



University of Northern Iowa Annual Economic Development and Technology Transfer Report – FY2021

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 throughout all of Iowa's 99 counties for the 22nd consecutive year. UNI's economic development outreach programs are housed in the Business and Community Services (BCS) division and work toward supporting the UNI strategic goal of contributing to the economic vitality of the state. 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 enhancing economic development across Iowa. Client interaction made a solid rebound from FY20 and the pandemic challenges with a nearly 10 percent increase in unique clients served.

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

Some exceptional recognition and milestones in the past year include:

- James Hoelscher, Institute for Decision Making (IDM) senior program manager, served as the president of Professional Developers of Iowa (PDI), which is the professional association of more than 350 economic developers across Iowa. He is the fourth member of the IDM team to be elected PDI president.
- Drew Conrad, Institute for Decision Making (IDM) director, was awarded the Iowa Association of Business and Industry (ABI) Foundation's annual Leadership for Iowa Award. The award honors a distinguished alumnus of the organization's Leadership Iowa program who exemplifies outstanding leadership in his/her respective community and for the state of Iowa.
- Laurie Watje, Associate Director of the John Pappajohn Center, received the Regents Award for Staff Excellence.
- Dan Nickey, Associate Director of the Iowa Waste Reduction Center, was named to the Governor's Carbon Sequestration Task Force Workgroup as well as Vice-Chair of the Iowa Energy Center Board of Directors
- Jennifer Trent, Program Manager at the IWRC, was elected to the United States Composting Council Board of Directors, the Executive Committee as Secretary, and the Chapter Advisory Committee as Chair
- UNI student entrepreneurs Rob Sales, RNS Foods, won the Global Student Entrepreneur Award for the Midwest Region, and Maddie Palmersheim, Virgo, was one of 25 national finalists in the Schultz Entrepreneurship Challenge





Summary of BCS' key economic development program outcomes for FY2021:

Overall

- Provided service in all 99 counties to 3,505 unique business, community, and governmental entities and served an additional 73,538 unique visitors to MyEntre.Net/IASourceLink
- Reached more than 302,000 lowans through BCS programs and projects
- Engaged 124 faculty members and 240 students in the direct delivery of BCS client services, and another 2,525 students were reached by BCS programs
- Leveraged each \$1 invested by the state with \$5 in private grants, fees, or federal funding

Summarized Impacts on the Iowa Economy

- The Institute for Decision Making and the Additive Manufacturing Center led training programs related to Industry 4.0 in partnership with Iowa community colleges and CIRAS
- The Institute for Decision Making and Strategic Marketing Services conducted 3 Covid impact surveys and 70 individualized reports were provided to business associations and economic development regions across Iowa. The data was used by the Iowa Economic Development Authority to develop and deliver targeted business and industry assistance
- Market intelligence assistance has been provided to 320 companies by Strategic Marketing Services
- The Family Business Program conducted a 5-part series of workshops for family business and 4 succession planning and value building sessions and facilitated 56 peer group meetings
- IASourceLink, a partnership with IEDA, has now reached 370,000 unique users
- Military bases and depots saved at least \$500,000 annually in painting and coating costs due to better transfer efficiency through painter training provided by the Iowa Waste Reduction Center

Entrepreneurship, Business Development and Incubation

- Increased participation of entrepreneurs in IASourceLink online resources, a joint program between UNI and the Iowa Economic Development Authority (IEDA), to 73,538 user sessions
- Supported 1,370 lowa businesses, a record high, with market information by the Business Concierge team
- Provided assistance to 163 second-stage lowa companies in 67 counties through Advance lowa, creating 360 jobs
- Incubated 18 student businesses in the John Pappajohn Entrepreneurial Center's (JPEC) R.J. McElroy Student Business Incubator, and 23 additional students were affiliate tenants
- Attracted 15 new companies to the UNI incubators
- Assisted 7 faculty and staff in further pursuing the commercialization of their research and related IP through a new UNI Innovators Program
- Offered 3 virtual cohorts of the Early Founder Program with 33 student entrepreneurs
- Served 14 businesses through the new student consulting program called Panther Biz HQ
- Completed 23 business valuation projects for lowa companies through the Succession lowa program
- Conducted 56 peer group meetings with a focus on next generation ownership through Advance lowa
- Partnered with the Millrace to provide assistance to 22 co-working companies



