

# Geographical Concentration and Editorial Favoritism within the Field of Laboratory Experimental Economics

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## Research questions

- Where is the research conducted and how has the geographical concentration in the field of laboratory experimental economics changed over the past 20 years?
- How is the research conducted? Are there common methodological standards on how to conduct an experiment or are there differences between regions?
- Do journal editors treat all authors' papers in the same way, or is there evidence that papers by authors with a short distance (social ties) to the editors are of lower quality?

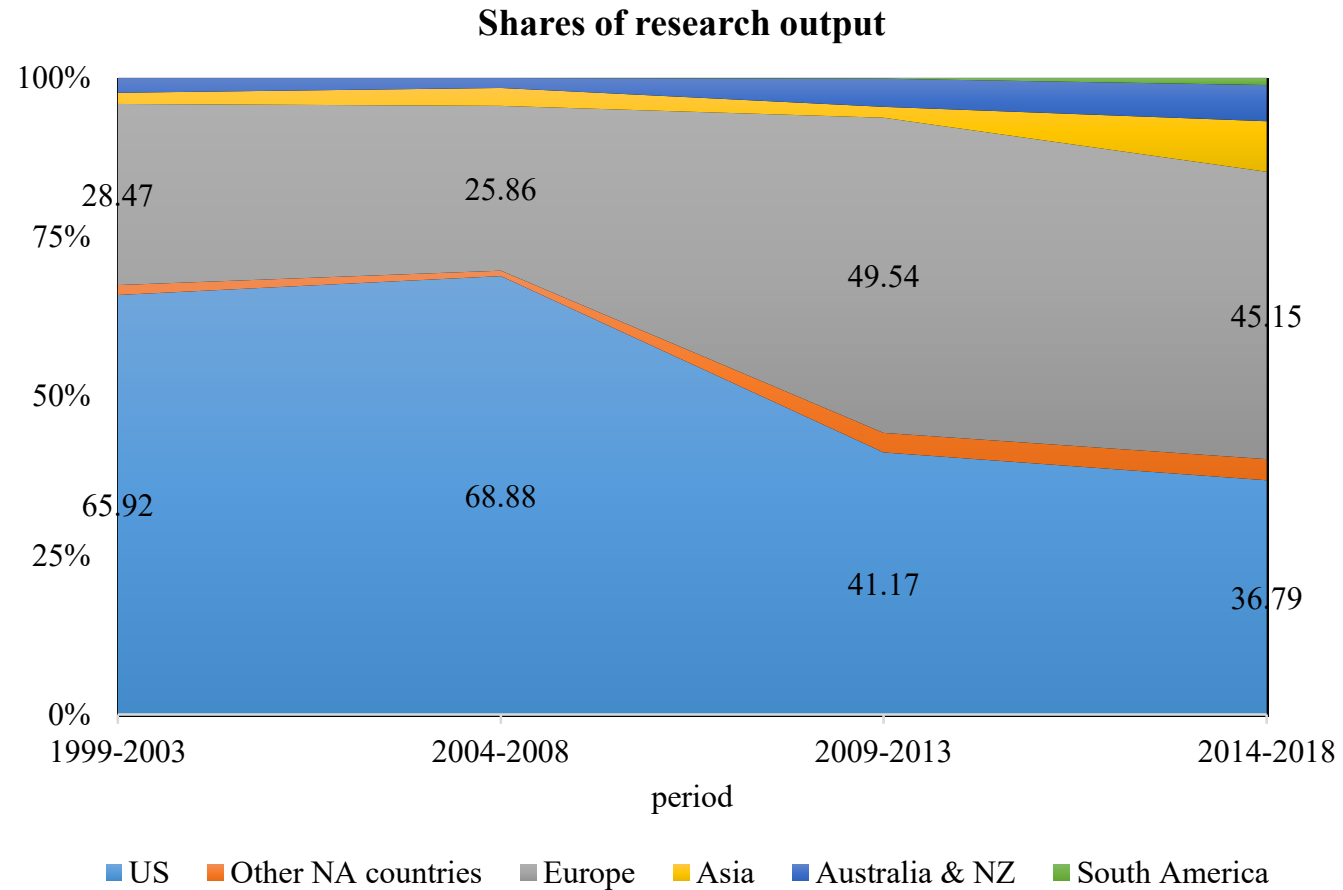
## Data

- All papers ( $N = 596$ ) which exclusively used laboratory experiments for data generation published in...
  - the American Economic Review (AER,  $N = 145$ ) → one of the top journals for general economics worldwide,
  - Experimental Economics (Exp Econ,  $N = 410$ ) → top field journal, and
  - the Journal of the European Economic Association (JEEA,  $N = 41$ ) → one of the European top journals for general economics
- between 1998 and 2018.

