



Research & Engagement: A Narrative, 2007–2019



**BALL STATE
UNIVERSITY**

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David Terrell, MBA, Indiana Communities Institute

Michael J. Hicks, Ph.D., Center for Business and Economic Research

Ball State University

Center for Business and Economic Research

2000 W. University Ave., Muncie, IN 47306-0360

765-285-5926 | cber@bsu.edu

bsu.edu/cber

Indiana Communities Institute

2000 W. University Ave., Muncie, IN 47306-2273

765-285-4912 | ici@bsu.edu

bsu.edu/ici

Center for Business and Economic Research Staff

The Center for Business and Economic Research (CBER) at Ball State University conducts timely economic policy research and analysis on a wide range of issues affecting the state and nation for a public audience including public officials, policy makers, journalists, and citizens.



Michael J. Hicks, PhD
Director of the Center and
G&F Ball Distinguished Professor



Dagney Faulk, PhD
Director of Research



Srikant Devaraj, PhD
Research Economist and Research
Assistant Professor



Emily J. Wornell, PhD
Research Assistant Professor for ICI,
RUPRI, and CBER



Lisa Goodpaster
Secretary



Victoria Meldrum
Manager of Publications and Web
Services



Graham Watson
Web Development Manager

Ball State University | WB 149 | 765-285-5926 | cber@bsu.edu | bsu.edu/cber | cberdata.org

Indiana Communities Institute Staff

The Indiana Communities Institute (ICI) at Ball State University harnesses University talent and resources to help Indiana towns, cities, and counties address 21st century economic development challenges through community-based strategies, partnerships, and programs using a framework of research, policy, and practice.



David Terrell
Executive Director of the Institute
and the RUPRI Center for State Policy



Brian Blackford
Project Manager



Candy Dodd
Director of Special Initiatives



Beth Neu
Director of Public Policy and
Engagement



Angie Popplewell
Administrative Coordinator



Geoff Schomacker
Project Manager



Emily J. Wornell, PhD
Research Assistant Professor for ICI,
RUPRI, and CBER

Ball State University | WB 149 | 765-285-4912 | ici@bsu.edu | bsu.edu/ici | bsu.edu/rupri



Background

The Center for Business and Economic Research and the Indiana Communities Institute are located in the Miller College of Business and jointly organize, research and engagement activities. Their work has been closely linked since 2007, and focuses on addressing economic development across the Midwest, with particular emphasis on state and local policy and programmatic offerings.

The organization consists of two directors—the authors of this narrative—and additionally has three research professors and three community development practitioners who lead our policy, programs, and Community Economic Development Academy. The organization also employs three administrative personnel, and three website, design and development professionals. We also employ a number of graduate and undergraduate students, and we collaborate with faculty and practitioners across the campus and the nation.

The Center’s mission is to: 1) Conduct relevant, timely public policy research on a wide range of economic issues affecting the state and nation, 2) Enhance the premier role Ball State University has in performing policy research in Indiana, and 3) Leverage the expertise of key university faculty and researchers to advance Indiana.

The Institute’s mission is to harness Ball State talent and resources to help Indiana towns, cities, and counties address 21st century economic development challenges. Our research-policy-practice framework serves as a model for university economic development efforts across the nation. The Institute’s philosophy is that the single most important element in strengthening local economies is attracting and retaining talented individuals. “Primacy of Place” describes a community’s strategic decision to dedicate resources to improving quality of life for residents, businesses, and visitors. It is the foundational principle for our work across the state.

We have formal partnerships with a number of organizations around the nation. Most notably, we house the Center for State Policy of the federal Rural Policy Research Institute (RUPRI). The Center also serves as the business office for the Association for University Business and Economic Research (AUBER).

This narrative describes the trajectory of research, policy analysis, and programmatic offerings by the Center and Institute through the end of 2019. We end with a description of our plans for the next decade.

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Research & Engagement

The Great Recession saw the confluence of three trends which urgently prodded public universities to engage more fully in the economic development environment. These were: (1) the acceleration of urbanization, which absorbed rural and small-town populations; (2) the accelerated loss of manufacturing employment, which had broadly differing effects across regions; and (3) the accelerated regional divergence of economic outcomes.

These changes influence economic and fiscal conditions, caused a decrease in life expectancy across several demographic groups, contributed to a national opioid crisis and contributed to deepening tensions across the political divide. Research, policy development and programmatic offerings by the Center for Business and Economic Research (CBER) and the Indiana Communities Institute (ICI) responded to these trends.

This document outlines our response across three time periods, which placed differing demands upon our work. From 2007 through 2009, our research focused primarily on state and federal policy responses to the Great Recession and coincident changes to the fiscal and economic development environment in Indiana. From 2010 to 2014, our work shifted, outlining public facing research documenting the long-term changes associated with the Great Recession and assessing the need for policy changes. Starting in 2015, we extended research on both policy and economic changes and developed a series of programmatic offerings to address changing needs of community leaders and economic development practitioners.

The Crash: Research & Education, 2007–2009

From 2001 through 2007, Indiana lost 65,000 manufacturing jobs during a period of broad decline. This decline was precipitated by both trade pressures from the China shock and rapid productivity growth across factories.^[1] Over those years, Indiana's economy expanded very slowly, adding only 54,000 total jobs. In fall 2007, Indiana, along with much of the Midwest peaked at the end of a jobless recovery from the 2001 recession. Before us was the Great Recession.

The start of the Great Recession (December 2007) saw Indiana face job losses of 29,000 in 2008 and 170,000 in 2009. The Great Recession also caught Indiana in the midst of aggressive policy changes that affected property taxes, sales taxes, school finance, school choice, and local government consolidation. The Center aggressively responded to the challenge of policy and recession.

In October and November 2007, the Center published six separate studies addressing the broad tax reform issues facing Indiana.^[2] Together, these studies were used by the General Assembly and Mitch Daniels Administration to evaluate the economic and

behavioral effects of their tax proposals. These studies were widely reported by the media, and the authors testified about this work to the General Assembly during the 2008 session.

In December 2007, the Center also published labor market forecasts for Indiana and for Economic Growth Regions 5 and 6, in central and east central Indiana respectively. The Center also published the first of what would become staple work on the manufacturing and logistics industries in Indiana.

The early recession also saw Indiana face unprecedented flooding. In June 2008, the Center published "Preliminary Flood Damage Assessments: Indiana Flood of 2008." This analysis was later used to help formulate a response to these floods by the Indiana Office of Community and Rural Affairs. We also reported on damages in Iowa in "Preliminary Flood Damages in Iowa." Both studies were cited by the governors of their states (Mitch Daniels and Tom Vilsack), and both Reuters and the *Chicago Tribune* reported our estimates in the first media coverage the Center received outside Indiana.

