### **CURRENT POSITION & CONTACT**

Assistant Professor Office 921, Teaching Complex B Computational Social Science Division

School of Humanities and Social Science

The Chinese University of Hong Kong, Shenzhen (CUHK Shenzhen) 2001 Longxiang Boulevard, Shenzhen, Guangdong, P.R. China 518172

E-mail: chaofengqing@cuhk.edu.cn

Website: https://chaofengqing.github.io/chao\_lab/

ORCID: 0000-0002-2228-5970

#### **EDUCATION**

2017 PhD in Biostatistics, Saw Swee Hock School of Public Health, National University of Singapore (NUS).

- Advisors: Prof. Leontine Alkema (UMass Amherst), Prof. Alex Cook (NUS).

2012 BSc (Hons) Statistics, National University of Singapore.

#### RESEARCH INTERESTS

Statistical demography; Bayesian modeling; Global health; Sex ratio at birth; Child mortality; Time series analysis

### PEER-REVIEWED PUBLICATIONS

- 15. Li, Man, Shanwen Zhu, Zhenglian Wang, Qiushi Feng, Junni Zhang, **Fengqing Chao**, Wei Tang, Linda George, Emily Grundy, Michael Murphy, Michael Lutz, Adrian Dobra, Kenneth Land, and Zeng Yi. "Optimized Random-Combinations of Total Fertility Rates and Life Expectancies at Birth for Probabilistic Population Projections". *Population Research and Policy Review* 44, no. 7 (2025). [Links: paper]
- 14. **Chao, Fengqing**, Bruno Masquelier, Danzhen You, Lucia Hug, Yang Liu, David Sharrow, Håvard Rue, Hernando Ombao, and Leontine Alkema. "Sex differences in mortality among children, adolescents, and young people aged 0–24 years: a systematic assessment of national, regional, and global trends from 1990 to 2021". *Lancet Global Health* 11, no. 10 (2023): e1519-e1530. [Links: paper; appendix; Altmetric]
- 13. **Chao, Fengqing**, Muhammad Asif Wazir, and Hernando Ombao. "Levels and Trends Estimates of Sex Ratio at Birth for Seven Provinces of Pakistan from 1980 to 2020 with Scenario-Based Probabilistic Projections of Missing Female Birth to 2050: a Bayesian Modeling Approach". *International Journal of Population Studies* 8, no. 2 (2022): 51-70. [Links: paper; appendix; code]
- 12. **Chao, Fengqing**, Samir K.C., and Hernando Ombao. "Estimation and probabilistic projection of levels and trends in the sex ratio at birth in seven provinces of Nepal from 1980 to 2050: a Bayesian modeling approach." *BMC Public Health* 22, no. 1 (2022): 358. [Links: paper; appendix; code; Altmetric]
- 11. **Chao, Fengqing**, Patrick Gerland, Alex R. Cook, and Leontine Alkema. "Global estimation and scenario-based projections of sex ratio at birth and missing female births using a Bayesian hierarchical time series mixture model." *Annals of Applied Statistics* 15, no. 3 (2021): 1499-1528. [Links: paper; Altmetric]
- 10. **Chao, Fengqing**, Patrick Gerland, Alex R. Cook, Christophe Z. Guilmoto, and Leontine Alkema. "Projecting sex imbalances at birth at global, regional and national levels from 2021 to 2100: scenario-based Bayesian probabilistic projections of the sex ratio at birth and missing female births based on 3.26 billion birth records". *BMJ Global Health* 6, no. 8 (2021): e005516. [Links: paper; appendix; Altmetric]
- 9. **Chao, Fengqing**, Christophe Z. Guilmoto, and Hernando Ombao. "Sex ratio at birth in Vietnam among six subnational regions during 1980–2050, estimation and probabilistic projection using a Bayesian hierarchical time series model with 2.9 million birth records." *PLoS ONE* 16, no. 7 (2021): e0253721. [Links: paper; appendix; code; Altmetric]

