

How often is endogeneity addressed in published research?

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How does published strategy research approach the endogeneity problem?

- **Definition:** An endogeneity (or identification) problem == multiple explanations for observed data
 - Purist view: RCT's are the “one true solution”
- Acknowledging and addressing endogeneity is related to broader idea of “empirical etiquette”
 - <http://people.bu.edu/tsimcoe/etiquette.html>
- Strong priors, *but no systematic evidence* that endogeneity under-appreciated in strategy research

Let's gather some evidence!

- “In God we trust, all others bring data”
- Compulsory crowd-sourcing
 - Collaboration with Goldfarb, King & Waguespack
 - PhD Class: “Causal Inference for Management Research”
 - Developed “Empirical Etiquette” survey (see web site)
- Methods
 - Identify empirical papers using observational data
 - AMJ, ASQ, MS, OS & SMJ from 2003 to 2012
 - Randomly assign 1 paper per student-week for semester
 - Discuss surveys each week at start of class

Today's Agenda

- Evidence on endogeneity
 - Different flavors (OVB, Selection, etc.)
 - Across journals and over time

- Evidence on other stuff
 - Discussing effect size
 - Page counts by content-type

- Take-aways
 - More awareness but less momentum than expected
 - Endogeneity = OVB and Selection (not simultaneity)
 - Little discussion / comparison of effect sizes
 - Management Science is the outlier

Causal Claims and Endogeneity

- Does the paper **place a causal interpretation** on the relationship between X and Y?
- Does the paper **discuss potential problems** with a causal interpretation?