In fall 2008, the Center published studies on poverty and the minimum wage. We also published technical studies of our forecasting methodology.^[3] We also published our first joint study with the Office of Building Better Communities, “Indiana Artisan Development.” At the time, the Center for Business and Economic Research was called the Bureau of Business Research, and what is today the Indiana Communities Institute was part of an organization known as Building Better Communities. Names for the Center changed in 2009, and for the Institute in 2010. For ease of exposition in this document, we use the current names.

In 2008, the Center began a rapid expansion of our regional economics and public finance analysis. This is apparent in the research we completed in 2009. This would be, at the time, the most active single year of research output in the Center’s 39-year history.

We published studies on sub-prime markets, the Cash for Clunkers program and a review of forecast errors at the start of the recession.^[4] The Center also published a broad study of local government reform in Indiana, which was an evaluation of the Kernan-Shepard report—an influential, bi-partisan effort to reform local government. This work was later expanded into a book, *Local Government Consolidation in the United States*, which is today the single most comprehensive study of local government reform and consolidation between 1803 and 2010. Governor Mitch Daniels wrote the forward to this book.^[5]

The year was also influential as it marked a large expansion of the Center’s work with the Indiana Communities Institute. While many of the studies we conducted had already been recommended to us by the Institute staff and by Dr. Nalitra Thaiprasert, an economist working with us on these studies, we had few joint-funded studies. That changed in 2009, with studies on tourism-related commerce in the state, a special study on cultural tourism, and economic impact studies of the 2008 State Fair.^[6]

The Center staff was also involved with school choice analysis, providing several modeling scenario’s to the state as part of policy development in 2008 and 2009. This work served as a basis for further analysis of school choice in the coming years.

In 2009, the Center updated our Manufacturing and Logistics Scorecard, which was reported across 38 states following its June release. We also published economic forecasts and a retail sales forecast for the holiday season. The year was memorable for broad and sustained media attention for our work.

February 2009 saw the passage of the American Recovery and Reinvestment Act, which released \$856 million in economic stimulus funding. The requirements on the bill were for rapid spending of the money on ‘shovel ready’ projects around the nation to mitigate the ill effects of the Great Recession. The existing work on flood damages authored by the Center, combined with the community work of the Institute, led naturally to Ball State being sought to perform work in support of the stimulus bill. In winter 2009, only days after the passage of the stimulus, the Center released a website that allowed communities to submit projects into a broad database. This database served to collect information on both flood relief dollars and the stimulus.

In February and March 2009, the Institute organized several regional meetings attended by well over 2,500 elected and appointed officials to provide background on these projects and the process. The result was a project database of more than 10,000 projects across Indiana that were deemed of value by local leaders. This was one of the most responsive flood and stimulus data collection efforts in the nation.

By 2009, our weekly column was syndicated outside the *Indiana Business Journal* and *Muncie Star Press*, and our weekly *Indiana Business Bulletin* was expanded to include more business and economic data. We added economic indicators weekly to an email publication with over 300 subscribers, including nearly all the news media in the state.

The national media took notice of our work, and we were quoted in the *New York Times* on three occasions the *Wall Street Journal* three times, including a personal mention of one of our researchers in an opinion piece, as well as *USA Today*, ABC News, ESPN, NPR, and wire service stories through the AP and UPI. This work was mostly focused on our regional economics, our analysis of Cash for Clunkers, tax incentives, and other technical work, such as our local government consolidation report.

The Center also received an unprecedented three national awards for its publications from the Association for University Business and Economic Research, a national peer organization of university research centers. The strongest year for the Center for Business and Economic Research and the Indiana Communities Institute also marked the end of the Great Recession. In July 2009, the nation entered a period of economic expansion that also shifted the focus of our research and collaboration.

The Recovery & Realization of Change, 2010–2014

In 2010, a tepid economic recovery began. Employment growth in Indiana was a weak 7,600 jobs, but the state was fiscally much stronger than its neighbors. The fiscal reforms of 2007–2008 allowed the state to emerge from the Great Recession without the imminent need to cut government payrolls, and spending across most activities. The end of a recession also opened the policy debate for a sustained discussion of economic development incentives, and appropriate policies for economic growth in the state.

Ball State research focused on these issues, and we responded to a variety of policy concerns by the General Assembly. *See Table 1.* We produced a time-consuming study of local fiscal equity, an analysis of employment effects of changes to the federal minimum wage, a study of the economic effects of Indiana’s property tax caps (which were fully in place in 2010), and a study of state tax incentives.^[7]

The Center also focused on both manufacturing and labor markets within the state. In 2010, we again produced our annual Manufacturing Scorecard, which was reported in more than three dozen states and presented to an audience of more than 350 business leaders in Indianapolis. We authored studies on trends in employment and earnings in Delaware County, statewide manufacturing, and wind energy production in the state and nation.^[8]

We focused research attention on individual sectors, producing a telecommunications deregulation study with the Digital Policy Institute at Ball State and an evaluation of media in the workplace with Ball State’s Center for Media Design. We also produced our annual economic forecast, along with a holiday retail sales forecast, presenting the former study to an audience of more than 275 business and civic leaders in Muncie.^[9]

The Institute saw a record training program at their week-long annual Economic Development Course, and expanded their training offerings into local grant-making support and training with a brownfield course. This program, which has more than 350 alumni, focused on developing strategies for communities to address financial shortfalls in mediating and reusing brownfields in their communities. This work involved a large, searchable database and an online economic impact calculator that could be used by local officials providing testimony to city and county councils on brownfield development.

The most important study of 2010 was an evaluation of the state’s 21st Century Research and Development Fund. This study performed a full-scale program evaluation, using quasi-experimental design of the state’s large R&D fund. We made several programmatic recommendations, including a follow-up study of industries in Indiana. We presented these findings to Governor Mitch Daniels and the board of the Indiana Economic

Table 1. Public Finance Studies, 2011–2014

Date	Study
18-Mar-11	Local Option Income Taxes in Indiana
6-Jul-11	Educational Attainment in Indiana
29-Aug-11	Public vs. Private Investment in College: An Exploratory Analysis
12-Sep-11	An Analysis of the Short Run Effects of the American Jobs Act
30-Sep-11	An Examination of the Economic Impact of Property Tax Levy Caps on Economic Activity in New Jersey
5-Oct-11	Local Government Consolidation in New Jersey: Potential Savings Due to Economies of Scale & Efficiency Gains
21-Nov-11	To Collect Sales Tax or Not? Indiana’s Ecommerce Conundrum
19-Jan-12	The Effect of State-Level Add-On Legislation to the Federal New Market Tax Credit Program
3-Mar-12	Special Districts and Local Government Reform
10-Sep-12	Summary of Testimony: Extended Unemployment
13-Sep-12	The Relative Tax Burden on Indiana’s Business: A Micro-Simulation of State Tax Liabilities
30-Nov-12	A Preliminary Snapshot of the Fiscal Cliff Impact in Indiana
9-Jan-13	Public Transportation in Indiana: An Analysis of Ridership Surveys
9-Jan-13	The Effect of Gasoline Prices on Public Bus Ridership in Indiana
9-Jan-13	Fixed-Route and Demand-Response Bus Systems: Financing Methods, Benefits, and Costs in Indiana
8-May-13	The Impact of Property Tax Rate Caps on Local Property Tax Revenue
31-May-13	The Future of State and Local Economic Development Policy
21-Oct-13	A Study of the Efficiency, Effectiveness, and Regional Equity of the IEDC
21-Nov-13	An Analysis of State & Local Tax Incentives in Indiana
5-Dec-13	Local Tax Abatement
7-Feb-14	School Corporation Size and the Cost of Education
25-Jun-14	Tax Simplicity and a Sound Tax System in Indiana
25-Jun-14	A Brief Examination of Tax Incentive Research

