

ANNUAL  
REPORT  
2014-2015



*The hub for urban issues on campus.*



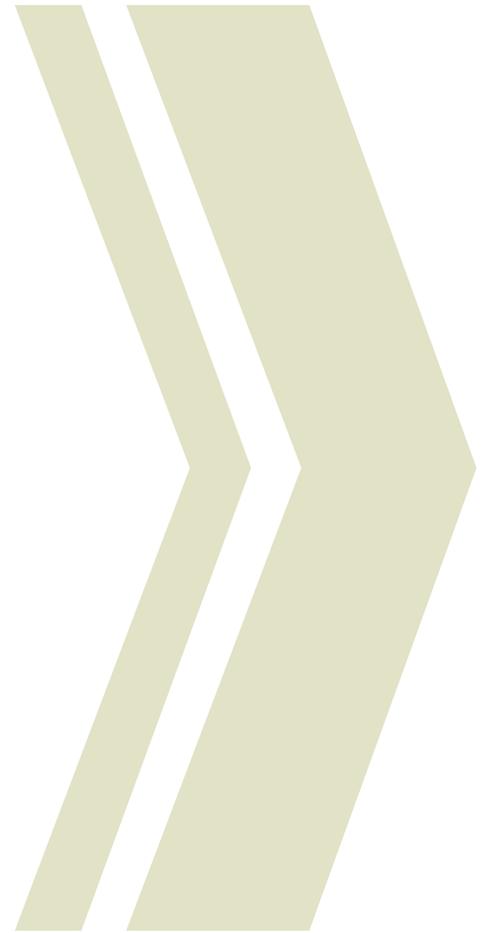
**THE OHIO STATE  
UNIVERSITY**

---

CENTER FOR URBAN AND  
REGIONAL ANALYSIS

# *TABLE* *OF CONTENTS*

1	FROM THE DIRECTOR
3	BY THE NUMBERS
4	IN REVIEW
5	PROJECTS
6	RESEARCH
7	PARTNERSHIPS
8	EVENTS
10	AFFILIATIONS
11	PEOPLE





# FROM THE DIRECTOR

Dear Friends of CURA,

As we continue to build on our core mission of bridging academia, industry and the policy sector through quality urban and regional research, the 2014-2015 academic year has been very strong for CURA.

Through the addition of our exceptionally capable program coordinator, Matthew Adair, we have reinvigorated many aspects of the outreach and engagement and redoubled our efforts to develop CURA as the hub for urban issues on campus. Urban and regional issues are trending at statewide and national levels as many cities are experiencing population growth and new generations are expressing new priorities.

As a comprehensive research university, Ohio State has a wide range of assets in this emerging area and is active at all levels in topics ranging from housing, to transportation, to aviation and other socio-economic themes. At CURA, we seek to unite these inter-related components into a more cohesive strategy for urban research and outreach at the university.

Driving CURA's engagement and interest is the reality of the many pressing problems and issues confronting communities across Ohio. From small cities to large urban centers, we seek to connect with stakeholders and develop practical research that can be used by local leaders to positively impact these current realities and plan thoughtfully for the future.

My own commitment to research of an applied urban nature as a transport geographer encourages me to look to campus and Columbus as a laboratory for topics that generate interesting problems, and opportunities to add insights and efficiencies to the existing system. The center enthusiastically looks forward to working with new partners and continuing to analyze important urban issues that will ultimately help make our cities and regions more livable and prosperous.