- Graduated 90 innovators from Center for Business Growth and Innovation (CBGI) incubators during the past decade
- Served 390 new clients through UNI's Small Business Development Center (SBDC)

Local Economic Development

- Assisted IEDA with the creation and analysis of 3 COVID-19-related business impact surveys and provided more than 70 local impact reports from the survey data
- Received expanded funding from the Economic Development Administration (EDA) University Center program to focus on additional business impact surveys and provide assistance with intrapreneurship and innovation for local developers
- Provided strategic planning and comprehensive technical assistance to 80 community partners and 8 additional regional groups across lowa through IDM
- Partnered with the IEDA and Iowa utility companies for an analysis of statewide existing industry survey data
- Continued to assist with local development organizations that annually average creating approximately 1,500 jobs

Waste Reduction, Environmental Assistance, and the Bioeconomy

- Completed over 1,100 residential energy efficiency projects for lowans through Green lowa AmeriCorps
- Conducted nearly 600 environmental outreach projects that engaged 3,500 volunteers, and facilitated 625 educational programs for nearly 25,000 participants. Green lowa AmeriCorps also engaged 120 members in service for professional, hands-on training and skill development
- Distributed 1,100 acres of native seed for 40 county roadsides as part of the Tallgrass Prairie Center's (TPC) roadside vegetation project and published an interactive map to showcase native roadsides
- Provided environmental technical assistance and on-site reviews through IWRC to 111 lowa small businesses, conducted 8 food waste projects, and certified 30 Green Breweries across the state.
- Expanded CEEE's Local Foods Program impact to \$30 million worth of locally grown food products purchased by institutional buyers from hundreds of lowa farmers
- Prepared a National Hydrography Dataset for the Iowa Department of Natural Resources and published 300 images of Iowa state parks through the GeoTREE Center
- Provided recycling and reuse project funding and outreach services to 5 companies and 10 organizations through the Recycling Reuse Technology Transfer Center (RRTTC)

Advanced Manufacturing and Market Research

- Delivered painter training to 196 painters within all military branches at the Iowa Waste Reduction Center's (IWRC's) painting facility and at 4 satellite facilities
- Provided market research and competitive intelligence to 14 Iowa companies and organizations by Strategic Marketing Services (SMS)
- Served 52 lowa foundries and supply chain companies with custom 3D sand-cast core and mold printing services through the Additive Manufacturing Center
- Hosted nearly 1,000 visitors to demonstrate additive manufacturing at the Additive Manufacturing Center
- Assisted all branches of the military with applied research for the manufacturing of cast parts
- Provided technical assistance and materials training to 15 companies across lowa by the Material Innovation Service



Section 2. Technology Transfer and Intellectual Property

FY2021

	UNI
Number of disclosures of intellectual property	11
Number of patent applications filed	2
Number of patents awarded	1
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	\$4,100,000
Number of start-up companies formed, in total and in Iowa	107
Number of companies in research parks and incubators	19
Number of <u>new</u> companies in research parks and incubators	15
Number of employees in companies in research parks and incubators	47
Royalties/license fee income	\$63,405
Total sponsored funding *Includes HEERF (COVID Relief)	\$72,363,000
Corporate-sponsored funding for research and economic development and revenue generation (excludes corporate philanthropy - all in Iowa)	\$1,181,000
i. Annual appropriations for economic development ii. Regents Innovation Fund	\$1,460,740 \$900,000

