

# Ellen McCullough

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## **PROFESSIONAL EXPERIENCE**

Assistant Professor, Agricultural & Applied Economics Department, 2016-present  
*University of Georgia, Athens, GA*

Associate Program Officer, Agricultural Development Program, 2009-2011  
Research Analyst, Agricultural Development Program, 2008-2009  
*Bill & Melinda Gates Foundation, Seattle, WA*

Economist, Agricultural & Development Economics Division, 2005-2008  
*Food and Agriculture Organization of the United Nations, Rome, Italy*

Research Fellow, Center for Environmental Science and Policy, 2004-2005  
*Freeman-Spogli Institute for International Studies, Stanford University, Stanford, California*

## **EDUCATION**

PhD, Applied Economics and Management, Cornell University, 2011- 2016  
M.S., Earth Systems, Stanford University, 2003-2004  
B.S., Earth Systems, Stanford University, 1999-2003

## **WORKING PAPERS**

“Occupational Choice and Agricultural Labor Exits in Sub-Saharan Africa”

I structurally model households’ returns to participation in farming, self- and wage employment in Sub-Saharan Africa and their occupational choices. I find that human capital is a stronger driver of occupational choice than agricultural technology.

“Modeling climate smart agricultural investments with uncertainty and spatial heterogeneity: decision support for fertilizer targeting in Sub-Saharan Africa” with Julianne Quinn, Andrew Simons, Leslie Valteramo, and Joshua Woodard.

## **RESEARCH IN PROGRESS**

"Harnessing food demand systems for improved nutrition in Sub-Saharan Africa" with Chen Zhen and Soye Shin.

"Her time: the effect of livelihoods interventions on women's economic activities and child health outcomes" with Tamara McGavock.

"Demand systems for nontradable goods and services in African village economies"

“The subsistence farmer myth and how it can misdirect policy” with Christopher B. Barrett and Brian Dillon.

## **JOURNAL ARTICLES**

- McCullough, E.B. 2017. Labor productivity and employment gaps in Sub-Saharan Africa. *Food Policy* 67 (February 2017): 133-152.
- McCullough, E.B., P.A. Matson. 2011. Evolution of the knowledge system for agricultural development in the Yaqui Valley, Sonora, Mexico. *Proceedings of the National Academy of Sciences*. May 23, 2011.
- Gómez, M.I., C. B. Barrett, L. E. Buck, H. De Groote, S. Ferris, H. O. Gao, E. McCullough, D. D. Miller, H. Outhred, A. N. Pell, T. Reardon, M. Retnanestri, R. Ruben, P. Struebi, J. Swinnen, M. A. Touesnard, K. Weinberger, J. D. H. Keatinge, M. B. Milstein and R. Y. Yang. 2011. Research Principles for Developing Country Food Value Chains. *Science* 332 (6034): 1154.
- Jacobs, K., L. Lebel, J. Buizer, L. Addams, P. Matson, E. McCullough, P. Garden, G. Saliba, and T. Finan. 2010. Linking knowledge with action in the pursuit of sustainable water-resources management. *Proceedings of the National Academy of Sciences*. January 11, 2010.
- Omiti, J.M., D.J. Otieno, T.O. Nyanamba and E.B. McCullough. 2009. Factors influencing the intensity of market participation by smallholder farmers: a case study of rural and peri-urban areas of Kenya. *African Journal of Agricultural and Resource Economics* 3 (1): 57-82.
- Galloway, J.N., M.B. Burke, G.E. Bradford, R. Naylor, W. Falcon, A.K. Chapagain, J.C. Gaskell, E.B. McCullough, H.A. Mooney, K.L. Oleson, H. Steinfeld, T. Wassenaar and V. Smil. 2007. International trade in meat: The tip of the pork chop. *Ambio* 36 (8): 622.
- Burke, M., K. Oleson, E. McCullough, and J. Gaskell. 2009. A Global Model Tracking Water, Nitrogen, and Land Inputs and Virtual Transfers from Industrialized Meat Production and Trade. *Environmental Modeling and Assessment* 14 (2): 179.
- Falcon, W.P., R.L. Naylor, W.L. Smith, M.B. Burke and E.B. McCullough, 2004. Using climate models to improve Indonesian food security. *Bulletin of Indonesian Economic Studies* 40 (3).