Regards,



**Morton O'Kelly**  
Director



Professor Morton O'Kelly (right)  
Director, CURA

## **CURA GOALS** 2015-2016

- **Strengthen community engagement by cultivating strategic relationships**
- **Provide a detailed set of references and resources for students to find learning opportunities around urban and regional issues**
- **Recruit passionate undergraduate students to assist in basic research functions and expand our network of affiliated individuals**
- **Focus on producing high-quality original online content to draw new readers and form a sustained reader base**
- **Create and support service-learning opportunities**
- **Develop active connections to potential donors and identify additional opportunities for grant funding**



**THE OHIO STATE UNIVERSITY**  
CENTER FOR URBAN AND  
REGIONAL ANALYSIS

**Our mission is to serve  
as a bridge across  
academia, industry  
and the policy sector  
by providing spatial  
analysis of economic,  
social, environmental  
and health issues in  
urban and regional  
settings in Ohio and  
beyond.**

# BY THE NUMBERS

7

\$6000

+138%

+174%  


## SPEAKER SERIES

Throughout the academic year, CURA hosted a total of seven formal speaker series events. From a Canadian geographer developing a new method of measuring social segregation to the director of the non-partisan Greater Ohio Policy Center, 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.

**For the first time, we held jointly-sponsored events with Ohio State's Mershon Center for International Security Studies and the Knowlton School.** CURA aims to enhance our partnerships to host more speakers with whom students and faculty can connect in the future.

## TRAVEL GRANTS

CURA provides \$500 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.

We receive many more applications than we are able to fund. **In the 2014-2015 academic term, CURA directly supported 12 graduate students to present research at conferences nationwide.**

## WEBSITE // E-NEWS

Compared to the 2013-2014 academic year, CURA's average monthly web hits increased 138 percent. This major increase can be attributed to a renewed commitment to social media, new original content on the CURA blog and a redesigned CURA website.

We hope to continue this upward trajectory into the 2015-2016 term, with a goal to again double our average monthly website visits. **In addition to our webpages, our e-newsletter list has grown by 28 percent since October of 2014.** We hope to reach 1,000 e-newsletter recipients by the end of the 2015-2016 term.

## SOCIAL MEDIA

Since October 2014, CURA's twitter following has jumped 174 percent. A more dedicated strategy for social media has increased our presence and visibility in the Greater Columbus community, helping to strengthen our name recognition and create new connections with industry partners.

**Similarly, CURA's Facebook following has grown from 178 to 242, an increase of 36 percent in just eight months.**

# IN REVIEW

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 on our own servers. We possess strong technical expertise in transportation, housing and geo-demographics. Our hub connects a group of scholars in social, natural and environmental sciences; applied economics; agriculture; engineering; health and medical professions and the humanities.

*We are the hub for urban issues on campus.*

As the university's only center focused on connecting urban scholarship throughout all departments, schools, and colleges, CURA is committed to fostering positive conversations among a diverse group of urban researchers and thought-leaders in Columbus. We look forward to continuing and expanding our role as the hub for urban issues on campus.

During this academic year, CURA gained a full-time program coordinator to manage outreach efforts, assist in ongoing projects, and identify opportunities for growth. With a variety of projects utilizing a variety of skills, CURA's staff and affiliates are contributing to and helping to coalesce a large corpus of urban research at the University.

# CORE AREAS



## Urban Development and Policy

- economic growth
- housing market
- transportation
- innovation centers



## GIS and Mapping

- geospatial data infrastructure
- geocoding
- geolocating
- data visualization



## Public Health

- built environment
- physical activity
- community health
- environmental health



## Environment and Society

- human dimensions of climate change
- energy
- sustainable urban development
- urban change analysis

**2001**  
YEAR  
FOUNDED

**10**  
AFFILIATED  
ENTITIES

**172**  
TOP BLOG  
POST VIEWS



Professor Harvey Miller (left) and PhD advisee Calvin Tribby celebrate Calvin's receipt of a CURA Travel Grant.

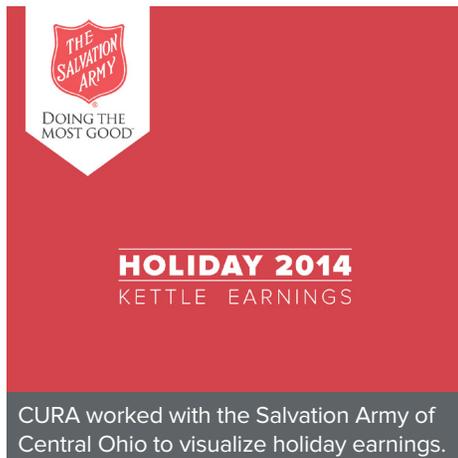
# PROJECTS

The Center for Urban and Regional Analysis serves as an interdisciplinary bridge across academia, industry and the policy sector by providing spatial analysis of economic, social, environmental and health issues in urban and regional settings in Ohio and beyond.

