

REEVALUATING AGRICULTURAL PRODUCTIVITY GAPS WITH LONGITUDINAL MICRODATA

Joan Hamory

University of Oklahoma

Nicholas Y. Li

Consumer Financial Protection Bureau

Marieke Kleemans

University of Illinois, Urbana-Champaign

Edward Miguel

University of California, Berkeley

Abstract

Recent research has pointed to large gaps in labor productivity between the agricultural and non-agricultural sectors in low-income countries, as well as between workers in rural and urban areas. Most estimates are based on national accounts or repeated cross-sections of micro-survey data, and as a result typically struggle to account for individual selection between sectors. This paper uses long-run individual-level panel data from two low-income countries (Indonesia and Kenya) to explore these gaps. Accounting for individual fixed effects leads to much smaller estimated productivity gains from moving into the non-agricultural sector (or urban areas), reducing estimated gaps by roughly 67% to 92%. Furthermore, gaps do not emerge up to five years after a move between sectors. We evaluate whether these findings imply a re-assessment of the conventional wisdom regarding sectoral gaps, discuss how to reconcile them with existing cross-sectional estimates, and consider implications for the desirability of sectoral reallocation of labor. Edward Miguel is an NBER Research Associate. (JEL: J43,O13,O15,R23)

The editor in charge of this paper was Imran Rasul.

Acknowledgments: We would like to thank David Albouy, Jorge Alvarez, Sam Bazzi, Lori Beaman, Kevin Donovan, Ben Faber, Fred Finan, Cecile Gaubert, Doug Gollin, Seema Jayachandran, Terence Johnson, Supreet Kaur, David Lagakos, Melanie Morten, Mushfiq Mobarak, Valerie Mueller, Andrés Rodríguez-Clare, Mark Rosenzweig, Todd Schoellman, John Strauss, Chris Udry, seminar participants at many seminars and conferences, as well as the editor Imran Rasul and four anonymous referees for many helpful discussions and suggestions. For the KLPS dataset, we gratefully acknowledge our collaborators (Innovations for Poverty Action), and funding from the U.S. National Institutes of Health (#R01-TW05612, #R01-HD044475, #R01-HD090118, #R03-HD064888), the U.S. National Science Foundation (#SES-0418110, #SES-0962614), and the Berkeley Population Center. We are grateful to Vedika Ahuja, Brian Feld, and Christian Valencia for excellent research assistance. Any opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Consumer Financial Protection Bureau or the United States of America. All errors remain our own. Edward Miguel is an NBER Research Associate.

E-mail: jhamory@ou.edu (Hamory); kleemans@illinois.edu (Kleemans); li.nicholas.y@gmail.com (Li); emiguel@berkeley.edu (Miguel)