- 8. **Chao, Fengqing**, Christophe Z. Guilmoto, Samir K.C., and Hernando Ombao. "Probabilistic projection of the sex ratio at birth and missing female births by State and Union Territory in India." *PLoS ONE* 15, no. 8 (2020): e0236673. [Links: paper; appendix; Altmetric]
- 7. Guilmoto, Christophe Z., **Fengqing Chao**, and Purushottam M. Kulkarni. "On the estimation of female births missing due to prenatal sex selection." *Population Studies* 74, no. 2 (2020): 283-289. [Links: paper; Altmetric]
- 6. Brown, Peter, **RELISH Consortium**, Yaoqi Zhou. "Large expert-curated database for benchmarking document similarity detection in biomedical literature search." *Database* 2019 (2019): baz138. [Links: paper; Altmetric]
- 5. **Chao, Fengqing**, and Ajit Kumar Yadav. "Levels and trends in the sex ratio at birth and missing female births for 29 states and union territories in India 1990–2016: A Bayesian modeling study." *Foundations of Data Science* 1, no. 2 (2019): 177-196. [Links: paper]
- 4. **Chao, Fengqing**, Patrick Gerland, Alex R. Cook, and Leontine Alkema. "Systematic assessment of the sex ratio at birth for all countries and estimation of national imbalances and regional reference levels." *Proceedings of the National Academy of Sciences* 116, no. 19 (2019): 9303-9311. [Links: paper; appendix; Altmetric]
- 3. **Chao, Fengqing**, Danzhen You, Jon Pedersen, Lucia Hug, and Leontine Alkema. "National and regional under-5 mortality rate by economic status for low-income and middle-income countries: a systematic assessment." *Lancet Global Health* 6, no. 5 (2018): e535-e547. [Links: paper; appendix; Altmetric]
- 2. **Chao, Fengqing**, and Leontine Alkema. "How informative are vital registration data for estimating maternal mortality? A Bayesian analysis of WHO adjustment data and parameters." *Statistics and Public Policy* 1, no. 1 (2014): 6-18. [Links: paper; Altmetric]
- 1. Alkema, Leontine, **Fengqing Chao**, Danzhen You, Jon Pedersen, and Cheryl C. Sawyer. "National, regional, and global sex ratios of infant, child, and under-5 mortality and identification of countries with outlying ratios: a systematic assessment." *Lancet Global Health* 2, no. 9 (2014): e521-e530. [Links: paper; appendix; code; Altmetric]

### Воок

1. Christopher, Gee, Yvonne Arivalagan, and **Fengqing Chao**, eds. *Singapore Perspectives 2018: Together*. World Scientific, 2018. doi:10.1142/11155

#### Published Documentations

- 4. **Chao, Fengqing**, Ivan Williams, Lubov Zeifman and Patrick Gerland (2024). *Estimating age-sex-specific adult mortality in the World Population Prospects: A Bayesian modelling approach*. United Nations, Department of Economics and Social Affairs, Population Division, Technical Paper No. UN DESA/POP/2024/TP/No.9. [Link]
- 3. UN WPP 2024 team (2024). World Population Prospects 2024: Methodology of the United Nations population estimates and projections. UN DESA/POP/2024/DC/NO.10. [Link]
- Chao, Fengqing, Vladimira Kantorova, Giulia Gonnella, Lina Bassarsky, Lubov Zeifman, and Patrick Gerland (2023). Estimating age-specific fertility rate in the World Population Prospects: a Bayesian modelling approach. United Nations, Department of Economics and Social Affairs, Population Division, Technical Paper No. UN DESA/POP/2023/TP/No.6. [Link]
- 1. UN WPP 2022 team (2022). World Population Prospects 2022: Methodology of the United Nations population estimates and projections. UN DESA/POP/2022/TR/NO.4. [Link]