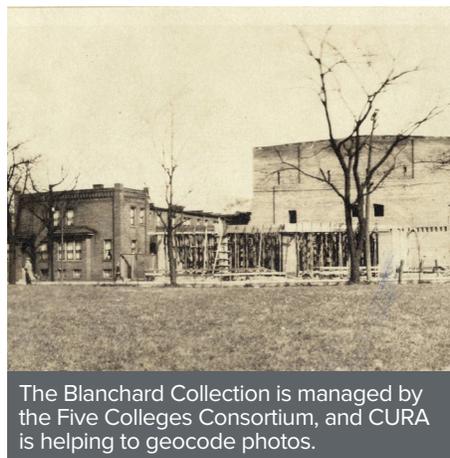
As part of our mission, we offer a wide range of support services for research that applies to urban and metropolitan areas, rural areas and broader regional issues. Our current focus is on partnering with other groups to augment their capacity and provide support to existing projects. There are geo-spatial components to nearly every avenue of research, creating abundant opportunities for CURA to provide technical expertise and add further dimension to data.

Below is a sampling of our projects from the 2014-2015 term, many of which are still underway. More information about these projects can be found on our website and blog at [www.cura.osu.edu](http://www.cura.osu.edu).

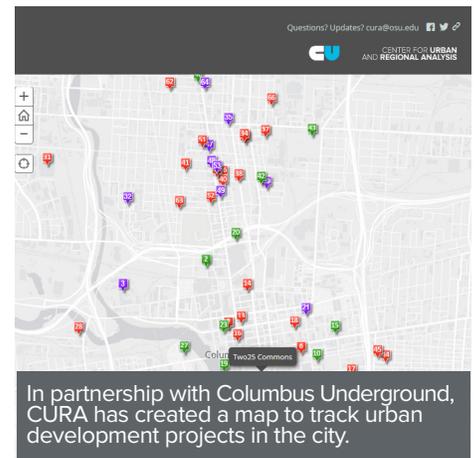
*There are spatial components to nearly every avenue of research, creating abundant opportunities for CURA to provide technical expertise and add further dimension to data.*



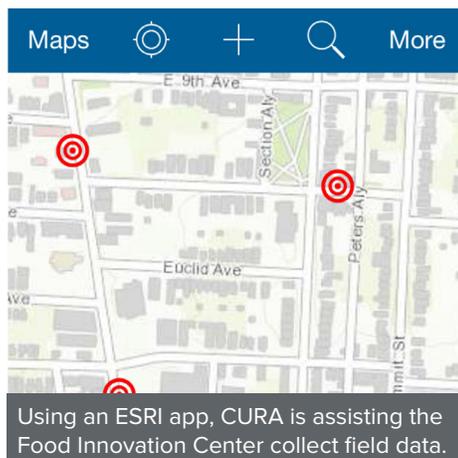
CURA worked with the Salvation Army of Central Ohio to visualize holiday earnings.



The Blanchard Collection is managed by the Five Colleges Consortium, and CURA is helping to geocode photos.



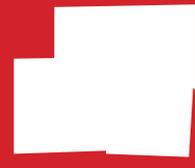
In partnership with Columbus Underground, CURA has created a map to track urban development projects in the city.



Using an ESRI app, CURA is assisting the Food Innovation Center collect field data.

## RETAIL MARKET ANALYSIS

Shelby County, Ohio



In partnership with OSU Extension, CURA completed a market study for Shelby County.

## IN MEMORIAM: PROFESSOR LARRY BROWN

A place to celebrate an incredible life.

