

ANNUAL  
REPORT

2015/16



*The hub for data-driven urban science.*



THE OHIO STATE UNIVERSITY

CENTER FOR URBAN AND  
REGIONAL ANALYSIS



**The Center for  
Urban and Regional  
Analysis is an  
interdisciplinary  
research innovation  
hub specializing in the  
application of GIS,  
spatial analysis and  
geographic visualization  
to urban issues.**

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The background of the image is an aerial map of a city grid, rendered in shades of blue and red. The map shows a dense network of streets and building footprints. A thick red border frames the central text area.

**Our mission is to bridge  
data-driven  
urban science and  
urban policy through  
analysis of economic,  
social, environmental  
and health issues in  
urban and regional  
settings in Ohio and  
beyond.**

# ABOUT US

Founded in 2001, the Center for Urban and Regional Analysis (CURA) has spent more than 15 years working with partners to solve complex geographic problems. As part of the College of Arts and Sciences, CURA boasts a strong interdisciplinary nature and works with multiple departments, schools and colleges across campus.

From analyzing market potential for commercial developers to mapping all the trees on the Oval, CURA engages in a breadth of research and applied Geographic Information Systems (GIS).

***The Center for Urban and Regional Analysis brings together students, staff, and faculty from different research domains to support projects involving the study of cities and regions.***

## STUDENT ENGAGEMENT

CURA's research associates and affiliates are among the best GIS and urban science students in the world. Involvement in our research projects enhances their educational experience and provides exposure to professional GIS projects. As part of CURA's mission to support urban-related research, a number of travel grants are awarded to graduate students for participation in nationwide conferences.

## SPATIAL ANALYSIS

There is power in maps! Our researchers produce high quality products for inclusion in grant projects and other publications, enhancing the impact of your research. Regardless of the subject area, the use of maps can enhance the accessibility of research questions by effectively demonstrating patterns and trends.

## EDUCATION and OUTREACH

To facilitate new dialogue and introduce students and faculty to emerging scholarship in the fields of urban science and studies, CURA hosts speakers from academia and other fields throughout the year.

We also work with select community partner organizations to provide mapping services and offer free training courses for basic mapping techniques.

## RESEARCH SUPPORT

Do you need GIS, spatial analysis, or mapping support for your project? Consider collaborating with CURA on your grant application or any other research endeavor. Our researchers produce high quality data for inclusion in grant projects and other publications, enhancing the impact of your conclusions.

# RESEARCH AREAS



Development  
& Policy



Environment  
& Society



Public Health



GIS  
& Mapping

# FROM THE DIRECTOR

Dear Friends of CURA—

We live in remarkable times: our cities are undergoing dramatic change at a time when humanity faces vital questions of sustainability, resilience and inclusion.

As of 2008—for the first time in human history—the majority of the world’s population lives in cities. Urbanization continues to increase, with many experts expecting 80% of the world’s population to be urban by the end of the 21st century. A walk through downtown Columbus as well as neighborhoods such as the Short North and Olde Towne East should be convincing of this new urban trend! Many of our neighborhoods, however, continue to face challenges of social disparity and insufficient infrastructure.

Luckily, a new, urban science is emerging that can begin to address the most pressing urban challenges. Using newly available georeferenced and dynamic data to treat a city not as a simple, aggregate object but rather as complex, dynamic network, this new science offers promise at a time when urban progress is crucial. In some of the most innovative areas of scientific inquiry, Ohio State has signaled serious commitment through the Discovery Themes initiative ([discovery.osu.edu](http://discovery.osu.edu)), adding new research and teaching capabilities across a wide range of interdisciplinary research domains. The university also recognizes its unique role as one of the only research-intensive, land grant university located in an major urban area. As the only interdisciplinary center on campus at the intersection of urban data and Geographic Information Science, CURA has a central role to play in these developments.



**HARVEY MILLER**  
DIRECTOR, CURA

***“We’re in the midst of a revolution in the human sciences—transportation, urban, public health—in which geospatial data give researchers unprecedented insights into people, cities and societies. It is truly the birth of a new science.”***



CURA is located in the lower level of Derby Hall, pictured in this photo from the early 20th century. The Oval can be seen in the top right-hand corner of the photo.

In pursuit of bridging urban-related disciplines across the institution, CURA is actively participating in research projects across campus, involving affiliates in Geography, the College of Public Health, City and Regional Planning, the Glenn College of Public Affairs, and the Department of Civil, Environmental and Geodetic Engineering. We have also stepped up our engagement with partners in the local community, including Community Research Partners, the Columbus Housing Dialogue, the Mid-Ohio Regional Planning Commission and the City of Columbus.

CURA is also initiating new conversations about local and global urban issues through high-profile events such as public lectures by Kristin Tolle, PhD (Director of the Data Science Initiative, Microsoft Research Outreach), Prof. Martin Raubal (ETH-Zurich), and Jonathan Vespa, PhD (U.S. Census). We have also initiated new public forums such as the Future of Suburbs panel discussion in early 2016, where CURA

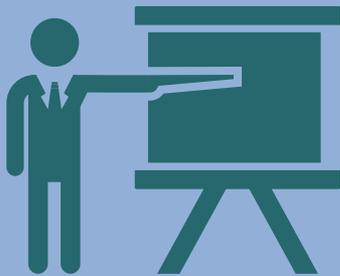
facilitated a progressive dialogue among diverse interest groups about emerging trends in suburban development and culture.

