

CURRICULUM VITAE

So-Ra (So Ra) Baek

sbaek@cpp.edu; 909-869-4507, Bldg 7, Room 225

Cal Poly Pomona 3801 West Temple Avenue Pomona, California 91768

EDUCATION

Ph.D. Interdisciplinary PhD in Urban Design and Planning, University of Washington, Seattle, WA,
December 2013

Research Fields: neighborhood design and the built environment and their impacts on health-related
behaviors and outcomes

Certificate of Statistics Track in the Interdisciplinary Ph.D. Program in Urban Design and Planning,
Center for Statistics and the Social Sciences, University of Washington, 2011

M.S. Civil, Urban & Geo-Systems Engineering, Urban Design laboratory, College of Engineering, Seoul
National University, Seoul, Korea, 2007

B.S. Civil, Urban & Geo-Systems Engineering, College of Engineering, Seoul National University, Seoul,
Korea, 2005

EMPLOYMENT HISTORY

Associate Professor, Department of Urban and Regional Planning, College of Environmental Design,
California State Polytechnic University, Pomona, 2023 – present

Assistant Professor, Department of Urban and Regional Planning, College of Environmental Design,
California State Polytechnic University, Pomona, 2019 - 2023

Assistant Professor, Department of Urban and Regional Planning, School of Architecture and Planning,
University at Buffalo, the State University of New York, 2013-2019

Graduate Instructor, Department of Urban Design and Planning, University of Washington, fall 2012

Graduate Teaching Assistant, Department of Urban Design and Planning, University of Washington,
winter 2012-2013, fall 2010

Graduate Research Assistant, Department of Urban Design and Planning, University of Washington,
2009-2011

Researcher, Seoul Development Institute, Seoul, South Korea, summer 2008

HONORS AND AWARDS

Faculty Fellow, Food Equity Ideas Lab (FEIL), Community of Global Health Equity, University at
Buffalo, 2017

Civic Engagement and Public Policy (CEPP) Fellow, UB 2020 Strategic Research Initiative, University at
Buffalo, 2016

Faculty Medal Award, Department of Urban Design and Planning, University of Washington, 2012-2013

Lee and Rolaine Copeland Endowed Fellowship in Urban Design, College of Architecture and Urban
Planning, University of Washington, 2008

Brain Korea 21 Fellowship, Korea's Ministry of Education, 2005-2007

Seoul National University Graduate Fellowship, Seoul National University, 2006

Seoul National University Foundation Scholarship, Seoul National University, 2005

Merit-based Scholarships, Seoul National University, 2002-2004

GRANTS

A Guide to Navigating Existing and Emerging Sources of Local VMT and Travel Data, 2022-2023, State of California AB115 2017/2018 [SHC 2032(g)], Agreement no.: 08720115-SJAUX, \$74,867.

Role: **Principal Investigator** [Do Kim (Co-PI)]

Estimating Accessory Dwelling Unit Potential in the SCAG Region, 2020-2021, Southern California Association of Governments (SCAG), \$112,359.33.

Role: **Co- Principal Investigator** [Do Kim (Lead-PI), Brian Garcia (Co-PI)]

Using Street-Level Imagery for Automated High-resolution Assessments of Farming Practices, 2016-2019, UB Community of Global Health and Equity (CGHE) Research Award, \$27,000

Role: **Co-Principal Investigator** [John Ringland (Lead-PI), Martha Bohm (Co-PI)]

Tradeoffs between active living and safety from injuries: An investigation of traffic accident injuries among children in Western New York, Sponsor: UB 2020 Civic Engagement and Public Policy (CEPP) Research Fellowship, University at Buffalo; 2015-2016; \$5,000

Role: **Principal Investigator** and University Partner with Dr. Kathryn D. Bass and Prof. Samina Raja

Active Commuting in the Sweet Home Central School District, Amherst, New York, 2014-2016,

Sponsor: Federal Safe Routes to Schools Program and Town of Amherst; \$104,000

Role: **Co-Principal Investigator** with Prof. Samina Raja (Lead-PI) and Prof. Bumjoon Kang (Co-PI)

PUBLICATIONS

Peer-reviewed Journal Articles

Kim, D., **Baek, SR.**, Garcia, B. et al. (2023). The influence of accessory dwelling unit (ADU) policy on the contributing factors to ADU development: an assessment of the city of Los Angeles. *Journal of Housing and the Built Environment*. <https://doi.org/10.1007/s10901-022-10000-2>

Maisel, J. L., **Baek, So-Ra**, & Choi, J. (2021). Evaluating users' perceptions of a Main Street corridor: Before and after a Complete Street project. *Journal of Transport & Health*, 23, 101276. <https://doi.org/10.1016/j.jth.2021.101276>

John Ringland, Martha Bohm, **So-Ra Baek**, & Matthew Eichhorn. (2021). Automated survey of selected common plant species in Thai homegardens using Google Street View imagery and a deep neural network. *Earth Science Informatics*. <https://doi.org/10.1007/s12145-020-00557-3>.

