

**CASTIEL CHEN ZHUANG**

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Birthdate: Aug 9, 1992, Nationality: China, Pronouns: He/Him

**Research Interests**

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Health Economics; Development Economics; Industrial Organization; Labor Economics

**Education**

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**University of Washington (UW):**

- Ph.D. Economics, 2022 (expected)  
Thesis Title: “Essays on China’s Health Care and Skill Upgrading Decisions”
- M.A. Economics, 2018

**Peking University (PKU):**

- Master of Finance, 2016
- B.S. Mathematics, 2015 (double major)
- Bachelor of Economics, 2014

**Publications**

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**English:**

- “Training, productivity, and wages: An investigation of China’s manufacturing enterprises in a privatization era”, **Economics of Transition and Institutional Change**, online first, Jun 2021 (with Qifan Huang)
- “Changes in precarious employment in the United States: A longitudinal analysis”, **Scandinavian Journal of Work, Environment & Health**, 47(3): 171-180, Apr 2021 (with Vanessa Oddo, Sarah Andrea, Jerzy Eisenberg-Guyot, Trevor Peckham, Daniel Jacoby, and Anjum Hajat)
- “Income-dependent impacts of health insurance on medical expenditures: Theory and evidence from China”, **China Economic Review**, 53: 290-310, Feb 2019 (with Julie Shi and Yi Chen)
- “Does the One-Child Policy improve children’s human capital in urban China? A regression discontinuity design”, **Journal of Comparative Economics**, 45(2): 287-303, May 2017 (with Xuezheng Qin and Rudai Yang)
- “Intergenerational transfer of human capital and its impact on income mobility: Evidence from China”, **China Economic Review**, 38: 306-321, Apr 2016 (with Xuezheng Qin and Tianyu Wang)

**Chinese:**

- “The impact of birth control policy on offspring’s education level: Microeconomic evidence from China”, **China Economic Quarterly**, 17(3): 897-922, Apr 2018 (with Xuezheng Qin and Rudai Yang)
- “Effect of medical insurance’s dual structure on migrant workers’ incentives to return home: A case of rural migrant workers in Beijing”, **Chinese Rural Economy**, 30(2): 56-68, Feb 2014 (with Xuezheng Qin, Jianbo Zhou, and Yi Xin)

**Working Papers**

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- “Understanding deductible and reimbursement maximum: A study of rural China’s tiered medical system” (with Julie Shi, and Xi Wang)
- “Vertical separation and price negotiation: A case study of China’s lipid-lowering drug industry” (with Qifan Huang, and Zhentong Lu)

- “Trade liberalization and skill upgrading: Evidence on the impact of APTA on Chinese manufacturers”, submitted to **American Economic Journal: Economic Policy**, Oct 2021 (with Chujian Shao, and Qiliang Chen)
- “Association between precarious employment and BMI in the United States”, submitted to **JAMA Network Open**, Oct 2021 (with Vanessa Oddo, Jessica Jones-Smith, Anjum Hajat, Jerome Dugan, Sarah Andrea, and Trevor Peckham)
- “The heterogeneous impact of COVID-19 in a two-sided market: Evidence from a live streaming platform”, revised and resubmitted to **Applied Economics**, Jun 2021 (with Qifan Huang, and Saizi Xiao)
- “The causal impact of market competition on market structure: A deep neural network representation learning approach”, Oct 2021 (with Ying-chin Chen, and Qifan Huang)
- “Heterogeneous policy impacts: A modal regression approach and its application” (with Ying-chin Chen)

## Conference Presentations

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- 2022 American Economic Association (AEA) Annual Meeting, poster, Jan 2022
- 2021 INFORMS Annual Meeting, Oct 2021 (presented by coauthors)
- 2021 China Meeting of the Econometric Society (CMES), Jun 2021
- Western Economic Association International (WEAI) Virtual 96<sup>th</sup> Annual Conference, session chair, Jun 2021
- WEAI Virtual International Conference, Mar 2021 (presented by coauthors)
- National Association for Business Economics (NABE) Tech Economics Conference (TEC) & Industry Job Fair, poster, Nov 2020

## Teaching Experience

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### Instructor:

Undergraduate level:

- “Advanced Microeconomics”, UW, Wi 19
- “Intermediate Microeconomics”, UW, Sp/Au 18 & Sp/Su 19
- “Introduction to Microeconomics”, UW, Su/Au 17

### Teaching Assistant:

Ph.D. level:

- “Econometrics II”, UW, Wi 18
- “Advanced Econometrics I”, PKU, Au 15
- “Advanced Microeconomics I”, PKU, Au 15

Master level:

- “Health Care Policy and Reform”, PKU, Sp 15/16

Undergraduate level:

- “Spreadsheet Models for Managerial Decision Making”, UW, Au 21
- “Principles of Operations Management”, UW, Au 21
- “Statistical Reasoning”, UW, Sp 21
- “Intermediate Microeconomics”, UW, Au 19 & Wi/Sp/Au 20
- “Introduction to Macroeconomics”, UW, Sp 17
- “Introduction to Microeconomics”, UW, Wi 17
- “Sustainable Economics: China’s Economic Development and Future Transition”, London School of Economics and Political Science (LSE)-PKU Summer School, Su 15
- “Information Economics”, PKU, Sp 15
- “Micro-econometrics: Methods and Applications”, PKU, Sp 15
- “Introduction to Chinese Economy”, PKU, Su 15
- “Topics on Chinese Economy”, PKU, Su 13/14

### Grader:

MBA level:

- “Project Management”, UW, [Sp 19](#)
- “Decision Support Models”, UW, [Au 17/18](#)

Undergraduate level:

- “Introduction to Project Management”, UW, [Sp 19](#)
- “Principles of Operations Management”, UW, [Wi 18](#) & [Sp 18/19](#)