As a 21st-century university, Ohio State is positioned to be a leader in urban science. CURA is central to the university's new mission in this emerging interdisciplinary space. There are great challenges ahead, but great universities and centers rise to meet challenges. Join us on this journey to a bright urban future in Ohio and beyond.

Regards,

Harvey J. Miller  
Director

# BY THE NUMBERS



## *SPEAKER SERIES*

Throughout the academic year, CURA sponsored a total of seven formal speaker series events. From a Swedish time-geographer developing a method to reduce household energy consumption to the director of data science initiatives at Microsoft Research Outreach, our programs encompass a variety of areas that touch urban life. As a multi-disciplinary, multi-departmental, and multi-collegiate Center, we embrace our diversity of specializations.

**This year, we jointly sponsored events with the Knowlton School, the Institute for Population Research, the Women's Center, Ohio State ADVANCE, the STEAM Factory, and Translational Data Analytics at Ohio State.**



## *TRAVEL GRANTS*

CURA provides \$1000 grants for conference travel to graduate students from any department to attend major specialized conferences related to urban and regional analysis. In line with CURA's multi-disciplinary and multi-collegiate approach, we strive to award funds to students from a diversity of fields within Ohio State.

Though we receive many more applications than we are able to fund, **CURA directly supported nine graduate students in the 2015-2016 academic term.** The students represented three different colleges and presented research at conferences nationwide. Learn more about our travel grants on page 29.



## **WEBSITE // E-NEWS**

We continue to improve our website through cohesive and engaging design and options for user interactivity. Under the Projects section of our website, we offer an interactive map of historic photos of Columbus through a partnership with the City of Columbus and Ohio Wesleyan University.

**Our e-newsletter list has grown by 24% since June of 2015.** Sign up for our monthly updates on our home page, [cura.osu.edu](http://cura.osu.edu).



## **SOCIAL MEDIA**

CURA is focused on augmenting our presence and visibility in the Greater Columbus community. We are constantly working to strengthen our name recognition and create new connections with industry partners.

In the spring of 2016, we embarked upon a project to feature our leaders through a series of blog posts, which can be accessed at [cura.osu.edu/cura-blog](http://cura.osu.edu/cura-blog). In addition, **CURA's Facebook following has grown from 242 to 322, an increase of 33% in one year.**

To advertise our events throughout the year, we used promotions on Facebook that gained an audience of 20,441 people and attracted 473 post engagements.

# OUR NETWORK

We strive to maintain connections across departments and colleges at the university. As an interdisciplinary center, our work focuses on fostering collaboration among related—but distinct—disciplines.

In 2016, we hosted a diverse panel of academics and practitioners to discuss the “Future of Suburbs.” The event brought together the intellectual power of faculty in urban planning and history with the real-world expertise of developers and city officials. This event exemplifies CURA’s mission to bridge academia and industry.

Our center relies on our network to provide new ideas, offer direction, and suggest new project ideas. We draw from our network when planning our speaker series, when negotiating partnerships for events, and when considering possibilities for research collaboration.

As the university’s only unit focused on connecting urban-related scholars from different disciplines, CURA is committed to fostering a dialogue across campus, throughout Central Ohio, and wherever Ohio State research is occurring.

5

colleges

12

units

500+

event  
attendees

1

Center for Real Estate  
Fisher College of Business

2

Knowlton School  
College of Engineering

3

Department of Civil, Environmental,  
and Geodetic Engineering  
College of Engineering

4

Center for Aviation Studies

5

Research Commons  
University Libraries

6

Department of History  
College of Arts and Sciences

7

Translational Data Analytics  
Discovery Themes

8

Department of Geography  
College of Arts and Sciences

9

John Glenn College  
of Public Affairs

10

College of Social Work

11

Institute for Population Research

12

Kirwan Institute for the  
Study of Race and Ethnicity

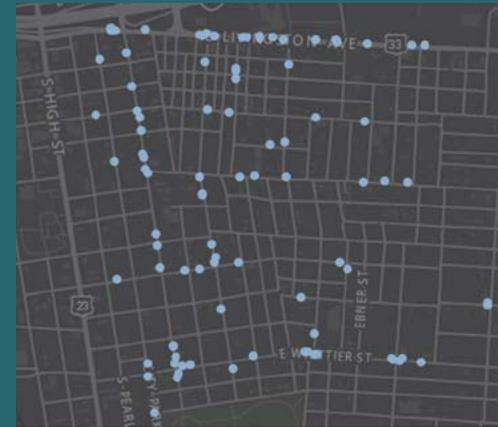
# CAMPUS MAP



# SERVICES

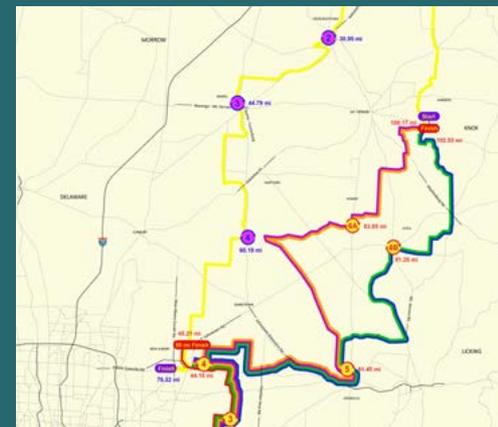
CURA serves as an innovation hub which brings together researchers from across campus to integrate spatial modeling and Geographic Information Science (GIS) into economic, social, and public health research. We provide data management and design expertise, and we also offer web mapping and data hosting. We possess strong technical expertise in transportation, housing, and geo-demographics. If you would like to consult with us about your research project, please email [cura@osu.edu](mailto:cura@osu.edu) or call 614/292-5930.

