## Nicole Iroz-Elardo, PhD

Urban Planning Program
School of Architecture Landscape and Planning, University of Arizona irozelardo@arizona.edu

## **Professional Preparation**

Portland State University Urban Studies Doctorate, 2014

Field 1: Urban Planning Field 2: Urban Health

University of Utah Statistics-Econometrics Post-Bachelorette Studies, 2001-2002

University of Utah Economics Bachelors of Science, 2001

## **Appointments**

2018-current	Assistant Research Professor, University of Arizona
2017-2018	Principal, Urban Design 4 Health, Inc.
2015-2017	Project Manager and Analyst, Urban Design 4 Health, Inc.
2015-2017	Researcher, University of British Columbia
2013-2015	Operations and Policy Analyst, Oregon Health Authority, Public Health Division,
	Health Impact Assessment Group
2010-2015	Adjunct Instructor, College of Urban & Public Affairs, Portland State University
2012-2013	Field Experience Coordinator, School of Community Health, Portland State University
2012-2013	Dissertation Fellowship, Oregon Transportation Research and Education Center
	(OTREC, now TREC), Portland State University
2009-2010	Graduate Research Assistant, Institute for Metropolitan Studies, Portland State
	University
2006-2009	Graduate Research Assistant, Institute on Aging, Portland State University
2006-2009	Laurels Scholar, Portland State University
2003-2007	Researcher and Statistical Programmer, Statistics and Information Analysis,
	Battelle Memorial Institute

## **Publications**

#### **Peer Reviewed Publications**

Ladd, K., Iroz-Elardo, N., Austof, E., Sami, I., & Arora, M. (In Press). Extreme Heat at Outdoor COVID-19 Vaccination Sites. J of Climate Change & Health.

**Iroz-Elardo, N.** & Currans, K. (2021). Injury burden of introducing e-scooters: A systematic review of e-scooter injury studies using emergency department record review, 2015-2019. *Transportation Research Record*. doi: 10.1177/03611981211032216

**Iroz-Elardo**, N., A. Adkins, M. Ingram (2021). Measuring Perceptions of Social Environments for Walking: a Scoping Review of Walkability Surveys. *Health & Place*. 67:102468. doi:10.1016/j.healthplace.2020.102468

Currans, K., G. Abou-Zeid, **N. Iroz-Elardo** (2020). Linking Residential Parking to Automobile Transportation Impact Outcomes at a Development-Level. *Transportation Research Record*. 2675(1), 321-331. doi:10.1177/0361198120964791.

**Iroz-Elardo**, N., J. Schoner, E. Fox, A. Brookes, & L.D. Frank (2020). Active Travel and Social Justice: Addressing Disparities and Promoting Health Equity through a Novel Approach to Regional Transportation Planning. *Social Science & Medicine*. 261, 113211. doi: 10.1016/j.socscimed.2020.113211.

Frank, L.D, N. **Iroz-Elardo**, A. Hong, & K. MacLeod (2019). Pathways from built environment to health: Connecting behavior and exposure based impacts. *Journal of Transport and Health*. 12:319-335. doi: 10.1016/j.jth.2018.11.008.

Schoner, J., J. Chapman, A. Brookes, K. MacLeod, E. Fox, N. **Iroz-Elardo**, & L.D. Frank (2018). Bringing Health Into Transportation and Land Use Scenario Planning: Creating a National Public Health Assessment Model (N-PHAM). *Journal of Transport and Health*. 10:401-418. doi: 10.1016/j.jth.2018.04.008.

**Iroz-Elardo**, N. & M.M. McGrath (2016). Social Learning through Stakeholder Engagement: New Pathways from Participation to Health Equity in U.S. West Coast HIAs. *Chronicles of Health Impact Assessments*. doi: 10.18060/21351.