Kang, Bumjoon, Wang, Chihuangji, & **Baek, So-Ra**. (2020). No association between Safe Routes to school programs and school-age pedestrian or bicyclist collisions in New York State. *Journal of Transport & Health*, 18, 100866. <https://doi.org/10.1016/j.jth.2020.100866>.

Ringland, John, Bohm, Martha, & **Baek, So-Ra**. (2019). Characterization of food cultivation along roadside transects with Google Street View imagery and deep learning. *Computers and Electronics in Agriculture*, 158, 36–50. <https://doi.org/10.1016/j.compag.2019.01.014>.

So-Ra Baek, Samina Raja, Nathan Attard, & Maryam Khojasteh. (2016). Acculturating into (In)active Commuting to School: Differences between Children of Foreign-Born and U.S.-Born Caregivers. *Children, Youth and Environments*, 26(1), 37–55. <https://doi.org/10.7721/chilyoutenvi.26.1.0037>.

Park, Sohyun, Choi, Yeemyung, Seo, Hanlim, Moudon, Anne Vernez, Bae, C.-H. Christine, & **Baek, So-Ra**. (2016). Physical Activity and the Built Environment in Residential Neighborhoods of Seoul and Seattle: An Empirical Study Based on Housewives' GPS Walking Data and Travel Diaries. *Journal*

of *Asian Architecture and Building Engineering*, 15(3), 471–478.

<https://doi.org/10.3130/jaabe.15.471>

Baek, So-Ra, Moudon, Anne Vernez, Saelens, Brian E, Kang, Bumjoon, Hurvitz, Philip M, & Bae, Chang-Hee Christine. (2016). Comparisons of Physical Activity and Walking Between Korean Immigrant and White Women in King County, WA. *Journal of Immigrant and Minority Health*, 18(6), 1541–1546. <https://doi.org/10.1007/s10903-015-0290-1>.

Book Chapters

Baek, S., & Pusateri, M. Health and Immigration. In V.C. Copeland (Ed). (2016). Contemporary Issues in Education, Work, Communities, Health, and Immigration, Volume 3: Health and Wellness. Greenwood.

Public Scholarship: Professional Plans, Technical Reports, and Policy Briefs

Baek, S. & Kim, D. (2023). A Guide to Navigating Existing and Emerging Sources of Local VMT and Travel Datas. Tech. Rep., Mineta Transportation Institute. Retrieve from <https://transweb.sjsu.edu/research/2232-Land-Use-Planning-Environmental-Impact-Analysis>

Kim, D., **Baek, S.**, Garcia, B. (2021). Accessory Dwelling Unit (ADU) Potential in the SCAG Region (Contract No.: 20-079-C01). Southern California Association of Governments; California State Polytechnic University, Pomona, Urban and Regional Planning Department. <https://scag.ca.gov/post/accessory-dwelling-unit-adu-potential-scag-region>

Raja, S., **Baek, S.**, Kang B., Machnica, E., Attard, N., Khojasteh, M., Bulkilvish, S., Leccese, J., Diao, C., Stern, H., and Ibrahim, A. (2016). Moving Together: Promoting Active Commuting to School in the Sweet Home Central School District and the Town of Amherst. Department of Urban and Regional Planning, School of Architecture and Planning, University at Buffalo, The State University of New York. 131p.

CONFERENCE PRESENTATIONS AND INVITED TALKS

Invited Talks

Invited presenter, ‘Toolbox Tuesday: A Guide to Navigating Existing and Emerging Sources of Local VMT and Travel Data’, Southern California Association of Governments (Virtual), March 2024 (upcoming).

Invited presenter, ‘Where are My Accessory Dwelling Units (ADUs)? – An Effort to Identify Potential Sites Regionally’, Toolbox Tuesday: ADU + HELPR V2.0, Southern California Association of Governments (Virtual), May 2021.

Invited panelist, ‘Application of Deep Learning and Computer Vision in Urban Planning’, Innovative Research Methodologies session, Symposium: Trends in Interdisciplinary PhD Education and Research in Urban Design and Planning, University of Washington, Seattle, WA, May 2019.