		Problems Discussed?	
		No	Yes
Causal Claims?	No	20%	20%
	Yes	25%	35%

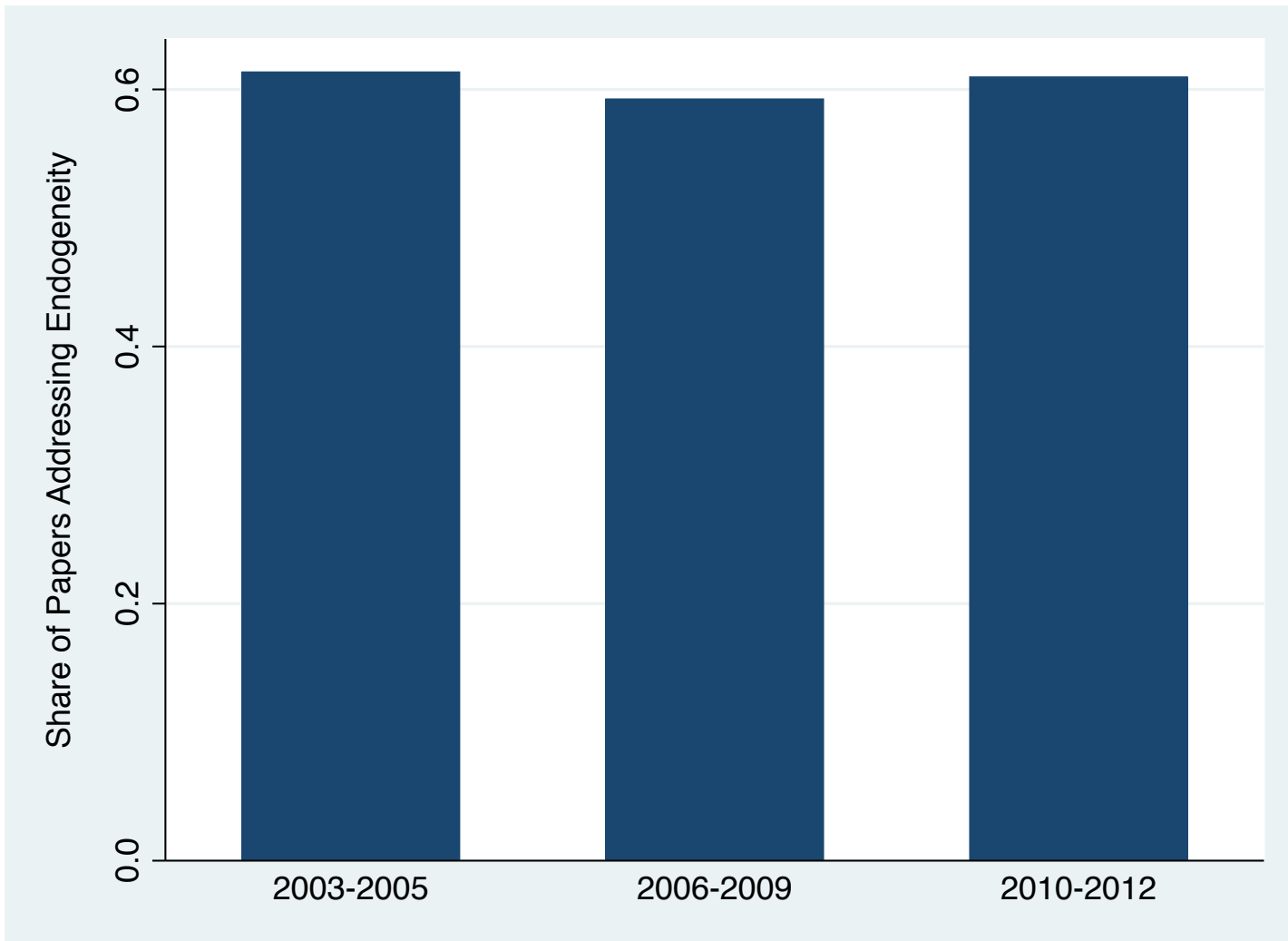
Flavors of Endogeneity

- Does the paper **discuss potential problems**? Please select “Yes” or “No” for each:

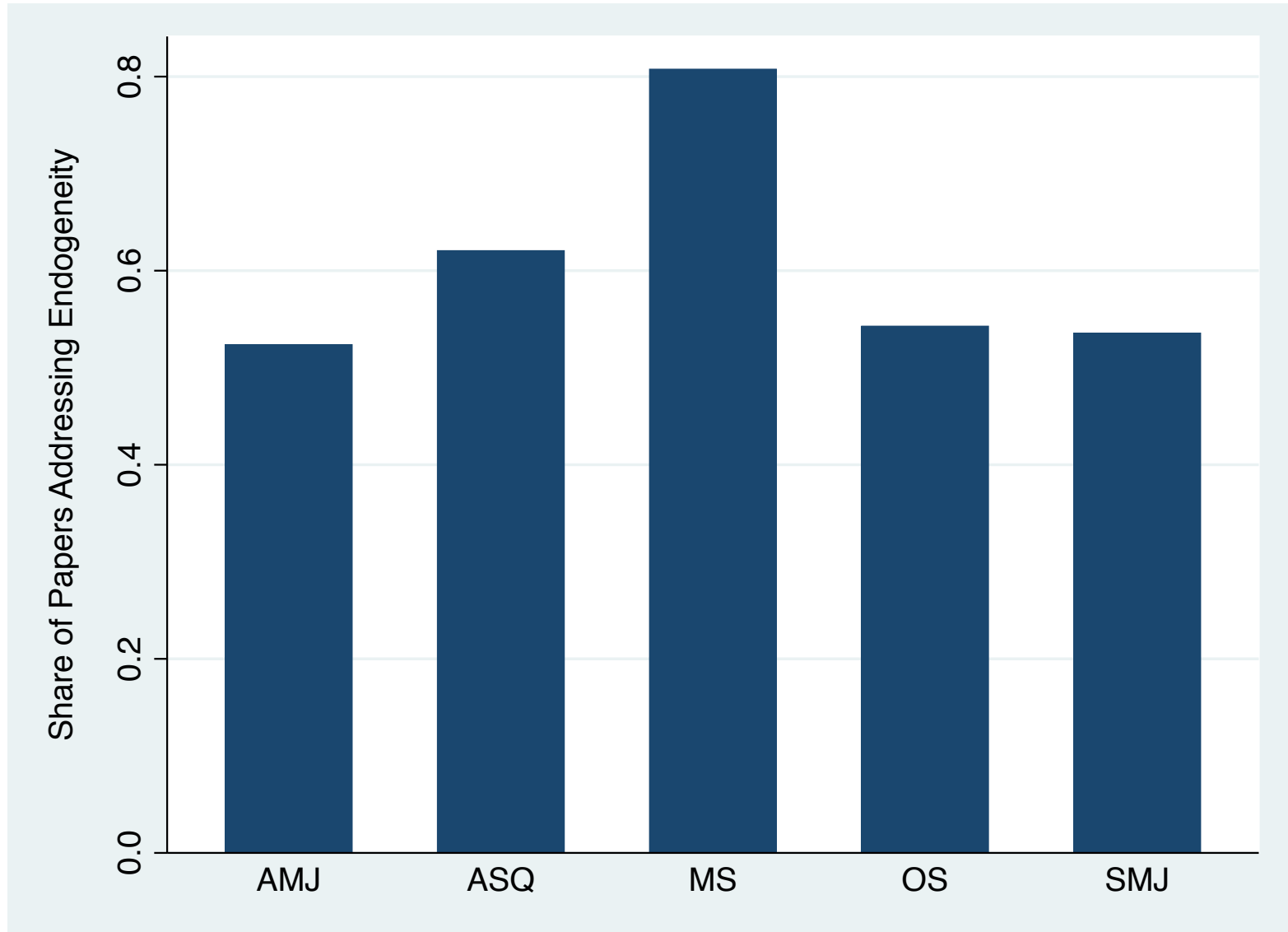
	% of Total*	% of “Yes”
Endogeneity (General)	36	49
Selection Effects	30	41
Omitted Variables	24	32
Reverse Causality	7	9
Simultaneity	5	7