# Geographical Concentration of AER and Exp Econ Authors

- Several studies show that a large but declining share of research in economics is produced by US-based authors. (Ek and Henrekson 2019, Glötzl and Aigner 2017, Kocher and Sutter 2001, Kalaitzidakis et al. 1999, Hodgson and Rothman 1999, Elliott et al. 1998, Frey and Pommerehne 1988)
- We examine the development of geographical concentration using data on countries where authors were affiliated at the time of publication.
- Common methodology: (see Combes and Linnemer 2003, Kocher and Sutter 2001)
  - For each paper take into account impact factors (for the respective journal and year) and the number of authors.
  - Relative share of research output of a country is given by the absolute research output of a country divided by the sum of all country's absolute research outputs.

# Geographical Concentration of AER and Exp Econ Authors



## Ex Ante Proxies for a Paper's Quality

- Available prior to publication → can be used by referees and editors when deciding whether to (recommend to) accept or reject a submitted paper.
- Our choice is based on two criteria: variables should be related to the quality of the experiment and should be objectively measurable.

		<b>AER</b>	<b>Exp Econ</b>	<b>JEEA</b>
		N = 145	N = 410	N = 41
# participants	mean	253.93	194.49	284.58
	(sd)	(198.32)	(128.45)	(177.61)
		N = 137	N = 407	N = 40
# participants per treatment	mean	68.76	55.33	61.82
	(sd)	(87.59)	(40.97)	(41.81)
		N = 135	N = 405	N = 34
# treatments	mean	4.48	3.90	4.74
	(sd)	(3.00)	(2.29)	(2.43)
		N = 143	N = 407	N = 35
strength of incentives	mean	0.42	0.31	0.35
	(sd)	(0.25)	(0.14)	(0.16)
		N = 79	N = 294	N = 27

## Are there Clearly Defined Methodological Standards?

- If there are clearly defined methodological standards, one would expect to find no differences regarding the ex ante proxies between experiments conducted in North America and Europe.

# part. treat.	North America	Europe	both regions	p-value
AER	55.00 (44.95) N = 75	109.12 (143.31) N = 39	73.51 (94.31) N = 114	0.0001
Exp Econ	49.20 (33.94) N = 165	59.97 (40.76) N = 168	54.63 (37.87) N = 333	0.0033
JEEA	37.90 (18.25) N = 11	73.53 (47.16) N = 21	61.29 (42.88) N = 32	0.0122
all three	50.43 (37.17) N = 251	69.63 (72.08) N = 228	59.57 (57.29) N = 479	<0.0001

