

University of Northern Iowa Annual Economic Development Report – FY2023

Section 1. UNI’s Economic Development Activities to Enhance Economic Growth in Iowa – Highlights and Summary

The University of Northern Iowa (UNI) provided economic development assistance to all of Iowa’s 99 counties for the 24th consecutive year. UNI’s economic development outreach programs are housed in the Business and Community Services (BCS) division and work toward supporting UNI strategic goal 2, to “Empower Communities to Shape Their Future.” Since 2000, BCS has engaged the entire university community in its outreach efforts, including faculty, staff, students, and alumni – all of whom play a critical role in Building a Better Iowa. Client interaction reached 3,953, a record high for BCS outreach centers and programs.

Specific areas of service offered by UNI BCS include: entrepreneurship, community and economic development, market research, environmental research and sustainability, metal casting, and manufacturing 4.0.

Some exceptional recognition and milestones in the past year include:

- UNI’s Advance Iowa program, in partnership with the Iowa Governor’s Office and the National Center for Employee Ownership, launched the Iowa Center for Employee Ownership (IA-CEO).
- STAR4D, a military painting program of the Iowa Waste Reduction Center, reached a milestone of training more than 5,000 members of all branches of the United States military and recently celebrated its 20th anniversary.
- The United States Association of Small Business & Entrepreneurship recognized the UNI John Pappajohn Entrepreneurial Center’s collaboration with the Black Business Entrepreneurship Accelerator as the best Model Community Accelerator/Incubator in the U.S.
- The UNI Foundry 4.0 Center was recognized by the Center for Energy and Smart Manufacturing Institute as a Center of Excellence for its Internet of Things (IoT) and sensor technology projects with the casting industry.
- The Center for Business Growth and Innovation and the Foundry 4.0 Center started the second phase of a major project with the Defense Logistics Agency to enhance supply chain resiliency for sustainment parts for the military.
- The UNI John Pappajohn Entrepreneurial Center worked with the Black Business Entrepreneurship Accelerator (BBEA) catering businesses in a unique venue takeover at the UNI Dining Center on campus. Five BBEA entrepreneurs took advantage of the opportunity to showcase their menu and build their business brand while creating future catering contracts for UNI Dining.

Summary of BCS’ key economic development program outcomes for FY2023:

Overall Outcomes

- Provided service to clients in all 99 Iowa counties with a total of 3,953 unique businesses, communities, nonprofit organizations, and governmental entities, and served an additional 54,155 unique visitors to IASourceLink.
- Reached more than 259,000 Iowans through BCS programs and projects.
- Engaged 132 faculty members and 225 students in the direct delivery of BCS client services, and another 3,153 students were reached by BCS programs.
- Leveraged each \$1 invested by the state with \$5 in private grants, contracts, fees or federal funding.

Summarized Impacts on the Iowa Economy

- The Institute for Decision Making (IDM) partnered with the statewide Industry 4.0 Partner Consortium organized by Iowa’s community colleges and Iowa State’s Center for Industrial Research and Services (CIRAS) to offer Manufacturing 4.0 training.
- IDM and Strategic Marketing Services (SMS) assisted the Iowa Economic Development Authority (IEDA) and its tourism industry partners to conduct a statewide survey of tourism organizations to assess impacts and programming.
- More than 315,000 acres of public roadsides have been assisted by the Tallgrass Prairie Center with ecological integrated management services.
- Two additional cohorts of the Black Business Entrepreneur Accelerator (BBEA) were assisted by the UNI JPEC. Overall, assistance has been provided to 60 BBEA graduates.
- The UNI Family Business Center expanded its programming to reach 183 family businesses in 64 counties across Iowa.
- Green Iowa AmeriCorps has now provided energy efficiency services to 7,500 homes in Iowa and completed 5,500 projects through assistance from 2,800 volunteers and with 350 community organizations.