*Percentages may sum to more than 100 because papers can discuss multiple flavors

Endogeneity over time



Endogeneity across journals

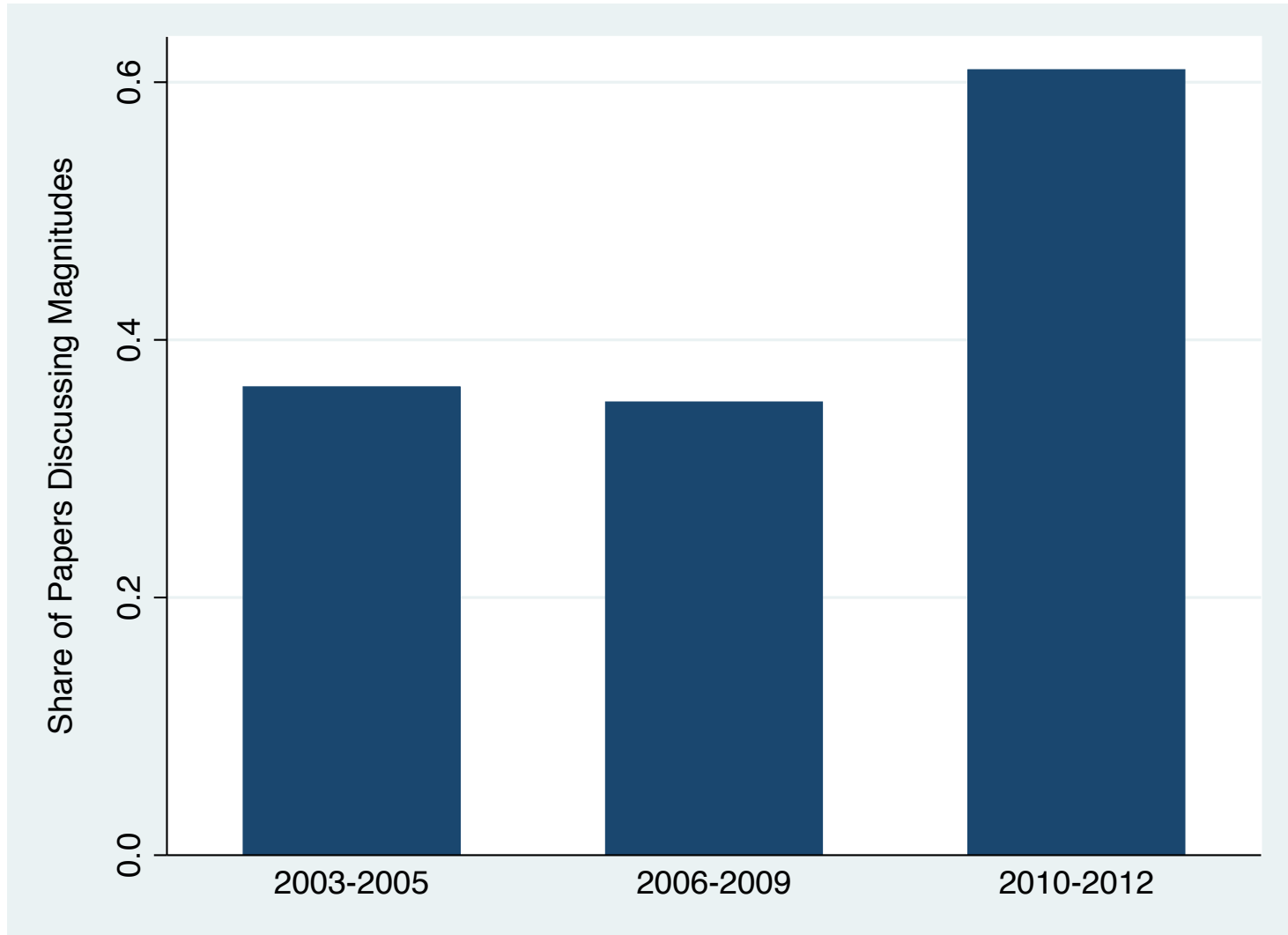


Discussing economic significance

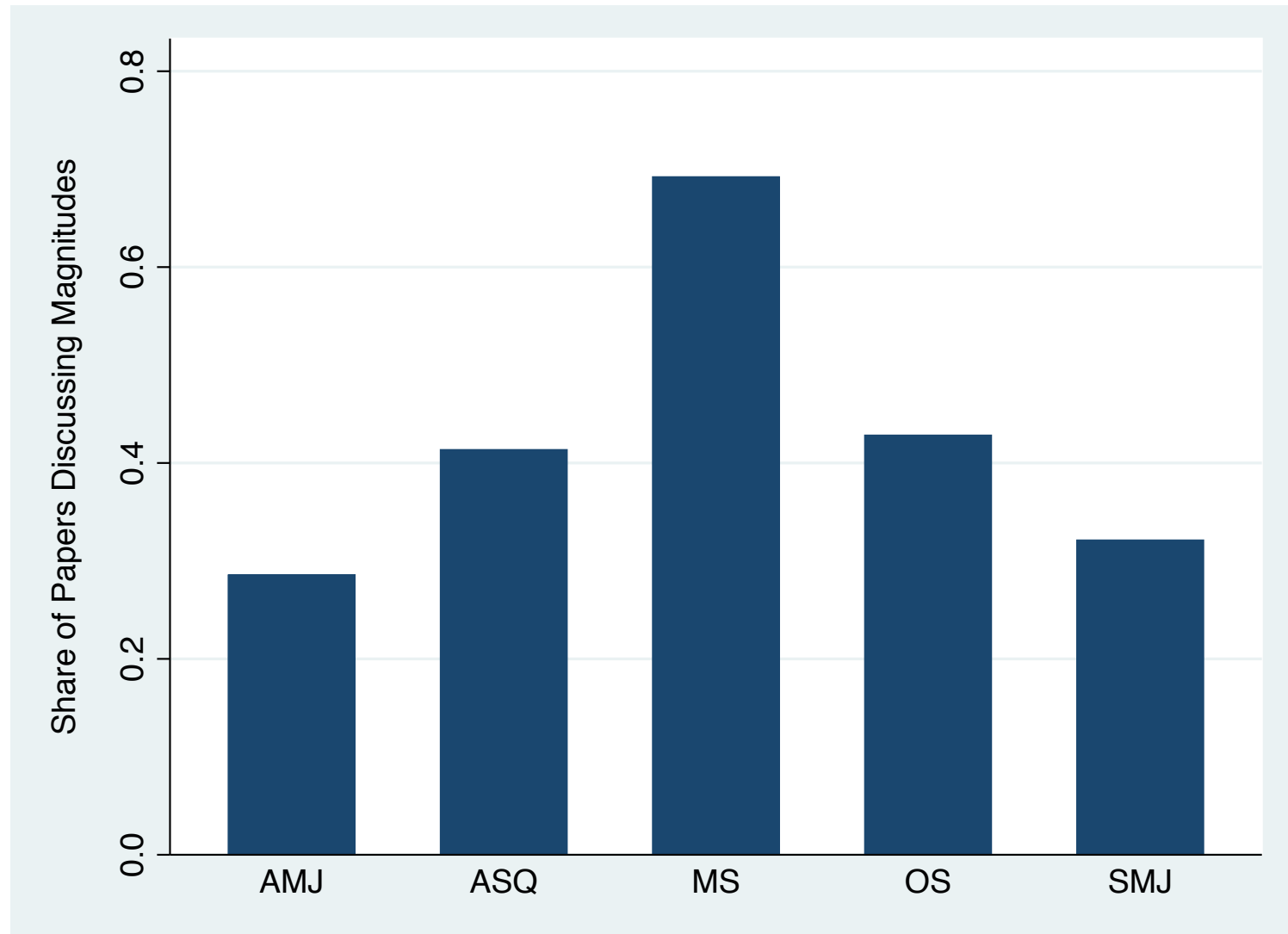
- Does the paper discuss the **magnitude** or **economic significance** of its estimates?

