

WILLIAM A. MASTERS

(In electronic versions, click colored links to external sites)

Professor, Friedman School of Nutrition Science and Policy, Tufts University
150 Harrison Ave. • Boston, MA 02111 • www.nutrition.tufts.edu/profile/william-masters
Phone: 617.636.3751 • Fax: 617.636.3781 • Email: william.masters@tufts.edu

EDUCATION

Stanford University, PhD (1991) in Applied Economics at the [Food Research Institute](#)
Yale University, BA (1984) in Economics and Political Science
Deep Springs College (1979-81), course credits transferred

EMPLOYMENT

Tufts University

Professor (from 7/10) [Friedman School of Nutrition Science and Policy](#), with a secondary appointment (from 9/13) in the [Department of Economics](#).
Chair (7/11-9/14), [Food and Nutrition Policy Department](#) at the Friedman School.
Research focus: Food policy and agricultural development, technology and markets
Courses taught: [Economics for food & nutrition policy](#) (2011-), [Food economics](#) (2015)

Purdue University

Professor (4/02-6/10), *Assoc. Prof.* (7/96-4/02); *Asst Prof.* (12/91-7/96)
Associate Head, [Department of Agricultural Economics](#) (2/07-6/10)
Research focus: Food policy and agricultural development, technology and markets
Courses taught: [International economic development](#) (undergraduate, 2007-present)
[Agricultural development and policy](#) (graduate, 1996-present)
[Agricultural development / trade](#) (undergraduate, 1992-03 / 2005-06)
[Computational analysis of markets and policy](#) (PhD, 2004-05)

Columbia University (9/03-8/04)

Visiting Professor, [School of International and Public Affairs](#)
Interim Executive Director, [Center on Globalization and Sustainable Development](#)
Led diversified social-science research program (8 staff, 20 affiliates)
Instructor/creator of new course on food and agriculture in development

Harvard University (1/2000 – 12/2000)

Visiting Scholar, [Center for International Development](#)

Stanford University (1985-1991)

Graduate Fellow, Teaching and Research Assistant in the [Food Research Institute](#)

University of Zimbabwe, Harare, Zimbabwe (1988-1990)

Research Associate and part-time lecturer

International Food Policy Research Institute, Washington DC (1987)

Research Assistant

Mavhudzi Government Secondary School, Nyazura, Zimbabwe (1985)

Teacher, English Department

COLANTA Dairy Cooperative, Medellin, Colombia (1983)

Intern in Technical Assistance Department

Haitian Development Foundation, Port-au-Prince, Haiti (1981)

Intern in Head Office Staff

PROFESSIONAL AWARDS

[Publication of Enduring Quality Award](#) from the Agricultural and Applied Economics Association (AAEA, 2014)
[Bruce Gardner Memorial Prize for Applied Policy Analysis](#) from the AAEA (2013)
 International Fellow of the African Agricultural Economics Association (2010)
 Gamma Sigma Delta Research Award of Merit at Purdue University (2007)
 Fulbright Dissertation Research Grant (1988-90)
 Stanford Graduate Fellowship (1985-88)
 Harry S. Truman Scholarship (awarded 1981)

PROFESSIONAL SERVICE AND HONORARY APPOINTMENTS

Chair, [International Section](#), AAEA, 2018-19
 External Member, [IFPRI Institutional Review Board](#), 2015-18
 Editorial Board, [Global Challenges: Food, Agriculture and Nutrition](#), 2015-present
 Editorial Board, [Global Food Security](#), 2014-present
 External Examiner, [Collaborative MSc in Ag. & Applied Econ. \(CMAAE\)](#), 2010-present
 Member, [Sustainable Agriculture and Food Systems thematic group](#), SDSN, 2013-present
 Member and Chair, [Communications and Publications Ctee.](#), AAEA, 2012-2015
 Chair, [Food Safety and Nutrition Section](#), AAEA, 2013-2014
 Cochair, [FSIN Technical Working Group](#) on Measuring Food & Nutrition Security, 2015-16
 Agriculture Network, [International Growth Center](#) (Oxford and London), 2009-14
 Co-Editor, [Agricultural Economics](#), 2007-2011 (with [Gerald Shively](#))
 Board of Trustees, [Deep Springs College](#), 2002-2011(chair, Academic Affairs ctee.)
 Scientific Adviser, [International Foundation for Science](#) (Stockholm), 2002-2009
 Advisory Ctee., [Partnership to Cut Hunger in Africa](#) (Washington, DC), 2001-2008
 Experts Ctee., [Chicago Initiative on Global Agricultural Development](#), 2008-2009
 Advisory Ctee., [Global Entrepreneurship X-Prize](#) (Santa Monica, CA), 2007-2008
 Chair, PhD [prelim exams committee](#) (Dept. of Ag. Econ., Purdue), 2005-07
 AAEA awards subcommittee for the [Publication of Enduring Quality Award](#), 2002-2005
 Research Fellow, [Global Trade Analysis Project](#) (Purdue University), 1999-2005
 Contributing author for the [UN Millennium Ecosystem Assessment](#), 2002-04
 Member, [Network of IFPRI Associates](#) (Washington, DC), 2000-2002
 External reviewer for articles, books and grant proposals (ongoing)