Entrepreneurship, Business Development and Incubation

- Supported 1,750 Iowa businesses with market information by the Business Concierge team, which is part of IASourceLink, a joint program of the UNI JPEC and the IEDA.
- Conducted 18 seminars and/or presentations related to succession planning and employee ownership in all regions of Iowa.
- Expanded the UNI Family Business Center with programs such as the breakfast series, family business workshops, peer group meetings, the annual Iowa Family Business Conference and just launched the first family business management course at UNI.
- Assisted 68 Iowa companies in 25 counties through Advance Iowa.
- Incubated 12 student businesses in the UNI JPEC R.J. McElroy Student Business Incubator, with 20 additional students who were assisted as affiliate tenants.
- Hosted 12 peer group meetings and 59 networking and educational events related to financial literacy and value building.
- Served 293 new clients through UNI’s Small Business Development Center (SBDC).

Local Economic Development

- Provided strategic planning and comprehensive research assistance to 117 community partners, 12 additional regional groups, and 47 service providers and utilities across Iowa through IDM.
- Conducted a statewide survey of tourism organizations and presented the results to assist the IEDA and its tourism industry partners.
- Assisted the Iowa Department of Education develop a regional center location study and web mapping application to determine the geographical gaps in work-based learning programs.
- Partnered with a statewide Industry 4.0 Partner Consortium to help economic developers to better assist local manufacturers.
- Trained an additional 91 economic developers through the Heartland Economic Development Course.

Waste Reduction, Environmental Assistance, and Sustainability

- Completed more than 700 educational events and engaged nearly 8,000 volunteers in environmental service projects through Green Iowa AmeriCorps.
- Distributed native seed for 43 county roadsides and more than 2,000 acres as part of the Tallgrass Prairie Center's (TPC) roadside vegetation project and published an interactive map to showcase native roadsides.
- Installed and managed 62 vegetable gardens for underserved families through Green Iowa AmeriCorps.
- Certified 34 craft breweries across the state through the Iowa Green Brewery project, a nationally recognized program of the Iowa Waste Reduction Center (IWRC).
- Provided customized environmental technical assistance and on-site reviews through the IWRC to 126 Iowa small businesses and conducted 23 energy efficiency visits with small businesses.
- Conducted solar radiation modeling for the entire state of Iowa by the GeoTREE Center for the Iowa Energy Center
- Expanded the Irvine Prairie in rural Benton County from 77 to 292 acres.

Advanced Manufacturing and Market Research

- Trained 250 military painters at 5 satellite training sites through the STAR4D program.
- Served 25 Iowa foundries and supply chain companies with automation and Internet of Things (IoT) sensor technologies through the Foundry 4.0 Center.
- Expanded a major supply chain resiliency program with the Defense Logistics Agency to enhance the Department of Defense supply chain for sustainment parts.
- Hosted nearly 1,000 visitors to demonstrate new Manufacturing 4.0 innovations and the digital twin at the Foundry 4.0 Center.
- Received recognition as a national center of excellence by The Smart Manufacturing Institute for the Foundry 4.0 Center's work with advanced sensors.
- Conducted research among Iowa businesses for the IEDA to better inform economic assistance and programming related to recent economic conditions by SMS.
- Provided market research and competitive intelligence to 15 Iowa companies and organizations by Strategic Marketing Services (SMS).

Section 2. Technology Transfer and Intellectual Property
FY2023

	UNI
Number of disclosures of intellectual property	13
Number of patent applications filed	2
Number of patents awarded	2
Number of license and option agreements executed on institutional intellectual property	2
Number of license and option agreements yielding income	12
Revenue to Iowa companies as a result of licensed technologies	\$4,500,000
Number of start-up companies formed, in total and in Iowa	75
Number of companies in research parks and incubators	23
Number of new companies in research parks and incubators	12
Number of employees in companies in research parks and incubators	37
Royalties/license fee income	\$49,068
Total sponsored funding	\$42,719,790
Corporate-sponsored funding for research and economic development and revenue generation (excludes corporate philanthropy - all in Iowa)	\$1,222,000
i. Annual appropriations for economic development	\$1,460,740
ii. Regents Innovation Fund	\$900,000

Section 3. Overview of UNI’s Economic Development Programs

UNI outreach services and community and economic development activities are outlined in a table format on the following four pages. The format provides a brief overview of each program, its purpose, types of clients served, outcomes from the past year, and some aggregate outcomes. Together, the programs served 3,953 unique businesses and organizations in the past year and another 54,155 individuals through the IASourceLink.com entrepreneurial development system and the Business Concierge.

