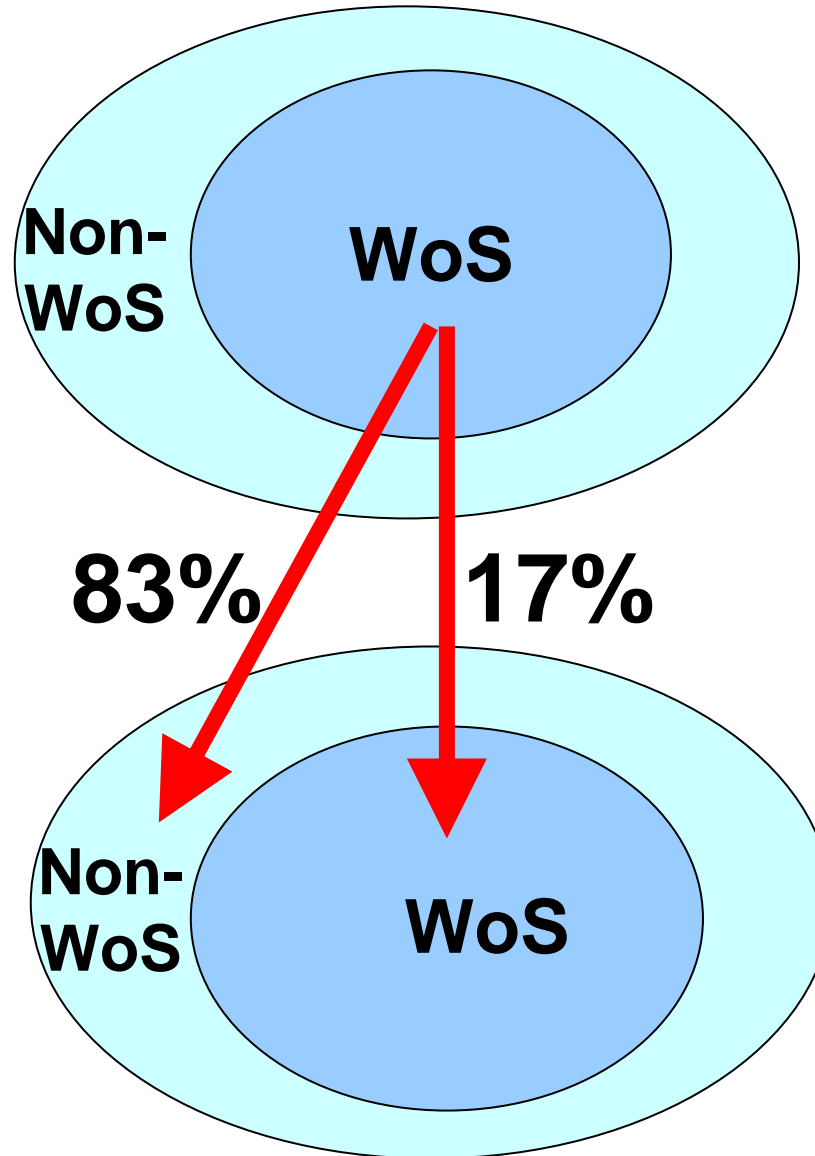


Humanities

Citing/Source



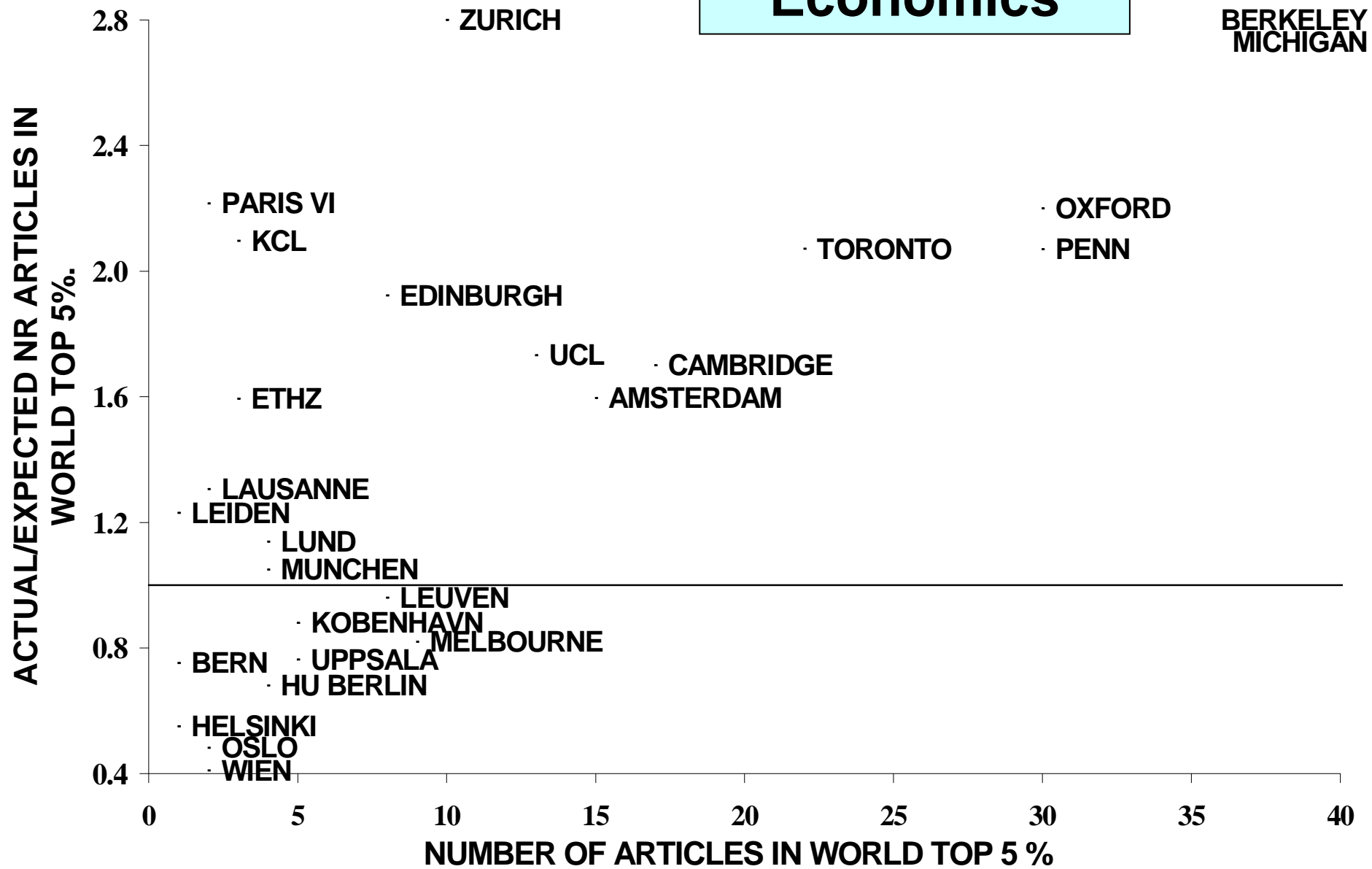
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Overall ISI coverage by main field

EXCELLENT (> 80%)	VERY GOOD (60-80%)	GOOD(40-60%)
Biochem & Mol Biol	Appl Phys & Chem	Mathematics
Biol Sci – Humans	Biol Sci – Anim & Plants	Economics
Chemistry	Psychol & Psychiat	Engineering
Clin Medicine	Geosciences	MODERATE (<40 %)
Phys & Astron	Soc Sci ~ Medicine	Other Soc Sci
		Humanities & Arts

Economics



ERIH Journal classification for 11 Humanities research fields

Class	Description
A	High ranking international journals with very strong reputation
B	Standard international journals with good reputation
C	Important domestic research journals