**Iroz-Elardo**, N. (2014). Health impact assessment as community participation: *Community Development Journal*. 50: 280-295. doi: 10.1093/cdj/bsu052

**Iroz-Elardo**, N. (2014). Participation, information, values, and community interests within health impact assessments. Dissertation. Portland State University, Portland, OR.

Wilson, N. K., W. Strauss, N. **Iroz-Elardo**, & J.C. Chuang (2010). Exposures of preschool children to chlorpyrifos, diazinon, pentachlorophenol, and 2,4-dichlorophenoxyacetic acid over three years from 2003 –2005: A longitudinal model. *Journal Of Exposure Science And Environmental Epidemiology*. 20(6):546-58.

Strauss, W., L. Ryan, M. Morara, N. **Iroz-Elardo**, M. Davis, M. Cupp, M. Nishioka, J. Quackenboss, W. Galke, H. Özkaynak, & P. Scheidt. (2009). Improving cost-effectiveness of epidemiological studies via designed missingness strategies: *Statistics in Medicine*.

## **Articles Under Review**

Choi, D., Siracuse, B., Currans, K., **Iroz-Elardo, N.**, Lyons, T., Ewing, R. (Under Review) Effects of Intersection Design on Non-Optimal Behaviors of E-Scooter and Other Users. Cities.

Avila, A., **Iroz-Elardo, N.**, Currans, K., & Keith, L. (Under Review). Investigating the Influence of Running Vehicles on Personal Heat Exposure at Outdoor COVID-19 Vaccination Sites. Accepted Minority Student Scholar Presentation at Transportation Research Board Annual Conference. Washington DC, January 2022.

Currans, K., Abou-Zeid, G., McCahill, C., **Iroz-Elardo, N.**, Clifton, K., Handy S., & Pineda, I. (Under Review). Households with Constrained Off-Street Parking Drive Fewer Miles. Transportation.

Choi, D., Siracuse, B., Currans, K., **Iroz-Elardo, N**., Lyons, T., & Ewing, R. (Under Review). Effects of Intersection Design on Non-optimal Behaviors of E-Scooter and Other Users. Prepared for Presentation at Transportation Research Board Annual Conference. Washington DC, January 2022.

## **Non-Peer Reviewed Articles, Publications and Reports**

**Iroz-Elardo, N.**, Erickson, H., Howell, A., Olson, M., Currans, K. (2021). Community Engagement in a Pandemic Report. Drachman Institute at the University of Arizona.

https://capla.arizona.edu/sites/default/files/Community%20Engagement%20in%20a%20Pandemic% 20-%202021.pdf

Keith, L., **Iroz-Elardo, N.**, Sami, I., & Austhof, E. (2021). Extreme Heat at Outdoor Vaccination Sites: Banner South (Kino) POD Report. The University of Arizona.

Keith, L., Iroz-Elardo, N., Sami, I., & Austhof, E. (2021). Extreme Heat at Outdoor Vaccination Sites: Tucson Medical Center POD Report. The University of Arizona.

Keith, L., **Iroz-Elardo, N.**, Sami, I., & Austhof, E. (2021). Extreme Heat at Outdoor Vaccination Sites: UArizona POD Report. The University of Arizona.

Nelson, A. C., Hibberd, R., Currans, K., & Iroz-Elardo, N. (2021). *Transit Impacts on Jobs, People and Real Estate (Volumes 1-5)* (No. NITC-RR-1253). https://trid.trb.org/view/1845663

Bean, J., Currans, K., & **Iroz-Elardo, N.** (2020). *Unmasking Invisibility*. Interactions. 27(3): 22-23. Available online at https://dl.acm.org/doi/fullHtml/10.1145/3386379

**Iroz-Elardo, N.** (2019). *Health Impact Assessment of Hillside Master Plan: Final Report.* Clackamas County Public Health Department. September 2019: Oregon City, Oregon. Available online at <a href="https://dochub.clackamas.us/documents/drupal/fdca6ed7-357a-4b97-8080-ea99c315510c">https://dochub.clackamas.us/documents/drupal/fdca6ed7-357a-4b97-8080-ea99c315510c</a>