LANGUAGES

Fluent French, some Spanish

PUBLICATIONS

BOOKS

[Economics of Agricultural Development](#) (3rd ed. 2014), with George Norton and Jeffrey Alwang. New York: Routledge. (See [review of 1st ed. in ERAE](#)).
[Distortions to Agricultural Incentives in Africa](#) (2009), with Kym Anderson (eds.). Washington DC: The World Bank.
[Government and Agriculture in Zimbabwe](#) (1994). Westport, CT: Praeger.
[Better English: A Handbook of Common Errors](#) (1987), with Mia Lewis. Harare, Zimbabwe: Longman.

REFEREED JOURNAL ARTICLES

- "Education and micronutrient deficiencies: an ecological study exploring interactions between women's schooling and children's micronutrient status" (2018), with K.L. Harding, V.M Aguayo and P. Webb, *BMC Public Health* 18 (1): 470.
- "Agricultural transformation, nutrition transition and food policy in Africa: Preston Curves reveal new stylized facts" (2018), with N.Z. Rosenblum and R.G. Alemu, *Journal of Development Studies*, forthcoming.
- "Winner-Take-All and Proportional-Prize Contests: Theory and Experimental Results" (2018), with T.N. Cason and R.M. Sheremeta, *Journal of Economic Behavior and Organization*, in press.
- "Designing programs to improve diets for maternal and child health: Costs and impacts of nutrition-sensitive programs in Ethiopia, Nigeria, and India" (2018), with the Global Nutrition and Policy Consortium, *Health Policy & Planning*, 33 (4): 564-573.
- "Priority Interventions to Improve Maternal and Child Diets in Sub-Saharan Africa and South Asia" (2017), with the Global Nutrition Policy Consortium, *Maternal and Child Nutrition*, e12526.
- "Impact of caregiver incentives on child health: evidence from an experiment with Anganwadi workers in India" (2017), with P. Singh, *Journal of Health Economics*, 55(Sept.): 219-231.
- "Nutrition smoothing: Can proximity to towns and cities protect rural children against seasonal variation in agroclimatic conditions at birth?" (2017), with A. Darrouzet-Nardi, *PLOS ONE*, 12(1): e0168759.
- "Nutrient composition of premixed, packaged complementary foods for sale in developing countries: Lack of standards threatens infant growth." (2016), with W. Bell and M. Nene, *Maternal and Child Nutrition*, in press [preprint] (NY Times)
- "The nutrition transition and agricultural transformation: A Preston Curve approach." (2016), with A. Hall, E. Martinez, P. Shi, G. Singh, P. Webb & D. Mozaffarian, *Agricultural Economics*, 47(S1): 97-114. [preprint]
- "Climatic conditions and child height: Sex-specific vulnerability and the protective effects of sanitation and food markets in Nepal." (2016), with P. Mulmi, S.A. Block and G.E. Shively, *Economics & Human Biology*, 23 (Dec.): 63-75.
- "Energy Contents of Frequently Ordered Restaurant Meals" (2016), with L.E. Urban, S.B. Roberts et al., *J. of the Academy of Nutrition and Dietetics*, 116 (4): 590-598.
- "Urbanization, market development and malnutrition in farm households: evidence from the Demographic and Health Surveys, 1986-2011" (2015), with A. Darrouzet-Nardi, *Food Security*, 7(3): 521-533.
- "Agricultural policy for improved nutrition in Africa and Asia: Evidence to guide the US Government's investments in food security" (2015), with J. Oehmke et al., *Food Security*, 7(3): 747-750. [preprint]
- "Disease Control, Demographic Change and Institutional Development in Africa" (2014), with M. McMillan and H. Kazianga, *J. of Development Econ.* 110: 313-26. [preprint]
- "Agriculture, Transportation and the Timing of Urbanization" (2014), with M. Motamed and R.J.G.F. Florax, *J. of Economic Growth*, 19(3, Sept.): 339-368. [preprint]
- "Agriculture, nutrition, and health in global development: typology and metrics for integrated interventions and research" (2014), with P. Webb, J. Griffiths and R. Deckelbaum, *Annals of the New York Academy of Sciences*, 2(1). [preprint]