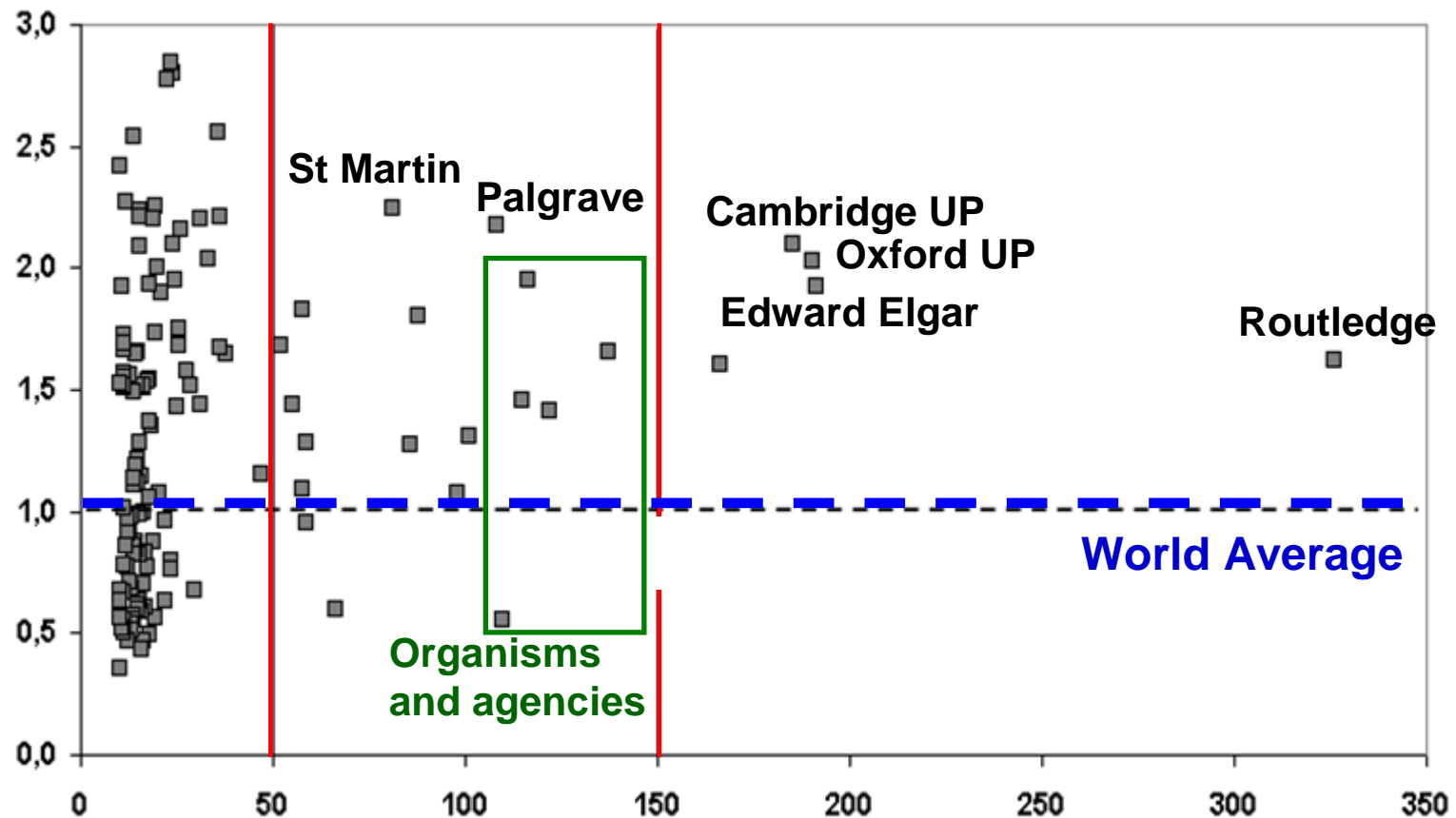
CITATION ANALYSIS vs LIBRARY CATALOG ANALYSIS

MAIN CONCEPTS



Number of titles published per year and Relative Catalog Inclusion Rate (RCIR) for major publishers