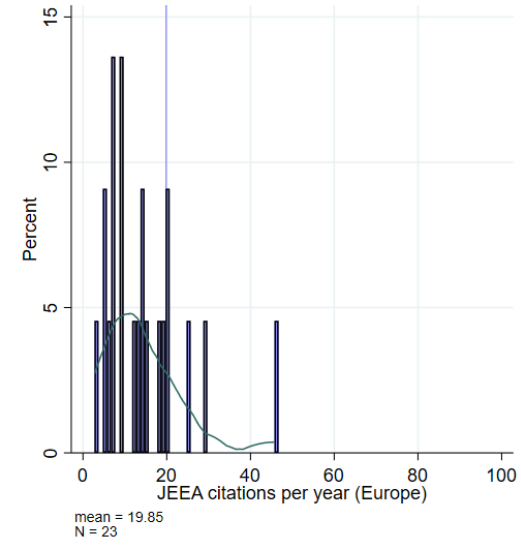
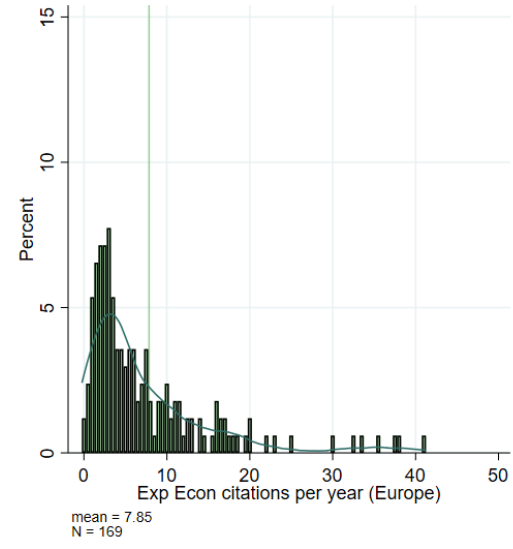
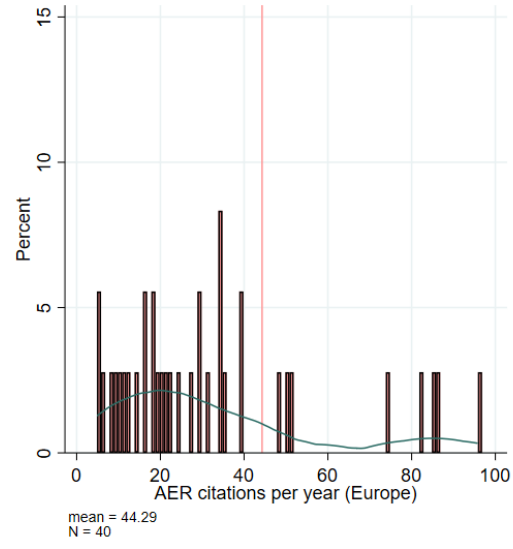
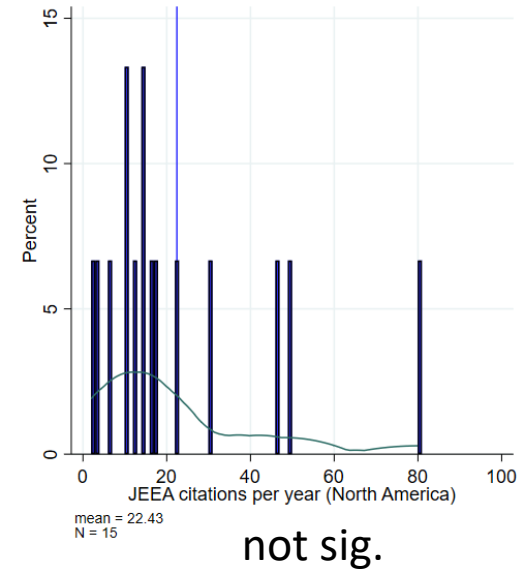
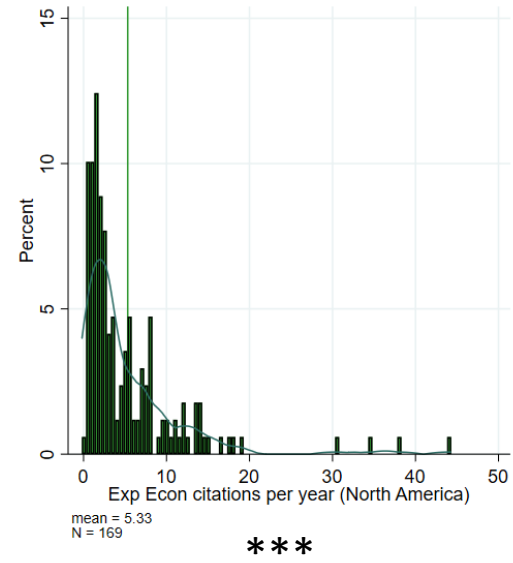
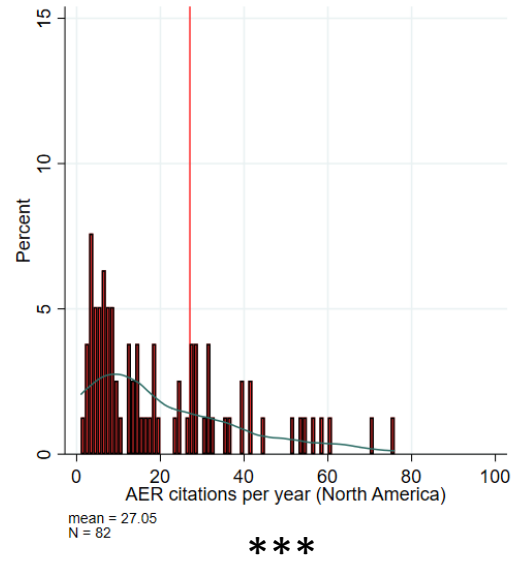
- Significant differences for # participants (AER & Exp Econ).
- No significant differences for # treatments and strength of monetary incentives (AER & JEEA).
- For Exp Econ strength of monetary incentives significantly higher for exp. conducted in Europe.