Chapman, J., Whitfield, K., **Iroz-Elardo, N.**, Henley, C., Alfonsin, N., Hagerman, L. Frank, L. (2019). *Integrating Health and Transportation in Canada*. Ottawa, ON: Transportation Association of Canada. Available online at https://www.tac-atc.ca/sites/default/files/site/doc/Bookstore/ptm-ihtc-e.pdf

**Iroz-Elardo**, N, Fox EH, Schoner, J, Chapman J, Frank LD. *TASK 3: Public Health Analysis of Draft Scenarios – Final.* Rochester (NY): Urban Design 4 Health; 2018. Contract No.: C-18-019. Supported by San Joaquin Council of Governments. Available online at

https://www.sjcog.org/DocumentCenter/View/3769/Final-2018-RTPSCS-Technical-Appendix-N---Public-Health-Indicators-Report?bidId

DeVries, D., **Iroz-Elardo**, N., Hong, A., Winters, M., Brauer, M., Frank., L. (2017). *Fixed-Guideway Transit Investment: A Review of Methods and Best Practice*. University of British Columbia for City of Vancouver and Vancouver Coastal Health Authority. Vancouver, British Columbia. Available online at <a href="https://open.library.ubc.ca/media/download/pdf/52383/1.0368659/5">https://open.library.ubc.ca/media/download/pdf/52383/1.0368659/5</a>.

**Iroz-Elardo**, N., Chapman, J., Moland, A., Frank, L.D., Behr, C., Brockmyer, R., & Vyas, M. (2017). *Economic Impacts of Active Transportation: Utah Active Transportation Benefits Study – Final Report.* UD4H for Utah Transit Authority. Salt Lake City, UT. Available online at https://bikeutah.org/atbenefitsstudy/.

UD4H & AECOM (2016). *Active Transportation, Health, and Economic Benefit Study*. Southern California Association of Governments. Los Angeles, CA. Available online at <a href="http://www.scag.ca.gov/programs/Pages/PublicHealthResources.aspx?opentab=3">http://www.scag.ca.gov/programs/Pages/PublicHealthResources.aspx?opentab=3</a>.

Neal, M.B., DeLaTorre, A., Cahill, K.E., **Iroz-Elardo**, N., Lottes, J., & Truxillo, D. (February 2016). *The Case for Age Friendly Cities. Portland State University – Institute on Aging.* Portland, OR.

**Iroz-Elardo**, N., Champan, J., Frank, L.D., Riggs, W. (2015). *Environmental Justice Technical Assistance* for the Regional Transportation Plan & Sustainable Communities Strategy. UD4H for Southern California Association of Governments. Los Angeles, CA.

Haggerty, B., A. Hamberg, J. Early-Alberts, C. Cude, and N. **Iroz-Elardo** (2015). *Transportation Research Brief.* Public Health Division, Oregon Health Authority. Portland, Oregon.

**Iroz-Elardo**, N., A. Hamburg, E. Main, B. Haggerty, J. Early-Alberts, and C. Cude. (2014). *Climate Smart Strategy health impact assessment*. Portland, OR, Oregon Health Authority. Available online at <a href="https://www.oregon.gov/oha/ph/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment/Documents/CSCS/OHA-PHD">https://www.oregon.gov/oha/ph/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment/Documents/CSCS/OHA-PHD</a> CSS%20HIA Final.pdf

**Iroz-Elardo**, N., A. Hamburg, E. Main, J. Early-Alberts, and J. Douglas. (2014). *Community Climate Choices Health Impact Assessment*. Portland, Oregon, Oregon Health Authority.

Stakeholder Participation Working Group of the 2010 HIA in the Americas Workshop. (2012). Best Practices for Stakeholder Participation in Health Impact Assessment. Oakland, CA.