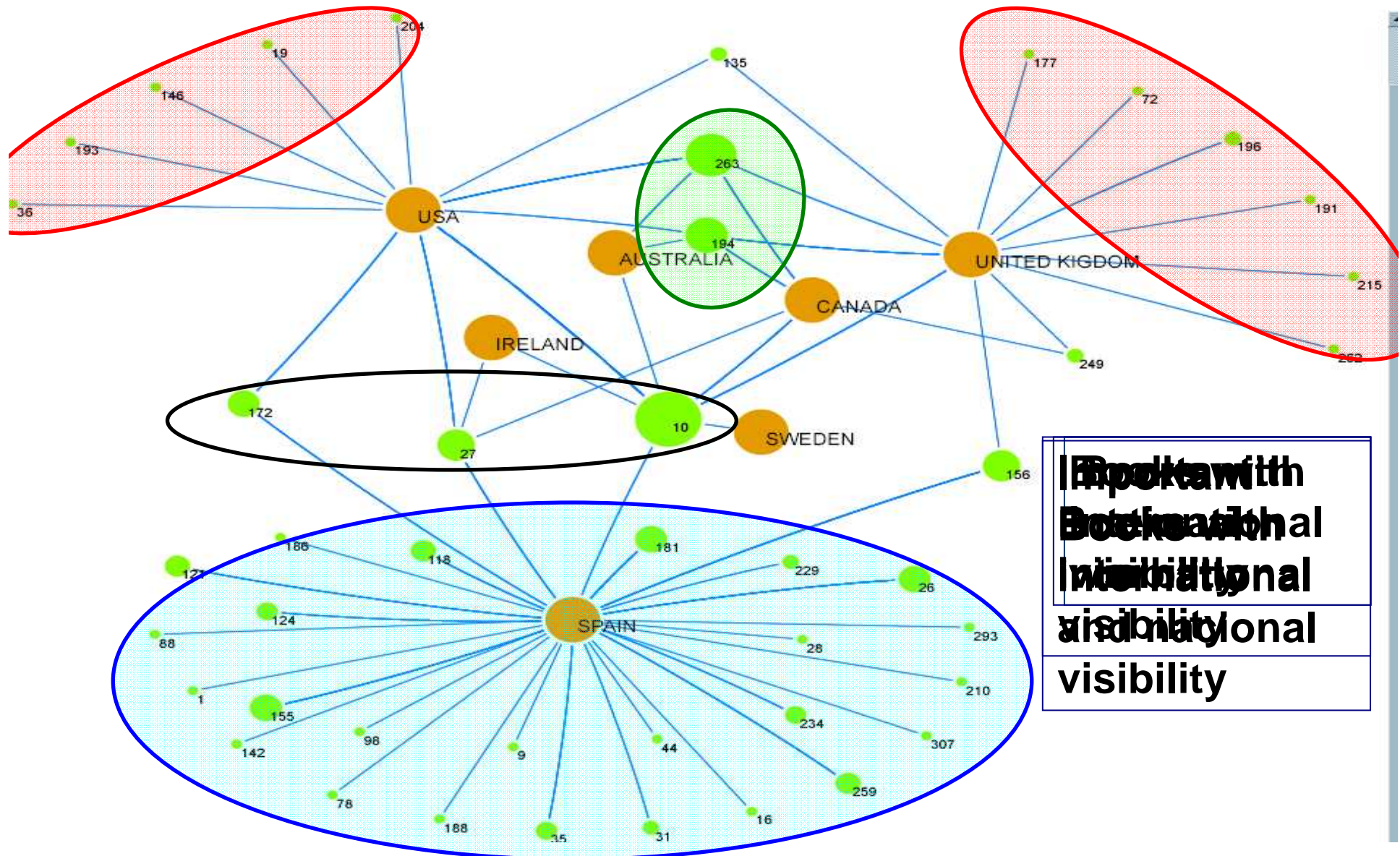
Relative Catalog Inclusion Rate



Number of titles per year

2. RESULTS

BOOKS FROM THE UNIVERSITY OF NAVARRE: GEOGRAPHICAL SPREAD



**The effect of the use of
indicators upon the behaviour
of authors and journal editors**

Effects of editorial self-citations upon journal impact factors

[Reedijk & Moed, J. Doc., 2008]

- **Editorial self-citations: A journal editor cites in his editorials papers published in his **own** journal**
- **Focus on ‘**consequences**’ rather than ‘motives’**

Another problem with ISI/JCR Journal Impact Factor

Citations to “citable” and “non-citable” items

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Number of “citable” items

**Citations to letters, editorials
and other “non-citable” items
are “free”**