Development Corporation, who asked that they be adopted into state law. Our recommendations for design and fund focus were introduced into the 2011 General Assembly, passed, and signed into law.^[10] The state also debated local government reform, a subject of our 2009 study, passing legislation that permitted the consolidation of townships and municipal governments.^[11]

In 2010 the Center won an award from the Association of University Business and Economic Research for the design of the *American Journal of Business*, and we received recognition from the US Army Corps of Engineers and the *New York Times* for a short study of devastating floods that covered much of Pakistan. Our retiring associate director, Judy Lane, was named a Distinguished Hoosier by Governor Mitch Daniels.

Our research was covered live on the ABC News, CNBC, and Fox Business, as well as *Forbes*. We continued to receive weekly coverage by major state publications, and the *Indiana Business Bulletin* was syndicated to almost 30 news outlets across the state.

From 2011 through 2014, work at both the Center and the Institute grew dramatically. Together, our organizations published more than 81 separate studies covering public finance, economic development, forecasting, the manufacturing industry, and general economic and policy issues. This is roughly 2.25 studies per month, not including our weekly *Indiana Business Bulletin*.

The largest share of studies came in the field of public finance, focusing on taxation, spending, and the efficacy of tax incentives. Three of these studies focused on educational outcomes and spending, including the influential study on school corporation size and efficiency. We also authored studies on the extension of unemployment insurance by Congress and the American Jobs Act.

The most influential studies in public finance involved tax incentives along with changes to the state's tax system. We completed a dozen major studies assessing small elements of the tax system, such as state add-on for New Market Tax Credits and legislation that would compel online vendors to collect Indiana sales taxes. These studies also examined much more fundamental issues surrounding taxes, such as the role of state and local incentives, the challenge of tax simplification, and the effectiveness of state economic development spending. Some of this work was featured in the Governor's Tax Conference in 2014.

Our work on Indiana's property tax reforms influenced policy-makers outside Indiana, and we were commissioned to complete a similar study for the Chris Christy Administration in New Jersey. Those reports were used to inform tax policy changes in that state.

Over the 2011-2014 period, we presented our Manufacturing and Logistics Scorecard to increasingly larger audiences at the Conexus Indiana Manufacturing and Logistics annual meeting. We also authored four more manufacturing trends studies; these targeted the large legacy manufacturing counties of Madison, Delaware, and Elkhart.^[12]

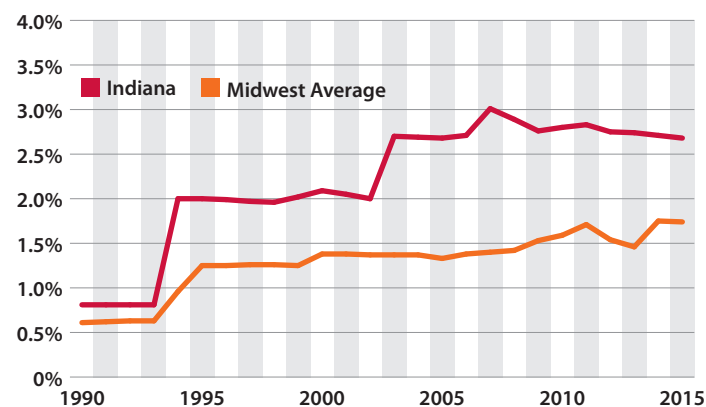
The Center also extended its economic forecasting significantly, with three mid-year forecasts, continuation of the annual holiday sales forecast, and, of course, the production of the Indiana Econometric Model for the annual Economic Outlook luncheon. We also produced an estimate of the effects of the 2013 government shutdown.^[13]

By far the most important element of research, policy analysis, and programmatic work was the broadened relationship between the Center and the Indiana Communities Institute. This work saw us directly engage with communities across the state, start a two-year examination of key economic sectors in Indiana, and begin what would later become our most important policy and programmatic research agenda.

In the years immediately preceding the Great Recession, it became apparent to many in the research and economic development communities that traditional economic development efforts that were focused on attracting businesses had failed to deliver

Figure 1. Effective Rate of Tax Incentives on Manufacturing

Source: Bartik, 2018



prosperity and opportunity to most of the state. This caused two simultaneous policy responses.

The first effect was to double down on the incentive effort and to dramatically expand traditional economic development efforts to boost business attraction. This resulted in an unprecedented explosion of tax incentives in Indiana. See Figure 1.

The second effect was that it spawned considerable research and the seeds of policy innovation across the state. The Indiana Communities Institute and Center for Business and Economic Research became and remain the unquestioned leaders in this new research and policy development.

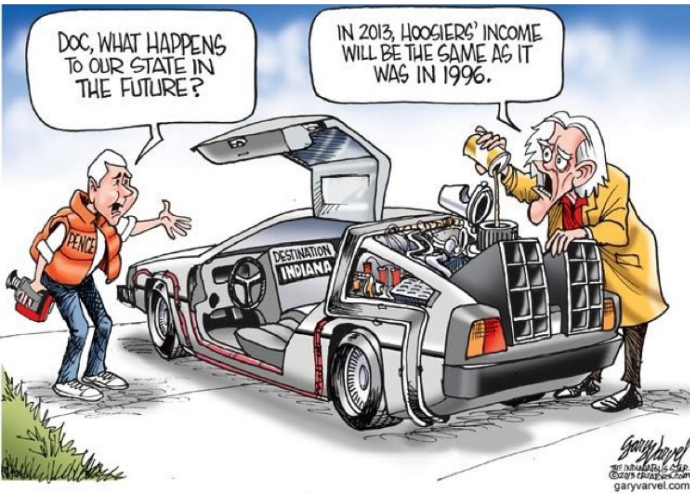
The early highlight of this work was the Community Asset Inventory and Rankings, which gave each county in Indiana a frank assessment across five domains: people (demographics and population growth), worker health, worker education, tax and government impact, and recreation (including arts and entertainment). We also included changeable and static amenities. As intended, this interactive website and publication created broad and sustained conversations about quality of place across Indiana. This work was funded by the Office of Community and Rural Affairs as part of the state's T21 development initiative. The Community Asset Inventory received a 2012 University Economic Development Association award.

