

Ability, Schooling Quality, and Peer Networks: Estimating Returns to Academic Success

Chase Corbin

University of Chicago

cocorbin@uchicago.edu

May 7, 2015

Table of Contents

- 1 Background
- 2 Defining Academic Success
- 3 Textual Analysis for Network Analysis

Three Central Ideas

- Does University Quality Effect Research Quality and/ or Academic Success?
- How much do educational variables / CV components explain Academic Outcomes?
- How Important are Social Networks for Academic Outcomes?

Exploring University Quality

- CV data reports Undergraduate institution, graduate institution(s), and educational fellowships
- Graduate Institution especially is typically considered to be strongly tied to academic career outcomes.
- ?To come from Wyoming and Central Florida and wind up with job offers from Chicago and Princeton, that?s unheard of.? – Richard Thaler, on John List
- The project aims to explore correlations between Undergraduate and Graduate institution rankings and Academic Success

Defining Academic Success

- Academic outcomes are measured with respect to "time-to-tenure"
- Measured by the difference in years between last educational attainment (either PhD or Postdoc) and first hire to a "Professor" Title
- With respect to "time-to-tenure track" - Measured by the difference in years between last educational attainment and first hire to an "Associate Professor" title
- With respect to number of Big-4 publications (AER, Econometrica, JPE, ?)
- With respect to number of major prizes (Nobel, Clark, Frisch, Macarthur)

Text Mining for Network Analysis

- Another explanatory effect of Academic Success may be the size and density of networks of co-authors. This can be gleamed from CV data, which includes all publications, and typically, working papers and other articles.
- Using Standard network modelling approaches, one goal is to model networks of co-authors, and explore how specific agents location within a network relates to measures of career/ academic success.

Literature Review of Social Networks & Peer Effects

For similar analysis of scientific networks see:

- Jackson, M., (2010), "Social Networks in Economics," Handbook of Social Economics. J. Benhabib, A. Bisin, and M. Jackson, eds., Amsterdam: North Holland.
- Brock, W. and S. Durlauf, (2001), "Discrete Choice with Social Interactions," Review of Economic Studies, 68, 2, 235-260.
- Brock, W. and S. Durlauf, (2001), "Interactions-Based Models," in Handbook of Econometrics vol. 5, J. Heckman and E. Leamer eds., Amsterdam: North Holland.
- Goldsmith-Pinkham, P. and G. Imbens, (2013), "Social Networks and the Identification of Peer Effects," Journal of Business and Economic Statistics, 3, 3, 253-264.
- Bramoullé, Y., H. Djebbari and B. Fortin, (2009), "Identification of Peer Effects through Social Networks," Journal of Econometrics, 150, 41-55.