## Manuscripts under Peer-Review/Revision

- 3. Zekun Chen, Guangyu Tong, Ning Ma, Shaoru Chen, Yuhao Kong, Yukang Zeng, Shang Lou, Shuyi Jin, Hang Xu, Lhuri Dwianti Rahmartani, Biniyam Sahiledengle, **Fengqing Chao**, Md. Ashfikur Rahman, Justice Moses K Aheto, Peter Karoli, Elizabeth H. Shayo, Andrew Marvin Kanyike, David Lubasi Nalisa, George Boamah Appiah, Chunling Lu, Million Phiri, Wei Wei Pang, Rockli Kim, Zhao Ai, Feng Cheng, Jun Zhang, Cuilin Zhang, Yi Song, S V Subramanian, Pascal Geldsetzer, Rifat Atun, Alex R. Cook, and Zhihui Li. "Prolonged exclusive breastfeeding beyond six months among infants aged 6–11 months old in 109 lowand middle-income countries from 2000 to 2050: trends, projections, socioeconomic disparities, and health impacts"
- 2. **Chao, Fengqing**, Vladimíra Kantorová, Giulia Gonnella, Bruno Schoumaker, David A. Sánchez-Páez, and Patrick Gerland. "Levels and trends in fertility rates among adolescents aged 10–14 and 15–19 in 201 countries or areas from 1950 to 2023". *SSRN* (2025). [Preprint Link].
- 1. Yi Zeng, Junni Zhang, Wei Tan, Man Li, Shanwen Zhu, Michael Murphy, **Fengqing Chao**, Michael Lutz, Kenneth Land, Qiushi Feng, and Zhenglian Wang. "Employing the Bayesian Model to Estimate and Probabilistically Project Total Marriage Rates and Total Divorce Rates for Probabilistic Household and Living Arrangement Projections"

#### Manuscripts in preparation

- 3. **Chao, Fengqing**, Bruno Masquelier, Håvard Rue, Hernando Ombao, and Leontine Alkema, "A Bayesian hierarchical time series model for estimating sex ratios of age-specific mortality".
- 2. **Chao, Fengqing**, Vladimira Kantorova, Patrick Gerland, Giulia Gonnella, Lubov Zeifman, Helena Cruz Castanheira, Thomas Spoorenberg, Danan Gu, Sara Hertog, Lina Bassarsky, and Hernando Ombao, "Levels and trends in fertility rates among adolescents aged 10-14 in 237 countries from 1950 to 2021".
- 1. **Chao, Fengqing**, Danzhen You, Lucia Hug, Jon Pedersen, Hernando Ombao, and Leontine Alkema. "A systematic assessment of national under-5 mortality rate by place of residence for 109 countries". doi:10.6084/m9.figshare.12403088.

### HONORS AND AWARDS

2013 Aug: XXVII IUSSP International Population Conference Best Poster Award. [Link]

2011 May: NUS Dean's List: AY 2010/2011 Semester 2.

2008–2012: NUS Undergraduate Scholarship (full scholarship with allowance).

### RESEARCH GRANT MANAGEMENT

2024 Nov-: Modeling the child mortality rate by mothers' education level. UNICEF. PI: **Fengqing Chao**. USD 9.999.

2024 May-: Start-up fund. CUHK Shenzhen. PI: Fengqing Chao

2019 Sep–2022 Sep: Long Term Agreement for Services (LTAS) for the UNICEF. LTAS-42107038. PI: **Fengqing Chao** (Awarded to KAUST with faculty mentor Hernando Ombao). USD \$35,300.

### PROFESSIONAL MEMBERSHIP

2021-: Population Association of Singapore.

2021: UN Expert Group Meeting, Supporting Inequality Assessments of CRVS systems in Asia and the Pacific. Statistics Division, UN ESCAP.

2020-: American Statistical Association. International Biometric Society. Population Association of America.

## Professional activities & service

Service at CUHK Shenzhen:

2025-: Member, CSS Division Graduate Committee.

2025-: Member, CSS PhD Examination Committee (Task Force).

2024-: Member, School of Humanities and Social Science Library Committee.

2024-: Member, School of Humanities and Social Science Student Enrollment Committee.

2024-: Member, University-level Undergraduate Enrollment Committee.

2024-: Member, Computational Social Science MSc and PhD Enrollment Committee.

2024–: Interview panel & Member, Computational Social Science Faculty Search Committee.

2024-: Interview panel & Member, Computational Social Science PhD Admissions Committee.

2024-: Interview panel & Member, Computational Social Science MSc Admissions Committee.

#### Associate Editor:

2022-: Statistics and Computing.

2019-: Foundation of Data Science (AIMS).