Our services are provided primarily to on-campus partners, but we may also work with community groups. For the Ohio State community, CURA typically charges an hourly rate and provides an estimate for the work needed to complete the client's project. For larger research endeavors such as government-sponsored grants, CURA faculty may be considered a co-investigator for the geo-visualization portion of the research.



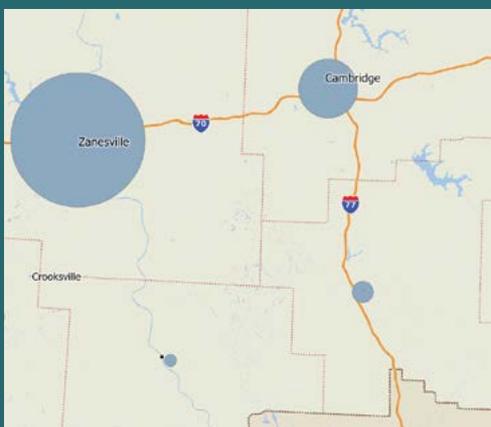
## GEOCODING

Have address data from surveys or other research outcomes that you need transformed into a map for analysis and spatial pattern recognition? CURA can accurately geo-code your data and make sure the final product is exactly what fits your research goals.



## CARTOGRAPHY

Whether you need print or digital mapping, CURA can assist in the production of high-quality and complex maps for a variety of research and basic needs.



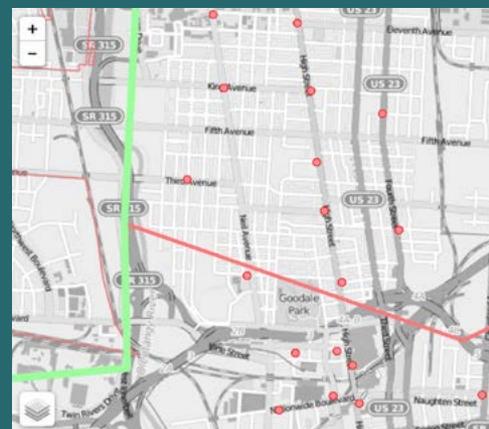
## GEOSPATIAL ANALYSIS

If your research involves tracking the interaction among multiple attributes and geographic space, let researchers at CURA work to provide analytic services for your data.



## DATA COLLECTION

Academics know that good data is key to successful research. That's why CURA works diligently to offer comprehensive geo-databases to our clients. Whatever the area of your research, we can locate and curate the fundamental socio-economic and demographic data necessary.



## WEB MAPPING

Like most technologies, mapping continues to move toward the cloud. Online-only mapping options are appropriate for a variety of skill-levels. If you need an interactive web-map or an embedded map journal, talk to us!



## GIS WORKSHOPS

CURA partners with other GIS experts on campus to provide basic training in common GIS technologies. We are planning to increase the frequency and diversity of our training offerings in the 2016-2017 academic year.

# PROJECTS

CURA accepts new projects based on an evaluation of its fit with our four primary research areas:

- Development and Policy
- Public Health
- Environment and Society
- GIS and Mapping

While many of our projects are long-term, spanning one year or more, we also see the benefit of shorter term projects and recognize the need for less involved spatial analysis to support research.

The 2015-2016 academic year brought intriguing new research pathways and allowed us to build upon existing endeavors. One of our largest projects is a mobile data research grant with the Ohio Department of Transportation. This research supports a PhD student (Young Jaegal) and offers the possibility of multiple publications upon completion.

Some of our continuing projects include the Blanchard Collection photography map ([cura.osu.edu/blanchard](http://cura.osu.edu/blanchard)) and new retail market analyses in conjunction with Ohio State Extension.

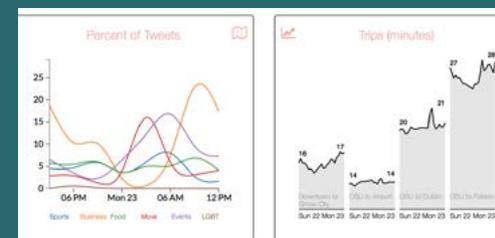
## **CURIO: URBAN INFORMATICS**

One of CURA's most notable activities has been the development of the Columbus URban Information Observatory (CURIO), a web site featuring an interactive dashboard of select Columbus metrics. Focusing on socio-economic, environmental, and mobility data, the project will be an evolving online aggregation of dynamic data sources. The goal is to provide the public and policymakers with insight into the complex relationships among various urban processes.



## **MOBILITY ANALYSIS**

A project funded by the Ohio Department of Transportation is investigating new methods of evaluating origin/destination flows with Ohio. If successful, the state could save millions of dollars by implementing innovative technology.



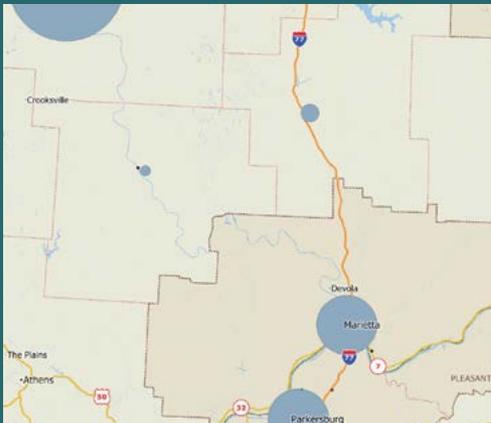
## **URBAN INFORMATICS**

With funding from the College of Arts and Sciences, CURA is working to create an online urban data dashboard. One goal of the project is to provide the initial conceptual model for an urban observatory of Columbus.