- “Measuring the impacts of Malawi’s farm input subsidy programme” (2014), with C. Chibwana, G. Shively, M. Fisher and C. Jumbe, *African Journal of Agricultural and Resource Economics*, 9(2): 132-147. [article]
- “Urbanization and Farm Size in Asia and Africa: Implications for Food Security and Agricultural Research” (2013), *Global Food Security*, 2(3), 156-165. [preprint]
- “Does Child Undernutrition Persist Despite Poverty Reduction in Developing Countries? Quantile Regression Results” (2012), with Stephen A. Block and Priya Bhagowalia, *Journal of Development Studies*, 48(2): 1699-1715. [preprint]
- “Spatial Inequality: Overcoming Neighborhood Effects in Africa” (2011), with Guyslain Ngleleza and Raymond Florax, *Applied Econometrics and International Development*, 11(2).
- “Effects and Determinants of Mild Underweight among Preschool Children across Countries and Over Time” (2011), with Priya Bhagowalia and Susan Chen. *Economics and Human Biology* 9(1): 66-77.
- “Entry into Winner-Take-All and Proportional-Prize Contests: An Experimental Study” (2010), with Tim Cason and Roman Sheremeta. *Journal of Public Economics* 94(9-10): 604-611.
- “Introduction to the Special Issue on the World Food Crisis” (2008), with Gerald Shively. *Agricultural Economics* 39(3s): 373-374.
- “Beyond the Food Crisis: Trade, Aid and Innovation in African Agriculture” (2008), *African Technology Development Forum*, 5(1-2): 3-13.
- “How Successful Are Government Interventions in Food Markets? Insights from the Philippine Rice Market” (2007), with Gerald Shively and Richard Yao, *Philippine Journal of Development* 34(1b): 35-59.
- “The Role of Leadership in Democratic Deliberations: Results from a Field Experiment in Sao Tome and Principe” (2006), with Macartan Humphreys and Martin Sandbu, *World Politics* 58(4): 583-622.
- “Diffusion and Spillover of New Technology: A Heterogeneous-Agent Model for Cassava in West Africa” (2006), with M.E. Johnson and P.V. Preckel, *Agricultural Economics*, 35(2), 119-129.
- “Property Rights, Production Technology and Deforestation: Cocoa in Cameroon” (2006), with Harounan Kazianga. *Agricultural Economics*, 35(1), 19-26.
- “Paying for Prosperity: How and Why to Invest in Agricultural Research and Development in Africa” (2005), *Journal of International Affairs*, 58(2): 35-64.
- “Genetic Improvement and Cocoa Yields in Ghana” (2005), with James Edwin. *Experimental Agriculture*, 41(4): 491-503.
- “Research Prizes: A New Kind of Incentive for Innovation in African Agriculture” (2005), *International Journal of Biotechnology* 7(1/2/3): 195-211.
- “Complementarity and Sequencing of Innovations” (2004), with Michael Johnson. *Economics of Innovation and New Technology*, 13(1): 19-31.
- “Research Prizes: A Mechanism to Reward Agricultural Innovation in Low-Income Regions” (2003), *AgBioForum* 6(1&2): 71-74.
- “An African Growth Trap: Production Technology and the Time-Consistency of Agricultural Taxation, R&D and Investment” (2003), with Margaret S. McMillan. *Review of Development Economics*, 7(2): 179-191.