#### Ad hoc reviewer by discipline:

Statistics/mathematics: Annals of Applied Statistics. Entropy. Risks. Stats. TEST.

Demography: Asian Population Studies. Demographic Research. Demography. International Journal of Population Studies. International Perspectives on Sexual and Reproductive Health. Journal of Population and Social Studies. Journal of Population Economics. Journal of Population Research. Mathematical Population Studies. Population Research and Policy Review. Spatial Demography. SSM - Population Health. Studies in Family Planning.

Global/public health: BMC Public Health. BMJ Global Health. Discover Public Health. Global Health Research and Policy. Global Pediatric Health. Healthcare. International Health. International Journal of Environmental Research and Public Health. Lancet Global Health. Public Health.

Inter & other disciplines: Applied Sciences. BMJ Open. Cogent Business & Management. Cogent Economics & Finance. Cogent Social Sciences. Diagnostics. Imaging Science Journal. JAMA Network Open. Journal of Development Effectiveness. Life. Medical Principles and Practice. Nature. Nutrients. PeerJ. PLoS Neglected Tropical Diseases. PLoS ONE. Qeios. PNAS. Social Sciences. Spatial Economic Analysis. Sustainability. Tropical Medicine and Infectious Disease. Violence Against Women.

### WORK EXPERIENCE

CUHK Shenzhen, Shenzhen, China, 2024 May-

• Assistant Professor (tenure-track); CSS Division, School of Humanities and Social Science.

World Health Organization, Geneva, Switzerland, 2024 Mar-2024 Apr

• Senior consultant (remote); Department of Sexual and Reproductive Health and Research.

King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, 2019 Jul-2024 Jan

- 2021 Jul–2024 Jan: Research Scientist; Statistics Program, Computer, Electrical and Mathematical Sciences and Engineering Division (CEMSE) Division.
- 2019 Jul–2021 Jul: Postdoctoral Fellow; Statistics Program, CEMSE Division.

NUS, Singapore, 2012 Jul-2019 Jul

- 2019 Jan–2019 Jul: Research Fellow; Institute of Policy Studies, LKY School of Public Policy.
- 2017 Dec-2018 Dec: Postdoctoral Fellow; Institute of Policy Studies, LKY School of Public Policy.
- 2017 Aug-2017 Nov: Research Assistant; Institute of Policy Studies, LKY School of Public Policy.

- 2015 Aug-2017 Jul: Research Assistant; SSH School of Public Health.
- 2013 May-2015 Aug: Research Assistant; Department of Statistics & Applied Probability.
- 2012 Jul-2013 Apr: Research Assistant; SSH School of Public Health.

UMass, Amherst, USA, 2016 Apr

• Visiting Scholar; Department of Biostatistics and Epidemiology.

UNICEF headquarters, NYC, USA, 2015 May-2015 Jul (on sabbatical at NUS)

• Consultant; Division of Data, Research and Policy.

# TEACHING EXPERIENCE

Lecturer, CUHK Shenzhen

- CSS5020 Statistics for Social Science: 2025 Fall, 2024 Fall
- CSS5210 Advanced Topics in Social Statistics: 2025 Spring
- CSS5240 Data Visualization for Social Science: 2025 Fall, 2024 Fall

Guest Lecturer, KAUST

- STAT215 Applied Statistics with R: 2023 Nov-Dec, 2022 Nov-Dec, 2021 Nov
- STAT230 Linear Models: 2021 Nov
- Experimental Design Statistical Workshop: 2023 Nov