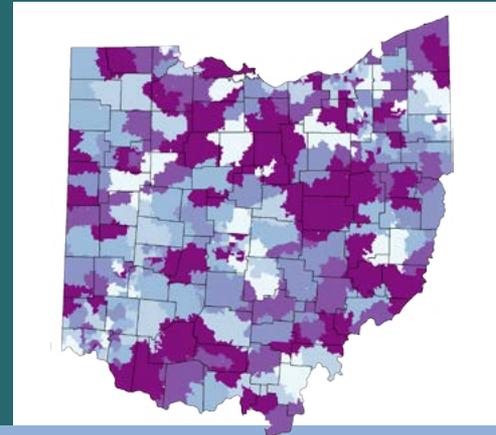
## HISTORIC PHOTOS

The Blanchard Collection is a 1922 master's thesis completed by a student of Geography at Ohio State. CURA helped correct the location of many photos on an interactive web map and created an interactive PDF featuring 'then and now' capability for most of the photographs.



## RETAIL MARKET ANALYSIS

CURA works with OSU Extension to conduct retail market analyses of rural counties and smaller communities across the state. We provide mapping and demographic data in order to evaluate economic surplus and leakage for the surrounding areas.



## HEALTH MAPPING

In partnership with the College of Social Work, CURA assisted in creating maps for a state-funded grant to assess the health outcomes of Ohio's Medicaid population.



## WEINLAND PARK TREES

Under a grant from the OSU Office of Outreach & Engagement, CURA is working with The Columbus Foundation, the Neighborhood Design Center, and the Knowlton School to evaluate the impact of trees planted in the Weinland Park neighborhood of the University District.

# PARTNERSHIPS

Urban life intersects with nearly every discipline, a reality that positions CURA perfectly for collaborative projects. As the only interdisciplinary hub on campus for urban issues and mapping, the center works to bring diverse researchers together and create synergy around the study of urban and regional systems.

This broad cross-section of partners illustrates the varied ways in which spatial issues arise within many specialized domains. Nearly every research area has a geo-spatial component, from the College of Engineering to the College of Public Health. In addition to partners on campus, CURA works with community organizations off-campus.

For example, one of our projects is focusing on tracking the impact of concentrated tree planting in a University District neighborhood. In conjunction with the Godman Guild Association, Community Properties of Ohio, the Neighborhood Design Center and The Columbus Foundation, CURA is working on a program to plant and analyze new trees in the Weinland Park neighborhood adjacent to the university.



## *UNIVERSITY*

## *LIBRARIES*

Most people wouldn't associate University Libraries with Geographic Information Systems, but at Ohio State we are lucky to have a librarian dedicated to the provision of GIS resources for students. Out of this commitment to student resources comes the annual GIS Day event. In partnership with CURA, University Libraries, and Enterprise GIS at OSU, students, staff, and faculty gather to learn about the power of GIS. On the third Wednesday in November, we invite GIS professionals from the university and community organizations to speak on emerging topics in GIS and network with students.

CURA has also partnered with University Libraries to provide short courses (pictured above) for GIS fundamental trainings that are open to the public.



## **KNOWLTON SCHOOL**

The City & Regional Planning Section in the Knowlton School is a vital partner for CURA's reach into the diverse field of urban planning. Faculty from Knowlton are on CURA's oversight committee and executive leadership team, ensuring clear communication and creating opportunities for collaboration.

Over the 2015-2016 academic year, CURA and the Knowlton School worked together to sponsor a lecture by Dr. Robert Goodspeed (University of Michigan) and to facilitate the Columbus Housing Dialogue (see next page).

CURA is also working with Associate Professor Maria Conroy in the Knowlton School on a project to track the impact of tree plantings in the Weinland Park neighborhood (pictured above) in the University District.



## **INSTITUTE FOR POPULATION RESEARCH**

Another multidisciplinary center, the Institute for Population Research is a strong partner with CURA. In the 2015-2016, CURA and IPR partnered to present Jonathan Vespa, PhD, a researcher at the U.S. Census Bureau (pictured above) in Washington, D.C. and a graduate of Ohio State.

Professor John Casterline, director of the Institute, is also on the Oversight Committee for CURA.

Learn more about IPR at [ipr.osu.edu](http://ipr.osu.edu).

# PROJECT PROFILE

## HOUSING DIALOGUE

*Bringing academics and practitioners together.*

In late 2014, a group of nonprofit, government, and academic leaders convened to share information and foster communication among professionals in the field of housing. Led by Professor Rachel Kleit (City & Regional Planning, Knowlton), the Columbus Housing Dialogue is dedicated to bringing academics and practitioners together in a spirit of co-learning and collaboration. Throughout the academic year, the group hosts presentations on a variety of affordable housing topics, including work completed by students and independent research from housing professionals. CURA helps to convene the dialogue by promoting events and maintaining the Dialogue's online presence.