Section 3. Overview of UNI’s Economic Development Programs (continued)

Services	FY23 Results	Cumulative Results
Advance Iowa (AI)		
Rural/urban consulting program focused on small- and medium-sized existing businesses to provide succession planning, strategic planning, training, peer round tables Serves: Small and medium enterprises (SME)	<ul style="list-style-type: none"> ✓ 68 companies assisted ✓ 18 seminars on succession planning, employee ownership, financial literacy and value building ✓ 12 peer group meetings ✓ Hosted and supported 59 networking, educational and business assistance workshops/events ✓ Launched the Iowa Center of Employee Ownership 	<ul style="list-style-type: none"> ✓ Project work with 170 SMEs, impacting 5,692 employees across the state in all quadrants and industries
Family Business Center (FBC)		
Programs and services for Iowa family-owned businesses including business succession, next-generation leadership development, peer learning and events Serves: Small and medium family-owned enterprises	<ul style="list-style-type: none"> ✓ 183 companies assisted ✓ 5 part seminar series for family-owned companies ✓ Annual conference with 108 attendees ✓ 4 Learning Sessions ✓ Annual Hosted Family Workshop with 54 attendees ✓ Service to clients in 64 counties 	<ul style="list-style-type: none"> ✓ Worked with 326 small- and mid-sized family-owned companies across the state in all quadrants and industries
Center for Energy and Environmental Education (CEEE)		
Technical assistance, educational programs and leadership in residential energy efficiency services, local food systems, improving community food security and environmental health, and sustainability efforts for K-12 schools Serves: Iowa residents, nonprofit organizations, local governments, school districts, and counties	<ul style="list-style-type: none"> ✓ Through Resilient Iowa Communities, rural communities gained access to greenhouse gas inventory services and expertise ✓ Green Iowa AmeriCorps provided over 500 households with energy efficiency services, completed 700 education events and engaged nearly 8,000 volunteers in environmental service projects ✓ AmeriCorps members installed and managed 62 vegetable gardens for the underserved members of the Cedar Valley 	<ul style="list-style-type: none"> ✓ Over the past 14 years Green Iowa AmeriCorps has provided energy efficiency services to 7,500+ homes and educated 105,000 people. The program has completed more than 5,500 service projects alongside more than 350 community organizations and 28,000+ volunteers ✓ More than 925 members have given 822,000 hours to our communities with an in-kind value of a volunteer value of \$28 million

Geoinformatics Training, Research, Education and Extension Center (GeoTREE)		
<p>Geospatial technologies, education, research and outreach activities for federal, state, local and tribal agencies</p> <p>Serves: Federal, state, local and tribal governmental agencies</p>	<ul style="list-style-type: none"> ✓ Carried out urban heat monitoring and modeling in 10 Iowa Cities for the Iowa Energy Center ✓ Provided solar radiation modeling throughout Iowa for the Iowa Energy Center ✓ Developed modeling and mapping for Regional Center Study with the Iowa Department of Education ✓ Participated in or conducted multiple educational lessons to UNI and K-12 students 	<ul style="list-style-type: none"> ✓ Project work with public agencies, academic groups/departments and private companies ✓ Development and delivery of many geospatial data and custom applications ✓ Conducted more than 100 Iowa-focused research projects
Institute for Decision Making (IDM)		
<p>Hands-on community and economic development guidance and research</p> <p>Serves: Economic development organizations, chambers of commerce, city councils, communities, utilities and others</p>	<ul style="list-style-type: none"> ✓ Assistance and research provided to 117 community organizations, 12 regional development groups, and 47 services providers and utilities ✓ Assisted the Iowa Department of Education develop a regional center location study and web mapping application ✓ Assisted the Iowa Economic Development Authority and its tourism industry partners conduct a statewide survey of tourism organizations ✓ Partnered in a statewide Industry 4.0 Partner Consortium 	<ul style="list-style-type: none"> ✓ Served more than 850 communities, counties and economic development groups in all of Iowa’s 99 counties ✓ Trained more than 1,350 economic development professionals
Iowa Waste Reduction Center (IWRC)		
<p>Free, confidential, non-regulatory environmental and energy efficiency assistance for small businesses, public entities, food waste reduction, and education</p> <p>Serves: Small businesses in Iowa; food waste generators; military and industrial painters</p>	<ul style="list-style-type: none"> ✓ Detailed one-on-one environmental assistance was provided to 126 Iowa small businesses, including 23 energy efficiency visits ✓ Military painter training was conducted by IWRC staff and at 5 satellite sites training a total of 250 painters 	<ul style="list-style-type: none"> ✓ Provided detailed assistance or on-site review to 6,696 Iowa small businesses ✓ Certified 34 Iowa craft breweries through the Green Brewery program ✓ Provided nearly 5,000 certifications to military painters and DoD contractors

