

The Open Access Citation Advantage: Does It Exist?

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Yes (probably): ~19%

Key differences from OACA studies showing 36-172% advantage:

- Gold OA via Big Deals, removing selection bias
- Articles compared to control group in same journal
- Large sample size (n=3850 opened vs. 89,895 equivalent articles)
- Opened permanently, ≥ 2 years
- 19% is probably a lower bound

How do you know?

Treatment: open a (partly-)random article, compare it to other articles in that issue

O_c = citations to opened article, while closed

O_o = citations to opened article, opened

C_c = citations to other (closed) articles in same issue, same period

C_o = citations to those closed articles, same period as O_o

$$H_0: \text{Actual Citations}_{\text{after opening}} - \text{Expected Citations}_{\text{after opening}} = 0$$

Example: If $O_c = 20$, $C_c = 10$, and $C_o = 15$

$$E = \text{Expected Citations}_{\text{after opening}} = (15/10) * 20 = 30$$

If $E < O_o$, article exceeded expectations based on closed, peer articles

And... OA articles *do* exceed expectations

Why isn't the OACA as big as [*that other study*]?

- Article-by-article comparison; if results aggregated, OACA = 36-94% (or even 665%, for the newest articles)
- Articles embargoed in their prime
- Looking mostly at the long tail, for older articles
- The haves already cited and got cited; embargoes have little effect on the well-heeled

Okay, but does it matter? (Did it ever?)

- With delayed OA its the have nots who make the rich even richer
- Do citations motivate? We know funding does; see compliance with NIH mandate...

