THE 9TH ANNUAL INTERNATIONAL CONFERENCE ON

APPLIED ECONOMICS IN HAWAII

Participating universities: Kobe University, Nanyang Technological University, National Taiwan University, University of Hawai'i at Mānoa
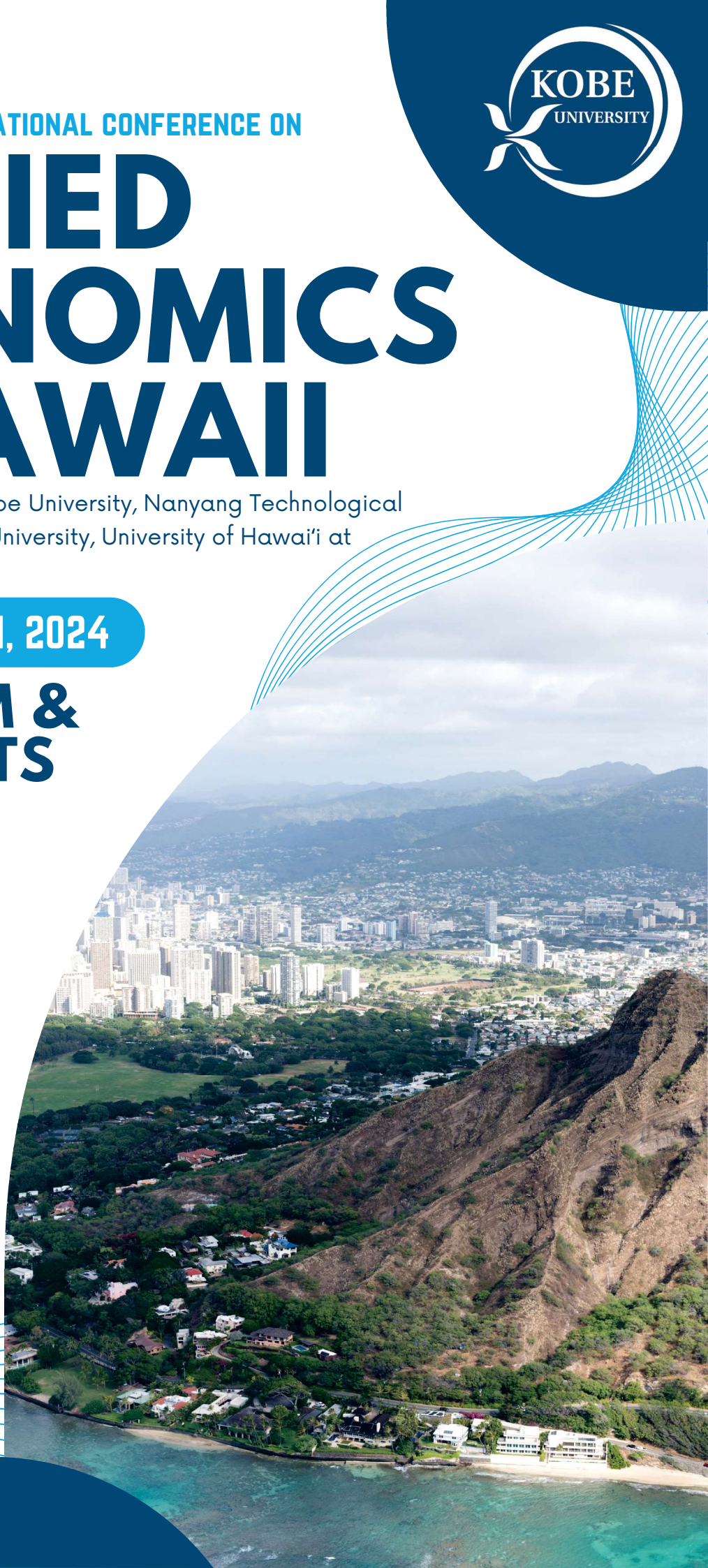
SEPTEMBER 25TH, 2024

PROGRAM & ABSTRACTS

Collaborators and Sponsors:

The Kobe University Center for Social Systems Innovation (KUSSI)

Kobe University's Institute for Promoting International Partnerships Americas Division

Kobe University Rokkodai Foundation

KOBE UNIVERSITY

Conference Agenda

The 9th Annual Conference on Applied Economics in Hawaii

Date: September 25th 2024
Location: Ala Moana Hotel (Honolulu, Hawaii)
Sponsored by: Kobe University Rokkodai Foundation

Opening	
8:45 - 9:00	*Registration*
9:00 - 9:10	**Opening Remarks** Speaker: Takuji KINKYO, Kobe University

Session 1 (chair: Tomoko KINUGASA)	
9:10 - 9:50	**Presentation 1** "Girls Help Girls but Not Boys: Revisiting Gender Peer Effects in Elementary Schools" Speaker: Chihiro INOUE, Kobe University
9:50 – 10:00	*Coffee break*
10:00 – 11:00	**Keynote Speech** "Population Aging and its Economic Consequences" Speaker: Andrew MASON, University of Hawaiʻi at Mānoa
11:00 – 11:40	**Presentation 2** "Foreign Caregivers and Health Outcomes" Speaker: Kuan-Ming CHEN, National Taiwan University
11:40 – 13:00	*Lunch*

Session 2 (chair: Takuji KINKYO)	
13:00 – 13:40	**Presentation 3** "Conditional Threshold Effects of Stock Market Volatility on Crude Oil Market Volatility" Speaker: Kaiji MOTEGI, Kobe University
13:40 – 14:20	**Presentation 4** "Moon Walking: Road Lighting and Nighttime Pedestrian Deaths" Speaker: Justin TYNDALL, University of Hawaiʻi at Mānoa
14:20 – 14:50	*Coffee break*

Conference Agenda

	Session 3 (chair: Nori TARUI)
14:50 – 15:30	**Presentation 5** "The Administrator and the Administered: Does Gender Matter for Education?" Speaker: Akshar SAXENA, Nanyang Technological University
15:30 – 16:10	**Presentation 6** "Maui Wildfire Exposure Study: Community Health, Wellbeing, and Resilience" Speaker: Ruben JUAREZ, University of Hawaiʻi at Mānoa
16:10 – 16:20	**Closing Remarks** Speaker: Denise KONAN, University of Hawaiʻi at Mānoa

Abstracts

Keynote Speech
"Population Aging and its Economic Consequences"
Andrew MASON, University of Hawaiʻi at Mānoa

The world is experiencing rapid population aging and population decline. These demographic changes will have important macroeconomic. These will be identified and quantified relying on National Transfer Accounts.

Presentation 1
"Girls Help Girls but Not Boys: Revisiting Gender Peer Effects in Elementary Schools"
Chihiro INOUE, Kobe University

I estimate the effect of peer gender composition on test scores of elementary school students, using data from Saitama Prefecture, Japan. Exploiting within-school and across-cohort variation in gender composition, I show that a higher female ratio increases girls' test scores but does not affect boys'. I find suggestive evidence that having more female peers improves the school learning environment but reduces boys' engagement in individual and peer learning, demonstrating that the absence of an impact on test scores does not imply a lack of an impact on student learning, with positives and negatives for educational inputs.

Presentation 2
"Foreign Caregivers and Health Outcomes"
Kuan-Ming CHEN, National Taiwan University

We causally estimate how hiring a foreign caregiver impacts the care-receiver's health. Utilizing policy reforms as a quasi-experiment, we analyze data from the Taiwan Longitudinal Study on Aging (TLSA). Our findings reveal that hiring foreign caregivers leads to significant improvements in health outcomes, such as reductions in inpatient, outpatient, and emergency department visits, as well as fewer falls.