## Professional Activities

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### Consultant:

- United Nations Development Programme (UNDP), [Oct 2021-Present](#)

### Research Associate:

- Malaysian Institute of Economic Research (MIER), [Oct 2021-Present](#)

### Research Assistant:

- Vanessa Oddo, College of Applied Health Services (AHS) at University of Illinois Chicago (UIC), [Sep 2019-Present](#)
- Yuya Takahashi, Department of Economics at UW, [Apr-Jun 2021](#)
- Christina Tapia, Department of Economics at UW, [Dec 2017-Jan 2018](#)
- Brain Viard, Cheung Kong Graduate School of Business (CKGSB), [Jul 2014-Jun 2016](#)
- Xuezheng Qin & Qingjie Xia & Julie Shi, PKU School of Economics, [May 2013-Jun 2016](#)
- Szu-chi Huang, Stanford Center at PKU, [Dec 2014-Feb 2015](#)

### Intern:

- Analysis Group Inc. (Beijing Office), [Apr-Jun 2015](#) & [Feb-Aug 2016](#)

## Referee Services

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Ageing & Society; Applied Economics; Applied Economics Letters; China Economic Quarterly (Chinese); China Economic Review; Economics of Transition and Institutional Change; Emerging Markets Finance and Trade

## Research Grants and Projects

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- Co-Principal Investigator of “Assessing the economic and social impact of temporary basic income in Malaysia”, UNDP, USD 1 million cash transfer + USD 150 thousand research fee, [2021-2023](#)
- Main Participant of “Intergenerational transfer of human capital and the mechanism of its impact on economic growth”, National Natural Science Foundation of China (NNSFC), Grant No. 71573003, RMB 400 thousand, [2016-2018](#)
- Main Participant of “Residents’ medical expenses forecasting and medical insurance payment system reform”, NNSFC, Grant No. 71503014, RMB 180 thousand, [2016-2018](#)

## Key Honors and Awards

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- Grover & Creta Ensley Fellowship, UW, [Apr 2021](#)
- Rachel M. Storer Award in Labor Economics, UW, [May 2018](#)
- Excellent Graduate, Beijing, [Jun 2016](#)
- Cao Fengqi Scholarship, PKU, [May 2015](#)
- Leo KoGuan Scholarship, PKU, [Oct 2013](#) & [Oct 2015](#)
- National Scholarship of China, PKU, [Oct 2014](#)

## Community Services and Memberships

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- Member of the Econometric Society, Feb 2021-Present
- Member of WEAI, Nov 2020-Present
- Member of AEA, Sep 2014-Present
- President of PKU Credit & Culture Association, Sep 2012-May 2013
- Core Member of PKU Radio Station, Oct 2010-May 2012

## Miscellaneous

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- Languages: English, and Chinese (Mandarin)
- Software: Stata, Python, R, SAS, Matlab, Mathematica, GAUSS, EViews, and Excel

## References

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## Abstracts of Selected Working Papers

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“Understanding Deductible and Reimbursement Maximum: A Study of Rural China’s Tiered Medical System” (Job Market Paper)

A high-deductible coverage is shown to reduce inappropriate health care, while little is known about its effect on social welfare under a reimbursement limit. This paper utilizes a large claims level dataset from rural China and estimates preferences of inpatients under tier-dependent nonlinear cost-sharing schemes. Patients with high health risks prefer generous hospitals for financial protection, but it is countervailed by a potential mistrust of quality—this partly explains why patients with common diseases or minor illnesses may bypass primary care; moral hazard increases with health risks and willingness to pay in general but is modest. Increasing all hospitals’ deductibles by 1,000 yuan improves social welfare by 2 percent and encourages more patients with lower health risks to visit lower-tiered hospitals and save the medical resources in higher-tiered hospitals for advanced treatments; the current reimbursement maximum is close to the optimal, and the additional insurer cost and efficiency loss of increasing the limit to promote policy acceptance do not outweigh the positive effects of higher deductibles.

“Vertical Separation and Price Negotiation: A Case Study of China’s Lipid-Lowering Drug Industry”

China’s pharmaceutical and healthcare systems experienced massive changes in the past decade. A series of systemic policies, especially the zero-markup drug policy, were introduced to separate the vertical integration between physicians and pharmacies to alleviate the expert agency problem in the hospital sector. This paper presents a structural model of China’s prescription drug market and estimates the impact of drug markup on profitability and patient welfare in each province of China. Our results suggest that: Chinese physicians’ prescription choices are influenced by drug markup, but they are more sensitive to patient’s out-of-pocket costs, unless the coinsurance rate is above 35 percent; pricing is mostly dominated by provincial governments that are assumed to represent consumer welfare in China; branded drugs were favored, more concentrated, and less price sensitive than generics; the zero-markup drug policy makes generic drugs relatively more favorable, and thus can increase their profitability; while market shares could be lowered by the zero-markup drug policy, patient welfare can be improved by more than 12 percent.

“Trade Liberalization and Skill Upgrading: Evidence on the Impact of APTA on Chinese Manufacturers”

This paper studies the impact of an Asian trade agreement, APTA, on skill upgrading by Chinese manufacturers. First, we develop a general equilibrium model of trade with heterogeneous firms and endogenous export and employee training decisions to explain firm performance following trade liberalization. Second, we test the theoretical model based on general difference-in-differences estimations, showing that firms in some sectors facing higher reductions in India’s tariffs increase investment in on-the-job training faster. However, there may exist a reverse effect of trade integration on firms’ labor training in other sectors. New exporters have a greater likelihood of entering the Indian market following India’s concessions. The effects of trade openness on export participation and training spending of firms are the largest in the middle range of productivity, consistent with our model prediction.