Benjamin C. Chu

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A driven Ph.D. Economics candidate at the University of Hawaiʻi at Mānoa with a research focus in health economics, health policy, and applied econometrics. Possesses 6+ years of experience in policy analysis, academic research, econometric methods, and statistical analysis. Skilled in drafting and disseminating statistical reports, researching policies related to Medicare and Medicaid, presenting to technical and non-technical audiences, and teaching at the university level.

EDUCATION

- **University of Hawaiʻi at Mānoa** — Honolulu, Hawaiʻi
  Ph.D. - Economics — *Expected: May 2023*
  Dissertation: *Essays on Public Insurance Policies Affecting Low-Income Populations*
  Committee: Timothy Halliday, Victoria Fan, Ruben Juarez, Sang-Hyop Lee & Teresa Molina

- **University of Hawaiʻi at Mānoa** — Honolulu, Hawaiʻi
  M.A. - Economics — *May 2019*

- **University of Hawaiʻi at Mānoa** — Honolulu, Hawaiʻi
  B.S. - Family and Consumer Sciences — *May 2015*

WORK EXPERIENCE

- **Research Assistant | Telecommunications and Social Informatics Program (TASI)** — Honolulu, Hawaiʻi
  Supervisor: Norman Okamura, (808) 956-2909 — *Oct 2022 - Present*
  Address: 2424 Maile Way, Saunders Hall 704, Honolulu, HI 96822
  Salary: $25,000/year
  Hours per week: 20
  - Providing technical, analytic, and coordination support for research activities, reporting, data requests, and presentations; including development of codes, workflow, briefs, and Standard Operation Procedures for various data science and Health Information Technology projects.
  - Assisting with research on various healthcare and healthcare system topics, including conducting literature reviews, writing academic papers, and preparing findings for dissemination to stakeholders and non-technical audiences.
  - Conducting statistical analysis and modeling of health claims data using statistical software such as R, SAS, Python, or other data science tools.

- **Lecturer | Department of Economics, University of Hawaiʻi at Mānoa** — Honolulu, Hawaiʻi
  Supervisor: Sang-Hyop Lee, (808) 956-7041 — *Jan 2019 - Present*
  Address: 2424 Maile Way, Saunders Hall 542, Honolulu, HI 96822
  Salary: $5,000(per course)
  Hours per week: 10
  - Taught undergraduate courses in the subjects related to microeconomic theory, macroeconomic theory, econometrics and data analysis and visualization.
  - Created and implemented a six-week intensive summer data analysis and visualization course for students pursuing quantitative economics.
  - Designed and constructed a learning curriculum that is easily accessible for students both in classrooms and online environments.

- **Research Assistant | Pacific Health Analytics Collaborative (PHAC)** — Honolulu, Hawaiʻi
  Supervisor: Victoria Fan, (617) 398-0797 — *Sep 2019 - Sep 2022*
  Address: Biomedical Sciences, 1960 East-West Rd, Honolulu, HI 96822
  Salary: $24,000/year
  Hours per week: 20
  - Conducted economic research that proposed innovations in Medicaid, risk adjustment systems, and diagnostic classification for the purpose of improving health care quality and accessibility.
  - Applied methods in economics and econometrics to conduct statistical analyses of health policy topics using electronic health records, medical claims, and survey data.
  - Utilized multiple programming languages and software to perform tasks in data cleaning, web scraping, statistical inference and data visualization.
  - Prepared summary reports, academic papers, data dashboards, briefings, and data quality assessments to be presented to various community stakeholders, health professionals, and non-technical audiences.

- **Educational Coach | Center on Disability Studies, University of Hawai'i at Mānoa**   Honolulu, Hawai'i
  Supervisor: Sean Nagamatsu, (808) 292-5503   *Aug 2018 - Jan 2019*
  Address: 1410 Lower Campus Road, 171F Honolulu, HI 96822
  Salary: $24,000/year
  Hours per week: 20
    - Assisted students with special health care needs in improving their academic and self-management skills such as time management, organization, and study habits.
    - Helped students identify and build strengths to transfer abilities across domains, develop individual plans for academic support, and foster the growth of affective skills.