Invited presenter, ‘Active living, active commuting among children and youth and their relationships with neighborhood environment’, National Public Health Week event sponsored by the Epidemiology and Environmental Graduate Student Association, Department of Epidemiology and Environmental Health, School of Public Health and Health Professions, University at Buffalo, Buffalo, NY, April 2019.

Invited panelist, 'Are residential streets necessarily safer than arterials for children? An investigation of child pedestrian/bicyclist collision in the Buffalo Metropolitan Area, NY.' Local Host Session, Many Pathways from Planning to Health Equity. Association of Collegiate Schools of Planning (ACSP), Buffalo, NY, October 2018.

Invited presenter, 'Tradeoffs between Active Living and Safety from Injuries: An Investigation of Traffic Accident Injuries among Children in WNY.' Health and Wellness Session, Community-Based Research Workshop: A Review of Research by CEPP Fellows, University at Buffalo, October 2016

Conference Presentations (Peer-reviewed)

Transportation Data Utilization in Local Governments' Sustainable Land Use Decisions, in a Lectern Session titled 'The Land Use–Transportation Feedback Loop: New Data and Insights' with Dohyung Kim. Transportation Research Board (TRB) 103rd Annual Meeting, Washington, D.C., January 2024.

Local Governments' Demand for VMT and Travel Data, with Dohyung Kim. Association of Collegiate Schools of Planning (ACSP) 62nd Annual Conference, Toronto, Canada, November 2022.

An Affordable Housing Policy that Works: Review of the Accessory Dwelling Unit Ordinances in Southern California, with Brian Garcia, Dohyung Kim, and Frank Wen. Association of Collegiate Schools of Planning (ACSP) 61st Annual Conference (Virtual), October 2021.

The Influence of ADU Policy on the Contributing Factors to ADU Development: A Case of Los Angeles, with Dohyung Kim, Brian Garcia, Tom Vo, and Frank Wen. Association of Collegiate Schools of Planning (ACSP) 61st Annual Conference (Virtual), October 2021.

An Analysis of Possible Barriers to the Growth of Community Gardens Located in San Bernardino County and Los Angeles County, with Cynthia Wong, Association of Collegiate Schools of Planning (ACSP) 60th Annual Conference (Virtual), November 2020.

Understanding Home Gardens Using Google Street View and Deep Learning: A Case Study of Thailand., with John Ringland, Martha Bohm, and Matthew Eichhorn has been accepted for the 26th Pacific Regional Science Conference Organization (PRSCO) Meeting and 59th Annual Meeting of the Western Regional Science Association (WRSA), Waikiki, Hawaii, March 2020 (conference cancelled due to the Coronavirus-19).

Did Safe Route to School programs reduce vehicle to bicyclist or pedestrian collisions near schools in New York? with Chihuangji (Herbert) Wang and Bumjoon Kang, Association of Collegiate Schools of Planning (ACSP) 59th Annual Conference, Greenville, South Carolina, October 2019.

Proximate sensing of food types and land uses in Thailand using street-level photography and deep learning, with Martha Bohm & John Ringland, 20th Annual World Bank Conference on Land and Poverty: Catalyzing Innovation. Washington, DC. March 2019.

Risk on the Road: Built Environment Effect on Severity of Injury in Pediatric Pedestrian or Bicyclist versus Motor Vehicle Collisions, with Hibbut-ur-Rauf Naseem, Samantha Bulkilvish, Jiwei Zhao, Yang Yang, Kathryn D. Bass., American College of Surgeons' 2017 Clinical Congress, San Diego, CA, October 2017.

Tradeoffs between active living and safety from injuries: An investigation of traffic accident injury locations among children in Western New York, with Naseem, H., Bulkilvish, S., Bass, D. K., Association of Collegiate Schools of Planning (ACSP) Annual Conference, Portland, OR, October 2016

Cultural Factors Influencing Parents' Decision on Children's Active Commuting to School: Implications for Safe Routes to School Programs, with Samina Raja, Bumjoon Kang, Solhyun Baek, and Maryam Khojasteh, Association of Collegiate Schools of Planning (ACSP) Annual Conference, Houston, TX, October 2015

The Effects of Acculturation on Walking and Driving Time among Korean Immigrant Women in King County, WA, ACSP Annual Conference, Philadelphia, PA, October 2014

Difference in Park-based Physical Activity between Korean Immigrants and White Women in King County, WA, with Christine Bae, Anne Vernez Moudon, and Brian E Saelens, American Associations of Geographers 2014 Annual Meeting, Tampa, Florida, April 2014

Acculturation, Neighborhood Built Environment and Physical Activity: A Case of Korean Immigrant Women in King County, WA, with Christine Bae and Anne Vernez Moudon, Western Regional Science Association 2013 Annual Meeting, Santa Barbara, California, February 2013