Two of our more influential studies focused on incentives and their outcomes. The first was provocatively titled "Why Tax Incentives Don't Work: The Altered Landscape of Local Economic Development." This study laid out the case against traditional economic development practices to lure businesses to Indiana. It remains influential and has become a core part of our programmatic and educational offerings across the Midwest.

The second study, "The Causes of State Differences in Per Capita Income: How Does Indiana Fare?" was a frank assessment of the state's poor personal income growth, and ultimately the long-term divergence between Indiana and the nation as a whole.

Figure 2. Cartoon Depiction of CBER/ICI’s Personal Income Study and Governor Mike Pence

Source: See Varvel.com and Indianapolis Star



This 2013 study focused attention on the failings of traditional economic development practices, and the need for more focused human capital policies. This study was so influential in spurring deep debate within the state, it spawned a cartoon featuring then-Governor Mike Pence. *See Figure 2.*

We accompanied this work with an evaluation of traditional economic development along the Indiana East–West Toll Road, which included 15 specific recommendations, focusing away from traditional business attraction policies. We performed research surrounding migration flows, the perceived STEM shortage, the size and location of a worker skills gap, a review of labor market and economic performance following the Great Recession and commenced a two-year study of key sectors in Indiana. All of these projects were performed jointly by the Institute and the Center. *See Table 2.*

From 2011 through 2014, the Institute and Center received significant recognition for this work. We won three awards from the University Economic Development Association, two from the Association for Business and Economic Research, and one from the International Economic Development Council.

Importantly, all of these awards involved the joint Center and Institute development of a broad set of interactive websites that supported community economic development. Our Brownfields Grant Writers’ website, which includes interactive economic impact modeling, won two separate awards from different

Table 2. Economic Development Studies, 2011-2014

Date	Title
6-Apr-11	Do Unexploited Economic Development Opportunities Exist within the Indiana Toll Road Corridor?
3-Aug-11	Indiana Toll Road Corridor: Economic Opportunity Briefs 1-5
4-Aug-11	Indiana Toll Road Corridor: Economic Opportunity Briefs 6-10
5-Aug-11	Indiana Toll Road Corridor: Economic Opportunity Briefs 11-15
16-Sep-11	The Puzzle of Indiana’s Economy through the Great Recession
3-Oct-11	A Technical Analysis of the Economic Impact of U.S. Department of Defense Contracts in Indiana
3-Oct-11	Re-Issued: The Economic Impact of the Super Bowl in Indianapolis
14-Dec-11	Right-to-Work Legislation and the Manufacturing Sector
14-Dec-11	Indiana Toll Road Economic Development Corridor Study
5-Apr-12	Indiana Community Asset Inventory and Rankings 2012
25-Feb-13	Indiana Migration Flows: An Analysis of IRS Data
11-Mar-13	Which Hoosier Occupations May Suffer from a Skills Gap?
11-Mar-13	Labor Markets After the Great Recession: Unemployment and Policy for Indiana
14-Aug-13	The Causes of State Differences in Per Capita Income: How Does Indiana Fare?
23-Jan-14	Regional Cities Initiative Testimony
20-May-14	How Real Is the STEM Shortage in Indiana?
7-Jul-14	Key Economic Sectors in Indiana: State Overview
16-Sep-14	Why Tax Incentives Don’t Work: The Altered Landscape of Local Economic Development
4-Nov-14	Key Economic Sectors in Indiana: Regions 1, 2, 3, & 4

organizations. In the years following development of that tool, Indiana received more than \$30 million extra in grants to support revitalization of Brownfields, and the website has more than 250 registered users across the Midwest. Our Indiana County Profiles website was used in both the Hometown Competitive Initiative and in the Stellar Communities program. Both of these programs were funded by the Indiana Office of Community and Rural Affairs through a services contract with the Indiana Communities Institute.

Over these years, our media footprint continued to grow, with our work featured in/on Fox, CNN, CNBC, *USA Today*, NBC, and regional papers such as the *Chicago Tribune*, *Los Angeles Times*, and *Atlanta Journal-Constitution*. From 2011 to 2014, our annual advertising equivalency in earned media grew substantially. The reputation and focus of the Center and Institute entered a new domain that would foster the rapid growth we experienced over the past five years.

A New Approach: Research, Policy, & Practice 2015–2019

In 2015, the Indiana Communities Institute and the Center for Business and Economic Research formalized their relationship with a functional merger. The Institute was moved to the control of the Miller College of Business, and both organizations began sharing personnel.

The economic recovery faltered in Indiana mid-decade, and the state's GDP growth actually declined in 2014. Indiana's GDP never again matched the national growth rate through the end of the decade. The economic analysis performed by the Center and

promoted by the Institute through its formal training strongly argued traditional economic development policies were failing. *See Table 3.* This realization led to several important policy changes and an ongoing debate over taxation, spending, economic development, and educational priorities in the state.

From 2015, the Center and Institute joined in studies on tourism in Indiana and conducted yet another study of hurricane damages using an extension of the models used to evaluate impacts in Indiana and Iowa in 2008.^[14]

The Center also expanded the intensity of our public finance research. *See Table 4.* In the wake of Indiana's broad tax reform and school choice from 2008-2010, several questions remained. Among the most critical was the expanded use of Tax Increment Financing (TIF) in the state. The Center's research and the Institute's policy and program work highlighted this growing concern in the wake of the Great Recession. Our research pointed out that all the growth in taxable property in Indiana, from 2008 through 2014 was absorbed by TIF. This placed an enormous burden on local governments, especially schools, which saw their tax base steadily erode to TIF districts. Our research played a key role in the legislative debate, and the matter was reviewed by three

Table 3. Economic Development Studies, 2015–2019

Date	Title
4-Feb-15	Regional Cities, Small Towns, and Rural Places: Policy Issues for Indiana
8-May-15	Key Economic Sectors in Indiana: Regions 5, 6, 7, & 8
12-Jun-15	Forecast Memorandum: What Happened to Indiana GDP in 2014?
5-Jul-15	Key Economic Sectors in Indiana: Regions 9, 10, 11, & 12
5-Oct-15	The Human Development Index of Indiana Counties: A Policy Perspective
21-Jan-16	What Comes First, People or Jobs: Evidence and Lessons for Indiana
16-May-16	Attracting Jobs or Attracting People? A Microsimulation of the Local Tax Revenue Impacts of New Businesses and Households on Hoosier Communities
20-Jun-16	Why Have Local Economic Development Efforts Been So Disappointing?
7-Nov-16	Indiana's 21st Century Research & Technology Fund
8-Mar-17	The Relationship Between Educational Attainment & Wages
16-Mar-17	A Brief Review of School Financing, Performance, & Enrollment in Delaware Co., IN
28-Mar-17	Footloose Jobs & Urbanization
19-Jun-17	How Vulnerable Are American Communities to Automation, Trade, & Urbanization?
5-Oct-17	Assessing E-Readiness and the Human Development & Technology Index
11-Dec-17	Regional Cities Initiative: Preliminary Economic Impacts
27-Feb-18	Population Decline in Muncie Is Accelerating
1-Oct-18	Qualitative Impacts of the Regional Cities Initiative
6-Feb-19	Economic Considerations for Indiana's Housing Markets
10-May-19	Community Asset Inventory and Rankings: Changes in Indiana Counties
13-May-19	Fiscal, Economic, and Social Effects of Immigration in the Hoosier State
13-May-19	Immigration Effects: Regions 1-6
13-May-19	Immigration Effects: Regions 7-12
21-Nov-19	The Use of GDP Data to Analyze Economic Development Priorities