Section 3. Overview of UNI's Economic Development Programs

UNI outreach services for community and economic development activities are outlined in a table format on the following seven pages. The format provides a brief overview of each program, its purpose, those served, outcomes for the past year, and some aggregate outcomes as well. Together, the programs served 3,505 unique businesses and organizations in the past year and another 73,538 individuals through the IASourceLink.com entrepreneurial development system and the Business Concierge.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Advance Iowa (AI)	Rural/Urban Consulting program focused small-and medium-sized existing business providing succession planning, strategic planning, business consulting, training, peer round tables	Small, medium enterprises	 ✓ 163 companies assisted ✓ 4 seminars on Succession Planning & Value Building ✓ 5 Part series for family-owned companies ✓ 56 Peer Group Meetings ✓ 3 Seminars on Family Business ✓ Service to clients in 67 counties 	✓ Project work with 1,108 mid-sized companies across the state in all quadrants and industries.
Center for Business Growth & Innovation (CBGI)	Rural/Urban entrepreneurship development, online entrepreneurship resources, business consulting, business training, business incubation	Small-and medium-sized businesses, entrepreneurs, entrepreneurial service providers, community leaders	 ✓ Succession lowa – completed 23 client projects ✓ 7 Webinars – 2,455 attendees ✓ Business Concierge served 1,370 small businesses ✓ Panther Biz HQ served 22 businesses with marketing and public relations support ✓ IASourcelink was accessed by 73,538 unique visitors 	 ✓ IASourcelink has reached 370,000 unique users since its launch in 2012. ✓ Engaged more than 560 entrepreneurs in the Dream Big Grow Here grant contest since 2010. ✓ Over 7,500 business intelligence requests have been completed since 2010. ✓ 90 companies have graduated from the CBGI and Innovation Incubators. ✓ More than 50,000 live and archived webinar views since 2003.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Small Business Development Center (SBDC)	Rural/Urban entrepreneurship development, online entrepreneurship resources, business consulting, business training	Small and medium sized businesses, entrepreneurs, entrepreneurial service providers, community leaders	 ✓ SBDC served 390 clients ✓ 860 counseling hours provided ✓ 13 new business starts ✓ \$5.1 million in capital infusion supported ✓ 148 jobs created 	 ✓ Since 2016, the UNI SBDC has provided over 4,000 hours of counseling in their 9-county service area. ✓ Contributed to the start of 79 business. ✓ Supported the infusion of \$11 million in capital.
Center for Energy and Environmental Education (CEEE)	Technical assistance, educational programs and leadership in residential energy efficiency and weatherization, environmental conservation and water quality testing and mitigation, food insecurity, and sustainability efforts for k-12 school districts	lowa residents, nonprofit organizations, teachers, students, school districts, city governments, utility providers, counties	 ✓ Secured grants to convene stakeholders across lowa to develop a statewide plan to strengthen lowa's food system. ✓ Launched A Garden in Every Lot, involving AmeriCorps members in offering garden starter services to the underserved members of our metro area. ✓ Launched Sustainable Cities Program in Collaboration with multiple organizations to offer resilience/sustainability planning for small communities. 	✓ Over the past 4 years, CEEE's Environmental Health Program's flagship project, Good Neighbor Iowa has helped 12,164 acres of turf be managed without pesticides, 210 parks across Iowa have pledged to manage their turf pesticidefree; 55 churches, 4 co-op groceries have gone pesticide-free. As a result, 19,271 children in 61 childcare centers and 40 schools were protected from exposure and 142,371 pounds of weed killers were not applied to Iowa's watershed.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Geoinformatics Training, Research, Education and Extension Center (GeoTREE)	Geospatial technologies, education, research, and outreach activities for federal, state, local and tribal agencies	Federal, state, local, and tribal (FSLT) governmental agencies	 ✓ Developed processes and began conflation of National Hydrography Dataset in collaboration with Iowa DNR ✓ Updated Linn County GIS databases, solar radiation modeling for Linn County. ✓ Captured and published 300 images for DNR State Parks. ✓ Worked with UNI TPC under IDALS funding to develop virtual tour resources. 	✓ Project work with hundreds of public agencies, academic groups/departments, and private companies. Development and delivery of many geospatial data and custom applications.
Institute for Decision Making (IDM)	Hands-on community and economic development guidance and research	Economic development organizations, chambers of commerce, city councils, communities, utilities and others	 ✓ Assistance and research provided to 80 community organizations, 8 regional development groups, and 45 services. ✓ Partnered with the lowa Economic Development Authority and lowa utilities for an analysis of statewide existing industry survey data ✓ Assisted with the completion of a third statewide COVID-19 impact survey. ✓ Partnered in a statewide Industry 4.0 Partner Consortium. 	 ✓ Served over 830 communities, counties and groups in all of lowa's counties to date ✓ Community clients report 1,500 – 2,000 new jobs annually as a result of IDM assistance ✓ Trained over 1,000 economic development professionals.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Iowa Waste Reduction Center (IWRC)	Free, confidential, non-regulatory environmental and energy efficiency assistance for lowa small businesses and public entities, food waste reduction assistance across lowa, and industry training and education.	Small businesses throughout lowa; food waste generators; military and industrial painters	 ✓ Detailed one-on-one environmental assistance was provided to 111 lowa small businesses, including 8 food waste reduction visits and 37 energy efficiency visits. ✓ Military painter training was conducted by IWRC staff at 4 satellite sites training 196 painters. 	 ✓ Provided detailed assistance or on-site review to 6,340 lowa small businesses. ✓ Certified 30 lowa craft breweries. ✓ Provided 4,269 certifications to military painters and DoD contractors.
John Pappajohn Entrepreneurial Center (JPEC)	Research, entrepreneurship education, technology transfer, and capital investment programs	Students interested in entrepre- neurship, UNI faculty and staff entrepreneurs, new ventures and rapidly growing small companies	 ✓ 4,525 businesses and individuals were assisted through all JPEC programs ✓ 15 student business owners with 18 employees were provided dedicated office space and an additional 23 student business owners were provided business guidance. ✓ The JPEC staff offered three virtual cohorts of the Early Founder Accelerator Program to 33 students. 	 ✓ The JPEC Student Business Incubator has provided space to more than 210 business owners since FY05 ✓ The Department of Marketing was renamed the Department of Marketing and Entrepreneurship. ✓ Since FY13, 3,006 College of Business Administration students have learned about and crafted an elevator pitch through presentations by JPEC instructors. ✓ Since FY13, 59 businesses and non-profits have had their projects completed by Entrepreneurial Strategy (MKTG 3586) students.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Metal Castings Center (MCC) and Additive Manufacturing Center (AMC)	Metal casting technologies, applied research, testing and training Additive manufacturing technology development and service to Iowa SME	lowa casting users, foundries and foundry suppliers lowa Small businesses including manufacturing and service organizations	 ✓ Iowa active contracts with 52 companies, provided outreach projects to 11 Iowa foundries and technical assistance to 50 additional foundries. ✓ Conducted DOD-sponsored research into front-line manufacturing of cast parts. Conducted projects in Manufacturing 4.0 technologies including real time process sensors and robotic manufacturing. 	✓ More than 2,150 industry-funded projects have been completed to date and more than 100 clients assisted with additive manufacturing and cast metals technology.
Materials Innovation Service (MIS)	Mechanical, physical and chemical tests of metals, polymers and cementitious materials	Serving Iowa manufacturers and suppliers	✓ Technical assistance and testing was provided to 15 companies across lowa.	✓ Technical assistance or testing provided to approximately 200 companies with more than 2,100 hours of testing provided.
Panther Initiative for Environmental Equity and Resilience (PIEER)	Environmental social justice awareness, education, outreach and research	Serving lowans, especially those affected by environmental equity issues	✓ Outreach awareness and education related to environmental social justice to organizations in the Cedar Valley.	✓ Outreach and educational awareness provided to 5 organizations and more than 800 individuals this year, including community, UNI and governmental organizations.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Recycling and Reuse Technology Transfer Center (RRTTC)	Recycling and by- products research, education and outreach	Serving lowa businesses, the recycling industry and lowa citizens.	✓ Research project funding and outreach services related to recycling and reuse was provided to 5 companies and organizations.	 ✓ Over 42 RRTTC funded research projects Over 170 reports and publications available. ✓ Outreach and services provided to more than 7,800 individuals, including business/industry, K-12 students, teachers, and lowa citizens.
Strategic Marketing Services (SMS)	Market research and analysis	Businesses, entrepreneurs and non-profit organizations	 ✓ Market research and analysis services were provided to 14 lowa organizations. ✓ Assisted the United Ways of lowa in assessing the statewide impact of COVID-19. ✓ Assisted the lowa Economic Development Authority in assessing the impact of COVID. 	✓ Since 1990, market research and analysis services have been provided to 321 lowa companies, many multiple times.