## Citations as Proxy for Ex Post Quality

- Ex post proxies measure the quality of a paper after the paper has been published.
- Citations are only a proxy for a paper's true quality but data on citations is widely available and is regularly used in studies similar to our study. (Card and DellaVigna 2020, Colussi 2018, Hamermesh 2018, Moed 2006)
- We have seen that North American and European experiments differ with respect to the *number of participants* and *number of participants per treatment*.
- If there is a positive correlation between these two variables and the experiment's quality, one would expect that European experiments receive a higher *number of citations* on average.
- → citation source: Google Scholar (GS)



# Are there Differences in Citations?



Two-sided Mann-Whitney tests  
 \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Citations, Quality Characteristics and Editorial Favoritism

- Editorial favoritism implies that editors & co-editors favor papers by authors to whom they have social ties over papers by authors without these social ties.
- Papers from authors without social ties must be of higher quality in order to get accepted. As a result these papers should receive more citations in the years following publication.
- Assumption: Probability for social ties is higher when editor(s) and author(s) have their affiliation in the same country.
- Hypothesis: The larger the share of US-affiliated authors (higher probability of social ties) on an AER paper, the fewer citations the paper attracts.
- Editor & co-editor affiliations 1998-2018:
  - AER: 36 US, 1 UK, 1 Canada (PhD university: 36 US, 2 UK)
  - Exp Econ: 6 US, 2 Switzerland, 1 Netherlands, 1 France, 1 Spain (PhD university : 8 US, 2 Netherlands, 1 France)
  - JEEA: 10 US, 3 Spain, 3 Italy, 2 UK, 1 France, 1 Norway, 1 Finland (PhD university: 15 US, 5 UK, 1 Spain, 1 Sweden)

# Citations, Quality Characteristics and Editorial Favoritism

- OLS regression: (similar to Brogaard et al. 2014, Medoff 2003, Laband and Piette 1994)

$$C_i = \beta_0 + \beta_1 ST_i + \beta_2 ST_i * AER_i + \beta_3 ST_i * JEEA_i + \beta_4 AER_i + \beta_5 JEEA_i + \beta_6 age_i + \gamma E_i + \delta P_i + \theta A_i + u_i$$

- $C_i$ : total number of GS citations paper  $i$  (publ. between 1998 and 2016) received until December 2020.
- $ST_i$ : proxy for social ties between editor(s) and author(s): share of US authors, collaborative distance
- $E_i$ : vector containing the experiment's quality characteristics: total # of participants, participants per treatment, # of treatments, incentives
- $P_i$ : vector containing the paper's (quality) characteristics: # of Exp Econ-equivalent pages, # of references, JEL-classification
- $A_i$ : vector containing author's characteristics: share of female authors for paper  $i$ , author's reputation, number of authors

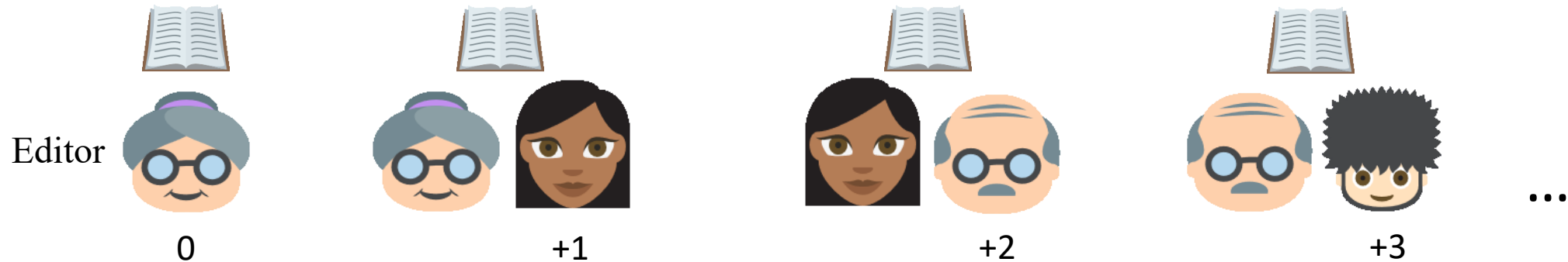
## Results: Dep. Variable C, ST → share of US authors