- **Teaching Assistant | Department of Economics, University of Hawai'i at Mānoa**   Honolulu, Hawai'i
  Supervisor: Sang-Hyop Lee, (808) 956-7041   *Aug 2017 - Aug 2019*
  Address: 2424 Maile Way, Saunders Hall 542, Honolulu, HI 96822
  Salary: $20,000/year
  Hours per week: 20
    - Taught weekly sessions in microeconomics and econometrics for undergraduate students.
    - Assisted in the creation and grading of assignments and exams for undergraduate economic courses.

Research Experience

6+ years of experience (20 hours per week) conducting independent, original economic research in health economics, health policy, and applied econometrics. Details of research-related experience include:

- Analyzing the effects of health programmes connected to Medicare and Medicaid on low-income populations using innovative methods from economic theory, econometrics, and machine learning.
- Performing independent and original research that serves to motivate policy development for Medicare and Medicaid.
- Implementing appropriate statistical econometric techniques (i.e., difference-in-differences, linear discriminant analysis, instrumental variable regression, etc) in the analysis and interpretation of economic research questions.
- Preparing a written analysis of statistical findings to be disseminated in reports or submitted to academic journals.
- Presenting research at conferences and meetings with various professional organizations, stakeholders, academic audiences and non-technical audiences.

| From Dissertation: *Essays on Public Insurance Policies Affecting Low-Income Populations* |

- **Who Did the ACA Medicaid Expansion Impact? Using Linear Discriminant Analysis to Estimate the Probability of Being a Complier (Job Market Paper) (Revise & Resubmit to Health Economics)**
    - Used data from American Community Survey (ACS) to estimate the conditional probability of being a complier from the ACA Medicaid expansion.
    - Introduced a novel approach that utilizes machine learning and econometrics in a fashion that has not been observed in the literature.

- **Laying Down the Welcome Mat: Measuring the Impacts of the Medicaid Expansion for Children Previously Eligible for Medicaid (Working Paper)**
    - Used data from the American Community Survey (ACS) to estimate the impact of the ACA Medicaid expansion for children who were eligible for Medicaid prior to the expansion.
    - Crafted measurements of Medicaid eligibility for children using both Modified Gross Adjustment Income (MAGI) thresholds from the Kaiser Family Foundation (KFF) and poverty thresholds from the Census Bureau.

| Other Research: |

- **Assessing the Effectiveness of Risk Adjustment Systems in Recognizing Dual Diagnosis and Co-occurring Conditions for Mental Health and Substance Use Disorders (Work in Progress)**
    - Estimating the performance of current risk adjustment models for health insurance marketplaces and Medicare in predicting the risk score that accurately reflects the costs associated with treating those experiencing multiple co-occurring conditions in mental health and substance use.
    - Developing a novel comorbidity index that captures the prevalence of co-occurring mental health conditions and dual diagnoses for high risk enrollees.

Policy Papers & Legislative Reports

1. **Chu, B.**, Nakano, L., Do, B., Emory, C., Fan, V.Y. Hawai'i State Epidemiologic Report and County Profiles. Honolulu, HI. August 6th, 2022. Web Version: Report

2. Aoki, C., Valdez, K., Abe, A., Burke, K., **Chu, B.**, Subia, C., Lumbao, S., Untalan, R., McKee, S., Ha, E., Talagi, D., Fontanilla, T., Worley, K., Galanis, D., Bolan, A., Fan, V.Y. Hawai'i Opioid Initiative Evaluation Report 2021. Honolulu, HI. August 31st, 2021. Web Version: Report

3. Abe, A., **Chu, B.**, Fan, V.Y. State Opioid Response Technical Assistance Plan, 2021.

4. **Chu, B.**, Fontanilla, T., Fan, V.Y. University of Hawai'i at Mānoa. Overdose Data to Action Plan (OD2A) Laulima Outpatient Dataset - Data Quality Assessment, 2021.

5. **Chu, B.**, Fontanilla, T., Fan V.Y. University of Hawai'i at Mānoa. Overdose Data to Action Plan (OD2A) Laulima Inpatient Dataset - Data Quality Assessment, 2021.