No, only sign and significance	57%	79
Yes, paper discusses effect size	38%	53
Yes, and compares to previous estimates	5%	7

Effect-size over time



Effect-size across journals

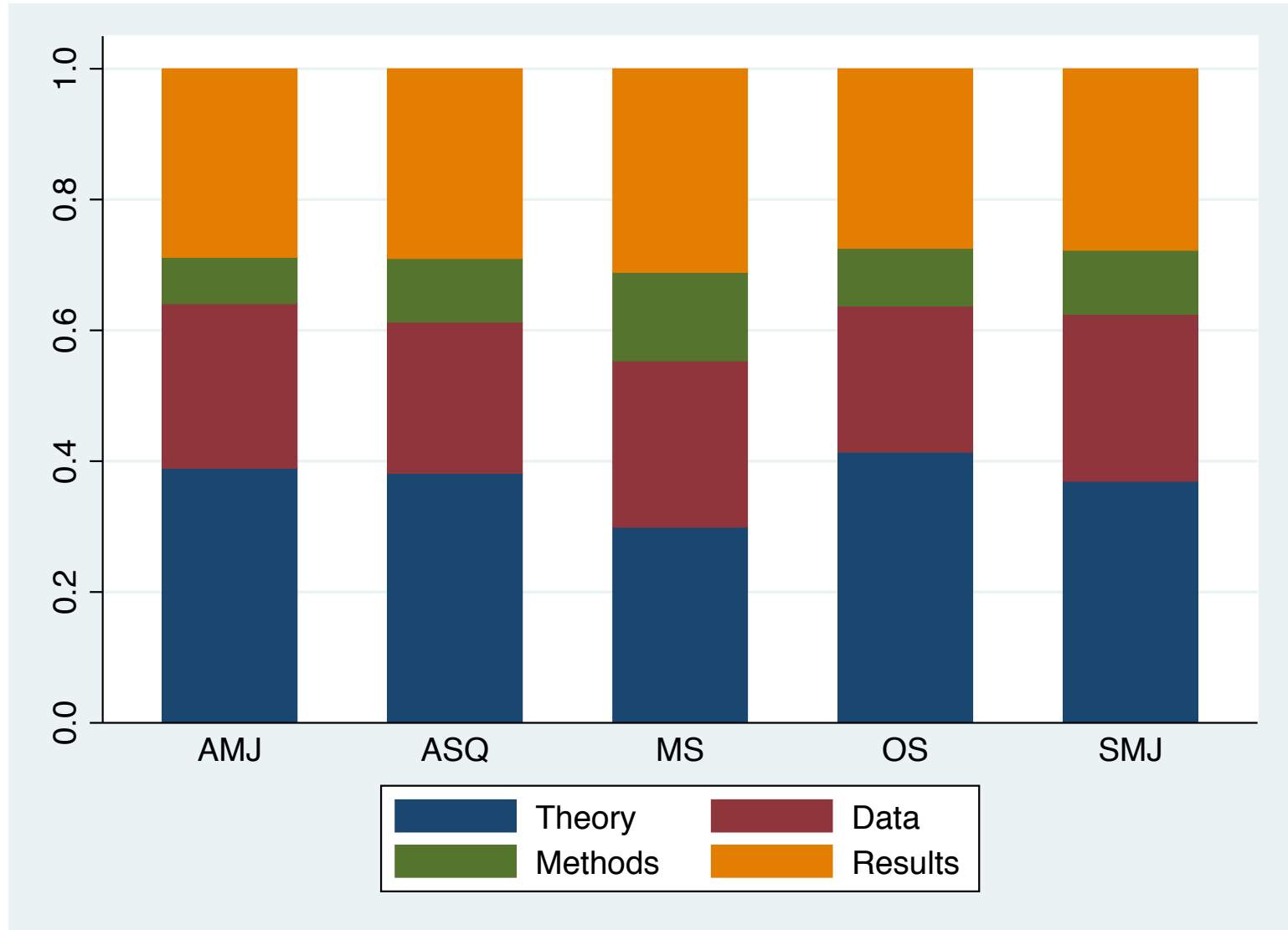


Allocation of pages

- How many pages devoted to following topics?

	Page Count	Percent
Theory	5.1	37%
Data	3.1	24%
Methods	1.4	10%
Results	3.9	29%

Page allocation by Journal



Conclusions

- Caveats
 - Amateur-ish survey methods on difficult topic
 - PhD-student respondents
 - Small sample of articles

- Take-aways
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