Table 4. Public Finance Studies, 2015–2019

Date	Title
28-Jan-15	Some Economic Effects of Tax Increment Financing in Indiana
18-Feb-15	Distributed Generation in Indiana: A Preliminary Policy Discussion
23-Feb-15	Analysis of Ridership Surveys and the Fiscal Impact of Neighborhood Transportation Service, Inc.
4-Mar-15	Assessment Quality: Sales Ratio Analysis of Residential Properties in Indiana
26-Oct-15	Indiana's Demand & Supply Issues for K-12 Educators
29-Jan-16	The Fiscal Impact of Tax Increment Financing in Indiana
15-Feb-16	Gasoline Taxes: Some History and Analysis
29-Feb-16	Residential Property Tax Deductions & Effective Property Tax Rates in Indiana
15-Aug-17	School Corporation Size & Student Performance: Evidence from Indiana
25-Sep-17	Comments on Tax Increment Financing
2-Oct-17	The Economic Impact of Ball State University
21-Jun-18	Selected Tariff Effects on Indiana
9-Jul-18	Assessment Quality: Sales Ratio Analysis Update for Residential Properties in Indiana
6-Dec-19	Local Government Responses to Property Tax Rate Caps: An Analysis of Indiana Municipal Governments

different summer study commissions. TIF use remains a contentious issue in Indiana that has not yet been resolved.

However, in 2019, the General Assembly passed a TIF expansion, as recommended by the Center in our recent housing study. This legislation expanded TIF to residential property, but required approval by local school boards, a major departure from previous TIF practices. Most importantly, in 2018, the Institute began broad educational programming in both the Community Development and Regional Leader training that addressed TIF issues

Responding to concerns about assessment quality, CBER conducted sales ratio studies using a statewide dataset on residential property with 20 million observations, over more than a decade, with more than 250 variables per property. This study reported results that suggest current assessment practices statewide are improving, and no longer the policy concern that helped launch the 2007 comprehensive tax reform.

Our work focused on explaining gasoline taxes in advance of the state's comprehensive change to gas taxation and infrastructure funding, and we studied public transit across four different studies that recommended improving local bus transit service to improve labor market outcomes in small cities. We published studies on tariffs, the effects of the University on the local economy, and teacher supply issues.

Among the more important work we did was in the efficiency of public education, extending our cost study to local school performance. We completed a complementary study to our earlier school corporation and size study, examining size and quality issue. We found that, similar to costs, the minimum efficient scale of a school corporation is roughly 2,000 students, and that schools smaller

than that pay more per student to educate and have worse outcomes than schools with larger enrollment. We did not find large gains beyond that size—a finding which continues to offer insight into the issues surrounding school funding in Indiana.

We continued to publish our annual Manufacturing and Logistics Scorecard, adding individualized studies each year as a method of extending our analysis. In 2015, we reviewed the role of trade and automation in a companion study titled “The Myth and the Reality of Manufacturing in America.” This work was designed to illustrate to state and local leaders the folly of focusing primarily on factory jobs as a local economic development strategy. With the 2016 presidential campaign, it became much more than that.

The 2015 Myth and Reality study quickly became the most frequently mentioned Ball State study in the University's first century. We reported job losses due to trade were a fraction of those caused by other factors related to productivity. Though not without its critics, this study quickly imposed upon the policy debate the need to look beyond trade as a causal factor in regional labor demand shocks. President Obama spoke to these issues in his farewell address noting that “. . . the next wave of economic dislocation won't come from overseas. It will come from the relentless pace of automation that makes many good, middle-class jobs obsolete.”

Our Myth and Reality study was featured in every American media outlet in 2016 and 2017, from *Rolling Stone* and the *National Review* to the *Wall Street Journal* and *Forbes*. The study was cited in columns by George Will (syndicated), Phil Gramm (*Wall Street Journal*) and David Ignatius (*Washington Post* and

National Attention: “The Myth and the Reality of Manufacturing in America” (2015)

To briefly illustrate the impact of our research, we list coverage of CBER's 2015 Myth and Reality study, which occurred in the weeks surrounding the 2016 election.

The Wall Street Journal. “The Future of America's Economy Looks a Lot Like Elkhart, Indiana.” Bob Davis, April 12, 2018.

Rolling Stone. “Death of the American Trucker.” Tim Dickinson, January 2, 2018.

The Atlantic. “The False Promises of Worker Retraining.” Jeffrey Selinger January 8, 2018

The Washington Post. “Trump is Selling Snake Oil to the Rustbelt.” David Ignatius February 28, 2017.

The Atlantic. “America is Still Making Things.” Alana Semuels, Jan 6, 2017.

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syndicated). Its impact continues to resonate, as the study was quoted by 2020 Presidential Candidate Andrew Yang in the recent Presidential Nomination debates.

That work spawned additional analysis of vulnerable communities, in which we documented the risk of automation and trade job losses in U.S. counties—the first study of its kind. That work was also heavily reported upon, and featured by PBS's *Frontline* in their recent special on Artificial Intelligence. These studies were cited in two congressional bills (S. 2982, TAA for Automation Act and H.R. 628, The Investing in Tomorrow's Workforce Act), demonstrating an important policy dimension to our work.

Our policy studies examined the role of business attraction of 'footloose jobs,' the enduring question of whether jobs follow people or people follow jobs (it is the former), and immigration. In this final study we reported broad net benefits to immigration across Indiana.

We used new Census data on GDP at the county level, finding that traditional human capital augmented growth models work well in explaining growth in Indiana. We could perform this study because we created a local fiscal data set for Indiana, which has capital data for individual counties over more than a decade.

In 2015, the state of Indiana began two important quality of place initiatives. The Community Readiness Initiative, which involved a \$450,000 contract with the Institute, resulting in a community development and local capacity building process that was adopted by more than 25 communities in Indiana. The state also instituted the Regional Cities Initiative. The Center produced research on the Regional Cities. Center and Institute staff testified at the General Assembly in support of the legislation and has thus far conducted two follow up studies on its impact.