Teaching Assistant, NUS. CO5103 Quantitative Epidemiological Methods: 2012 Fall

### **MENTORING**

2024 Nov-: External PhD committee member. UCLouvain, Belgium.

• PhD student (1): Ibraheem Ahmed

2024 Aug-: HSS Mentor-Mentee Program. CUHK Shenzhen

• PhD student mentee (1): Yifei Su

## PROFESSIONAL CERTIFIED TRAINING

2023 Jul: Human Subjects and Bioethics Training Certificate. [Link]

2022 Sep: Harvard BOK Higher Education Teaching Certificate. [Link]

2022 Feb: Child protection for tutors. National Society for the Prevention of Cruelty to Children (NSPCC).

2020 Jul: Human Subjects and Bioethics Training Certificate. [Link]

### INVITED PRESENTATIONS AT SCHOLARLY MEETINGS/WORKSHOPS

- 54. 2025 Jul 4th: "Estimating levels and trends in adult mortality rates in countries with high HIV prevalence from 1950 to 2023", Research Seminar, School of Public Policy and Administration, Xi'an Jiaotong University, Xi'an, China.
- 53. 2025 Jun 11th: "Estimating and Projecting Disparities in Demographic Outcomes Using Bayesian Methods", Joint talk of Computational Social Science Lab & HKU Research Hub of Population Studies, Faculty of Social Sciences, The University of Hong Kong, Hong Kong, China.
- 52. 2025 Apr 11th: "Estimating levels and trends in adult mortality rates in countries with high HIV prevalence from 1950 to 2023", Annual Meeting, Population Association of America, Washington, D.C., USA.
- 51. 2024 Nov 24th: "Estimating and Projecting Disparities in Demographic Outcomes Using Bayesian Methods", Research Seminar, School of Public Policy and Administration, Xi'an Jiaotong University, Xi'an, China.

- 50. 2023 Oct 30th: "Estimating and Projecting Disparities in Demographic Outcomes Using Bayesian Methods", Computational Social Science Seminar, School of HSS, CUHK (Shehzhen), Shenzhen, China.
- 49. 2023 Oct 3rd: "Estimating adult mortality in high HIV prevalence countries using a Bayesian model", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia.
- 48. 2023 Jul 17th: "Estimating Sex Disparities In Post-Natal Survival Using Bayesian Methods", International Statistical Institute World Statistics Congress, Ottawa, Canada.
- 47. 2023 Feb 27th: "Estimating fertility rate for teenagers using a Bayesian hierarchical model", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia.
- 46. 2023 Jan 4th: "Preliminary model and results for estimating age-specific fertility rate for teenagers using a Bayesian hierarchical model", Staff Research Rounds, Saw Swee Hock School of Public Health, NUS, Singapore.
- 45. 2022 Dec 20th: "Preliminary model and results for estimating age-specific fertility rate for teenagers using a Bayesian hierarchical model with INLA", School of Public Health, Research seminar, Imperial College London, UK.
- 44. 2022 Dec 17th: "A Bayesian hierarchical time series model for estimating sex ratios in youth mortality", International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), London, UK.
- 43. 2022 Dec 13th: "Bayesian method for estimating sex disparity in age-specific mortality for all countries", IMS International Conference on Statistics and Data Science (ICSDS), Florence, Italy.
- 42. 2022 Nov 28th: "Preliminary model and results for estimating age-specific fertility rate for teenagers using a Bayesian hierarchical model with INLA", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia.
- 41. 2022 Oct 20th: "Preliminary model and results for estimating age-specific fertility rate for teenagers using a Bayesian hierarchical model with INLA", Bayes WG UMass Amherst Seminar, UMass Amherst, USA. (virtual meeting)
- 40. 2022 Aug 18th: "Estimating and Projecting Prenatal Sex Discrimination around the World and on Subnational Level in Asia", Population Association of Singapore. (virtual meeting; Slides doi:10.6084/m9.figshare.20508330)
- 39. 2022 May 16th: "Updated method and results: sex ratio of mortality rate estimation for age 5–24", UN Inter-agency Group for Child Mortality Estimation Technical Advisory Group (UN IGME TAG) Meeting. (virtual meeting)
- 38. 2022 Apr 7th: "A Bayesian hierarchical time series model for estimating sex disparity in age-specific mortality", Annual Meeting, Population Association of America, Atlanta, GA, USA.
- 37. 2022 Mar 28th: "Sex ratio of mortality estimation in age group 5–14: a Bayesian modeling approach", ENAR Spring Meeting, Houston, TX, USA.
- 36. 2021 Dec 14th: "Sex ratio of mortality estimation in age group 15–24: a Bayesian modeling approach", SSHSPH Staff Research Rounds, NUS SSHSPH, Singapore. (virtual meeting)
- 35. 2021 Aug 9th: "Sex-specific estimates 5–24", UN Inter-agency Group for Child Mortality Estimation (UN IGME) Meeting. (virtual meeting)
- 34. 2021 Aug 8th: "Sex Ratio of Mortality Rate Estimation Using a Bayesian Modeling Approach", Joint Statistical Meeting. (virtual meeting; Slides doi:10.6084/m9.figshare.15133995)
- 33. 2021 Jul 7th: "Estimate sex ratio of mortality for age group 15–24 with a Bayesian model", Bayes WG UMass Amherst Seminar, UMass Amherst, USA. (virtual meeting)
- 32. 2021 Mar 29th: "Sex ratio of mortality estimation in age group 15–24, a Bayesian modeling approach", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia. (virtual meeting)
- 31. 2021 Mar 16th: "Sex Ratio at Birth by Vietnamese Region Estimation and Projection, a Bayesian modeling approach", ENAR Spring Meeting. (virtual meeting; Slides doi:10.6084/m9.figshare.14223101)