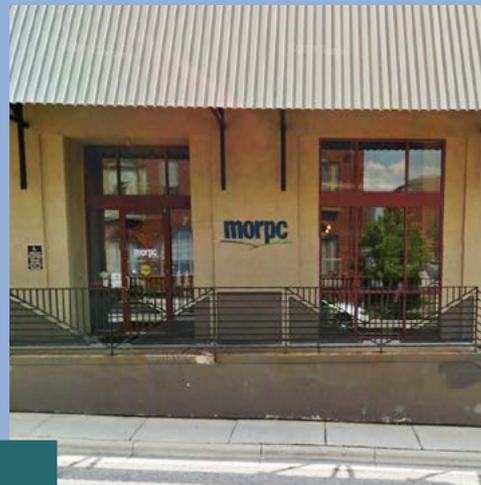
### MISSION STATEMENT

As we seek to build understanding and meaning the hope of the Housing Dialogue Group is to foster action within both the research and practitioner worlds that impact the real Affordability Gap in Columbus and Franklin County.

**VISIT [HOUSINGDIALOGUE.ORG](http://HOUSINGDIALOGUE.ORG)**



*Presentation on Tiny Homes, 04/26/16*



*Most Housing Dialogue meetings are hosted by the Mid-Ohio Regional Planning Commission.*



*Typical conversational configuration of a Housing Dialogue meeting.*

# CONNECT

## SOCIAL MEDIA



@OSUCURA



facebook.com/OSUCURA



cura.osu.edu



cura.osu.edu/cura-blog

## CONTACT



cura@osu.edu

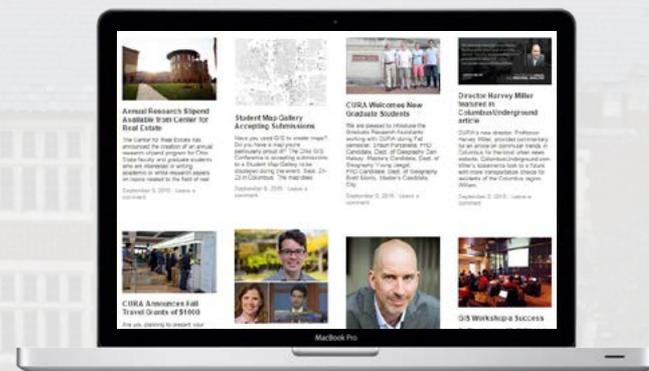


614/688.0527

Connect with CURA on Twitter, Facebook and our website. We maintain a blog with frequent updates on events, research trends, student engagement opportunities, and profiles of our affiliates. Let us know if you have an idea for a blog post or an opportunity to collaborate on a project or event.

If you want to be more involved with CURA, apply to become an affiliate of the center at [cura.osu.edu/affiliate](http://cura.osu.edu/affiliate).

To sign up for our newsletter, visit our home page, [cura.osu.edu](http://cura.osu.edu).



Above:  
Visit CURA's blog at [www.cura.osu.edu/cura-blog](http://www.cura.osu.edu/cura-blog)

# PEOPLE

## *Harvey Miller, PhD // Director and Professor*

Harvey Miller earned his PhD in geography at Ohio State in 1991, returning in 2013 as the Bob and Mary Reusche Chair in Geographic Information Science in the Department of Geography. His research interests include GIS, sustainable transportation, livable cities, and the relationships between human mobility, health and social equity.

Miller is currently a member of the Mapping Science Committee of the National Research Council, US National Academies, and former chair of the GIS and Applications committee of the Transportation Research Board, and the Geographic Information Systems and Science specialty group of the Association of American Geographers. In 2015, he received the Research Award for his scholarly contributions to GIScience from the University Consortium for Geographic Information Science.

Learn more about Director Miller's personal research interests on his blog: [u.osu.edu/miller.81](http://u.osu.edu/miller.81)



### **Research Interests**

- GIScience
- Mobility Science
- Sustainable Transportation

### **Education**

- 1991 PhD (Geography)  
The Ohio State University
- 1987 MA (Geography)  
Kent State University
- 1985 BA, Honors (Geography)  
Kent State University

## *Matthew Adair // Program Coordinator*

A native of Columbus, Matthew brings experience in the state legislature and local engagement in the University District to his position at CURA. With a passion for visual communication and community outreach, Matthew coordinates events, marketing, and client relationships for the center. His research interests include housing, urban history, transportation equity, and neighborhood change. He is also enrolled in a master's program for City & Regional Planning in the Knowlton School and is completing a thesis on land use change and suburbanization in German Village.



### **Research Interests**

- Urban history
- Neighborhood change
- Land use policy

## ASSOCIATE DIRECTORS



**Maria Conroy, PhD**  
Knowlton School  
College of Engineering

### Research Interests

- planning for sustainable development
- enhancing participation processes
- planning around sensitive and protected lands



**Robert Greenbaum, PhD**  
John Glenn College  
of Public Affairs

### Research Interests

- tax incentive policies
- economic resilience
- urban and regional economic development



**Elena Irwin, PhD**  
College of Food, Agricultural,  
and Environmental Sciences

### Research Interests

- spatial modeling land use
- influence of policies on land change patterns
- development of integrated models of land use and ecosystem services

## OVERSIGHT COMMITTEE



Jan Box-Steffensmeier, PhD  
Dean, Social and Behavioral  
Sciences  
College of Arts and Sciences



Shoreh Elhami, MCRP, GISP  
Citywide GIS Manager  
Department of Technology  
City of Columbus



Rachel Garshick Kleit, PhD  
Professor and Section Head  
City and Regional Planning  
Knowlton School

*Associate Directors and Oversight Committee members at CURA contribute to the Center through engagement, collaboration, and support. They are active in CURA events and energetically seek out new CURA-related projects through their networks.*



John Casterline, PhD  
Director, Institute for  
Population Research  
Professor,  
Department of Sociology  
College of Arts and Sciences



Dorota Grejner-Brzezinska, PhD  
Professor and Chair  
Department of Civil,  
Environmental, and  
Geodetic Engineering  
College of Engineering



David Landsbergen, PhD  
Associate Professor  
John Glenn College of Public  
Affairs

*Associates also collaborate with other university units under the CURA banner, as well as work closely with CURA staff to assist on projects as needed.*

*Their support is critical to the Center's mission to serve as a bridge across academia, industry, and the policy sector and integral to our goal of becoming the hub for urban issues at The Ohio State University.*

# GRADUATE STUDENTS

CURA employs students to assist with new and ongoing research projects. Most students are working as Graduate Research Associates (GRAs) for 20 hours per week during the academic year under the direction of Dr. Harvey Miller and in conjunction with clients to fulfill specific research goals.