We also performed a suite of studies related to healthcare in Indiana. We examined the cost and benefit of regulating pseudoephedrine in Indiana, an input to methamphetamines. We created a county-level, statewide Healthy, Wealthy, & Wise Index, performed several technical studies of hospitals, which are an ongoing effort to assemble data on Medicare and Medicaid usage, along with hospital outcome data. This spawned several academic studies in medical journals, along with several funded projects in healthcare. Some of our most important recent work included analyzing the degree of monopolization in Indiana's hospital industry. That work was nationally reported, and helped frame three cost-related bills in the 2020 General Assembly session.^[15]

Our Center provided key technical support for the fiscal and enrollment issues at Muncie Community Schools (MCS). Our enrollment projections provided to the leadership of MCS were more accurate than the contracted projections performed for the school. We also provided technical analysis at the request of several members of the legislature, who were interested in factual analysis of the challenges at MCS. Though we made no such

Meaningful Engagement: "The Mounds Lake Peer Review" (2015)

Early 2015 saw among the most critical research and engagement efforts from Ball State University in its first 100 years. East Central Indiana was reeling from a proposal by the Anderson Corporation for Economic Development to dam the White River, and create the Mounds Lake Reservoir on primarily urban land in Anderson. The group launched a public relations and information campaign, which argued the large economic benefits of what would be the largest urban, man-made lake constructed in the Western Hemisphere. The proposal also received legislative support from several members, despite having had no substantive environmental, cultural or economic analysis.

Several groups approached the Center to consider using their expertise to discuss the Mounds Lake proposal. After careful internal deliberation, we proposed a peer review of the existing plan. We assembled 14 faculty and staff members from nine academic departments and research centers and performed a peer review under the definition of the National Research Council of the National Academies of Science.

That peer review, across eight different domains, reported significant financial, environmental, and cultural impacts of the proposed urban lake. This work, conducted under the highest academic standards by faculty in three different colleges, effectively ended the Mounds Lake plan. This was a classic example of a significant issue, affecting millions of Hoosiers, influenced by deliberate, high-quality research.

recommendation, the findings of our work supported the shift of control of Muncie Community Schools to Ball State University.

The most critical developments of the 2015–2019 period was the expanded work on programmatic and policy-oriented offerings by the Indiana Communities Institute. This took the form of new funded training programs, a broader research initiative, and the rapid growth of policy influence in these domains led by course instruction, careful policy support and policy research.

In 2015, the federally funded Rural Policy Research Institute created its Center for State Policy at Ball State University. This entity, which is housed within the Indiana Communities Institute, supports collaboration and research on non-metropolitan places in the United States.

In 2016, the Institute and Center were named by the Department of Commerce's Economic Development Administration (EDA) as a University Center, receiving a five-year \$250,000 grant to support training and programmatic efforts. In addition to expanding the community development course, this work funded an update to the Community Asset Inventory in 2018.

The Institute was also tasked in this grant to provide training to regional staff of federally recognized regional economic development groups. That training was developed to cover organizational

leadership, finances, law, human resources, and other material. Following the initial pilot of this program, and a presentation to the quarterly EDA conference, the Institute was approached by senior leadership of the EDA to extend the course outside of Indiana. The result of these requests was a five-year, \$1.85 million project to deliver this course across the EDA region of Minnesota, Wisconsin, Illinois, Michigan, and Ohio.

In 2017, the Institute was awarded a contract by the Indiana Association of Cities and Towns (now Advancing Indiana's Municipalities) to manage the quarterly Mayor's Institute for the state of Indiana. This is a two-day, quarterly meeting that includes varied coursework and presentations on issues ranging from federal funding guidelines to automation and trade employment risk in counties. Center and Institute staff deliver content, help plan courses, and work closely with the mayoral leadership to use our research and engagement to affect public policy. This work also includes biannual newly elected official training offered to mayors and other local leaders.

With the sustained growth of our annual economic development course, the popularity of our community development courses and the expansion of our regional training to multiple states the Institute created the ICI Academy in late 2019 to support the university's new strategic goal of expanded executive education.

The Institute and Center remain closely aligned through all this work. Center expertise affects course content, and provides teaching expertise and interstate connections to these educational programs. Both remain closely tied to community counselling work by Institute staff, which by 2019 was performed in 57 different cities and in 79 counties across the state of Indiana. See Figures 3 and 4.

Some of our most detailed work is now occurring in two selected counties as a pilot program designed to build local government capacity. This work extends the Comprehensive Wealth Framework to community economic development in counties. As news of this work spread, the Center and Institute was contracted to take this effort nationally through a grant from the Robert Wood Johnson Foundation focusing on micropolitan locations nationally. We are currently engaged in this \$250,000 study.

In 2018, the Institute received a prestigious, \$500,000 federal grant (Agriculture and Food Research Initiative) to examine how community-level assets impact the effectiveness and choice of household livelihood strategies for low-income rural residents. This multi-community study will be critical for developing place-based policies to boost community wellbeing in non-urban places.

The Institute has a \$300,000 contract with Office of Community and Rural Affairs to continue to provide community development services, and support for the Stellar Regions Initiative. The Center received \$250,000 over the 2007–2019 period to