Programs	Services	Those Typically Served	FY 2021 Results (listed)	Cumulative Results
Tallgrass Prairie Center (TPC)	Coordination and assistance for county roadside managers, farmers and agricultural conservation professionals; stewardship of source-identified foundation seed for native seed industry; educational materials on the tallgrass prairie ecosystem for educators	lowa county governments, state DOT, USDA-NRCS, commercial native seed producers, county conservation boards, K-12 science educators and students.	 ✓ Distributed >1100 acres-worth of native seed for 40 county roadsides. ✓ Hosted 4 Green Iowa AmeriCorps, employed 3 program assistants and trained 4 undergraduate researchers and two MS students. ✓ Produced Iowa-source foundation seed from over 30 ecotypes. ✓ Planted 15 acres of the 77-acre Irvine Prairie for benefit of students and surrounding communities. 	 ✓ More than 50,000 acres of lowa counties rights-of-way have been planted to native vegetation. ✓ 47 lowa counties use ecologically integrated management on ~315,000 acres of public roadsides. ✓ Public and private land managers have access to 85 species of genetically diverse, source-identified seed, including grasses, sedges, and many species of wildflowers. ✓ 107 UNI students and recent graduates have gained hands-on practical experiences as TPC employees, and/or specific training on prairie restoration, since 2002.