In addition to GRAs, our center also employs hourly research assistants on an as-needed basis. Unlike GRAs, hourly assistants may be undergraduates or graduate students. Our 2015-2016 team of graduate students consists of Shaun Fontanella, Young Jaegal, and Brett Morris.

Shaun's primary research project has been the Columbus URban Information Observatory (CURIO), a real-time data dashboard. His programming and web development skills have made him crucial in putting the product into a responsive and functional user interface.

Young Jaegal's research is under the direction of Dr. Harvey Miller, working on a contract funded by the Ohio Department of Transportation.

Brett, while working on multiple projects, focused primarily on a Medicaid assessment research grant under the direction of Dr. Elisabeth Root (Department of Geography).



**SHAUN FONTANELLA**  
Department of Geography



**YOUNG JAEGAL**  
Department of Geography



**BRETT MORRIS**  
City & Regional Planning  
Knowlton School | College of Engineering

# AFFILIATES

## FACULTY, STAFF and STUDENTS

*Affiliates of CURA maintain a working relationship with the Center, engaging in research and attending events throughout the academic year.*

As a multi-disciplinary center, CURA relies on our affiliates to maintain connections in other departments. Faculty affiliates may approach CURA with collaborative grant proposals, research concepts, or assistance with spatial analysis components of ongoing research. CURA gives priority to projects with affiliates and with subject matter that aligns with our four core research themes.

## FACULTY, STAFF and STUDENTS

**Jake Carr**  
Graduate Research Associate  
Department of Geography  
Center for Urban & Regional Analysis

**Morton O'Kelly**  
Professor & Chair  
Department of Geography

**Elisabeth Root**  
Associate Professor  
Department of Geography

**Daniel Z. Sui**  
Professor  
Department of Geography

**Ningchuan Xiao**  
Associate Professor  
Department of Geography

**Seth Young**  
Director, Center for Aviation Studies  
Associate Professor  
Civil, Environmental & Geodetic Eng.

## BECOME A **CURA** AFFILIATE

Are you interested in becoming part of CURA's network of scholars, staff, and students at the university and around Ohio?

Consider becoming an affiliate. This is a way to stay connected with developments, events, and services offered by the center. Becoming an affiliate also introduces you to like-minded researchers in different fields, potentially creating opportunities for interdisciplinary work.

VISIT  
[cura.osu.edu/affiliate](http://cura.osu.edu/affiliate)  
TO LEARN MORE

# STUDENT PROFILE

## CALVIN TRIBBY, PhD

Calvin Tribby completed his PhD in May 2016 and will begin working in a post-doctoral Fellowship at the National Cancer Institute, National Institutes of Health in the Summer of 2016.

A native of New Mexico, Calvin successfully defended his dissertation (“Activity Spaces, Route Choices, and Neighborhoods: Assessing the Built Environment Associations with Walking Trips.”) in April of 2016. His committee was comprised of Ningchuan Xiao, Ola Ahlqvist, Barbara Brown (University of Utah), Christopher J. Zirkle (Graduate Faculty Representative) and Harvey Miller (advisor and director of CURA).

Dr. Tribby’s interests are in applied transportation research in the areas of walking, bicycling and the built environment; transit accessibility and equity; air quality; and pedestrian and bicycle safety. His dissertation explored new spatial units for summarizing walkability and assessing attributes of the built environment for walking route choice.

As part of his fellowship, he will spend the next year in residence at Columbia University in New York City earning a Masters’ in Public Health.



**CALVIN TRIBBY, PhD**  
CURA AFFILIATE



Above: Calvin Tribby leading a discussion on the practical use of GIS applications at our July 2015 workshop.

# AFFILIATE PROFILE

## NINGCHUAN XIAO, PhD

Ningchuan Xiao, an Associate Professor in the Department of Geography, is an engaged affiliate of CURA. With expertise in ecological modeling, cartography, and web-based GIS, Dr. Xiao is leading the development of an urban data dashboard for Columbus. The project, dubbed CURIO (Columbus URban Information Observatory), aggregates multiple real-time data sources into a user-friendly online dashboard. The goal is to facilitate insight into the complex relationships among factors like travel time, air quality, water quality, and socio-economic demographic data.

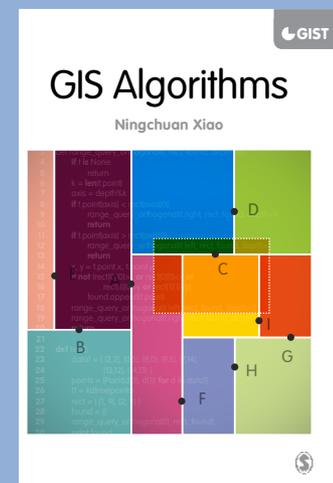
In addition to his work on CURIO, Dr. Xiao is interested in the use of computational approaches to solve geographical problems. Specifically, his research topics include spatial decision support systems, cartography, environmental and ecological modeling, and web-based GIS.