- "The experience of resettled farmers in Zimbabwe" (2003), with Sophia Chiremba. *African Studies Quarterly* 7(2-3).
- "Investing in Soils: Field Bunds and Microcatchments in Burkina Faso" (2002), with Harounan Kazianga, *Environment and Development Economics*, 7(3): 571-591.
- "Welfare Gains from Quality Certification of Infant Foods: Results from a Market Experiment in Mali" (2002), with Diakalia Sanogo, *American Journal of Agricultural Economics*, 84(4): 974-989.
- "A Market-Based Approach to Child Nutrition: Mothers' Demand for Quality Certification of Infant Foods in Bamako, Mali" (2002), with Diakalia Sanogo, *Food Policy*, 27(3): 251-268.
- "Testing the Link between Public Intervention and Food Price Variability: Evidence from Rice Markets in the Philippines" (2002), with Elmer Martinez and Gerald E. Shively, *Pacific Economic Review*, 7(3): 545-554.
- "Climate and Scale in Economic Growth" (2001), with Margaret S. McMillan, *Journal of Economic Growth*, 6(3): 167-186.
- "Understanding the Political Economy of Agriculture in the Tropics" (2000), with Margaret S. McMillan, *Amer. Journal of Agricultural Economics*, 82(3): 738-42.
- "L'Europe, L'Afrique du Sud, et l'Afrique Australe: Intégration Régionale dans un Contexte Mondial" (2000), with Rob Davies and Thomas W. Hertel, *Revue d'Economie du Développement*, 3: 113-134.
- "Technical change in Senegal's irrigated rice sector: impact assessment under uncertainty" (2000), with Monica G. Fisher and Mamadou Sidibé, *Agricultural Economics*, 24(2): 179-197.
- "Gender and Agricultural Change: Crop-Livestock Interaction in Senegal" (2000), with M.G. Fisher and Rebecca Warner, *Society and Natural Resources*, 13(3): 203-222.
- "The Uruguay Round and Africa: A Global, General Equilibrium Analysis" (1998), with Thomas W. Hertel and Aziz Elbehri, *Journal of African Economies* 7(2): 208-234.
- "Measuring Exchange Rate Misalignment: Inflation Differentials and Domestic Relative Prices" (1998), with Elena Ianchovichina, *World Development* 26(3): 465-77.
- "Pasture Taxes and Agricultural Intensification in Southern Mali" (1998), with Timothy J. Dalton, *Agricultural Economics*, 19(1-2): 27-32.
- "The Impact of Agricultural Research in Africa: Aggregate and Case Study Evidence" (1998), with Touba Bedingar and James F. Oehmke, *Agricultural Economics* 19(1-2): 81-86.
- "Spatial Analysis of Maize Market Policy Reform in Zambia" (1997) with Anthony Mwanaumo and Paul V. Preckel, *American Journal of Agricultural Economics* 79(2): 514-23.
- "Production Costs and Input Substitution in Zimbabwean Agriculture" (1997) with Timothy J. Dalton and Kenneth A. Foster, *Agricultural Economics* 17 (2-3): 201-209.
- "Measuring the Comparative Advantage of Agricultural Activities: Domestic Resource Costs and the Social Cost-Benefit Ratio" (1995) with Alex Winter-Nelson, *American Journal of Agricultural Economics* 77(2): 243-250.
- "Returns from Research in Economies with Policy Distortions: Hybrid Sorghum in Sudan" (1995) with Mohamed M. Ahmed and John H. Sanders, *Agricultural Economics* 12: 183-192.
- "Measuring Protection in Agriculture: the Producer Subsidy Equivalent Revisited" (1993), *Oxford Agrarian Studies* 21(2): 133-142.

- "The Scope and Sequence of Grain Market Reform in Zimbabwe" (1993), *Food Research Institute Studies* 22(3): 227-252.
- "Panterritorial versus Regional Pricing for Maize in Zimbabwe" (1993), with Ernst-August Nuppenau, *World Development* 21(10): 1647-1658.
- "Trade Policy and Agriculture: Measuring the Real Exchange Rate in Zimbabwe" (1991), *Quarterly Journal of International Agriculture* 30(1): 21-36.