OLS	All papers			Outliers dropped (> mean + 3 sd)		
	(1) C	(2) C	(3) C	(4) C	(5) C	(6) C
share US auth.	-38.80 (31.33)	-25.55 (24.79)	-35.04 (39.29)	-21.15* (7.24)	-10.51 (4.59)	-7.75* (2.00)
share US auth. * AER	-19.97 (11.43)	-275.78*** (13.51)	-212.96 (90.62)	-57.75*** (3.04)	-94.29*** (8.17)	-94.94** (19.04)
share US auth. * JEEA	-65.01*** (6.18)	-134.18*** (4.12)	-104.53 (50.83)	-68.50*** (1.43)	-136.72*** (10.01)	-101.97** (18.27)
AER	369.62*** (7.63)	447.15*** (7.73)	452.34*** (40.97)	272.98*** (1.00)	253.04*** (13.02)	253.83** (33.03)
JEEA	144.72** (29.83)	151.80** (16.16)	157.59** (17.90)	127.91*** (6.89)	140.01*** (6.51)	123.02*** (10.65)
age	16.13 (12.73)	12.95 (10.14)	10.60 (3.95)	8.96* (2.94)	8.03* (2.42)	10.84* (3.68)
E	No	Yes	Yes	No	Yes	Yes
P	No	No	Yes	No	No	Yes
A	No	No	Yes	No	No	Yes
N	491	327	318	486	325	316
R <sup>2</sup>	0.17	0.21	0.34	0.32	0.34	0.45

Standard errors clustered by journal in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Collaborative distance between editor(s) and author(s) as measure for social ties

- We have calculated all co-author distances between the 68 editors and the 931 authors in our data set at the time of publication of the respective paper.
- Calculation based 450,000 unique publications (published 1950-2020) from 1,434 journals (classified as economics) written by 268,000 authors.
- Alternative measure for ST → minDist: minimum of all distances between all authors and all editors (dynamic measure with values for each publication year).



## Results: Dep. Variable C, ST → minDist

OLS	All papers			Outliers dropped (> mean + 3 sd)		
	(1) C	(2) C	(3) C	(4) C	(5) C	(6) C
minDist	-1.81*** (0.02)	-0.12 (0.72)	-7.10 (7.07)	-1.82*** (0.00)	-0.51 (0.61)	-2.02 (1.41)
minDist * AER	6.75* (2.27)	135.24*** (0.95)	116.06*** (7.29)	51.69*** (0.41)	96.44*** (3.09)	85.69*** (2.80)
minDist * JEEA	16.15 (7.87)	16.02 (6.71)	5.63 (24.75)	21.18*** (1.09)	23.14*** (2.15)	40.84** (8.60)
AER	317.66*** (11.07)	-277.34*** (14.68)	-178.93** (26.32)	20.24*** (0.83)	-206.09*** (19.23)	-168.09** (33.67)
JEEA	52.91 (62.20)	31.47 (37.53)	65.05 (112.13)	13.14 (8.62)	-6.29 (11.93)	-109.07 (56.80)
age	15.18 (11.77)	10.47 (6.70)	9.06** (1.41)	7.65** (1.63)	6.13*** (0.14)	9.46** (1.74)
E	No	Yes	Yes	No	Yes	Yes
P	No	No	Yes	No	No	Yes
A	No	No	Yes	No	No	Yes
N	481	319	310	476	317	308
R <sup>2</sup>	0.17	0.22	0.35	0.32	0.40	0.49

Standard errors clustered by journal in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## Conclusion & Outlook

- Geographical concentration in the field decreased → the US's share of research output decreased from 66% (1999-2003) to 37% (2014-2018).
- European experiments rely on a significantly larger number of participants and a significantly larger number of participants per treatment → difference most pronounced for the AER.
- Experiments conducted in Europe receive more citations compared to experiments conducted in North America.
- Results based on the share of US authors → at least signs for a bias towards US authors.
- Results based on the minDist → AER & JEEA papers written by authors with a smaller co-author distance to the editorial board receive significantly less citations compared to papers written by authors with a larger distance → sign for editorial favoritism.
- Collection of further CV based data to identify additional social ties → institutional connections (editor and author are/were colleagues), editor and author received their PhD's from the same university during overlapping periods, editor was authors PhD advisor.

# Discussion & Questions

Thank you!

Comments welcome!

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