Figure 3. ICI Projects and County Coverage, 2015–2019

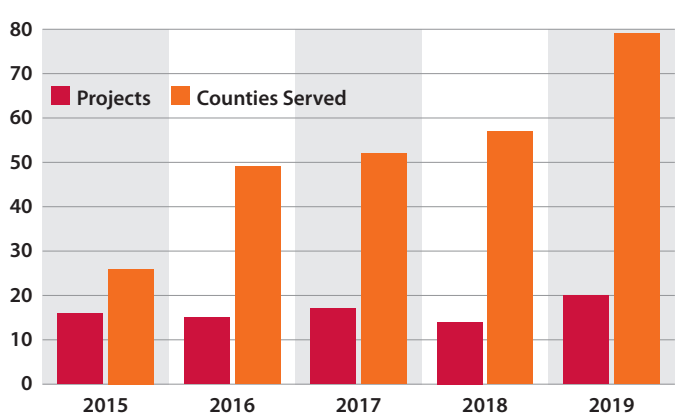
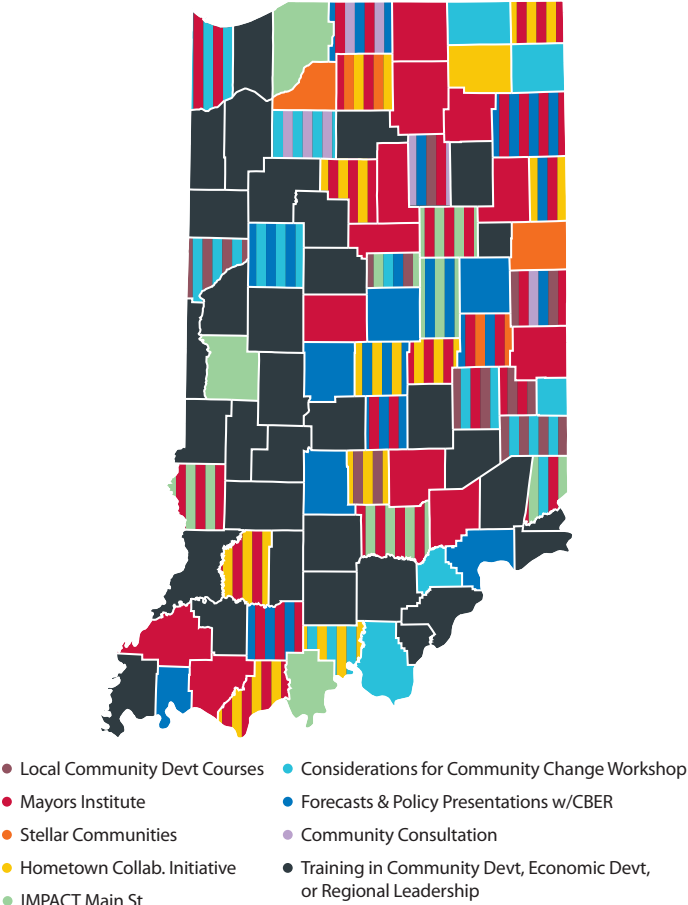
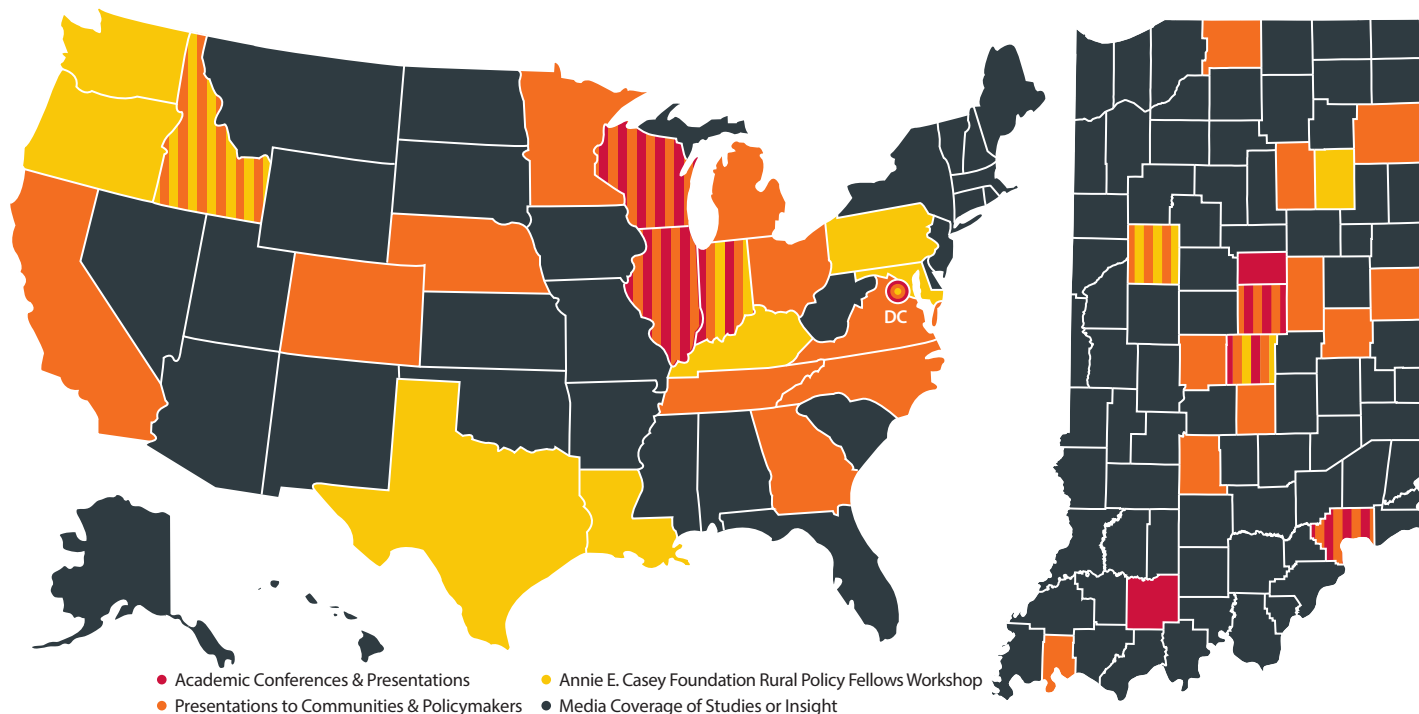


Figure 4. ICI Activities in Indiana Counties, 2015 - 2019



develop and produce the Manufacturing and Logistics Scorecard, and is supported annually to produce the Economic Outlook, a forecast of the Midwest, Indiana, and Ohio. These contracts and grants, along with support from associations, such as the Philanthropy Alliance, allow us to create a more diverse portfolio of funding sources to continue our work in the years to come.

Figure 5. CBER Activities in the US and Indiana Counties, 2019



Our work continues to have broad impact. Our staff provide the lead economist for Indiana’s Revenue Forecast Technical committee, and Center and Institute staff have testified to the General Assembly each year since 2008. In 2019 alone, our Center researchers presented their work 68 times, in dozens of cities across 11 states. See *Figure 5*.

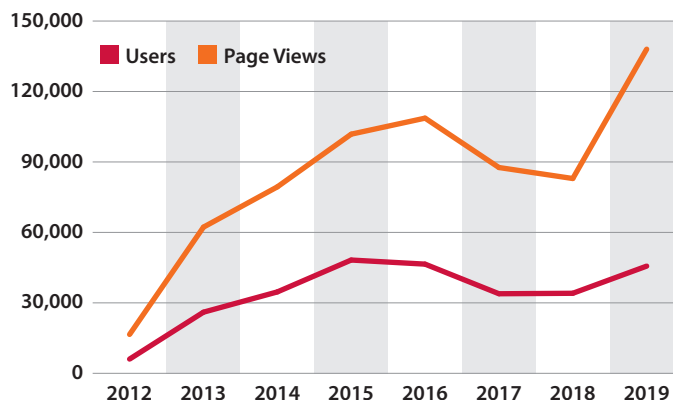
In 2019, the Institute, with only four outreach staff, provided training to more than 1,000 elected and appointed officials from each of Indiana’s 92 counties and a majority of municipalities. This included the Mayor’s Institute, which provided detailed training to a majority of the state’s mayors and newly elected local leaders.

Last year, the Institute has visited 78 out of Indiana’s 92 counties for public presentations, classes, workshops and consultative work. We provided executive education to citizens of every county, nearly every municipality in Indiana, and across several Midwestern states.