Chapters in books

- "From Land Grab to Land Development: The Past and Potential of Private Investment in Frontier Agriculture", with D. Byerlee and D.S. Robinson, in *Agriculture and Rural Development in a Globalizing World*, edited by P. Pingali and G. Feder. Earthscan Food and Agriculture Series. London: Routledge, 2017.
- "Demographic Pressure and Institutional Change: Village-Level Response to Rural Population Growth in Burkina Faso," with M.S. McMillan and H. Kazianga, in *African Successes, Volume I: Government and Institutions*, edited by S. Edwards, S. Johnson, and D.N. Weil University of Chicago Press and NBER, 2016.
- "Economic Causes of Malnutrition", in M. Eggerdorfer et al., eds., *Good Nutrition: Perspectives for the 21st Century*, Basel: Karger, 2016.
- "Child Nutrition in Economic Development", in C.P. Duggan, J.B. Watkins, B. Koletzko and W.A. Walker, eds., *Nutrition in Pediatrics*, 5th ed. PMPH-USA, 2016.
- "Transformational Incentives for Innovation and Aid Effectiveness: Pull Mechanisms, Contests, and Prizes," in R. Shah and S. Radelet, eds., *Frontiers in Development*. Washington, DC: USAID, May 2012, pages 196-200.
- "Africa's Turnaround: From Crisis to Opportunity in African Agriculture", chapter 11 in David R. Lee and Muna B. Ndulo, eds., *Food and Financial Crises: Impacts on Sub-Saharan Africa*, Wallingford, UK: CAB International, forthcoming 2011.
- "Economic Development, Government Policies and Food Consumption", chapter 14 in Jayson Lusk, Jutta Roosen and Jason Shogren, eds., *Oxford Handbook on the Economics of Food Consumption and Policy*, forthcoming 2011.
- "Agricultural Price Distortion and Stabilization: Stylized Facts and Hypothesis Tests" (with Andres F. Garcia), in Kym Anderson (ed.), *Political Economy of Distortions to Agricultural Incentives*. Washington, DC: The World Bank, 2010.
- "Spatial Inequality and Economic Development in Africa" (with Guyslain Ngeleza and Raymond Florax), in Munisamy Gopinath and Hanho Kim, eds., *Globalization and the Rural-Urban Divide*. Seoul: SNU Press, 2009.
- "Trends in Agricultural Protection: How Might Agricultural Policy Evolve in the Coming Decades?" in Alexander Sarris and Jamie Morrison, eds., *The Evolving Structure of World Agricultural Trade*. Rome, Italy: FAO, 2009.
- "Distortions to Agricultural Incentives in Sub-Saharan and North Africa" (with Kym Anderson), in "Distortions to Agricultural Incentives: A Global Perspective, 1955 to 2007." New York and Washington: Palgrave Macmillan and the World Bank, 2009.
- "Introduction and Summary" (with Kym Anderson), "Cameroon" (with Ernest Bamou) and "Senegal", in K. Anderson and W.A. Masters, eds., *Distortions to Agricultural Incentives in Africa*. Washington DC: The World Bank, 2009.
- "Food" (contributing author), chapter 8 (pages 209-241), in *Ecosystems and Human Well-Being: Findings of the Millenium Ecosystem Assessment*, edited by Rashid Hassan, Robert Scholes and Neville Ash. Washington: Island Press, 2005.

- “Climate, Agriculture and Economic Development,” chapter 8 (pages 166-83) in *Land Quality, Agricultural Productivity, and Food Security*, edited by K.D. Wiebe. Cheltenham, UK & Northampton MA, USA: Edward Elgar, 2003.
- “Ethnolinguistic Diversity, Government and Growth,” with M. McMillan, ch. 7 (pp. 123-147) in *Welfare, Ethnicity and Altruism*, F. Salter, ed.. London: Frank Cass, 2004.
- “Regionalism in World Food Markets: Implications for Trade and Welfare” (1999) with Thomas W. Hertel and Mark J. Gehlhar, in *Food Security, Diversification and Resource Management: Refocusing the Role of Agriculture*, edited by G.H. Peters and D.D. Hedley. Aldershot, UK: Dartmouth.
- "The Changing Roles of Multilateral and Bilateral Foreign Assistance" (1991), with John W. Mellor, in *Transitions in Development: The Role of Aid and Commercial Flows*, edited by Uma Lele and Ijaz Nabi. San Francisco: ICS Press.