### Education

PhD, 2003	Geography, The University of Iowa
MS, 1999	Geography, Southern Illinois University
MS, 1995	Geography, Peking University
BS, 1990	Geography, Hunan Normal University



**NINGCHUAN XIAO, PhD**  
AFFILIATE, CURA



Right: Dr. Xiao recently published *GIS Algorithms*, a comprehensive new textbook for a complex and critical area of geography.

# PARTNER PROFILE

## LISA RAIZ, PhD

Years of experience as a medical social worker informed Lisa Raiz's research agenda. Her initial interest in the role of health policy in the experience of illness and wellness evolved to an interest in access to, and utilization of, health care. Initially, her work focused on the experiences on individuals undergoing renal transplantation.

In the summer of 2015, Dr. Raiz sought out CURA for assistance with a grant project to study the social determinants of health status and access to health care. This Medicaid and MEDTAPP-funded research examined data for Ohioans age 19-64, with additional focus on individuals with Medicaid and those potentially eligible. The framework that guided the project required extensive data at the environmental/geographical level to enable investigation of macro-level factors associated with the outcomes of interest. In cooperation with Dr. Raiz, researchers at CURA facilitated deeper understanding of the spatial realities of health and social status across the state.



**LISA RAIZ, PhD**  
Associate Professor  
College of Social Work

*“The Center for Urban and Regional Analysis played a central role in a number of critical stages of our project, such as identifying potential sources for data, determining data utility for the project and, creating all required datasets from secondary sources. The work was always reliable, of the highest quality and completed very quickly.”*



**We partner with scholars and researchers to provide quality mapping and spatial analysis services, because the need for geo-visualization extends to nearly every academic discipline.**

# PROGRAMS

CURA organizes multiple events each semester designed to appeal to a wide array of urban-related interests. From urban policy to time geography, the CURA event series offers engaging and enlightening content for a variety of fields. Events are open to the entire community, on campus and off. As the university's hub for GIS and urban data science, CURA seeks to bridge the campus community with professionals around Central Ohio. From panels to keynote speakers, our programming is designed to target a diverse audience, from the freshest undergraduate student to the most seasoned faculty.

## PREVIOUS SPEAKERS

- Lavea Brachman, PhD  
Greater Ohio Policy Center
- Karen Lewis, Associate Professor  
Knowlton School of Architecture
- Noam Shoval, PhD  
University of Pittsburgh
- Amanda Rinehart  
University Libraries,  
The Ohio State University
- Steven Farber, PhD  
University of Toronto
- Anne Palmer and Amanda Behrens,  
Center for a Livable Future at Johns  
Hopkins University
- Rachael Woldoff, PhD  
West Virginia University
- Lynnette Cook, PhD  
Community Research Partners

## 2015—2016 SPEAKERS

**Tapping Home Equity:  
Spatial Variation in  
Borrowing Channels**  
Stephanie Moulton, PhD  
Glenn College of  
Public Affairs

**“Capital Dilemmas:”  
Wrestling for City and  
Regional Sovereignty**  
Christopher Klemek, PhD  
George Washington  
University

**Technology & Urban  
Planning**  
Robert Goodspeed, PhD  
University of Michigan

**Achieving Sustainable  
Resource Use**  
Kajsa Ellegard, PhD  
Linköping University  
(Sweden)

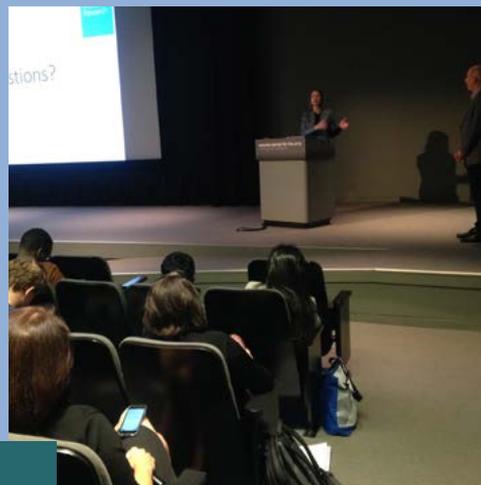
**Investigating Human  
Behavior in the Urban  
Environment**  
Martin Raubal, PhD  
ETH Zurich (Switzerland)

**Collaborative Analytics:  
Meeting global challenges**  
Kristin Tolle, PhD  
Director of Data Science  
Initiatives at Microsoft  
Research Outreach

**Demographic Trends:  
A view from the U.S.  
Census Bureau**  
Dr. Jonathan Vespa  
U.S. Census Bureau  
Co-hosted with Institute for  
Population Research (IPR)