John Pappajohn Entrepreneurial Center (JPEC) and Small Business Development Center (SBDC)		
<p>Entrepreneurship education, business consulting and training, research, and capital investment programs serving entrepreneurs.</p> <p>Serves: Student entrepreneurs, faculty and staff, small and medium-sized businesses, entrepreneurs, and entrepreneurial service providers</p>	<ul style="list-style-type: none"> ✓ Served 5,895 individuals ✓ 12 student businesses incubated ✓ 2 additional cohorts of BBEA served an additional 20 business owners ✓ 10 webinars hosted 5,136 participants ✓ Iowa Source Link (ISL) website accessed by 54,155 unique visitors ✓ SBDC served 293 clients 	<ul style="list-style-type: none"> ✓ The JPEC Student Business Incubator has provided space to more than 229 student business owners ✓ Since FY11, 3,833 College of Business students have learned about and crafted an elevator pitch ✓ Since FY11, 72 businesses and nonprofits have had their projects completed by Entrepreneurial Strategy students ✓ Since FY12, over 450,000 unique users have been served on the ISL platform
Metal Castings Center (MCC) and Foundry 4.0 Center (F4C)		
<p>Metal casting technologies, applied research, testing, training and manufacturing 4.0 technologies</p> <p>Serves: Iowa casting users, foundries and foundry suppliers</p>	<ul style="list-style-type: none"> ✓ Initiated contracts with 25 Iowa casting companies ✓ Provided technology-related outreach projects to 4 Iowa foundries and technical assistance to 50 additional foundries ✓ Conducted DOD-sponsored research into Automation and robotics, IoT and Digital Twins production process ✓ Provided training and one-on-one technical training in Manufacturing 4.0 technologies and sensor applications 	<ul style="list-style-type: none"> ✓ Over 2,350 industry-funded projects have been completed and more than 100 clients assisted with additive manufacturing and cast metals technology

Strategic Marketing Services (SMS)		
<p>Market research and analysis</p> <p>Serves: Businesses, entrepreneurs and nonprofit organizations</p>	<ul style="list-style-type: none"> ✓ Completed 5 market research projects with 9 organizations ✓ Assisted many local Iowa community organizations including municipalities, economic developers, utility organizations and businesses ✓ Provided consulting services to 6 Iowa organizations, including the energy sector, health care services, manufacturing and higher education 	<ul style="list-style-type: none"> ✓ Since 1990, market research and analysis services have been provided to 336 Iowa companies
Tallgrass Prairie Center (TPC)		
<p>Coordination of county roadside managers, farmers and agricultural conservation professionals; native seed industry; educational materials on the tallgrass prairie ecosystem; restoration to support recommendations</p> <p>Serves: Iowa county governments, ag technical service providers/buyers, UNI and local educators, community, county conservation boards, and academic researchers</p>	<ul style="list-style-type: none"> ✓ Distributed native seed for 43 county roadsides ✓ Supplied native seed stock to commercial growers ✓ Provided technical support to landowners, farmers, and professionals in all 99 counties ✓ Distributed prairie roots banners and displays to more than 50 schools and science museums ✓ Provided advanced scientific training and hands on experience to UNI undergraduate and graduate students ✓ Expanded Irvine Prairie in rural Benton County from 77 to 292 acres with funding for installation and maintenance 	<ul style="list-style-type: none"> ✓ More than 50,000 acres of Iowa counties rights-of-way have been planted with native vegetation ✓ 47 Iowa counties use ecologically-integrated management on 315,000 acres of public roadsides ✓ Public and private land managers accessed 89 species of Iowa-sourced seed including grasses, sedges, wildflowers, and scrubs ✓ Trained over 100 UNI students with hands-on experience and scientific training since 2002, impacting conservation practices and monarch butterfly recovery efforts

