Relation of early career performance and recognition to the probability of winning the Nobel Prize in economics

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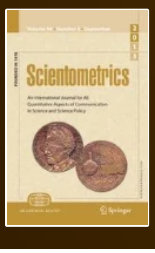

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Abstract

To explore the relation between early career performance or recognition and receiving the Nobel Prize in Economic Sciences, we compare winners of the John Bates Clark Medal, the most prestigious early career recognition for economists, with other successful scholars. The initial comparison combines JBCM winners with scholars published in leading economics journals, controlling for educational background (institution conferring the Ph.D.) and publication and citation success. We then narrow the comparison group down to those given relatively early recognition (based on age category) in the form of other major awards. Lastly, we compare the JBCM awardees with synthetic counterfactuals that best resemble their pre-award academic career performance. All three analyses provide strong support for the notion that winning the JBCM is related to receiving the Nobel

Prize, the award of which is also correlated with early career performance success as measured by number of publications and citations.

Notes

1. In their recent history of the NPE, Mixon and Upadhyaya (2014) point out that NPE winners are selected from lists nominated by "qualified nominators", a group that includes members of the Swedish Academy, past NPE winners, NPE committee members, various "permanent professors" from Scandinavian countries, and other scientists and academics (p. 2). The qualified nominators work within a nomination process that runs from September to February, with the selection process spanning February through early October. Although selection criteria disqualify deceased scholars, the academy may, and often does, select multiple NPE winners in a given year (see also www.nobelprize.org/nobel_prizes/economics/nomination/).

2. Economists under 40 of all nationalities are eligible for the JBCM provided they are affiliated with an American institution at the time of award; for example, the second female medal winner, Ester Duflo (2010 prize), is a

French economist affiliated with MIT (see www.aeaweb.org/honors_awards/clark_medal.php).

3. Mixon and Upadhyaya (2014) also point out that although the JBCM was not awarded in 1953, it has otherwise been given on every appropriate occasion since 1947 (see also https://www.aeaweb.org/about-aea/honors-awards/bates-clark).

4. Based on authors' counting as of August 2017.

5. Cole and Cole (1967) find, from their examination of 120 university physicists, that the quality of one's academic output holds greater significance in the receipt of awards than the quantity of that output.

6. In their examination of a sample of 83 eminent chemists, Ashton and Oppenheim (1978) find that although receipt of the Nobel Prize is positively correlated with citation counts, it is more strongly correlated with the number of papers one has co-authored wherein the senior author's name is not the first in the list of authors.

7. For more information on the JBCM, see Mixon and Upadhyaya (2014) and Faria et al. (2016).

8. Such a comparison distinguishes whether JBCM bestowal simply reflects the past activity of particularly gifted economists or whether the awards actually raise subsequent productivity (Chan et al. 2014).

9. In addition to this motivation-related effect, conferral of such awards and honors has the added benefit of increasing the likelihood of research grant funding, teaching load reduction, and access to more talented colleagues, all

of which supplement motivation in enhancing research productivity (Chan et al 2014, p. 189).

10. See, for example, Cole and Cole (1973), Hansen et al. (1978), Hamermesh et al. (1982), Sutter and Kocher (2001), and Johnston et al. (2013).

11. For example, one *Journal of Political Economy* publication (citation) is counted as roughly 0.8 of an *American Economic Review* publication (citation).

12. For more on this approach, see Lindsey (1980), Long and McGinnis (1982), and Hollis (2001).

13. With the exception of the Soviet mathematician and economist Leonid Kantorovich (1975 Nobel Prize).

14. The biennial Yrjö Jahnsson Award was established in 1993 for a European economist under 45 (see https://www.eeassoc.org/index.php?site=&page=25&trsz=23). The Frisch Medal was first awarded in 1978 (https://www.econometricsociety.org/society/awards). The AEA Distinguished Fellow was first awarded in 1965, but we also include Foreign Honorary Members, first awarded in 1976. The first FES was elected in 1933, and the first lectures in the Richard T. Ely and Yrjö Jahnsson series were given in 1962 and 1963, respectively.

15. In addition, Van Dalen (1999) provides a source of information on the Ph.D. institutions of Nobel laureates in economics.

16. These data were available for only 13,063 economists; Coupé (2003) does not list the rankings of 10 Nobel laureates' doctoral institutions, and Clark medalist Kenneth E. Boulding has no Ph.D.

17. Given the median first publication age of 30 for economists in our sample born between 1910 and 1919, economists who published before 1930 are likely to have been older than 40 by the time of the first JBC medal. For example, the first publication by a JBC medalist in our journal sample was a 1932 article in *The Economic Journal* written by a 22-year-old Kenneth E. Boulding (1949 medalist).

18. Because the median birth year of economists who first published in the 1990s is 1961, all Nobel Laureates to date were born before 1954, which excludes younger economists from the sample. Obviously, being based on a list of journals, this process is limited; for example, Nobel Laureate Elinor Ostrom (2009 winner) is excluded for not publishing in any of the 23 journals (*Journal of Economic Perspectives* in 1993) until the age of 60 because of her strong focus in political science and her tendency to communicate her influential insights via books (see, e.g., *Governing the Commons or Rules, Games, and Common-Pool Resources*).

19. The mean and median age of PhD completion equals to 29.

20. The sample size and pseudo R^2 for each model are given in "Appendix Fig. 4".

21. The *zeitgeis*t can affect the number of potential candidates, which affects the development of creative potential in youthful geniuses (Simonton 1975). Chan and Torgler (2015b) found some evidence that great minds appear in cycles or batches, but results mainly hold for the greatest of the great.

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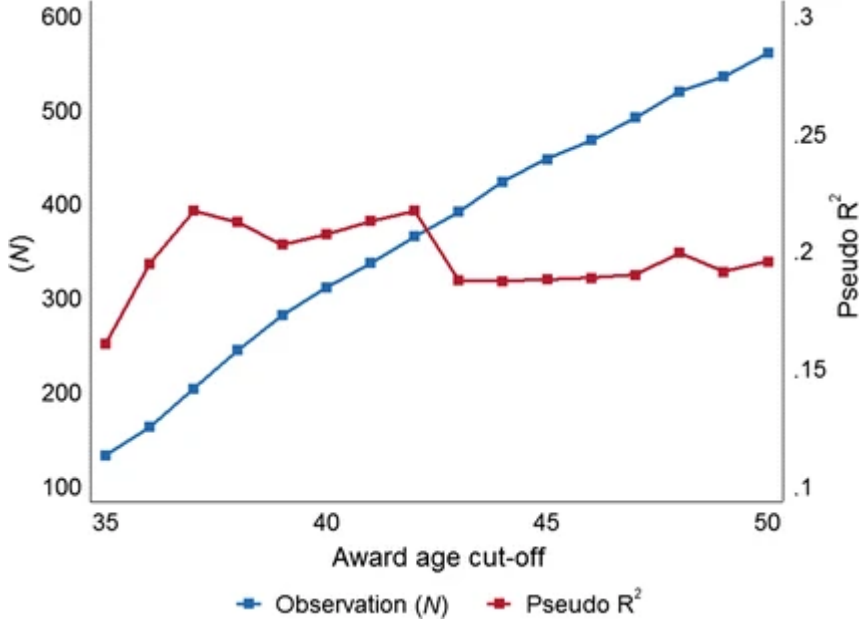
Appendix

See Tables 3 and 4 and Fig. 4.

Table 3 List of journals

Table 4 JBCM winners and synthetic control group (SCG)

Fig. 4



Sample size and pseudo R^2

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