FAN WANG

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Personal Information:
Gender: Male

Undergraduate Studies:
> B.A. with Honors, University of Chicago, 2008
> > Economics; History; Law, Letters and Society; (Minor) Germanic Studies

Graduate Studies:
> University of Pennsylvania, 2009 to present
> Thesis Title: "Essays in Economic Development"
> Expected Completion Date: May 2015

> Thesis Committee and References:

Prof. Flávio Cunha (Primary Advisor)
Rice University Department of Economics
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Prof. Jere R. Behrman (Chair)
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Prof. Robert M. Townsend (additional reference)
MIT Department of Economics
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Teaching and Research Fields:
> Primary fields: Development Economics, Applied Microeconomics
> Secondary fields: Health Economics, Economics of Education, Financial Development

Teaching Experience:

2012 (Fall)	International Finance, University of Pennsylvania, Teaching Assistant for Prof. Wilfred J. Ethier
2011-2012 (Spring)	Introduction to Macroeconomics, University of Pennsylvania, Recitation Instructor for Dr. Luca Bossi
2011 (Summer)	Econometrics, University of Pennsylvania, Instructor
2010-2011 (Fall)	Introduction to Micro and Macro Economics for Business Students, University of Pennsylvania, Recitation Instructor for Dr. Rebecca Stein

Research Experience and Other Employment:

2013-2014	Research Assistant to Professor Jere R. Behrman and Professor Flávio Cunha; (Team 1000+ Saving Brains: Economic Impacts of Poverty-Related Risk Factors during the First 1000 Days for Cognitive Development and Human Capital)
2007-2009	Research Assistant to Professor Robert M. Townsend; NORC, U of C (July 2007-July 2008); Department of Economics, MIT (July 2008-July 2009)
2008	Short-Term Consultant for World Bank Europe and Central Asia Division

Professional Activities:

Seminar and Conference Presentations: Population Association of America Conference (2014), Penn Empirical Micro Workshop (2014), GCC Development Workshop (2014), Latin American and Caribbean Economic Association Conference (2013), Innovations in Development Theory and Survey Data Conference (Thailand, 2009), Enterprise and Evaluation of Financial System Seminar (Chicago, 2009)

Referee Service: International Economic Review

Research Papers:

"An Empirical Equilibrium Model of Formal and Informal Credit Markets in Developing Countries" (Job Market Paper)

Abstract: In this paper, I develop and estimate a dynamic equilibrium model of household savings and borrowing decisions in formal and informal credit markets. The model features households with heterogeneity in productivity and wealth, and characterizes credit market access by interest rates, fixed costs, and borrowing constraints. Households have access to an exogenous formal credit market and to an informal credit market whose interest rate is endogenously determined by the local demand and supply of credit. My application focuses on Thailand which implemented policies in 2001 that primarily subsidized formal borrowing. I estimate the model by simulated maximum likelihood using data from the Townsend Thai Monthly Survey. Based on the estimated model, I find that lower fixed costs increased the proportion of households borrowing formally, and that relaxed formal borrowing collateral constraints lowered informal interest rates. In terms of welfare, I find that low wealth but productive households benefited from Thai policies to expand credit access, but the gains were smaller than suggested by previous studies that ignored the informal market. Moreover, approximately 18% of households suffered welfare losses because of diminished opportunities for informal lending. Counterfactual policy simulations suggest that a policy that combines borrowing and savings subsidies could yield higher average social welfare at a cost similar to the implemented policies.

"Early Life Height and Weight Production Functions with Endogenous Calorie and Protein Inputs"
(with Jere Behrman, Flávio Cunha and Esteban Puentes)

Abstract: We examine the effects of protein and energy intakes on height and weight growth for children between 6 and 24 months old in Guatemala and the Philippines. We use instrumental variables to control for endogeneity and classical measurement error, estimating a broad set of specifications. We find that protein intake plays an important positive role in height and weight growth production functions during the first two years of life. In contrast, energy from other macronutrients (e.g., carbohydrates and fat) does not show a robust relationship with these anthropometric measures. Our estimates indicate that in contexts with substantial child malnourishment increases in protein-rich food intake in the first two years of life can have important effects on child growth by age 2.

"Height Growth Paths, Production Relations in Guatemala and the Philippines"
(with Jere Behrman, Flávio Cunha and Esteban Puentes)

Abstract: We use high frequency data from Cebu and Guatemala in the first 2 years of life to study the impact of protein on height. First, we estimate individual-specific height profile functions using various parametric forms from economics and the natural sciences. Based on in-sample and out-of-sample fits, we find that biologically-based models perform very well in capturing the variance of height at different points in time. Second, taking advantage of an in-kind protein transfer experiment in Guatemala and extensive information on food prices, we estimate the impact of protein intake on individual-specific height profile function coefficients. Finally, we use this information to estimate structural models with reference-dependent preferences. In Guatemala, we find that 60% of the change in height is a direct effect of the experimental in-kind protein transfer program. 40% of the change can be attributed to parents' concerns for their children's relative height as other children's height increase. We also find that providing value-equivalent cash transfers achieves 60% of the height gain from in-kind transfer.

Research Papers in Progress:

"Investments in the Human Capital of Children in Village Economies" (in Progress)
(with Flávio Cunha and Robert Townsend)

Abstract: We estimate the importance of access to credit in the accumulation of human capital of children in the context of small village economies. We formulate a model in which, in each period, heterogeneous households choose the amount of: (i) financial assets borrowed or saved; (ii) physical capital used in household production; (iii) hours of adult labor employed in household production; (iv) hours of child labor allocated to household production; (v) hours children spent attending classes at school. Our measure of human capital of children is the highest grade that a child has completed at each point in time. The probability that a child completes a grade depends on the number of days that he or she attended school. Heterogeneity in access to credit is measured by heterogeneity in loan interest rates. This information is available in a panel of households that stretches over 11 years of the Townsend Thai data that we use to estimate our model. We then use our framework to evaluate the impact of policies that affect access to credit: (1) a microcredit program that reduces interest rates to the poorest households; (2) a conditional cash program that transfers resources to parents conditional on children attending schools regularly. We estimate the distribution of the impacts of these programs in terms of the human capital of children.

"Parental Health and Children's Educational Outcomes" (in Progress)

Abstract: I study the impact of changes in parental health conditions on the long-term educational outcomes for their children using panel data from the Gansu (China) Survey of Rural Children and Families. Using instrumental variable and control function approaches, I estimate the impact of parental health shocks that occur when children are younger than 9 years old on children's subsequent educational attainments up to age 19. I find that parental health shocks have especially negative long-term consequences for young children, reducing their eventual educational attainment by up to 0.25 grades.

"School Consolidation and Educational Access in China's Western Minority Areas" (in Progress)
(with Emily Hannum)

Abstract: Since the early 2000s, as part of the Chinese government's consolidation policies to address depopulation, many village schools closed and children had to attend primary schools that are further away. In this paper, we investigate the scope of school closings and their impact on enrollment and attendance in villages in China's western minority areas. To do so, we compare cohorts of children in villages before and after school closings and also compare children in similar villages with and without school closings. We draw on the 2011 Western Area Socio-Economic Survey, which collected household, individual and community data from eight provincial units in two of China's poorest regions. Preliminary results suggest that school closings reduce the average probability of school attendance and average school attainment, but increase the variance of school attainment as some children are able to progress further in consolidated schools.

Computer Skills:
ArcGIS, Fortran, Java, Matlab, Python, R, Stata, SQL

Languages:
Chinese (native), English (fluent), German (fluent)