## Conference Attendance, Presentations and Posters (2018-2021)

- ✓ Washington Bike Summit. April 29-30, 2018. Spokane, WA.
- ✓ American Collegiate Schools of Planning. October 25-28, 2018. Buffalo, NY.
- ✓ American Public Health Association. November 10-14, 2018. San Diego, CA.
- ✓ National Institute of Transportation and Communities (NITC) Summit. September 19-20, 2019. Portland, OR.
- ✓ Conference on Health and Active Transportation., hosted by Transportation Review Board (TRB). December 10-12, 2019. Washington DC.
- ✓ 2020 Transportation Review Board, January 12-16. Washington DC
- ✓ 2020 Active Living Conference, February 2-5. Orlando, Florida.
- ✓ American Collegiate Schools of Planning. November 2020. Virtual
- ✓ 2021 Transportation Review Board Meeting. January 2021. Virtual.

**Iroz-Elardo, N.** & Currans, K. Injury burden of introducing e-scooters: A systematic review of e-scooter injury studies using emergency department record review, 2015-2019. Accepted for presentation at *2021 TRB Meeting/TRR*.

Abou-Zeid, G., Currans, K., McCahill, C., **Iroz-Elardo, N.**, Clifton, K., Handy, S., & Pineda, I. Households with Constrained Off-Street Parking Drive Fewer Miles. Presentation at *2021 TRB Meeting*.

Currans, K., Hibberd, R., **Iroz-Elardo, N**., & Nelson, C. Regional Differences in the U.S. Real Estate Market Response towards Proximity of Fixed Route Transit Systems. Presentation at *2021 TRB Meeting*.

**Iroz-Elardo, N.** & Keith, L. Synthesis of Climate-adaptive Design in Outdoor Physical Activity Spaces for Health Equity. Presentation at *2020 ACSP*.

**Iroz-Elardo, N.** & Keith, L. (2020). Heat and healthy habits: supporting physical activity in an era of increased extreme heat risk. Poster at 2020 Active Living Conference, February 2-5, 2020.

Adkins, A., Ingram, M., **Iroz-Elardo, N.,** Sonmez, E. (2020). Workshop: QPED Toolkit – Qualitative Pedestrian Environments Data for better, more equitable transportation decision-making. 2020 Active Living Conference, February 2-5, 2020.

Currans, K., Abou-Zeid, G., & **Iroz-Elardo, N.** (2020). Linking Residential Parking to Automobile Transportation Impact Outcomes at a Development Level. 2020 Transportation Review Board Meeting. Washington, DC.

**Iroz-Elardo**, N., A. Adkins, M. Ingram. (2020). Measuring Perceptions of Social Environments for Walking: a Systematic Review of Walkability Surveys. Poster at 2020 Transportation Review Board Meeting. Washington, DC.

**Iroz-Elardo, N.**, Wilkening, B., Keith, L., Diamond, K., Cortell-Crawfod, P. (2019). Brow Bag: Heat Mitigation through Green Infrastructure. Water Resource Research Center at University of Arizona, Tucson, AZ, November 19, 2019.

Adkins, A., M. Ingram, **N. Iroz-Elardo**, E. Sonmez. (2019). Workshop: QPED Toolkit – Qualitative Pedestrian Environments Data for better, more equitable transportation decision-making. 2019 National Institute of Transportation and Communities (NITC) Summit. Portland, Oregon.

**Iroz-Elardo**, N., A. Adkins, M. Ingram. (2019). The pedestrian environment: evaluating walkability and environmental survey instruments for social context. Poster at 2019 Active Living Research Conference in Charleston, SC, February 17-20, 2019.

Landgrave-Serrano, M., Adkins, A., **Iroz-Elardo, N.**, Ingram, M., Oden, H. (2019). Development and Testing of a Toolkit for Collecting Qualitative Pedestrian Environment Data. 2019 Transportation Review Board Meeting. Washington, DC.

