Rahul Dhar

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Summary

An applied econometrician with over 5 years of combined work and academic experience conducting statistical analysis on various topics that include nutrition, health outcomes, and demand analysis.

Research Interests: Development Economics, International Development, Econometrics, Demand Systems, Food Demand, Health Economics, Processed Food Trade and Consumption, Data Science/Analysis.

Work Experience

Academic Work Experience, Michigan State University

- Aug 2017- May 2022 Research Assistant, Food Security Group
 - Estimated demand elasticities from both single and multi-stage demand models via linear and non-linear regression techniques using a nationally representative food consumption survey with over 1.89 million transactions. The work resulted in the publication of two papers.
 - Conducted both regression (OLS, Probit) and descriptive analysis (distributions, trends) on the double burden of malnutrition in Tanzania, using various demographic and health surveys (DHS), as well as living standards and measurement study (LSMS) surveys, that spanned over 10 years, to inform policy makers on the performance of various interventions.

Non-academic Work Experience, United States Army

- Jun 2009- March 2016 Engineer Officer, US Army
- Jan 2005- May 2009 Unit Supply Specialist, US Army Reserves

Education

B. Sc. in Math	(Dual Degree with Phy	/sics, Distinguished Military Graduate)
University of North Georgia		2004-2009
 Ph.D. in Agricultural, Food, and Graduate Committee: Felicia Wu, Dr. Jeffrey V 	d Resource Economics Dr. David Tschirley (Major Prof Wooldridge, and Dr. Prabhat Ba	(Dual Degree with Economics) Tessor/Chair), Dr. Thomas Reardon, Dr. arnwal
<u>Michigan State University</u>		2017-Present

- Advanced: STATA, MATLAB, LaTeX, Microsoft Office
- Intermediate: R
- Basic: Python, SQL
- Statistical Methods used in research: Ordinary Least Squares (OLS), Instrumental Variables (IV), Fixed Effects (FE), Two-Stage Least Squares (2SLS), Generalized Method of Moments (GMM), Binary Choice, Probit, Tobit, Correlated Random Effects (CRE), Joint Maximum Likelihood Estimation (JMLE), Spatial Autoregression (SAR), Quadratic Almost Ideal Demand System (QUAIDS), Exact Affine Stone Index (EASI) Demand System.

2017-Present

2005-2016

Publications

The processed food revolution in African food systems and the double burden of malnutrition. Thomas Reardon, David Tschirley, Lenis Saweda O. Liverpool-Tasie, Titus Awokuse, Jessica Fanzo, Bart Minten, Rob Vos, Michael Dolislager, Christine Sauer, Rahul Dhar, Carolina Vargas, Anna Lartey, Ahmed Raza, Barry M. Popkin. *Global Food Security. 2021*

Dissertation

Nutrition-related Health Outcomes and Food Environments Amidst an Increasingly Processed Global Food Landscape

 <u>Chapter 1</u>: <u>Diet or Activity? An Examination of Adult Overweight and Obesity in Tanzania</u> <u>Using Panel Data (Job Market Paper)</u>

Summary: In this paper, we examine the complex relationship between activity, diet, and the likelihood of adults being overweight or obese using a three-round nationally representative panel data set from Tanzania, a CRE probit model to account for unobserved heterogeneity, and instrumental variables to account for endogeneity

• <u>Chapter 2</u>: <u>The Bi-directional Relationship Between Ultra-Processed Food Imports and Health</u> Summary: We test for the existence of a two-way linkage between trade and health via GMM, using UN COMTRADE bilateral trade flow data, along with controls from World Bank and the World Health Organization. We use first difference equations and include lagged trade and health variables. We use 2nd and 3rd lags in levels as instruments for the lagged difference variables.

• <u>Chapter 3</u>: <u>How do Low-income Urban Kenyan Consumers Obtain Their Food and Does This</u> <u>Impact the Prices They Pay?</u>

Summary: We develop a model of prices consumers pay that accounts for 2 dimensions of food procurement: spatiality of shopping behavior and frequency of shopping trips. We explore this issue using a recent survey conducted by MSU in low-income areas of Nairobi, Kenya, as part of an assessment of the Marketplace for Nutritious Foods program run by the Global Alliance for Improved Nutrition (GAIN) and various econometric techniques that include variations of OLS and SAR.

References

- Dr. David Tschirley. Professor. Department of Agricultural, Food and Resource Economics, MSU
 - o Email: tschirle@msu.edu
 - Phone: 517-355-0134
- Dr. Thomas Reardon. University Distinguished Professor. Department of Agricultural, Food and Resource Economics, MSU
 - Email: <u>reardon@msu.edu</u>
 - Dr. Jeffrey Wooldridge. University Distinguished Professor. Department of Economics, MSU
 - o Email: wooldri1@msu.edu
 - Phone: 517.353.5972