Skills Summary

- **Programming Languages:** R, Python, SQLite, HTML, MATLAB
- **Software Experience:** Stata, RStudio, Microsoft PowerBI, Microsoft Excel
- **Operating Systems:** Microsoft Windows OS, Mac OS
- **Media/Design:** LaTeX, Adobe Illustrator, Microsoft PowerPoint
- **Research:** Health Economics, Risk Adjustment, Regression Analysis, Model Evaluation, Statistical Modeling, Research Design, Academic Writing, Quantitative Analysis, Econometrics

Teaching

- **ECON 130:** *Principles of Microeconomics* (Teaching Assistant) - Fall 2016, Spring 2017, Fall 2018, Spring 2019
- **ECON 130:** *Principles of Microeconomics* (Instructor) - Spring 2019, Spring 2020, Fall 2022
- **ECON 131:** *Principles of Macroeconomics* (Instructor) - Summer 2021
- **ECON 256:** *Data Analysis and Visualization* (Instructor) - Summer 2022, Spring 2023, Summer 2023
- **ECON 300:** *Intermediate Macroeconomics* (Instructor) - Summer 2019, Summer 2020
- **ECON 425:** *Introduction to Econometrics* (Teaching Assistant) - Spring 2019
- **ECON 627:** *Econometrics II* (Grader) - Fall 2022
- **ECON 674:** *Health Economics and Policy* (Guest Lecturer) - Fall 2022

Honors and Awards

- College of Social Science Excellence in Teaching Award (Nomination), University of Hawai'i at Mānoa - 2023
- Burnham O. Campbell Scholarship, University of Hawai'i at Mānoa - 2022
- Pi Gammu Mu, University of Hawai'i at Mānoa - 2022
- Frances Davis Graduate Student Teaching Nomination, University of Hawai'i at Mānoa - 2017-2019
- Graduate Assistantship, University of Hawai'i at Mānoa - 2017-2019
- Phi Upsilon Omicron, University of Hawai'i at Mānoa - 2012-2015
- Golden Key International Honor Society, University of Hawai'i at Mānoa - 2012-2015
- Band Scholarship, University of Hawai'i at Mānoa - 2010-2016

Conferences

2022:

4. "Who Did the ACA Medicaid Expansion Impact? Using Linear Discriminant Analysis to Estimate the Probability of Being a Complier". *Hawai'i Economic Association Graduate Student Showcase, Honolulu, Hawai'i, TBD.*

3. "Find Your Peace, Find Your Space". *Special Parents Information Network Conference, Honolulu, Hawai'i, October 22nd, 2022 (with Thao Le).*

2. "Who Did the ACA Medicaid Expansion Impact? Using Linear Discriminant Analysis to Estimate the Probability of Being a Complier". *University of Hawai'i at Mānoa Applied Microeconomics Workshop, Honolulu, Hawai'i, September 20th, 2022.*

1. "Does Smoking Affect Wages?". *Workshop on the Economics of Risky Behavior, Honolulu, Hawai'i, July 9th, 2022 (Discussant) (with Gregor Pfeifer).*

2021:

3. "Who Did the ACA Medicaid Expansion Impact? Using Linear Discriminant Analysis to Estimate the Probability of Being a Complier". *University of Hawai'i at Mānoa Applied Microeconomics Workshop, Honolulu, Hawai'i, November 16th, 2021.*

2. "Laying Down the Welcome Mat: Measuring the Impacts of the Medicaid Expansion for Children Previously Eligible for Medicaid". *Hawai'i Economic Association Graduate Student Showcase, Honolulu, Hawai'i, November 4th, 2021.*

1. "Laying Down the Welcome Mat: Measuring the Impacts of the Medicaid Expansion for Children Previously Eligible for Medicaid". *University of Hawai'i at Mānoa Applied Microeconomics Workshop, Honolulu, Hawai'i, October 12th, 2021.*

2020:

1. "Autism Supports See Through My Eyes". *Special Parents Information Network Conference, Honolulu, Hawai'i, October 17th, 2020 (with Alysha Kim).*

2019:

2. "A Horse of Different Color: Strategies to Support Students with Autism Focusing on Motivation". *Special Parents Information Network Conference, Honolulu, Hawai'i, April 13th, 2019 (with Ann N. Garfinkle).*

1. "Laying Down the Welcome Mat: Measuring the Impacts of the Medicaid Expansion for Children Previously Eligible for Medicaid". *University of Hawai'i at Mānoa Applied Microeconomics Workshop, Honolulu, Hawai'i, March 5th, 2019.*

2018:

1. "Mindful Meditation and Communication Strategies". *Special Parents Information Network Conference, Honolulu, Hawai'i, April 21st, 2018.*

2017:

1. Keynote Address. *Special Parents Information Network Conference, Honolulu, Hawai'i, April 22nd, 2017.*

REFERENCES

Prof. Timothy Halliday
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Prof. Victoria Fan
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