

LI YU

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EDUCATION

- **PhD. in economics, Iowa State University**
Committee Chair: University Professor Peter F. Orazem
Ames, IA, August 2008
- **B.A. in economics, Central University of Finance and Economics (Distinguished)**
Major: Economic Information Management
Beijing, China, July 2002

DISSERTATION

- Title: Human Capital, technology adoption, farm size and wage structure in the US hog sector: 1990-2005
- Committee: Peter F. Orazem(Chair), Wallace Huffman, Joseph Herriges, James Kliebenstein, John Schroeter

FIELDS OF CONCENTRATION

Human Capital and Labor Economics
Industrial Organization
Agricultural Economics

EMPLOYMENT BACKGROUND

- Post Doctoral Associate to Professor Robert Jolly in Economics Department at Iowa State University(ISU) Ames, IA, August 2008 - present

PAPERS

- “Farm size, technical change and wages: evidence from the pork sector from 1990 – 2005”. **Li Yu**, Terrance Hurley, James Kliebenstein and Peter F. Orazem.
- “Testing the complementarity and substitutability among multiple technologies: the case in the U.S. hog farms”. **Li Yu**, Terrance Hurley, James Kliebenstein and Peter F. Orazem. Under review.
- “Human capital, complex technologies, firm size and wages: A test of the O-Ring Production hypothesis”. **Li Yu** and Peter F. Orazem. Under review.

PAPERS IN PROGRESS

- “Survival of new businesses in Iowa, 1992-2005”. **Li Yu**, Peter F. Orazem and Robert Jolly
- “Firm entry and exit in Iowa, 1992-2004”. **Li Yu**, Robert Jolly and Peter F. Orazem
- “Human capital, technologies and location”. **Li Yu** and Peter F. Orazem

RESEARCH EXPERIENCE

- Department of Economics, Iowa State University, Ames, IA, August, 2008 – present
 - Post Doctoral Associate to Professor Robert Jolly and Professor Peter F. Orazem
 - Worked on the project “Entrepreneurship of Alumni of Iowa State University” based on a most recent survey on Iowa State Alumni

- Presented the graphs and summaries to Alumni Association
- Plan to study the entrepreneurship of well educated individuals, impact of university entrepreneurial education on the new businesses formation, how the business cycle affect current and life time entrepreneurship and location choice of entrepreneurs
- Department of Economics, Iowa State University, Ames, IA, January, 2007 – August, 2008
 - Research Assistant to Professor Robert Jolly and Professor Peter F. Orazem
 - Worked on the project “Entrepreneurship in Iowa, 1992-2004” , “Entry and exit pattern in Iowa, 1992-2004” and “Survival of new businesses in rural and urban areas”
 - Worked on a large database (about 400,000 observations) at establishment level and programmed in Stata and Matlab to merge other data sets and compile data
- Department of Economics, Iowa State University, Ames, IA, May, 2005 – January, 2007
 - Research Assistant to Professor Peter F. Orazem
 - Participated the grant project titled as “Technology, wage structure of the US hog sector ” from the USDA
 - Programmed extensively in Stata and Matlab to merge and customize survey data by probability weights from Agricultural Census Data, USDA
 - Proposed econometric solutions to testing multi-dimensional relations
 - Performed statistical and econometric analyses, mainly on discrete choice models
 - Performed multi-variate ordered probit model and bootstrapping in analysis

TEACHING EXPERIENCE

- ◆ Principles of Microeconomics, stand alone **instructor**, Ames, IA, summer, 2007
 - Constructed a webpage <http://yuli.public.iastate.edu/Teaching.html>
 - Created new syllabus and lectured using MS Power Point
 - Prepared four sets of homework, four exercises and four exams
 - In charge of two teaching assistants

TEACHING ASSISTANCE EXPERIENCE

- ◆ Introduction to Agricultural Markets Ames, IA, fall 2004/spring 2005
 - Lab session, grading, proctoring exams, review session and recitation
- ◆ Principles of Microeconomics Ames, IA, 2003-2004
- ◆ Business Economics Ames, IA, spring 2004
- ◆ Econometrics Beijing, China, spring 2002
 - Lab session(SAS), grading and recitation on two classes