**Iroz-Elardo**, N., L.D. Frank, J. Schoner, & E. Fox. (2018). Predicting physical activity & BMI for Communities of Concern: Stockton, CA 2018 Regional Transportation Plan. 2018 American Public Health Association, San Diego, CA.

**Iroz-Elardo**, N., L.D. Frank, D. DeVries, A. Hong, M. Winters, & M. Brauer. (2018). The Health Impacts of Fixed-Guideway Transit Investments: A Systematic Review. Poster at 2018 American Collegiate Schools of Planning, Buffalo, NY.

**Iroz-Elardo**, N., L.D. Frank, J. Schoner, & E. Fox. (2018). Predicting physical activity & BMI for Communities of Concern: Stockton, CA 2018 Regional Transportation Plan. 2018 American Collegiate Schools of Planning, Buffalo, NY.

**Iroz-Elardo**, N., & E. Fox. (2018). Making the Case: Monetizing Health, Environmental, and Economic Benefits of Biking. 2018 Washington Bike Summit, Spokane WA.

Schoner, J., J. Chapman, A. Brookes, K. MacLeod, E. Fox, N. **Iroz-Elardo**, & L.D. Frank (2018). Creating a National Tool for Walking and Public Health Scenario Planning. 2018 Transportation Research Board Annual Meeting, Washington DC.

# **Current Grant Funding**

Project Name	Size, Years	Primary Client	Role
Assessing Cool Corridor Heat Resilience	\$75,000	National Institute of	Managing Co-
Strategies for Human-Scale Transportation	2021-22	Transportation and	PI with Keith &
		Communities (NITC)	Currans
Extreme Heat in Outdoor COVID Vaccine	\$8,403,	UArizona Research,	Co-PI with
Sites	2021	Innovation and Impact (RII)	Keith
Participation and Community Engagement in	\$7,000	Drachman/CAPLA Seed	Co-PI with
COVID	2020-2021	Grant	Currans and
			Erikson
Regional Transportation Health Study	\$12,089	Southern Nevada Regional	UA Co-PI
	2019-2020	Transportation Authority	
Supporting Safe Childcare Reopening in	\$14,000	Community Foundation of	PI
COVID	2020	Southern Arizona	
Understanding Connections Between	\$101,839	National Institute of	Co-PI
Mobility, Transportation, and Quality of Life	2020-2021	Transportation and	(Orhon PI)
in Refugee Communities in Tucson, Arizona		Communities (NITC)	
App-based Data Collection to Characterize	\$127,962	National Institute of	Co-PI
Latent Transportation Demand within	2020-2021	Transportation and	(PI Fields)
Marginalized and Underserved Populations		Communities (NITC)	
E-Scooters and Public Health: Understanding	\$20,000	National Institute of	PI
the Implications of E-Scooters on Chronic	2019-2020	Transportation and	
Disease		Communities (NITC)	
Scooting to a New Era in Active	\$53,702	National Institute of	Co-PI with
Transportation: Examining the Use and	2019-2020	Transportation and	Currans
Safety of E-Scooters		Communities (NITC)	
Is Transit-Oriented Development Affordable	\$145,650	National Institute of	Co-PI with
for Low and Moderate Income Households	2019-2020	Transportation and	Ewing as PI
(in terms of H+T)?		Communities (NITC)	
Climate Resilience for Physical Activity and	\$5,000	Internal Grassroots	PI
Health: Understanding the Thermal	2019	Initiative (UA)	
Microclimate of Splash Pads in Tucson Parks			
Parking Utilization and VMT	\$240,468	Caltrans	Co-PI with
	2019-2021		Currans