## **BOOKS**

- McCullough, E.B., P.L. Pingali, and K.G. Stamoulis (eds). 2008. *The Transformation of Agri-food Systems: Globalization, Supply Chains, and Smallholder Farmers*. London, UK: Earthscan Press, 381pp.

## **BOOK CHAPTERS**

- McCullough, Ellen B. 2018. "Agricultural Labor Is Not So Unproductive in Africa." In: Christiaensen, Luc, and Lionel Demery (eds). *Agriculture in Africa: Telling Myths from Facts. Directions in Development*. Washington, DC: World Bank. Pp 47-56.
- McCullough, E.B., P.A. Matson. 2012. Linking knowledge with action for sustainable development: a case study of change and effectiveness. In P.A. Matson (ed). *Seeds of sustainability: Lessons from the birthplace of the Green Revolution in Agriculture*, Washington DC: Island Press, pp 63-83.
- Matson, P., Luers, A. and E.B. McCullough. 2012. Exploring vulnerability in the Yaqui Valley human-environment system. In P.A. Matson (ed). *Seeds of sustainability: Lessons from the birthplace of the Green Revolution in Agriculture*, Washington DC: Island Press, pp 83-92.
- Schoups, G., L. Adams, D. Battisti, E. McCullough, and J.L. Minjares. 2012. Water resources management in the Yaqui Valley. In P.A. Matson (ed). *Seeds of sustainability: Lessons from the birthplace of the Green Revolution in Agriculture*, Washington DC: Island Press, pp 197-230.
- McCullough, E.B., P.L. Pingali, and K.G. Stamoulis. 2010. Small farms and the transformation of food systems: an overview. In R. Haas, M. Canavari, B. Slee, C. Tong, and B. Anurugsa (Eds)

- Looking East Looking West: Organic and quality food marketing in Asia and Europe.* Wageningen, The Netherlands: Wageningen Academic Publishers, pp 47-85.
- Pingali, P., and E. McCullough. 2010. Drivers of Change in Global Agriculture and Livestock Systems. In H. Steinfeld, H. A. Mooney, F. Schneider, and L.E. Neville (Eds) *Livestock in a Changing Landscape: Drivers, Consequences, and Responses*. Washington, DC: Island Press, pp 5-10.
- Tobgay, S.K. and E.B. McCullough. 2008. Linking small farmers in Bhutan with urban consumers: the importance of market access. In E.B. McCullough, P.L. Pingali, and K.G. Stamoulis (eds) *The Transformation of Agri-food Systems: Globalization, Supply Chains, and Smallholder Farmers*. London, UK: Earthscan Press, pp 235-258.
- Omiti, J.M., T. Nyanamba, E.B. McCullough and D. Otieno. 2008. Factors influencing diversification of smallholder agriculture in Kenya. In E.B. McCullough, P.L. Pingali, and K.G. Stamoulis (eds) *The Transformation of Agri-food Systems: Globalization, Supply Chains, and Smallholder Farmers*. London, UK: Earthscan Press, pp 259-278.

### **OTHER PUBLICATIONS**

- Buck, H.J., D.F. Flannelly, E.B. McCullough, J.D. Quinn, and A.M. Simons. 2013. Targeting soils interventions in Ethiopia: A research agenda based on improved soil resource and fertility data. Report prepared for the Ethiopian Agricultural Transformation Agency, June 2013.
- McCullough, E.B., M. Mulford, and N. Jensen. 2012. Improving the quality and effectiveness of U.S. Food Aid: Local and Regional Procurement. Policy briefing document prepared for the Congressional Research Service, June 2012.
- McCullough, E.B. 2006. Can contracts help small farmers participate in more globalized food chains? *The State of Food and Agriculture in Asia and the Pacific 2006*. FAO. Bangkok: FAO, p22.
- McCullough, E.B. 2005. Coping With Drought: An analysis of crisis response in the Yaqui Valley, Mexico. M.S. Thesis, Earth Systems Program. Stanford, California: Stanford University, 45pp.
- McCullough, E.B. 2003. The responses of montane shrubs to spatial and temporal climate variation. *Undergraduate Research in Behavior, Ecology, and Evolution* 1 (1): 1-7.