Abstracts, working papers and other publications in numbered series

- “Senegal groundnut value chain: Competitiveness and prospects for development” (2017), with N. Rosenblum. Working Paper 117011. World Bank: Washington.
- “Misreporting month of birth: Implications for nutrition research” (2017), with D.D. Headey and A.F. Larsen. Discussion Paper 1617, IFPRI: Washington.
- “Assessment of Current Diets: Recent Trends by Income and Region” (2016), Working Paper #4 for the Global Panel on Agriculture and Food Systems, London.
- “Towards the Development of a Universal Metric to Estimate the Cost-Effectiveness of Nutrition-Focused Policies to Improve Maternal and Child Health in South Asia” (2016), with S.H Pedersen et al. FASEB Journal, 30(1), supplement: lb424.
- “Impact of Caregiver Incentives on Child Health: Evidence from an Experiment with Anganwadi Workers in India.” (2016), with P. Singh. IZA Discussion Paper 10083.
- “Does Market Access Protect Children against Poor Health Conditions at Birth?” (2015), with A. Darrouzet-Nardi. Abstract of poster selected for presentation at EB in Boston, March 2015. FASEB Journal, 29(1), supplement: 898.22.
- “Self-Weighing Increases Weight Loss in Free-Living Adults: A Double-Blind Randomized Field Trial among 200,000 Health App Users” (2015), with S. Novello, S. Cash and S. Roberts. Abstract of poster selected for presentation at EB in Boston, March 2015. FASEB Journal, 29(1), supplement: 594.9.
- “Nutritional Composition of Complementary Infant Foods: Evidence from 109 Commercially Marketed Products in 22 Low-Income Countries” (2015), with W.Bell and M. Nene. Abstract of poster selected for presentation at EB in Boston, March 2015. FASEB Journal, 29(1), supplement: LB382.
- “Winner-Take-All and Proportional-Prize Contests: Theory and Experimental Results” (2013), with Roman Sheremeta and Tim Cason. SSRN Paper No. 2014994 (October).
- “Disease Control, Demographic Change and Institutional Development in Africa” (2013), with Margaret McMillan and Harounan Kazianga. NBER Working Paper 19245. Cambridge, MA: NBER (July).
- “Borders and Barriers: Spatial Analysis of Agricultural Output Spillovers at the Grid Cell Level” (2012), with Mesbah Motamed and Raymond Florax. Selected paper 124790 presented at the AAEEA, August, 26 pages.

- “Improving child nutrition through quality certification of infant foods: scoping study from a randomized trial in Ghana” (2011), with John Kuwornu and Daniel Sarpong. Working paper, 10/0828. London, UK: International Growth Centre.
- “Geography and Economic Transition: Global Spatial Analysis at the Grid Cell Level” (2009), with Mesbah Motamed and Raymond Florax. Selected paper 612468 presented at the AAEA, July, 30 pages.
- “Farm Productivity and Household Market Participation: Evidence from LSMS Data” (2009), with Ana Rios & Gerald Shively. Contributed paper at the IAAE, Aug., 42 p.
- “Agricultural Prices and Income Distribution among Farmers: A Whole-Household, Multi-Country, Multi-Year Analysis” (2009), with Ana Rios and Gerald Shively. Selected paper 603098 presented at the AAEA, July, 27 pages.
- “Accelerating innovation with prize rewards” (2008), with Benoit Delbecq, IFPRI Discussion Paper 835 (December), 44 pages.
- “Distortions to Agricultural Incentives in Cameroon” (2007), with Ernest Bamou, World Bank Agricultural Distortions Working Paper 41, December (36 pages).
- “Distortions to Agricultural Incentives in Senegal” (2007), World Bank Agricultural Distortions Working Paper 42, December (52 pages).
- "The Impact of Agricultural Research: A Synthesis of Findings and Policy Implications for the Sahel" (1999), with Touba Bedingar. *Les Monographies Sahéliennes* No. 9 (Institut du Sahel, Bamako, Mali), 36 pages.
- “Europe, South Africa and Southern Africa: Regional Integration in a Global Context” (2000). African Economic Policy Discussion Paper 30. Washington, DC: EAGER.
- “Impact de la Recherche Agricole en Afrique et au Sahel” (1998), *Etudes et recherches sahéliennes/Sahelian Studies and Research* (Institut du Sahel, Bamako), 1(June): 7-8.
- “Technical Change in Senegal’s Irrigated Rice Sector” (1998), with Monica G. Fisher and Mamadou Sidibé, *Etudes et recherches sahéliennes/Sahelian Studies and Research* (Institut du Sahel, Bamako, Mali), no. 1 (June): 21-32.
- “Returns to Rice Technology Development in Sierra Leone” (1998), with James Edwin, *Etudes et recherches sahéliennes/Sahelian Studies and Research* (Institut du Sahel, Bamako, Mali), no. 1 (June): 67-74.
- “Agricultural Technology Development and Transfer in Africa” (1997), with James F. Oehmke and P. Anandajayasekeram, Sustainable Development Technical Paper No. 77 (November). Washington, DC: USAID (56 pages).
- “Second Annual Report of Farm Management Data for Communal Area Farm Units, 1990/91 Farming Season” (1991), with G. Mutangadura, T. Chamboko, L. Sibanda, C. Dzama, and E.A. Attwood. Harare: Government of Zimbabwe, Ministry of Lands, Agriculture and Rural Resettlement (68 pages).
- "First Annual Report of Farm Management Data for Communal Area Farm Units, 1989/90 Farming Season" (1990), with A. Phiri, G. Mutangadura, T. Chamboko, and E.A. Attwood. Harare: Government of Zimbabwe, Ministry of Lands, Agriculture and Rural Resettlement (85 pages).
- "The Value of Foreign Exchange in Zimbabwe" (1990). Working Paper AEE 1/90. Harare: Univ. of Zimbabwe, Dept. of Ag. Economics and Extension (46 pages).
- "The Policy Analysis Matrix in Zimbabwe: A Methodological Introduction" (1989). Working Paper AEE 6/89. Harare: U. of Zimbabwe, Dept. of Ag.Ec.& Ext. (45 p.).