Professor Lawrence A. Brown's Lasting Legacy

December 6, 2014 at 3:00pm by [Matthew Adair](#)

This web page will serve as an homage to the life and career of Professor Lawrence Brown of The Ohio State University Department of Geography. It is managed by the staff of the Center for Urban & Regional Analysis at OSU, a Center that received support from Professor Brown.

Lawrence A. Brown, Distinguished University Professor and former chair of the Department of Geography, died on April 5, 2014, surrounded by his family. He was 79 years old.

A Guggenheim Fellow, Brown was a leader of geography's quantitative revolution that made geography a modern social science and in turn soured all the geo-spatial technologies, such as GIS (Geographic Information Systems) that we see today. In the 1960s, geography was a discipline built on providing descriptive portraits of specific, often exotic, places and categorizing land-human relationships. The quantitative revolution applied statistics and social-science methods to allow for the study of broad, generalizable relationships across many different places.

Brown's book, *Innovation Diffusion*, became the definitive work on the adoption and geographic spread of new products and techniques. The dissemination of new ideas and products became a central focus.

In honor of Professor Larry Brown's lasting legacy at the university, CURA created a website to feature his work.

# RESEARCH



CURA collaborates with other departments and centers at Ohio State as well as nonprofit organizations and government agencies to produce maps, reports and analyses. We host some of this output on our servers for public consumption and interaction. We're always looking for new opportunities to help researchers more effectively visualize and understand spatial data! Here is an example of our collaborative work with government officials in Shelby County, Ohio and the OSU Extension program in Wooster, Ohio.

## OSU EXTENSION

In conjunction with the Community Development section of the OSU Extension at Wooster, CURA created a Retail Market Analysis for the Shelby County Commissioners. This document will help county officials make thoughtful and informed decisions based on sound economic data and analysis.

In addition to primary data research on current market conditions and demographic trends, CURA completed all editorial layout, map illustrations and provided all images for the project. We enjoyed the opportunity to work toward economic development in Ohio and supply critical information to community leaders. To learn more about our research efforts, visit [www.cura.osu.edu/projects](http://www.cura.osu.edu/projects).

Area	Stores	Observed sales	Per capita sales estimate
Bellefontaine	178	\$413,535,000	\$8,666.56
Greenville	218	\$454,556,000	\$10,344.29
Piqua	217	\$450,239,000	\$11,846.86
Sidney	187	\$529,745,000	\$10,315.98
Tipp City	116	\$590,098,000	\$37,052.71
Regional	1294	\$3,479,696,000	---

Above: The Tipp City area ranked highest in estimated retail sales per person at \$37,063 and Per Capita Surplus at \$22,657, one of only two areas, including Piqua, with a positive per capita surplus in retail sales.

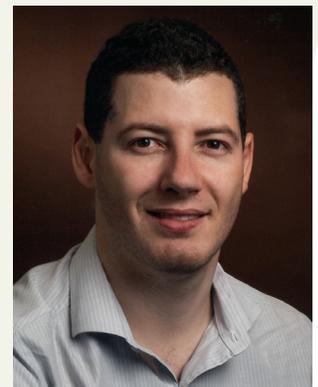
## SPOTLIGHT: *Air Traffic and Big Data*

As part of his dissertation, visiting PhD student Sandro Jeronimo de Almeida is analyzing aircraft efficiency in three flight stages: climb, cruise and descent. With the help of planfinder.net and through a worldwide system of automatic dependent surveillance – broadcast (ADS-B) antennas, he is working with a dataset of 81 million waypoints.

Sandro presented his findings at the NEXTOR II consortium event at the Asilomar Conference Grounds in Pacific Grove, CA in February 2015 with financial support from CURA. NEXTOR II is a Government-Academic-Industry alliance dedicated to the advancement of aviation research

and technology funded by the FAA, industry partners, airport operators and other federal government sources, most notably NASA. The consortium exists to provide research support for a wide variety of aviation issues and lead the aviation community by advancing new ideas and paradigms for aviation operations, educating and training aviation professionals, while promoting knowledge transfer among industry, government and academic leaders.