Section 4: Regents Innovation Funding Report

The UNI FY2023 Regents Innovation Funding (RIF) Annual Report (also known as the Skilled Worker and Job Creation Fund) is on file at the University of Northern Iowa and was submitted separately. Projects and outcomes partially supported by the RIF are included in this annual report.

Section 5: Collaborative Projects

Each year, UNI works closely with the other Regent institutions and state and federal agencies on collaborative projects. The following projects represent a sampling of these joint initiatives.

Advance Iowa facilitates partnerships with state agencies and foundations

- Advance Iowa launched the Iowa Center for Employee Ownership (IA-CEO), marking it as the 21st such center in the United States. Leveraging the program's extensive experience in employee ownership, IA-CEO quickly rose as one of the top five centers in terms of funding support and dedicated staff. The Center is a collaboration with the Governor's office, Iowa Economic Development Authority, Drake Law, Principal Financial, and many private sector companies.
- Continuing its partnership with the Iowa Governor's Office and the Empower Rural Iowa Initiative, UNI Advance Iowa contributed to enhancing economic vitality in rural communities. By working closely with business owners, the program focused on improving the profitability, sustainability, and scalability of rural operations, ensuring a lasting positive impact.
- Advance Iowa extended its efforts to drive business ownership transition planning in communities facing sudden disruptions. The program worked directly with three community partners to develop comprehensive plans, helping to minimize job losses due to unforeseen circumstances. Additionally, support was provided to eight other communities, guiding them through the exit planning process.

SBDC assists the small business community

- The UNI Small Business Development Center director served as an instructor for the 24/7 BLAC Black Business Entrepreneurship Accelerator (BBEA). Twenty additional Black-owned small businesses participated in these cohorts.

Center for Energy and Environmental Education (CEEE) collaborated on projects with Iowa State University and the University of Iowa

- CEEE provides services to Iowa municipalities to conduct greenhouse gas inventories and best practice assessments across Iowa, including communities such as Fairfield, Mt. Vernon, Decorah, and Urbandale with the goal of expanding in 2023-2024.
- CEEE worked closely with the ISU Extension Local Food & Enterprise Development program through a Planning grant from the Kellogg Foundation, to develop a plan to strengthen Iowa's food system.

The GeoTREE Center worked collaboratively with state agencies and multiple organizations

- The GeoTREE Center works with state agencies such as the Iowa Department of Natural Resources, local agencies including Waterloo Water Works, non-profits like the Community Foundation of Northeast Iowa, and provided services to numerous other private companies.

- The GeoTREE Center worked on funded projects from the Iowa Department of Natural Resources, Iowa Energy Center, Iowa Department of Education, Waterloo Water Works, Black Hawk Soil and Water Conservation District, Vacation Okoboji, Iowa Geographic Information Council, Cedar Trails Partnership, and Iowa Governor’s STEM Advisory Council.

Family Business Center (FBC) collaborates with rural development and national association

- The UNI Family Business Center is a member of the Iowa Rural Development Council, focusing on representing the voice of family-owned companies across the state. This includes a focus on succession planning, local business ownership and the need for planning and communications.
- The UNI Family Business Center partnered with the Professional Directors Association (PDA) to launch a board member matchmaking program. PDA provides a clearinghouse of potential advisory and fiduciary board members for Iowa Businesses. The FBC acts as a consulting service to provide families with independent, strategic board members for the businesses. This is enhanced by PDA’s directory of prospects, as well as their knowledge and education materials on board member best practices.