Outreach, public engagement and teaching materials

SNAP: A Temporary, Fraud-Resistant, Family Friendly Policy (2017), on Econofact.org.
Anti-Poverty Program at Stake in 2018 Farm Bill (2017), on Econofact.org.
Keeping eggs affordable (2016), on WBUR.org's Cognoscenti blog
Planting the seeds of Africa's growth (2010), on Project Syndicate
Why are kiwis so cheap? (2009), on Freakonomics.com.
Market Failure: An Example From Africa (2005), a 20-minute video on quality information for infant foods, as a mini-lesson for Indiana high schools.
The Economic Impact of Agricultural Research: A Practical Guide (2003), with spreadsheet exercises; available in French with an earlier English version.
Guidelines on National Comparative Advantage and Agricultural Trade (1995), APAP Methods and Guidelines Series 40001. Bethesda, MD: Abt Associates (74 pages).
Hands-On Econ (1997), an early interactive textbook for applied microeconomics.
I-TRADE (1997), a face-to-face world-market simulation exercise for classroom use.

Extension and technical publications

Measuring Food and Nutrition Security: An Independent Technical Assessment and User's Guide for Existing Indicators (2016), with U. Lele, J Kinabo, JV Meenakshi, B Ramaswami, and J Tagwireyi, at the [Food Security Information Network](http://www.foodsecurityinformationnetwork.org/).
 "Ateliers INSAH-Purdue sur l'impact économique de la recherche agricole au Sahel » (CD-ROM, September 2002). <http://sites.tufts.edu/willmasters/research/impact>.
 "Global Trade Analysis for Southern Africa" (2000), *Southern Africa Update* 7(September), 4 pages. Published with *Trade and Industry Monitor* 15(September). Johannesburg: TIPS. Also published as EAGER Policy Brief 35 (January 2001).
 "The Uruguay Round: Impact on Africa" (1999). EAGER Policy Brief No. 20 (4 pages).
 "The Returns to Irrigated Cultivar Development in Senegal" (1998). WARDA Ex-Ante Impact Assessment Research Brief No. 1 (2 pages).
 "Adoption et Impact des Technologies Agricoles: Modelisation en GAMS" (1998), with Jeffrey D. Vitale, Bamako, Mali: Institut du Sahel (53 pages plus diskette).
 "Impact Assessment of African Agricultural Technology Development and Transfer: Synthesis of Findings" (1997), USAID Policy Synthesis 28 (4 pages).
 "Dynamic Comparative Advantage of Sorghum and Millets in Zimbabwe" (1990). Consultant's Report to the SADCC/ICRISAT Sorghum and Millet Improvement Program. Bulawayo, Zimbabwe: SADCC/ICRISAT (202 pages).
 "Regional Price Differences for Maize in Zimbabwe: A District-Level Analysis" (1990), with E.-A. Nuppenau. Background Paper for the World Bank's Zimbabwe Agricultural Sector Memorandum. Harare: The World Bank (81 pages).
 "Agricultural Marketing and Pricing in Zimbabwe" (1990), with A. Duncan, J. Gray, and R. Pearce. Background paper for the World Bank Agriculture Sector Memorandum. Oxford: Food Studies Group (179 pages).

Book reviews

Review of [The Bottom Billion](#), by Paul Collier (2009), *American Journal of Agricultural Economics*, 91(4), 1157 - 1159.

Review of [Global Warming and Agriculture](#), by William Cline (2008), *Journal of Economic Literature*, 66(2, June): 448-450.

Review of [Liberaliser l'Agriculture Mondiale?](#) By J.-M. Boussard et al. (2006), *European Review of Agricultural Economics*, 33(3, September): 441-443.

