

EDUCATION

Purdue University

Ph.D. in Agricultural Economics

Committee: Juan Sesmero (co-chair), Meilin Ma (co-chair), Joseph Balagtas, Diego Cardoso, Charlotte Ambrozek

Expected May 2026

University of California, Davis

M.S. in Agricultural and Resource Economics

June 2020

China Three Gorges University

M.M.S. in Business Administration

June 2019

China Three Gorges University

B.M.S. in Logistics Management

June 2016

JOB MARKET PAPER

Testing Vertical Relationships in the U.S. Infant Formula Market: Implications for Government Costs and Welfare

Abstract: The U.S. Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides free infant formula to low-income households, serving around 39% of US infants and accounting for over half of all domestically sold formula—making it a substantial government expenditure. To reduce government costs, WIC awards exclusive contracts to manufacturers offering the lowest net price in each state and collects rebates from the winning bidders via public auction, effectively creating government-sanctioned monopolies in WIC markets. The broader implications of this policy hinge on vertical relationships between manufacturers and retailers, which remain poorly understood. I identify the vertical relationship as best characterized by two-part tariffs, where retailers pay fixed fees to manufacturers and wholesale markups are zero. This finding challenges the common but untested resale price maintenance assumption (RPM) in the literature. Counterfactual simulations show that TPT is more efficient than RPM, yielding higher consumer and total surplus while reducing government costs through lower total markups at equivalent net prices. Specifically, under RPM, average retail prices would be 3.8% higher, consumer surplus would be 7.4% lower, and producer surplus would be 2.2% higher. Disaggregated results reveal substantial heterogeneity across states and years: winners may raise or drop prices while losers consistently reduce prices though to varying degrees. Together, these findings demonstrate that conduct assumptions critically shape welfare outcomes.

PUBLICATIONS

1. Wang, Y. 2024. Do High Rebates Guarantee High-Cost Savings? Purdue Agricultural Economics Report, May 15, 2024. PAER-2024-19.
2. Consoli, S., Fraysse, E.A., Slipchenko, N., Wang, Y., Amirebrahimi, J., Qin, Z., Yazma, N., and Lybbert, T.J., 2022. A “Sideways” Supply Response in California Winegrapes. *Journal of Wine Economics* 17(1), 42-63
3. Zhao, X., Wang, Y., and Daun, Y. 2018. Study on the effect of the employment structural adjustment on land transfer of reservoir resettlement — based on immigrants in south-to-north water diversion project. *Chinese Journal of Agricultural Resources and Regional Planning* 39(10), 204-212. [In Chinese]

POLICY AND EXTENSION OUTPUTS

- USDA Report: Processor-Retailer Relationship in the US Beef Supply Chain: Preliminary Analysis Report, *With Joseph V Balagtas, Meilin Ma, and Juan P. Sesmero.*
- Regional Industry Cluster Drill-Down Series, *With Indraneel Kumar and Roberto Gallardo.*
- Indiana Creative Economy 2022 Report, *With Indraneel Kumar and Roberto Gallardo.*