Institute for Decision Making (IDM) collaborated with economic development partners

- IDM, in partnership with GeoInformatics Training Research Education and Extension (GeoTREE) Center and the College of Education’s Educational Leadership and Postsecondary Education programs, assisted the Iowa Department of Education with the development of a Regional Center Location Study and web mapping application. The study and application helped the Regional Planning Partnerships (RPP’s), school districts, community colleges and their partners see what a strategically designed network of regional center facilities could look like within their region and statewide.
- IDM continued its active engagement in the statewide Industry 4.0 Partner Consortium, organized collaboratively by Iowa’s community colleges, Iowa State University’s Center for Industrial Research and Service (CIRAS), and the Iowa Economic Development Authority. IDM staff served leadership roles in implementing the Consortium’s education and awareness activities.

Iowa Waste Reduction Center (IWRC) collaborated with state and national partners

- The IWRC partnered with the Iowa Association of Energy Engineers to host a second annual Iowa Energy Trends Workshop in the greater Des Moines area.
- The IWRC partnered with the Iowa State University Brewing Science Lab to present about sustainable brewing practices to ISU brewing students, and collaborated with Brewing Science Lab staff in the development of a carbon neutral/negative beer that was served at a joint booth at the Iowa Craft Brew Festival.
- The IWRC staff worked with Iowa DNR and other stakeholders to help rewrite current restrictive composting administrative rules to help facilitate growth of compost industry in the state.

John Pappajohn Entrepreneurial Center (JPEC) collaborations benefit students and community

- JPEC staff developed and delivered programming for two cohorts of the Black Business Entrepreneur Accelerator (BBEA), a program of 24/7 BLAC, serving 20 Black-owned businesses in the Cedar Valley region. In collaboration with UNI Dining, the Black Capital Study & Projects, and JPEC staff, BBEA catering businesses were invited to participate in a venue takeover of the UNI Dining Center on campus. Five food entrepreneurs took advantage of the opportunity to

showcase their menu to the UNI campus and the Cedar Valley community. This partnership was beneficial to not only the food entrepreneurs, who now had a way paved to secure future catering contracts, but to UNI Dining as they have been experiencing labor shortages, a problem for which this partnership could be a solution.

IASourcelink (ISL) - Iowa Economic Development Authority

- In the past year, 54,155 Iowans sought information from ISL, and direct business assistance was provided to 1,750 Iowa business owners via the Iowa Business Concierge services. The ISL program continues as a strong partnership between UNI and the IEDA. ISL staff provides assistance on business-related questions and frequently links Iowa businesses with other support resources from around the state.

Metal Casting Center (MCC) and Foundry 4.0 Center (F4C) collaborate with regent institutions and technical organizations

- The F4C is collaborating with Youngstown State University on two federally-funded research projects in the development and technology transfer to the metal castings industry and with Ohio State University on several casting-related projects.
- The F4C collaborated with Hawkeye Community College to provide workshops on the basics of robotics for Department of Defense supply companies in the metal casting industry.

Strategic Marketing Services (SMS) partners with Iowa organizations

- The IEDA, IDM and SMS surveyed human resource professionals from businesses and organizations across the state about what workforce challenges they were experiencing and how the businesses and organizations are handling these workforce challenges. The IEDA utilized the study findings to better inform their statewide workforce policy and programs.
- SMS assisted Iowa 4-H in learning general opinions and perceptions of their brand and messaging from parents of children grades 4 through 12 across the state. Two phases of research were conducted. Iowa 4-H utilized the findings in developing a statewide marketing strategy and campaign.

Tallgrass Prairie (TPC) Partners with Iowa universities and associations

- The Prairie on Farms Program provided technical assistance on prairie reconstruction in collaboration with technical services providers like the Iowa State University STRIPS team, Practical Farmers of Iowa, Hertz Farm Management, agricultural landowners, USDA Natural Resources and The University of Iowa Flood Center. Activities included field days, a working group meeting, an online botany course, a help desk, and distribution of case studies on prairie strips.
- The Research and Restoration Program supplied the USDA Farm Service Agency (FSA) with an assessment of the Conservation Reserve Program's role in monarch butterfly recovery. USDA FSA is also funding a 30-year, \$500,000 grant to the TPC in collaboration with Xerces Society for Invertebrate Conservation to assess the supply and demand factors affecting native seed price and availability.
- Iowa Roadside Management coordinated with the Iowa DOT and the Federal Highway Administration to supply enough seed to plant more than 1,100 acres of county Iowa roadsides with native plants.