GIS Workshop, 07/30/15

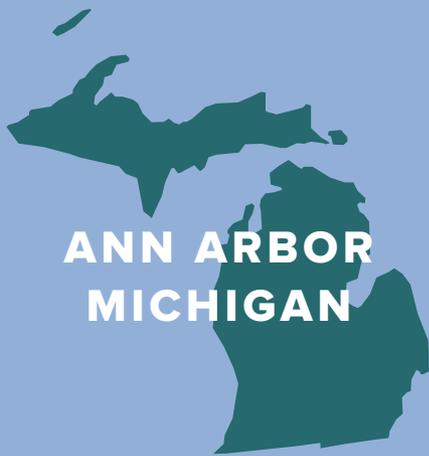


Dr. Kristin Tolle, 04/19/16



Dr. Martin Raubal, 10/22/15

# VISITING SPEAKERS FROM



# EVE

## AUTUMN 2015



GIS WORKSHOP



DR. MARTIN RAUBAL



GIS DAY

30 JULY 2015

**GIS “For the Rest of Us” Workshop**

Co-hosted with University Libraries and the Byrd Polar Research Center

10 SEPT 2015

**Tapping Home Equity:  
Spatial Variation in Borrowing Channels**

Associate Professor Stephanie Moulton  
Glenn College of Public Affairs  
The Ohio State University

20 OCT 2015

**Technology & Urban Planning**

Assistant Professor Robert Goodspeed  
University of Michigan

22 OCT 2015

**Investigating Human Behavior  
in the Urban Environment**

Professor Martin Raubal  
ETH Zurich (Switzerland)

3 NOV 2015

**Demographic Trends:**

**A view from the U.S. Census Bureau**

Jonathan Vespa, PhD  
U.S. Census Bureau  
Co-hosted with Institute for Population  
Research (IPR)

18 NOV 2015

**GIS Day**

CURA // Enterprise GIS // University Libraries  
The Ohio State University

20 NOV 2015

**“Capital Dilemmas:”**

**Wrestling for City and Regional  
Sovereignty in Washington and Paris**

Christopher Klemek, PhD  
George Washington University

# NTS

## SPRING 2016



SUBURBS PANEL

26 FEB 2016

**“What is the Future of Suburbs?” Panel**  
Panelists: Matthew Starr, Terry Foegler, Dr. David Staley, Dr. Bernadette Hanlon, and Dr. Clay Howard.



7 APR 2016

**Achieving Sustainable Resource Use in Every day Life**  
Professor Kajsa Ellegard  
Linkoping University (Sweden)



DR. KRISTIN TOLLE

19 APR 2016

**Collaborative Analytics:  
Meeting global challenges through  
shared research and development**  
Kristin Tolle, PhD  
Director of Data Science Initiatives at  
Microsoft Research Outreach



# TRAVEL GRANTS

## SUPPORTING STUDENT RESEARCH

CURA provides \$1,000 grants to graduate students for conference travel each semester from any department to attend major specialized conferences related to urban and regional analysis. In line with CURA's multi-disciplinary and multi-collegiate approach, we strive to award funds to students from a diversity of fields within Ohio State. We receive many more applications than we are able to fund, but encourage unsuccessful applicants to apply again. As always, graduate students are encouraged to reach out to CURA with questions about mapping and data visualization opportunities for current research. Learn more about our travel grant program at [www.cura.osu.edu/travel-grants](http://www.cura.osu.edu/travel-grants)

### FALL 2015

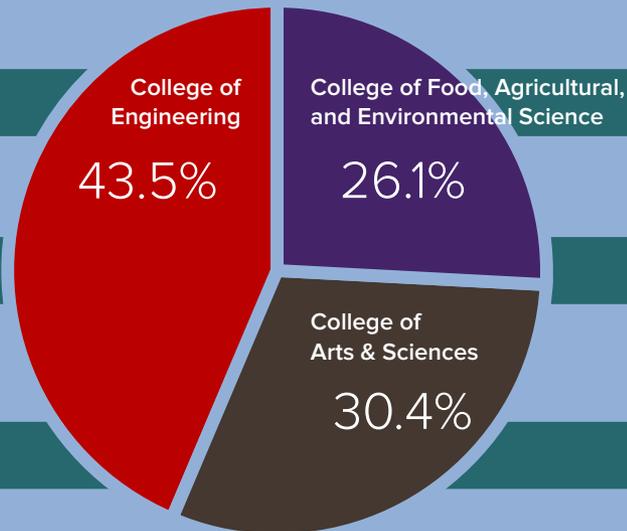
- Emre Tepe  
City & Regional Planning  
Knowlton School  
College of Engineering
- Benjamin Jara  
Department of Agricultural, Environmental,  
and Development Economics  
College of Food, Agriculture,  
and Environmental Sciences
- Na Chen  
City & Regional Planning | Knowlton School  
College of Engineering
- Yu-Jen Chen  
City & Regional Planning | Knowlton School  
College of Engineering
- Xin Zhang  
City & Regional Planning | Knowlton School  
College of Engineering

### SPRING 2016

- Chris Hartmann  
Department of Geography  
College of Arts and Sciences
- Whitney Airgood-Obrycki  
City & Regional Planning | Knowlton School  
College of Engineering
- Rodrigo Perez  
Department of Agricultural, Environmental,  
and Development Economics  
College of Food, Agriculture,  
and Environmental Sciences
- Ariadna Martinez-Gonzalez  
Department of Agricultural, Environmental,  
and Development Economics  
College of Food, Agriculture,  
and Environmental Sciences



## COLLEGE OF APPLICANTS



TRAVEL GRANT AWARDEES // FALL 2015

L to R:  
Emre Tepe, Benjamin Jara, Na Chen, Yu-Jen Chen

## CONFERENCES ATTENDED

- North American Regional Science Council Conference  
Portland, Oregon
- Association of Collegiate Schools of Planning Conference  
Houston, Texas
- American Association of Geographers  
San Francisco, California
- North American Regional Science Council  
Minneapolis, Minnesota
- Southern Regional Science Association  
Washington, D.C.



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THE OHIO STATE UNIVERSITY

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