Sandro's research, "Big Data Analysis of Flight Phases Distance Using Multi-Agent Systems" can help determine how flights are being

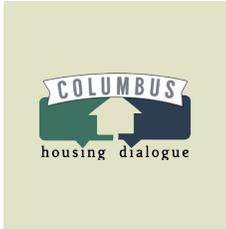


Sandro Jeronimo de Almeida  
Visiting CURA Scholar from Brazil

operated by airlines and eventually propose new flight strategies that could lead to improved fuel efficiency and reduced carbon emissions.

"Selecting the appropriate type of aircraft for a set of routes is an important task for airlines in order to save fuel and reduce CO2 emissions," Sandro said.

# PARTNERSHIPS



## COLUMBUS HOUSING DIALOGUE

Founded in the fall of 2014, the Columbus Housing Dialogue works to understand the complexities of affordable housing by hosting monthly conversations with non-profit leaders, scholars and practitioners of housing in Greater Columbus. CURA is happy to manage the [housingdialogue.org](http://housingdialogue.org) website, posting related news stories and composing entries about content discussed at meetings.



## THE BLANCHARD COLLECTION

As part of CURA's decision to diversify our focus areas, we have partnered with a group working on **The Blanchard Collection**. Using local historical resources, CURA is helping to geo-locate historic photos from a 1922 thesis by the Geography department's first Master's Degree graduate, Ira Forest Blanchard.



## COLUMBUS DEVELOPMENT MAP

Born out of the desire to visualize the rapid pace of development in Columbus' urban core, the Columbus Development Map is a joint venture of CURA and ColumbusUnderground.com. Visit [www.cura.osu.edu/projects/existing](http://www.cura.osu.edu/projects/existing) to see the web app.



## DATA VISUALIZATION EVENT

For the first time, CURA partnered with the Knowlton School to support our March 2015 lecture. Partnering with other units, schools and colleges on campus will continue to be an important focus of CURA's strategic plan for growth.

# SPOTLIGHT

## Urban Curriculum @ OSU

Urban science, urban studies, urban issues and urban life are expressed through numerous disciplines here at Ohio State. With more than 200 majors and hundreds of specializations and minors, urban issues are found in the curricula of multiple colleges, schools, departments and centers. CURA has aggregated urban-related courses from across the university into an urban course catalog. Students can use the catalog as a resource to locate classes related to the study of cities, while faculty can easily see other urban-related courses being taught at Ohio State.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00AM					
9:00AM					
10:00AM					
11:00AM					
12:00PM	<b>U</b>	<b>R</b>	<b>B</b>	<b>A</b>	<b>N</b>
1:00PM					
2:00PM					
3:00PM					

To view the urban course catalog, visit [www.cura.osu.edu/urban-curriculum](http://www.cura.osu.edu/urban-curriculum)

# EVENTS

22 SEPTEMBER 2014

**Urban Bike Sharing Systems:  
General Issues and Local Examples**  
Professor Morton O'Kelly  
The Ohio State University



LECTURE

2 OCTOBER 2014

**Urban Heat Island Mitigation through  
Urban Planning**  
Professor Jean-Michel Guldmann  
The Ohio State University

9 OCTOBER 2014

**Ethics of Data Sharing & Reuse**  
Amanda Rinehart, University Libraries  
The Ohio State University

GIS DAY

13 NOVEMBER 2014

**A Time Geographical Measurement of  
Segregation using Meso-Scale  
Commuter Flow Matrices**  
Professor Steven Farber  
University of Toronto — Scarborough