Section 4: Regents Innovation Funding Report

UNI's FY2021 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, federal and local agencies on collaborative projects. The following projects represent a sampling of these collaborative projects.

Center for Business Growth and Innovation (CBGI) and Advance Iowa Partnerships Key to Success

- UNI's Business Concierge service provided information and business assistance to 1,370 direct business owners. IASourceLink: The IASourceLink program continues as a strong partnership between UNI and the Iowa Economic Development Authority. The program collaborated with the following regional, state, and local partners: Iowa Department of Revenue, Iowa Commission on the Status of Women, Iowa BioTech Connect, New Bohemian Innovation Collaborative (NewBoCo), Technology Association of Iowa, Pappajohn Entrepreneurial Center(s), Iowa Waste Reduction Center, SourceLink, U.S. Small Business Administration, Iowa Small Business Development Centers, Iowa Farm Bureau/Renew Rural Iowa, Iowa Area Development Group, Iowa Association of Business and Industry, BizStarts, Entrepreneurial Development Center (EDC), Main Street Iowa and more.
- CBGI hosted a Venture School cohort with the University of Iowa John Pappajohn Entrepreneurial
 Center. The seven-week course is focused on helping new companies find their value and scale.
 Community members and CBGI/UNI JPEC staff served as mentors for the teams. Twenty-two teams
 went through the cohort in FY21 in partnership with the Black Business Entrepreneurship Accelerator in
 Waterloo.
- CBGI/Advance Iowa collaborated with UNI Business Faculty, Brett Olsen to continue to grow the Succession Iowa program, assisting small and medium sized firms with valuation. CBGI staff and students worked with Professor Olsen to launch Succession Iowa and complete 23 business valuations during our first full year of operation.
- The UNI Advance lowa program has collaborated with the lowa Rural Development Council to represent the voice of closely held small businesses across the state. This includes a focus on succession planning and the immediacy of this issue from an economic development standpoint.
- The UNI Small Business Development Center and CBGI directors served as an instructors for the 24/7
 BLAC Black Business Entrepreneurship Accelerator Venture School Spring Cohort. Eleven Black-owned
 small businesses participated in the program.



Center for Energy and Environmental Education (CEEE) Collaborated on projects with ISU and UI.

- CEEE collaborated with the Iowa Commission on Volunteer Service to host a significant AmeriCorps
 Program with more than 120 service members serving many Iowa communities, school districts and
 municipalities.
- CEEE and ISU Extension are working closely together on local food initiatives in Region 9 Extension, which includes Black Hawk and surrounding counties. UNI and ISU Extension have jointly funded a local food coordinator to expand local markets for local agricultural products among institutional buyers, and make locally grown foods visible to the residents of the region.
- CEEE works collaboratively with various faculty in the University of Iowa College of Public Health and environmental engineering to improve environmental health in Iowa.
- The Black Hawk County Health Department partnered with the CEEE to complete the Black Hawk County Community Food Assessment (CFA) with the directive of ensuring that the assessment looks at the entire food system to see how the region's food system measures up to being fair, sustainable, and racially equitable while addressing the priority issues of obesity and poverty.