- 30. 2021 Mar 8th: "Experience with Bayesian hierarchical model for age-specific fertility rate estimation", United Nations Expert Group Meeting for measuring completeness and coverage for low capacity countries, UN ESCAP, Bangkok, Thailand. (virtual meeting)
- 29. 2020 Dec 14th: "Estimating and Projecting Disparities in Pre- and Post-natal Survival using Bayesian Methods", Mathematical, Computational & Statistical Sciences Seminar, Yale-NUS College, Singapore. (virtual meeting; Slides doi:10.6084/m9.figshare.14013542)
- 28. 2020 Aug 10th: "Scenario-Based Bayesian Probabilistic Projections of the Sex Ratio at Birth and Missing Female Births", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia. (virtual meeting)
- 27. 2020 Aug 4th: "Scenario-Based Bayesian Probabilistic Projections of the Sex Ratio at Birth and Missing Female Births for All Countries and Country-Level Imbalances", Joint Statistical Meeting (virtual meeting; Slides doi:10.6084/m9.figshare.12764102)
- 26. 2020 May 3rd: "Bayesian Methods for Estimating Global Health Indicators", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia. (virtual meeting)
- 2020 Apr 23rd: "A Systematic Assessment of National Under-5 Mortality Rate by Place of Residence for 109 Countries", Annual Meeting, Population Association of America, Washington, DC, USA. (virtual meeting; Paper doi:10.6084/m9.figshare.12403088, Slides doi:10.6084/m9.figshare.12403931)
- 24. 2020 Apr 6th: "Lessons learned from the B3 development and application to model time trends in differentials", United Nations Expert Group Meeting for the World Population Prospects 2021 and Beyond, UNPD, New York City, NY, USA. (virtual meeting; Slides doi:10.6084/m9.figshare.12403901)
- 23. 2020 Jan 21st: "Probabilistic Projection of the Sex Ratio at Birth by States and Union Territories in India", Statistics department seminar, University of Massachusetts, Amherst, USA.
- 22. 2020 Jan 15th: "Under-five mortality estimation by residence", UN Inter-Agency Group on Mortality Estimation Technical Advisory Group Meeting, Tarrytown, USA.
- 21. 2020 Jan 14th: "Methods to generate mortality beyond age 14 by sex", UN Inter-Agency Group on Mortality Estimation Technical Advisory Group Meeting, Tarrytown, USA.
- 20. 2019 Dec 20th: "A Systematic Assessment of National Under-5 Mortality Rate by Place of Residence for 109 Countries", Professional Update, Saw Swee Hock School of Public Health, National University of Singapore, Singapore.
- 19. 2019 Sep 30th: "Under-5 Mortality Rate Estimation by Place of Residence", Biostatistics Group Seminar, KAUST, Thuwal, Saudi Arabia.
- 18. 2018 Nov 6th: "A Systematic Assessment of National, Regional and Global Levels and Trends in the Sex Ratio at Birth and Identification of Countries with Outlying Levels", ISI Young Statisticians Regional Workshop, 2018 Statistics Week Taiwan, Taipei, Taiwan.
- 17. 2018 Oct 31st: "Research sharing SRB estimation and Projection & Estimating Under-5 Mortality Rate by Household Economic Status", ADRI Department Seminar, Shanghai University, Shanghai, China.
- 16. 2018 Sep 17th: "Estimate Under-5 Mortality Rate by Residence", UN Inter-Agency Group on Mortality Estimation Technical Advisory Group Meeting, New York City, NY, USA.
- 15. 2018 Jul 26th: "Decomposing the impact of increased educational attainment on demographic dividend in Singapore, 1970–2010", 12th Global Meeting of the NTA Network, Mexico City, Mexico.
- 14. 2018 Jul 24th: "Contribution of in-migration to the first demographic dividend in Singapore, 1970–2010", 12th Global Meeting of the NTA Network, Mexico City, Mexico.
- 13. 2018 May 17th: "Estimating Under-5 Mortality Rate by Household Economic Status", Professional Update, Saw Swee Hock School of Public Health, National University of Singapore, Singapore. (Slides doi:10.6084/m9.figshare.12403868)
- 12. 2018 May 10th: "Singapore perspective 2018 survey: an in-depth analysis", Department Research Seminar, Institute of Policy Studies, LKY School of Public Policy, National University of Singapore, Singapore.