# Past Grant Funding (post 2018)

Project Name	Size, Years	Primary Client	Role
Health Impact Assessment for the Hillside	\$25,000	Clackamas County Public	PI
Public Housing Master Plan	2018-19	Health	
Updating and Expanding Fixed Guideway	\$73,7333	National Institute of	Investigator
Data and Analysis – Phase 2 (2018)	2018-2020	Transportation and	(Nelson as PI),
		Communities (NITC)	

# **Teaching and Advising**

## 2021

- PLG 514 Planning Methods (Fall)
- PLG 256 Sustainable Cities (Online/iCourse Summer)

- PLG 211 Sex and the City (Spring and Fall, Online/iCourse; conversion to new GenEd requirements in Summer)
- SBE 195A Introduction to Sustainability (UA Global Microcampus; Online/iCourse, Summer and Fall; Live Online Fall)
- SBE 195B Careers in Sustainability (UA Global Microcampus; Online/iCourse, Summer; Live Online Spring)
- Mentor of 2022 Transportation Review Board Minority Scholar (Ash Avila)

### 2020

- Adobe Creative Campus Fellow
- PLG 473/573 Transportation and Society (Co-taught, Spring)
- PLG 211 Sex and the City (Fall, Online/iCourse)
- SBE 195A Introduction to Sustainability (UA Global Microcampus; Online/iCourse, Summer and Fall; "Flex in-person" Fall)
- SBE 195B Careers in Sustainability (UA Global Microcampus; Online/iCourse, Summer and Fall)

### 2019

- PLG 473/573 Transportation and Society (Co-taught, Spring)
- SBE 195A Introduction to Sustainability conversion for UA Global Microcampus
- SBE 195B Careers in Sustainability conversion for UA Global Microcampus
- Guest Lectures: PLG 501 Planning Theory and Practice (Sanderford Fall)

#### 2018

- Management of NITC Student Support Funds
- Judge of Fall 2018 SBE Capstone Projects
- Internship Proctor for Zetter (Portland State, BS Community Development)
- Graduate Research Assistant Interaction: Barton, Landgrave-Serrano, Abou-Zied
- Advising Sessions: Barton, Higgins (English/Rhetoric), Quarles
- Guest Lectures: SBE Sustainable Cities (Pivo Fall) and PLG 514 Planning Methods (Currans - Fall)

#### Prior

- University Studies (Gen Ed) 220 Understanding Communities: Fall 2010, Fall 2011, Spring 2011
- Urban Studies & Planning 424 Healthy Communities: Winter 2011, Winter 2012
- Public Health Education 446/546 Urban Health: Spring 2011
- University Studies (Gen Ed) 234 Healthy People Healthy Places: Summer 2013
- Urban Studies & Planning 410/510 Health Impact Assessment: Summer 2014, Summer 2015
- Masters of Public Health Field Experience Coordinator: 2012-2013

### **Synergistic Activities**

- UD4H's (2016-2017) development team for National Public Health Assessment Model (N-PHAM)
- SANDAG/CalTrans' (2016-2017) Social Equity Assessment Methodology and Tool (SEAM/SEAT)

- Technical Expert (2017) for World Health Organization's Health Economic Assessment Tool
- Member (2012-2015) for Northwest Health Impact Assessment Practitioner Group
- Panel Member resulting in Stakeholder Participation Working Group of the 2010 HIA in the Americas Workshop. (2012). Best Practices for Stakeholder Participation in Health Impact Assessment. Oakland, CA.

## **Collaborators and Other Affiliations**

## • Collaborator and Co-Editors

Arlie Adkins – University of Arizona; Larry Frank – University of British Columbia; Billy Riggs – San Francisco University; Meghan Winters – Simon Frasier University; Moriah McSherry McGrath – Portland State University; Kara McLeod – University of California, Los Angeles.

### • Graduate and Thesis Advisors

Connie Ozawa (chair) – Portland State University; Jennifer Dill– Portland State University; Sy Adler – Portland State University; Stephanie Farquhar – Portland State University; Ellen Bassett – University of Virginia.