The Geoinformatics Training Research Education and Extension (GeoTREE) Center partnered with state agencies, education entities, and local governments across Iowa

- GeoTREE updated the Iowa contribution for the National Hydrography Dataset In collaboration with the Iowa Department of Natural Resources.
- GeoTREE developed a web mapping application in collaboration with the UNI Institute for Decision Making, Strategic Marketing Services, and Iowa Economic Development Authority for a project related to COVID-19 impact on Iowa businesses.
- GeoTREE developed dynamic mapping and visualization resources for the UNI Tallgrass Prairie
 Center Prairie on Farms and Iowa Roadside Management Program as part of an IDALS funded project.

Institute for Decision Making (IDM) and Strategic Marketing Services (SMS) Collaborates with Iowa Economic Development Authority, Iowa Finance Authority, Iowa Workforce Development, Iowa utilities, local economic development organizations, and statewide associations

• IDM, in partnership with Strategic Marketing Services (SMS), assisted the lowa Economic Development Authority (IEDA) and Iowa Finance Authority (IFA) with the development, implementation and analysis of two statewide COVID-19 business impact surveys. Survey 1 had nearly 14,000 respondents and Survey 2 had over 9,600 respondents. Collaborators included the Professional Developers of Iowa, the Iowa Restaurant Association, Iowa Association of Business and Industry, Iowa Business Council, Iowa Council of Foundations, United Ways of Iowa, Iowa Small Business Development network, Iowa Department of Education, and Iowa Workforce Development. Seventy summary reports were prepared for economic development organizations using data from Survey 1.



- IDM, in partnership with Strategic Marketing Services (SMS), continued to assist the BEST of lowa Management Team (Iowa Economic Development Authority, MidAmerican Energy, Black Hills Energy, Alliant Energy and the Iowa Area Development Group) analyze data from interviews completed with Iowa companies, which are in one of the 12 distinct industry clusters driving Iowa's economy or were identified as major employers by the BEST of Iowa Management Team. The interview data was collected by economic development organizations across Iowa. The findings were used in evaluating and revising the economic development assistance provided to Iowa companies by the state of Iowa, the utility companies and economic development organizations around Iowa.
- IDM continues to assist Iowa Workforce Development (IWD) with the implementation of laborshed surveys across Iowa that are utilized by economic development organizations in their work with existing businesses and prospective businesses that are considering an Iowa location. In partnership with the UNI Mathematics Department, IDM assisted IWD with updating the statistical model used to produce workforce estimates for laborshed areas and tested the feasibility of enhancements to the model. IDM also provided IWD technical assistance as they implemented a statewide surveying process that was being funded by IWD and the Iowa Economic Development Authority.

Iowa Waste Reduction Center (IWRC) Collaborates with State and National Partners

- The IWRC has partnered with the Iowa Recycling Association, the United States Composting Council (USCC), public sector organizations, and private industry to begin the process of bringing a state chapter of the USCC to Iowa.
- The Iowa Waste Reduction Center has collaborated with economists from UNI and Arizona State University, as well as the Iowa Brewer's Guild to continue a multi-year research project focusing on sustainability in craft brewing as part of the Green Brewery project.
- The IWRC has partnered with four DoD facilities to operate as satellite locations for the STAR4D painter certification course. Instructors from US Marine Corps US Army sites trained 196 painters.
- The IWRC collaborated with the Iowa Department of Natural Resources and the United States Environmental Protection Agency through the Strategic Goals Program to plan and produce three webinars providing pollution prevention and environmental assistance to Iowa businesses.

John Pappajohn Entrepreneurial Center (JPEC) Collaborations

JPEC partnered with the University of Iowa to provide Venture School programming to the first all-black accelerator program launched in the state of Iowa. The Black Business Entrepreneurship Accelerator is a program of the non-profit, 24/7 Black Leadership Advancement Consortium. This initiative is an intentional and direct approach to address disparities highlighted by the 24/7 Wall Street Report (the 2018 report designated Waterloo/Cedar Falls as the worst place in the United States for African-Americans in terms of social and economic disparities. Twelve business owners participated in the fall cohort and 11 business owners participated in the spring cohort.