Our impact is not limited to face-to-face education and workshops. The Center maintains an award-winning website in support of both Center research and Institute programs. Our annual usage and page views have grown substantially over the past few years, and in 2019, we experienced nearly 140,000 page views from roughly 44,000 users. See *Figure 6*.

The programs of greatest interest on the website are those connected to community training and programs, as well as our direct study access and community support (e.g. the Muncie Events Calendar). See *Table 5, page 14*. The Community Asset Inventory and Ranking website, first built in 2012, and re-released with new data in 2019, had 70,341 views and received awards for website

Figure 6. CBER Website Usage, 2012–2019



publications from both the Association of University Business and Economic Research and the University Economic Development Association. This Institute and Center joint project was first funded by the state of Indiana for \$50,000 and is now funded by the U.S. Department of Commerce, Economic Development Administration.

The close attention to important policy issues, high quality research and focused policy development supports naturally results in attention from the media. Though this list is incomplete, media mentions of the Center and Institute blossomed since 2015. We have had more than 4,500 separate media listings, not counting wire service duplications. These reached newspapers with total of 25 billion unique monthly views, or roughly 175 million per month over the last 12 years. That has reached

29.3 million viewers, resulting in \$7.8 million in advertising equivalency. These numbers are for print media alone, and do not consider our live appearances on CNN, CNBC, Fox Business, the Nightly Business Report, our multiple interviews on NPR's Morning Edition, All Things Considered, and Hear and Now, or the excellent review of our study of minimum wage and food service health violations in Seattle, which appeared on an episode of NPR's Hidden Brain. See *Table 6*.

The Center staff also continue their purely scholarly work. See *Table 7*. From 2007 to 2019 we published a total of 68 peer-reviewed publications (academic papers and books), not counting invited and editorially reviewed articles. This is more than two peer reviewed publications per year, per PhD researcher employed by the Center, an important adjunct to the roughly 1.3 studies per month published by Center staff since fall 2007, in addition to the weekly *Indiana Business Bulletin* and CBER Data Center Economic Indicators.

From 2007 through 2019, the Center staff published 200 separate technical or policy studies, and 68 peer-reviewed papers, of which 43 were derivatives of funded research at the Center, including ongoing health services and fiscal analysis.

Our work continues to receive external recognition. In 2019 alone, each of our PhD researchers received research awards. One received an Outstanding PhD Alumnus Award, and two authors received an Emerald Literati Award for “Do Entrepreneur-Focused Facility Incentives Create Economic Impacts? Evidence from Indiana,” *Journal of Entrepreneurship and Public Policy*. A co-authored paper “Must access laws for opioid prescription and county gross domestic product” received the Paul Polzin Prize for the Best Paper at the 2019 Annual Conference of the Association for Business and Economic Research, and our study titled “Fiscal, Economic, & Social Effects of Immigration in the Hoosier State” won the Award for Excellence in Print Publications at that same conference.

Staff from both the Center and Institute were invited to speak to national audiences at such diverse locations as the Harvard School of Public Health and the Computing Research Association's national conference on Technology and Jobs. During the period 2015 through 2019, the Center and Institute moved into the upper ranks of university-housed activities focusing on research, policy, and practice. The core work we have performed the broadening of collaborative relationships and the focus on emerging policy challenges sets us on a robust path in the years ahead.

Table 5. CBER Website Usage, 2012–2019

Site	Users	Page Views	Comments	Awards
Brownfield Grant Writers' Tool	4,893	12,212	ICI/CBER joint project	IEDC, UEDA
Community Asset Inventory	13,979	70,341	ICI/CBER joint project	UEDA
Community Readiness Initiative	4,181	21,244	ICI/CBER joint project	
Manufacturing Scorecard	14,191	34,071	Conexus Indiana	AUBER, UEDA
County Profiles	6,110	25,469	ICI/CBER joint project	AUBER, IEDC
Data Center Home	11,304	18,480	cberdata.org main page	AUBER
Economic Indicators	5,786	20,406	Indiana Business Bulletin (weekly)	
Projects and Publications	26,258	64,083		AUBER
Tax Savings Calculator	13,670	33,428	IEDC	
Weekly Commentaries	29,079	61,985	Indiana Business Bulletin (weekly)	
University website bsu.edu/cber	22,374	50,907	Tracker no longer active (2016)	
Muncie Events	123,252	264,633	Community service project	
Total (2012-2019)	275,077	677,259		

Table 6. CBER/ICI Print Media Impact, 2015–2019

Year	Mentions	Unique Visits/Mo	Reach	Value
2015	216	214 M	1.7 M	\$139,700
2016	800	1.2 B	5.8 M	2,000,000
2017	1,000	936 M	8.2 M	1,900,000
2018	1,300	1.3 B	4.6 M	2,000,000
2019	1,200	21.6 B	9.0 M	1,800,000
Total	4,516	25,251 B	29.3 M	\$7,839,700

Table 7. Peer-Reviewed Contributions by CBER Staff

Year	Peer-Reviewed Publications	Citations
2015	5	163
2016	11	166
2017	11	277
2018	9	245
2019	4	282

The Path Forward: Planning for 2020 & Beyond

In 2019, the United States moved into the longest economic expansion on record, but Indiana's economy stalled. Across the Midwest factory employment declined, and the composition of the labor force dramatically trailed the nation in educational attainment. It was no better than a tepid recovery.

Among the likely causes of the poor economic performance in the Midwest remain relatively poor educational attainment. This is exacerbated by poor quality of life in many places, which impedes community efforts to attract educated families to their region.

In addition, there is growing evidence that economic growth across counties and metropolitan areas is diverging. This will place much greater demands on policies designed to close the gap between places.

The Institute and Center are poised to address these issues. Our growing suite of program and policy-focused training at the ICI Academy offers great opportunity to educate state and local leaders on these issues, while growing local capacity to address problems. Center research is focused on regional inequality, with

careful examinations of the public finance dimension, particularly surrounding school choice, tax incentives, and recent tax reforms. We are in the midst of a study that extends quality of life analysis outside its usual domain of metropolitan places, through a rigorous exploration of aggregate data. This is the first such study of its kind and will permit scholars to conduct analysis of micropolitan and rural places, which were previously unexplained because of data limitations.

We integrate our research and programmatic work with a broad adaptation of both qualitative and quantitative research findings to the Comprehensive Wealth Framework developed by the Rural Policy Research Center. And, as has been the case for the past five decades, remain a steadfast provider of forecasts, policy analysis, educational programs, and policy support to the taxpayers of Indiana, citizens of the Midwest and the United States.



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Center for Business and Economic Research, Ball State University

2000 W. University Ave., Muncie, IN 47306-0360
765-285-5926 | cber@bsu.edu
bsu.edu/cber | cberdata.org

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Indiana Communities Institute, Ball State University

2000 W. University Ave., Muncie, IN 47306-2273
765-285-4912 | ici@bsu.edu
bsu.edu/ici | bsu.edu/rupri



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