PRESENTATIONS

- “Entrepreneurship in the US pork sector – Employee management and technology adoption”, selected as a finalist in *Graduate Extension Competition* and presented at the American Agricultural Economic Association Meeting (AAEA), Orlando, FL, July, 2008.
- “Human capital, complex technologies, firm size and wages: A test of the O-Ring Production hypothesis”, presented at 72th Midwest Economics Association (MEA) Annual Meeting, Chicago, IL, March, 2008.
- “Survival of new businesses in Iowa, 1992-2005” with Peter Orazem and Robert Jolly, to be presented at the Human Capital and Labor Economics Workshop, Ames, IA, November, 2007.
- “Farm size, technical change and wages: evidence from the pork sector from 1990 – 2005”, to be presented at the AAEA Meeting, Portland, OR, July, 2007.
- “Testing the complementarity and substitutability among multiple technologies: the case in the

- U.S. hog farms”, presented at the Agricultural Economics Workshop, Ames, IA, April, 2007.
- “Testing the complementarity and substitutability among multiple technologies: the case in the U.S. hog farms”, presented at the 71st MEA Annual Meeting, Minneapolis, MN, March, 2007.
- “Farm size, technical change and wages: evidence from the pork sector from 1990 – 2005”, presented at the Human Capital and Labor Economics Workshop, Ames, IA, November, 2006.

SCHOLARSHIP AND AWARDS

- Graduate College Scholarship Ames, IA, 2002-present
- Research Assistantship from Dr. Orazem Ames, IA, 2005-2007
- Research Assistantship from Dr. Jolly Ames, IA, 2007-present
- Harold W Davey Scholarship of Labor Economics Ames, IA, 2005
- Teaching Assistantship Ames, IA, 2002-2005
- First Class Outstanding Scholarship *each semester* Beijing, China, 1998-2002
- TaiYue Excellence Scholarship Beijing, China, 2001

PUBLICATION IN CHINESE

- “Farmer income increase and consumption growth”. *Gansu Science and Technology*. Vol.19 No.8. 2003.
- “SARS and the theory of the broken window”. *Scientific and Technical Information of Gansu*. April. 2003.

COMPUTER SKILLS

- Proficient in Stata, Matlab
- Familiar with Gauss, E-views, SAS
- Computer languages: C, SQL, FoxPro, and Latex

PROFESSIONAL AFFILIATIONS

- American Economic Association
- American Agricultural Economic Association
- Midwest Economic Association

OTHER EXPERIENCE

- Grant proposal writing, audience analysis and report writing(Ames, IA, fall, 2006)
- Collaborated in project “Iowa State University *Sigma Tau Delta* Officer Manual” (Ames, IA, fall, 2006)
- Collaborated in designing an automatic accounting software (Beijing, China, 2001)
- Internship in Beijing Industrial and Commercial Bank (Beijing, China, 2002)

REFERENCES

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ABSTRACTS OF DISSERTATION ESSAYS**Testing the complementarity and substitutability among multiple technologies: the case of U.S. hog farms** (with Terrance Hurley, James Kliebenstein and Peter F. Orazem)

We propose a strategy to identify complementarity or substitutability among multiple technologies. Differences between the observed distribution of technology choices and the hypothetical distribution under the assumption that alternative technologies are independent can be subjected to statistical tests. We use this strategy to evaluate simultaneous decisions regarding multiple technology adoptions on U.S. hog farms. We find that as the number of bundled technologies increases, they are increasingly likely to be complementary with one another, even if subsets are substitutes when viewed in isolation. This finding suggests that farmers have an incentive to adopt many technologies at once. The complementarity among technologies in large bundles is contributing to a form of returns to scale that contributes to growth in average farm size.

Firm Size, Technical Change and Wages in the Pork Sector: 1990 -2005

(with Terrance Hurley, James Kliebenstein and Peter F. Orazem)

This study investigates positive relationships between wages and firm size in the context of firms competing within a single market for a relatively homogeneous product: hogs. We pay particular attention to the matching process by which workers are linked to farms of different size and technology use. We find a persistent wage premium on larger farms even after controlling for differences in observable worker attributes and in the observed sorting process of workers across farms, based on four national surveys of employees on hog farms. The wage premium is due to increased productive efficiency and not market power.

Human capital, complex technologies, firm size and wages: A test of the O-Ring Production hypothesis (with Peter F. Orazem). Job Market Paper.

Kremer's O-Ring production theory (QJE, 1993) describes a process in which a single mistake in any one of several tasks in firm's production process can lead to catastrophic failure of the product's value. The theory has relevance in agricultural settings where mistakes have led to large recalls of organic spinach, pet food, chicken, beef and other products. This paper tests the predictions of the O-Ring theory in the context of a single market for a relatively homogeneous product: hog production. Consistent with the theory, the most skilled workers concentrate in the largest and most technologically advanced farms and are paid more. As with observed skills, workers with the greatest endowments of unobserved skills also sort themselves into the largest and most technology intensive farms.