### **CONFERENCE AND SEMINAR PRESENTATIONS**

- 2017: European Association of Environmental and Resource Economics (EAERE), Athens, Greece; International Consortium on Applied Bioeconomy Research (ICABR), Berkeley, CA;
- 2016: Food and Agriculture Organization of the UN invited seminar, Rome, Italy; Rural Livelihoods Information System expert consultation, Rome, Italy; World Bank Jobs & Development Conference, Washington, DC; African Association of Agricultural & Applied Economics Conference, Addis Ababa, Ethiopia;
- 2015: IZA-World Bank Conference on Employment and Development, Bonn, Germany; Agriculture in Africa – Telling Facts from Myths Symposium, World Bank and International Food Policy Research Institute, Washington DC; Western Economic Association International, Honolulu, Hawaii; Western Economic Association International Graduate Student Workshop, Honolulu, Hawaii; Agricultural and Applied Economics Association, San Francisco, CA; Cornell University Development Economics Seminar, Ithaca, NY;
- 2014: Food Systems and Poverty Reduction IGERT Symposium, Ithaca, NY;
- 2013: African Association of Applied Economics Conference, Hammamet, Tunisia; International Conference on Global Food Security, Noordwijkerhooft, The Netherlands; Agriculture in Africa – Telling Facts from Myths Workshop, Washington, DC; Food Systems and Poverty Reduction IGERT Symposium, Ithaca, NY;

- 2011: Leverhulme Centre for Integrative Research on Agriculture and Health, Agri-food Policy and Governance for Nutrition and Health Research Conference, London, UK; Shoreline Community College Seminar, Seattle, Washington;
- 2009: International Association of Agricultural Economists, Beijing, China; International Fertilizer Association, Cairo, Egypt;

### **TEACHING**

- The World Food Economy (Primary Instructor), University of Georgia, 2017, 2018
- Contemporary Controversies in the Global Economy, Applied Economics and Management, Prof. Christopher B. Barrett, Cornell University (TA), 2016
- Marketing, Cornell University, Prof. Miguel I. Gómez (TA), 2015
- Business Management and Organizations, Cornell University, Prof. Aija E. Leiponen (TA), 2014
- Introduction to Earth Systems, Stanford University, Prof. W. Gary Ernst (TA), 2004

### **PEER REVIEWS**

African Economic Conference (2016); Agricultural and Applied Economics Association conference (2014, 2015, 2016); *Agricultural Economics* (2016); *Agriculture and Food Security* (2013); *Agricultural and Resource Economics Review* (2015); *American Journal of Agricultural Economics* (2016); *Food Policy* (2017); *Food Security* (2014); *Environment and Development Economics* (2017); *Global Environmental Change* (2014); International Association of Agricultural Economists conference (2015); *Journal of Agribusiness* (2016); Structural Change in African Agriculture and Rural Spaces Conference (2015); *World Development* (2016);

### **GRANTS**

- 2017- Principal Investigator, *Harnessing Demand Systems for improved nutrition in Sub-Saharan Africa* (grant from the Bill & Melinda Gates Foundation and the UK Department for International Development, \$784,000).
- 2016-2017 Collaborator, *Structural Transformation in African Agriculture and Rural Spaces* project, a joint research venture between the African Development Bank, CGIAR Research Program on Policies, Institutions and Markets, Partnership for Economic Policy, the African Economic Research Consortium, the World Bank, and Cornell University.
- 2014- Co-investigator, *Soil fertility and Agricultural Development in Ethiopia* (grant from the International Food Policy Research Institute to Cornell University, with funding from the Bill & Melinda Gates Foundation)
- 2013 Recipient, Field-Based Research Grant Food, Systems and Poverty IGERT, \$10,000
- 2013-2014 Co-investigator, *Agriculture in Africa: Telling Facts from Myths* (grant from the African Development Bank to Cornell University)

### **FELLOWSHIPS AND AWARDS**

- 2015- Second Place recipient, George Warren Award for outstanding manuscript by a graduate student in the Dyson School.
- 2013 Ecological Society of America Sustainability Science Award (awarded to *Seeds of Sustainability: Lessons from the Birthplace of the Green Revolution* in recognition of an outstanding contribution to sustainability science)
- 2012-2014 Trainee, Integrative Graduate Education and Research Traineeship (IGERT) in Food Systems and Poverty Reduction (Cornell University IGERT funded by the National Science Foundation)

- 2010 “Holy Cow” staff merit award for contributions to the mission of the Bill & Melinda Gates Foundation
- 2004-2005 Research Fellow, *Knowledge Systems for Sustainable Development* Project (grant awarded to the Kennedy School of Government at Harvard University by the National Oceanographic and Atmospheric Association)