Review of [Global Crises, Global Solutions](#), edited by Bjørn Lomborg (2005), *Agricultural Economics*, 33(supplement): 529-530.

Review of [Transforming Agrarian Economies](#) by T.P. Tomich, P. Kilby and B.F. Johnston (1996). *European Review of Agricultural Economics*, 23(3): 373-75.

Review of [Agricultural Policies in Developing Countries](#) by Frank Ellis (1993). *American Journal of Agricultural Economics*, 75(2): 502-503, 1993.

ONLINE AND IN-PERSON SHORT COURSES TAUGHT

Feeding a Hungry Planet online course, offered 2017 and 2018, SDGAcademy
[Introduction to Economics for Agri-Health Researchers](#) (2017), at ANH Academy
Principles of Economics and *Economics of Development* (half-semester courses at Deep Springs College, June-July 1998 and 2002).

[Impact économique de la recherche agricole](#) (one or two-week workshops in Bamako 1994 & 1995; Niamey 1996, Ouagadougou 1997 & 1998, Praia 2000, Dakar 2002).
African short course in global trade analysis (one week, Johannesburg, S.Africa 1998)
Impact de la recherche en Afrique (all-day seminar, ENSA-Rennes, France 1999)

GRANTS AND CONSULTANCIES

Principal investigator or co-PI on over \$13 million in grants and projects from:

BMGF: Changing Access to Nutritious Diets in Africa & S. Asia (CANDASA)	(2018-20)
USAID: United in Building & Advancing Life Expectations (UBALE)-Malawi	(2016-)
IFPRI: Advancing Research in Nutrition and Agriculture (AReNA)-Global	(2016-)
World Bank: Competitiveness of the Groundnut Value Chain - Senegal	(2016)
USAID: Nutrition Transition and Agricultural Transformation - Global	(2015-)
DFID: Innovative Methods & Metrics for Agriculture-Nutrition Actions-Global	(2014-)
GAIN: Nutritional Enhancement of the Peanut Value Chain in Ghana	(2013)
IFPRI: Nutritional Composition of Complementary Infant Foods - Global	(2012-14)
USAID: Nutrition Collaborative Research Support Program for Africa	(2010-15)
International Growth Center: Incentives for Innovation in Ethiopian Agriculture	(2010-11)
International Growth Center: Quality Certification of Infant Foods - Ghana	(2009-11)
NBER Africa Project: Demographic Pressure and Institutional Change	(2008-10)
USDA: Graduate Fellowships in Agricultural Trade Policy	(2006-10)
World Bank: Political Economy of Agricultural Distortions	(2007-09)
World Bank: Distortions to Agricultural Incentives in Africa	(2006-08)
IFPRI: Using Prize Rewards to Accelerate Innovation in African Agriculture	(2006-08)
USAID: External Evaluation of the Forum for Agricultural Research in Africa	(2006)
USAID: Rural and Agricultural Incomes with a Sustainable Environment-Plus	(2005-08)
Adelson Family Foundation: Supporting Prizes for Agricultural Innovation	(2004-06)
USAID: Biotechnology and Policy Change in West and Central Africa	(2004-05)
USDA: Sources of Global Agricultural Productivity Growth	(2004-05)

IITA: Impact of Cocoa Marketing and Trade Innovations in Africa	(2002-04)
USAID: Impact of Agricultural Technology in West and Central Africa	(1993-04)
ASARECA: Mid-Term Review of ECAPAPA policy-analysis network	(2001)
USAID: Modeling Electricity Trade in Southern Africa	(1998-01)
IFPRI: Market Reform and Agricultural Productivity in Malawi and Benin	(1998-00)
USAID: Equity and Growth through Economic Research (EAGER)	(1995-00)
UN Economic Commission for Africa: Global Trade Analysis	(1997-98)
U.S. Dept. of Education: Building Agribusiness Capacity	(1996-98)
USAID: Zimbabwe Grain Market Reform Research Project	(1994-96)
USAID: Agricultural Policy Analysis Project (APAP III)	(1994)
Purdue University: Global Initiative Faculty Grant for Teaching (twice)	(1992, 1993)
USAID/Zimbabwe: Consultancy on Grain Market Reform	(1992)
World Bank: Consultancy on Agricultural Pricing in Zimbabwe	(1991)
Rockefeller Foundation: Research Fellowship	(1990)
ICRISAT: Consultancy on Sorghum and Millets in Zimbabwe	(1989)