- 2018 Apr 26th: "A Systematic Assessment of National, Regional and Global Levels and Trends in the Sex Ratio at Birth and Identification of Countries with Outlying Levels", Annual Meeting, Population Association of America, Denver, CO, USA. (Paper doi:10.6084/m9.figshare.12403061, Slides doi: 10.6084/m9.figshare.12403532)
- 10. 2017 May 1st: "Estimate Under-5 Mortality Rate by Household Economic Status", UN Inter-Agency Group on Mortality Estimation Technical Advisory Group Meeting, New York City, NY, USA.
- 9. 2017 Apr 24th: "Estimate Under-5 Mortality Rate by Household Economic Status", Biomedical Science, Engineering and Computing Group joint seminar, Oak Ridge National Lab, Knoxville, USA.
- 8. 2017 Apr 13th: "Estimate Under-5 Mortality Rate by Household Economic Status", Statistics department seminar, University of Massachusetts, Amherst, USA.
- 7. 2016 Oct 18th: "A systematic assessment of national, and regional under-five mortality by wealth quintiles and identification of countries with outlying levels using a Bayesian hierarchical time series model", UN Inter-Agency Group on Mortality Estimation Technical Advisory Group Meeting, New York City, NY, USA.
- 6. 2016 Sep 30th: "A Systematic Assessment of National, Regional and Global Levels and Trends in the Sex Ratio at Birth and Identification of Countries with Outlying Levels", 2nd Singapore International Public Health Conference and 11th Singapore Public Health & Occupational Medicine Conference, Singapore.
- 5. 2016 Apr 22nd: "A Systematic Assessment of National, Regional and Global Levels and Trends in the Sex Ratio at Birth and Identification of Countries with Outlying Levels", Statistics Working Group, University of Massachusetts Amherst, USA.
- 2016 Mar 31st: "A Systematic Assessment of National, Regional and Global Levels and Trends in the Sex Ratio at Birth and Identification of Countries with Outlying Levels", Annual Meeting, Population Association of America, Washington, DC, USA. (Paper doi:10.6084/m9.figshare.12401654, Slides doi: 10.6084/m9.figshare.12403457)
- 3. 2015 Jul 29th: "A Systematic Assessment of National, Regional and Global Levels and Trends in the Sex Ratio at Birth and Identification of Countries with Outlying Levels", Third International Conference of Asian Population Association, Kuala Lumpur, Malaysia.
- 2. 2014 Dec 18th: "Sex Ratio at Birth", UN Inter-Agency Group on Mortality Estimation Technical Advisory Group Meeting, New York City, NY, USA.
- 2013 Aug 30th: "Sex Differences in U5MR: Estimation and identification of countries with outlying levels or trends", XXVII IUSSP International Population Conference, Busan, Korea. (Paper doi: 10.6084/m9.figshare.12401468)