Presentation 3
"Conditional Threshold Effects of Stock Market Volatility on Crude Oil Market Volatility"
Kaiji MOTEGI, Kobe University

Modelling and predicting the volatility of crude oil returns are a vital area of research, since crude oil is one of the most actively traded commodities and a major source of the global energy supply. Volatility indicators often exhibit threshold effects: asymmetric responses below versus above a certain cut-off level. It is plausible to assume that the threshold level is time-varying, as investors' perception on high versus low volatility likely depends on time. Motivated by this insight, we analyze conditional threshold effects of stock market volatility on crude oil market volatility. We use the Conditional Threshold Autoregressive (CoTAR) model, a novel generalization of TAR where the threshold is specified as an empirical quantile of recent observations of a threshold variable. Our out-of-sample analysis finds that the CoTAR-based forecast is significantly more accurate than the TAR-based forecast for some cases, and they are as accurate as each other for other cases. CoTAR often outperforms TAR when predicting a downside volatility measure of crude oil returns; it is a useful finding which helps market participants and policymakers better manage downward risks.

Presentation 4
"Moon Walking: Road Lighting and Nighttime Pedestrian Deaths"
Justin TYNDALL, University of Hawai'i at Mānoa

The US recorded 7,400 pedestrian road deaths in 2021, 77% occurred during the night. Low lighting during the night reduces visibility, potentially increasing the frequency and severity of vehicle-pedestrian collisions. The causal effect of light conditions on pedestrian safety is not easily estimated because road conditions and travel behavior differ from day to night, and artificial lighting is spatially endogenous with pedestrian risk. I use complete US data on 190,000 nighttime pedestrian deaths, spanning 1975-2021. The phase of the moon provides a novel source of exogenous nightly variation in road illumination. Across the US, pedestrian deaths increase by 5% on nights with no moonlight, relative to nights with the brightest moonlight. In rural areas, the effect is 17%. The effects are specific to roads without artificial lighting. A small increase in ambient light has a large effect on pedestrian safety. The finding has policy implications for road safety and the artificial lighting of roadways

Presentation 5

"The Administrator and the Administered: Does Gender Matter for Education?"

Akshar SAXENA, Nanyang Technological University

Do female bureaucrats improve educational outcomes as compared to male bureaucrats? We study the enrollment of students into primary schools across the districts of India due to changes in district administrators or bureaucrats. Using administrative data on student enrollment from 2005-2017 and employment history and individual characteristics of bureaucrats, we estimate the effect of female administrators on student enrollment. Our results show that the districts, where female administrators are appointed, experience an average increase of 0.95% in enrollment in primary schools. Heterogeneity analysis shows that enrollment increases for higher grade classes, smaller and co-educational schools, schools located in rural areas and in states that perform relatively worse on women empowerment indicators, and only for female students. Results suggest that increased enrollment may be due to both improvements in infrastructure and the role-model effect. Although welfare improving, increase in enrollment is accompanied with un-intended consequences of increase in failure-rate of students at higher grades. The evidence demonstrates that individual characteristics of bureaucrats has important implications for development and providing equal opportunities for education for females.

Presentation 6

"Maui Wildfire Exposure Study: Community Health, Wellbeing, and Resilience"

Ruben JUAREZ, University of Hawaiʻi at Mānoa

The Maui Wildfire Exposure Study (MauiWES) is a comprehensive cohort study focusing on the health and social impacts of the Maui wildfires, the worst natural disaster in the state of Hawaii. Conducted by the University of Hawaiʻi Economic Research Organization and the John A. Burns School of Medicine, in collaboration with community and health organizations, this study aims to address the effects of environmental hazards and socioeconomic challenges on affected populations. We aim to monitor health and social conditions through detailed questionnaires, health assessments, and biospecimen collection.

Key findings include significant challenges in accessing medical care and insurance, with 46% reporting deteriorated health since the fires. Smoke, ash, and debris exposure are linked to cardiovascular and respiratory issues, while mental health has worsened, with increased depression and anxiety rates. Only 34% of participants remain in their pre-wildfire homes, with many facing employment and income reductions. Food insecurity affects 47% of households. MauiWES highlights the critical role of community organizations in disaster response and provides actionable recommendations: improving healthcare access, ensuring housing stability, addressing environmental hazards, and strengthening community support networks.