- JPEC and CBGI partnered with the Cedar Valley CAPS program to create a virtual, two-day team building workshop to kick-off the CAPS program for both the fall semester and spring semester and assist 118 students from the Cedar Valley region with the Business Solutions strand.
- JPEC partnered with UNI's International Recruitment and Admissions Department and EdPrograms
 to present the Panther Cage Challenge to 55 Pakistani High School students who worked with UNI
 student entrepreneurs to develop their business pitch.
- JPEC provided coaching and pitch feedback to students participating in the Pi515 summer course. Pi515 is a non-profit located in Des Moines that empowers refugee and underserved youth by teaching coding, innovation, entrepreneurship and critical thinking skills.

Recycling and Reuse Technology Transfer Center (RRTTC) and Panther Initiative for Environmental Equity and Resilience (PIEER) Collaborates with regional organizations

- RRTTC continued for the second year to collaborate with UNI Study Abroad and with the Universidad
 Latina de Costa Rica. Ulatina students traveled to Iowa to participate in an English Language and
 Sustainability Immersion Program. Immediately following this experience, U.S. students traveled to
 Costa Rica to complete a Capstone course.
- The RRTTC worked with Cedar Falls High School and the school's Environmental Awareness Team to
 provide guidance to improve the recycling options throughout the school. The RRTTC was able to
 assist with providing 30 recycling containers to the school and helped the students with proper
 signage and education on collecting data to gather for future use in other programs.

Strategic Marketing Services (SMS) Partners with Iowa Organizations

- Meals from the Heartland was considering expansion options but wanted to identify which of their
 preferred locations would offer the best chance for community acceptance and success. SMS
 assisted Meals from the Heartland with secondary research to evaluate demographic factors
 favorable to charitable sponsorship and volunteering among four geographic areas: Cedar
 Rapids/Iowa City, Sioux Falls, Omaha and Kansas City.
- UNI's RRTTC developed a Green Business Practices survey to determine knowledge of and interest in
 green business practices among lowa businesses. SMS assisted in streamlining, simplifying, and
 adjusting the survey to improve user experience. Additionally, SMS helped identify and build a list of
 businesses/contacts in the industries and locations specified by the RRTTC and qualified and
 recruited businesses/contacts to take the online survey.

Tallgrass Prairie Center (TPC) Partners with State Agencies and Statewide Organizations

The TPC continued collaborating closely with the Iowa State University STRIPS team and the Iowa
Nutrient Research Center. The TPC director is on the Leadership Team for STRIPS along with leaders
from ISU-Agronomy, ISU-Entomology, ISU-Natural Resources Ecology and Management, and US Fish
and Wildlife Service. The TPC shared results of its research and collaborate on field days, seminars
and grant proposals.



- The TPC collaborated with Practical Farmers of lowa in hosting the first ever online course, "Botany Beginners" which eventually attracted over 570 participants from lowa and 14 other states. The course included 6 webinars by various TPC staff, as well as 4 virtual field tours (2 conducted by TPC and 2 by PFI). The associated Facebook page has 438 members.
- TPC's Prairie on Farms Program partnered with the Iowa Economic Development Authority (IEDA) on a Resilience Competition block grant. Additional partners with this grant include the University of Iowa, Iowa State University Outreach and Extension, Iowa Department of Natural Resources and the Iowa Flood Center. As a partner, the TPC works to assist Watershed Coordinators in 8 designated priority watersheds across the state of Iowa to reduce flood risk and improve water quality. The TPC assists county US Department of Agriculture Natural Resources Conservation Service offices and watershed coordinators in 8 watersheds across Iowa to provide tailored technical guidance on prairie restoration.
- The Restoration and Research Program collaborates with Iowa State University's Iowa Nutrient Research Center, which is funding seed mix design research for nutrient reduction. The USDA Farm Services Agency supports research into cost-effective seed mix design for the Conservation Reserve Program, as well as evaluation of CRP pollinator habitat and study of the native seed supply chain.
- The Plant Materials Program hosted the second Native Seed Stakeholders workshop, inviting
 panelists and workshop leaders from Natural Resource Conservation Service, Allendan Seed
 Company, Iowa Department of Transportation, Wisconsin Crop Improvement Association, and many
 other entities involved in testing, growing or buying native seed. The program also collaborated
 with the USDA-ARS Plant Introduction Station in Ames, Iowa, on collection and stewardship of
 genetic diversity.
- Iowa Roadside Management coordinated with the Iowa DOT in the administration of a grant from
 the Federal Highways Administration that provided enough seed to plant over 1,000 acres of county
 roadsides in Iowa with native plants and coordinated with the Marion County roadside manager and
 Iowa DOT Living Roadway Trust Fund to plan and implement the 33nd annual roadside conference.