# POSTER PRESENTATIONS

- 7. May 7th, 2021: "Estimation and projection of sex ratio at birth for Vietnam regions, using a Bayesian hierarchical time series model". Annual Meeting, Population Association of America. (virtual meeting; Poster doi:10.6084/m9.figshare.14551413)
- May 6th, 2021: "Under-5 Mortality Rate Estimation by Residence for 112 Countries using a Bayesian Time Series Model". Annual Meeting, Population Association of America. (virtual meeting; Poster doi:10.6084/m9.figshare.14551371)
- 5. Apr 23rd, 2020: "Probabilistic Projection of the Sex Ratio at Birth and Missing Female Births by States and Union Territories in India", Annual Meeting, Population Association of America, Washington, DC, USA. (virtual meeting; Poster doi:10.6084/m9.figshare.12401462)
- 4. Nov 20th, 2019: "A Systematic Assessment of National Under-5 Mortality Rate by Place of Residence for 109 Countries using a Bayesian Time Series Model", Statistics and Data Science Workshop, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia. (Poster doi:10.6084/m9.figshare.12401381)
- 3. Apr 27th, 2017: "A Systematic Assessment of National, and Regional Under-Five Mortality Rate By Wealth Quintiles and Identification of Countries with Outlying Levels Using a Bayesian Hierarchical Time Series Model", Annual Meeting, Population Association of America, Chicago, USA. (Paper doi:10.6084/m9.figshare.12403028, Poster doi:10.6084/m9.figshare.12401297)

- Jun 13th, 2016: "Sex Rate at Birth: Estimation and Projection using Bayesian Hierarchical Time Series Model", World Meeting of International Society for Bayesian Analysis, Sardinia, Italy. (Poster doi:10.6084/m9.figshare.12401288)
- 1. Aug 27th, 2013: "How informative are vital registration data for estimating maternal mortality? A Bayesian analysis of WHO adjustment data and parameters", XXVII IUSSP International Population Conference, Busan, Korea. (Paper doi:10.6084/m9.figshare.12401495, Poster doi:10.6084/m9.figshare.12400973)

### MISCELLANEOUS RESEARCH ITEMS

#### Datasets

- 15. **Chao, Fengqing**, Muhammad Asif Wazir, and Hernando Ombao. 2022. "Sex Ratio at Birth Estimates by Pakistan Province from 1980 to 2020". *figshare*. doi:10.6084/m9.figshare.21548103.
- 14. **Chao, Fengqing**, Muhammad Asif Wazir, and Hernando Ombao. 2022. "Sex Ratio at Birth by Pakistan Province Database". *figshare*. doi:10.6084/m9.figshare.21548082.
- 13. **Chao, Fengqing**, Samir K.C., and Hernando Ombao. 2022. "Sex Ratio at Birth Projections by Nepal Province from 2017 to 2050". *figshare*. doi:10.6084/m9.figshare.18772877.
- 12. **Chao, Fengqing**, Samir K.C., and Hernando Ombao. 2022. "Sex Ratio at Birth Estimates by Nepal Province from 1980 to 2016". *figshare*. doi:10.6084/m9.figshare.18771695.
- 11. **Chao, Fengqing**, Samir K.C., and Hernando Ombao. 2022. "Sex Ratio at Birth by Nepal Province Database". *figshare*. doi:10.6084/m9.figshare.18765881.
- 10. **Chao, Fengqing**, Patrick Gerland, Alex R. Cook, Christophe Z. Guilmoto, and Leontine Alkema. 2021. "National, regional and global sex ratio at birth scenario-based projections from 2021 to 2100". *figshare*. doi:10.6084/m9.figshare.15097992.
- 9. **Chao, Fengqing**, Patrick Gerland, Alex R. Cook, Christophe Z. Guilmoto, and Leontine Alkema. 2021. "National, regional and global sex ratio at birth estimates from 1950 to 2020". *figshare*. doi:10.6084/m9.figshare.15097965.
- 8. **Chao, Fengqing**, Patrick Gerland, Alex R. Cook, Christophe Z. Guilmoto, and Leontine Alkema. 2021. "SRB Database for All Countries 2021 Version". *figshare*. doi:10.6084/m9.figshare.14838396.
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