Do Acculturation and Neighborhood Environments of Spatial Realm Matter for Physical Activity?: The Case of Korean Immigrant Women in King County, WA, with Christine Bae and Anne Vernez Moudon, ACSP Annual Conference, Cincinnati, Ohio, November 2012

Disparities in Environmental Opportunities for Physical Activity: The Case of Korean Immigrants vs. American Born Mothers in King County, WA, with Christine Bae and Anne Vernez Moudon, Active Living Research Annual Conference, San Diego, California, March 2012

The Relationship between the Built Environment of the Neighborhood and the Vitality of Local Markets, with So-Young Park, and Kun-Hyuck Ahn, 12th Inter-University Seminar on Asian Megacities, Seoul, Korea, March 2007

A Proposal to Improve Neighborhood Open Spaces in the Sungmisan Community in Seoul, Korea, with Bumjoon Kang, Hanlim Seo et al., Housing Symposium 3, Riyadh, Saudi Arabia, May 2007

The Built Environment, Car Ownership, and Travel Behavior in Seoul, with Sang-Kyu Cho, 11th Inter-University Seminar on Asian Megacities, Bangkok, Thailand, August 2006

COURSES TAUGHT

At Cal Poly Pomona

URP 1040L The City in Context Laboratory

URP 3310L Research Approaches in Planning Laboratory

URP 3320/L Demography and Statistics for Planning/Laboratory

URP 4310A Community Planning Studio Preparation Activity

URP 4320/L Community Planning Studio/Laboratory

URP 4620 Senior Project (Supervision)

URP 4880/L Local Transportation Planning/Laboratory

URP 5210/L Research Approaches to Planning

URP 5250/L GIS for Planning/Laboratory

URP 6950 Client Project (Supervision)

URP 6960 Master's Thesis (Supervision)

At University at Buffalo, State University of New York

END 308 Health and Urban Environments

END 350 Environmental Design Workshop I

END 494 Visions of the City

URP 512 Research Methods for Planners
URP 550/END 415 Transportation Analysis
URP 599 Independent Study

At University of Washington

URBDP 450/598F Introduction to Land Use, Growth Management, and Environmental Planning

UNIVERSITY SERVICES

University wide Service

University Curriculum Committee, 2023- present.
RSCA Committee, 2022-2023, 2023 - present.
Exceptional Assigned Time Committee, 2020-2021, 2022-2023, 2023- present.
Academic Programs Committee, 2022-2023.
Learn Through Discovery (LTD) PolyX Task Force, 2021-2022.
General Education Committee, 2021-2022.
Academic Affairs Committee, 2020-2021.
First Year Experience (FYE) Faculty Learning Community (FLC), Fall 2021
Alternative Transportation Committee, 2020-present (prior named Transportation Advisory Committee)
Kellogg Honors College Freshman Application Essays Review, Spring 2020

College wide Service

Outstanding Faculty Advisor Selection Committee, 2019-2023.
Diversity Assessment and Plan of Action (DAPA) Committee, Chair of ENV Curricula Sub-Committee, 2021-2022.
ACUE "Inclusive Teaching for Equitable Learning" Micro-credential Program, Spring 2022.

Departmental Service

Master Admissions Committee, 2021-present.
Interim Graduate Coordinator, 2022-2023.
Summer Orientation Extra Advising, Summer 2022.
Faculty Search Committee, 2021-2023.
Curriculum Revision Grant Committee, 2020-2023.
Dale Prize/Awards Coordinator Committee, 2020-2023.
Moderator role of the Colloquium, 2020-2021.
Office of Undergraduate Research (OUR) advocate for the department, 2019-2020.
Department Web Maker, 2019-2020.

PROFESSIONAL SERVICES

ACSP Doctoral Committee Member, Spring 2021-present.
SCAG Scholarship Committee Member, Spring 2021- present.
UCLA Lake Arrowhead Steering Committee Member, Spring 2021- present.
LA Metro Extraordinary Innovation Advisory Board, Spring 2021-2023.

JOURNAL ARTICLE REVIEWERS

Transportation Research Board Annual Meeting Paper Review, 2021- present.
International Journal of Environmental Research and Public Health, 2021- present
American Journal of Preventive Medicine, summer 2020 – present
Journal of Physical Activity & Health, fall 2016 –present
International Journal of Health Geographics, fall 2016 –present

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

American Planning Association, Member.
Association of Collegiate Schools of Planning, Member.
Korean-American Scientists and Engineers Association, Southern California Chapter, Member.

Current as March 02, 2024.