19 NOVEMBER 2014

**GIS Day**  
CURA | Enterprise GIS | University Libraries  
The Ohio State University

15 JANUARY 2015

**"What is Big Data?" Roundtable**  
Professor Vonu Thakuriah  
Urban Big Data Centre | University of Glasgow



ROUNDTABLE

22 JANUARY 2015

**Regenerating America's Legacy Cities**  
Lavea Brachman  
Executive Director  
Greater Ohio Policy Center

26 MARCH 2015

**Data Visualization Workshop**  
Professor Karen Lewis  
Assistant Professor | Knowlton School  
The Ohio State University



WORKSHOP

16 APRIL 2015

**Jerusalem's Geopolitical Question:  
An Urban & Social Geography**  
Professor Noam Shoval  
University of Pittsburgh (*visiting*)

# ***KAREN LEWIS***

Assistant Professor // Knowlton School of Architecture



## ***DATA VISUALIZATION WORKSHOP***

# CURA CONNECTIONS

## GLOBAL URBAN COMMONS



In Spring 2015, CURA became a member of the Global Urban Commons, a dynamic global directory for urban researchers and practitioners.

Employing a searchable database, the Internet, e-mail and video-conferencing, it enhances sharing data, collaboration and learning in real time. It aims to strengthen existing partnerships, stimulate new relationships and expose scholars and practitioners to new lines of thought that they would not otherwise encounter.

Visit CURA's profile: [www.globalurbancommons.org/organization/center-for-urban-regional-analysis/](http://www.globalurbancommons.org/organization/center-for-urban-regional-analysis/)

## URBAN SERVING UNIVERSITIES



USU Member Institutions 2010

The Coalition of Urban Serving Universities (USU) provides a national voice within public higher education to articulate and promote an urban agenda. By advocating for federal policies that support public urban research universities and create partnerships, USU helps to fuel the development of the nation's cities and metro regions.

CURA will attend the annual USU meeting in June 2015 in Cleveland. We hope to strengthen the University's land-grant mission and work to support the initiatives of USU. Part of the Coalition's mission is to collect and analyze data across a network of public urban research institutions to create a reliable, factual foundation for the universities' work in cities. In this respect, CURA hopes to offer assistance.

# AFFILIATES

**Jens Blegvad**  
Systems Manager  
Center for Urban and Regional Analysis

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

**Sandro Jeronimo**  
Visiting Scholar  
Center for Urban and Regional Analysis

**Ying Song**  
PhD Student  
Department of Geography

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

**Cavin Tribby**  
PhD Student  
Department of Geography

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

**Bo Zhao**  
PhD Student  
Department of Geography

# OVERSIGHT COMMITTEE

**Harvey Miller**

Professor  
Reusche Chair in GIS  
Department of Geography

**Kathleen McGraw**

Professor  
Department of Political Science  
Committee Chair and Ex-officio  
College of Arts and Sciences

**Rachel Garshick Kleit**

Professor and Section Head  
City and Regional Planning  
Knowlton School

**David Steigerwald**

Associate Professor  
Department of History  
Marion Campus

**Bruce Weinberg**

Professor  
Department of Economics

**Mary Ellen Wewers**

Professor  
College of Public Health, Health  
Behavior and Health Promotion

# LEADERSHIP TEAM

**Morton O'Kelly | Director**

Professor  
Department of Geography

**Maria Conroy | Associate Director**

Associate Professor  
City and Regional Planning  
Knowlton School

**Elena Irwin | Associate Director**

Professor  
Dept. of Agricultural, Environmental,  
and Development Economics

**Rob Greenbaum | Associate Director**

Associate Professor  
John Glenn College of Public Affairs

# STAFF

**Matthew Adair**

Program Coordinator  
Center for Urban and Regional Analysis

**Suzanne Mikos**

Fiscal/HR Manager  
Department of Geography

**Shaun Fontanella**

Graduate Research Assistant  
Center for Urban and Regional Analysis

---

*Associate directors 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. 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.*

CONNECT  
WITH  
CURA



**THE OHIO STATE  
UNIVERSITY**

CENTER FOR URBAN AND  
REGIONAL ANALYSIS



@OSUCURA



facebook.com/OSUCURA



cura.osu.edu