WORK IN PROGRESS	<ul style="list-style-type: none"> • Capacity Constraints and Strategic Bidding in Government Procurement: Evidence from WIC Infant Formula Rebate Auctions • Supply Shock and Infant Formula Prices: Evidence from the US • Markets for Private Label and National Brand Beef, <i>With Joseph V. Balagtas, Meilin Ma, and Juan P. Sesmero.</i> 	
CONFERENCES AND INVITED PRESENTA- TIONS	<ul style="list-style-type: none"> • AEA 2026 Annual Meeting • SEA 95th Annual Meeting • EAAE 2025 Congress • AAEA 2025 Annual Meeting 	<p>January 2026</p> <p>November 2025</p> <p>August 2025</p> <p>July 2025</p>
TEACHING EXPERIENCE	<p>Instructor, Purdue University</p> <ul style="list-style-type: none"> • AGE 516 Mathematical Tools for Agricultural & Applied Economics – Average instructor rate: 4.7/5 • Ph.D. Math Camp <p>Teaching Assistant, Purdue University</p> <ul style="list-style-type: none"> • AGE 516 Mathematical Tools For Agricultural & Applied Economics <p>Teaching Assistant, University of California, Davis</p> <ul style="list-style-type: none"> • ARE 106 Econometric Theory & Applications <p>Reader/Grader, University of California, Davis</p> <ul style="list-style-type: none"> • ARE 132 Cooperative Business Enterprises 	<p>Summer 2024 - Fall 2024</p> <p>Fall 2022 & Fall 2023</p> <p>Spring 2020</p> <p>Winter 2020</p>
PEDAGOGICAL TRAINING	<ul style="list-style-type: none"> • AAEA Teaching Conversations (Teaching, Learning & Communication Section) September 2025 – Present • AAEA Teaching Academy Webinars • AAEA Second Annual Teaching Academy Workshop • AAEA First Annual Teaching Academy Workshop • AAEA Teaching Academy Webinars • Purdue University Online Workshops on Practical Applications of Generative AI in Teaching and Learning 	<p>September 2025 – Present</p> <p>July 2025</p> <p>July 2024</p> <p>September 2024 – May 2025</p> <p>September 2024</p>
RESEARCH EXPERIENCE	<ul style="list-style-type: none"> • Research Assistant, Purdue University for Professor Juan P. Sesmero for Professors Meilin Ma, Juan P. Sesmero, and Joseph V. Balagtas for Professor Meilin Ma • Research Assistant, Purdue Center for Regional Development, Purdue University for Dr. Roberto Gallardo and Dr. Indraneel Kumar • Research Assistant, China Three Gorges University for Professor Jianhua Zhao 	<p>January 2025 - Present</p> <p>September 2023 - Present</p> <p>May 2022 - September 2024</p> <p>August 2021 - May 2023</p> <p>April 2015 – July 2018</p>

AWARDS AND HONORS

- **Farm Foundation Cultivator**, Farm Foundation, 2026
- **Best Poster Award**, Food and Agricultural Marketing Policy Section, Graduate Student Poster Competition, 2025
- **Travel Grant**, Purdue Graduate Student Government (PGSG), 2025
- **AAEA Teaching Academy Travel Grant**, AAEA Trust, 2025
- **Nominee**, College of Agriculture Graduate Student Excellence in Teaching Award, Purdue University, 2025
- **1st Place**, USDA AMS-GSS Local Food Economics Data Visualization Challenge (in-person), 2023
- **National Graduate Scholarship**, Ministry of Education, PRC , 2017 & 2018
- **National Undergraduate Scholarship**, Ministry of Education, PRC, 2015
- **First-Level Scholarship for Graduate Students**, China Three Gorges University, 2016
- **Outstanding Undergraduate Thesis Award**, China Three Gorges University, 2016
- **Nominee**, Top Ten Outstanding Youth Awards, College of Economics and Management, China Three Gorges University, 2016
- **First-Level Scholarship for Undergraduate Students**, China Three Gorges University, 2013 & 2014

SERVICE

- **Reviewer**, The Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie (CJAE)
- **Panelist**, Graduate School Overview Session, SCARF Undergraduate Summer Research Program, Purdue University, June 2025
- **Workshop Co-leader**, Designing Scientific Research Posters, SCARF Undergraduate Summer Research Program, Purdue University, June 2025
- **Reviewer**, EAAE 2025 Congress, February 2025
- **Vice President**, Graduate Student Organization (GSO), Department of Agricultural Economics, Purdue University, June 2024 – May 2025
- **Academic Chair**, Graduate Student Organization (GSO), Department of Agricultural Economics, Purdue University, June 2023 – May 2024

SKILLS

Programming: Python, R, STATA, ArcGIS, Tableau, GeoDa, OpenRefine, Julia
Languages: Chinese (Native), English (Fluent), Spanish (Beginner)

REFERENCES

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