Metal Casting Center (MCC) and Additive Manufacturing Center (AMC) Collaborates with UI, ISU, Iowa Community Colleges and other educational institutions

- The MCC collaborated with the University of Iowa Mechanical Engineering and Art departments on several projects, the largest of which involves the Defense Logistics Agency and Steel Founders Society of America integrating additive manufacturing into their operations and supply chain. The UNI MCC is providing melting and pouring of cast steel for projects involving counter gravity casting, low turbulence gating system development as well as thermos physical property measurement for casting process simulation.
- The AMC is collaborating with Industrial Engineering faculty at Iowa State University on federally funded projects to evaluate and digitally record surface finishes on cast metal components. The work involves both digital capture of surface finish with future planned collaboration in robotic finishing of castings utilizing UNI robotic resources.
- The MCC has collaborated with Northeast Iowa Community College on a federally funded project to develop training materials for additive manufacturing.



Regents Innovation Fund Annual Report – FY21

University of Northern Iowa

For the past ten years, the University of Northern Iowa has received Regents Innovation Funds (now termed the Skilled Worker and Job Creation Fund) from the Iowa Legislature through the Joint Economic Development Appropriations Subcommittee. This funding is allocated to each of the three Regent institutions for projects to support business development, entrepreneurship, and innovation activities outlined in Iowa Code section 262B. UNI's projects focus on four primary areas: 1) Technology Transfer, Business Incubation, and Additive Manufacturing, 2) Entrepreneurship Outreach and Business Growth, 3) Regional Development, and 4) Competitive and Market Intelligence. This report outlines the programming and highlights results and projects in each of the four areas.

Project 1: Technology Transfer, Business Incubation, and Additive Manufacturing Description of the project

Technology transfer efforts focus on assisting faculty and staff with disclosures and due diligence. UNI averages 10-12 intellectual property disclosures annually and two-to-three patent applications. Another strategy that has worked well for faculty and staff inventors is joint development agreements with the private sector. UNI will also continue the collaboration with the lowa State University Research Foundation to help evaluate and commercialize intellectual property.

UNI has two successful business incubation programs to support community entrepreneurs, faculty spinoffs, and student entrepreneurs. The incubators and support facilities offer a physical link between the Iowa business community, campus innovators, and faculty researchers to support business growth. The 8120 Spark Zone is a hub facility on campus, coalescing University research and community entrepreneurs with quality business services to support incubation and growth. The R.J. McElroy Student Business Incubator is a part of the John Pappajohn Entrepreneurial Center and provides a physical location for student entrepreneurs to launch and grow their ventures.

The Additive Manufacturing Center (AMC) remains focused on Foundry 4.0 initiatives and supporting Iowa's Manufacturing 4.0 plan. Some specific areas of progress have been the installation of an automated investment casting shelling line, the integration of sensors and big data in the casting process (IoT), automation and robotics, and investment casting. Expanded engagement is planned with Youngstown State and the National Center for Defense Manufacturing and Machining (NDCMM) to provide support for the Department or Defense casting supply chain.



What results have been achieved in the past year?

UNI's incubators housed 18 businesses in the past year and 15 of these companies were new startups. In total, these companies have grown to 47 employees. Student entrepreneurs participated in three separate sessions of the Early Founder program, which resulted in increased participation in the Student Business Incubator. Of the students graduating from the incubator with a business, approximately three out of four remain in business or have become involved in a subsequent venture. UNI's incubation efforts also collaborated with Red Cedar to assist 22 additional companies in the Millrace Coworking space in Cedar Falls. An additional 107 companies were launched with UNI assistance. In the past decade, 90 community-based entrepreneurs have graduated from UNI incubators and into the regional economy.

Technology transfer efforts were impactful despite the challenges of COVID-19. An additional 11 disclosures were received and three demonstrate commercial potential and are moving forward. Approximately \$4.1 million in revenue was generated by small businesses and entrepreneurs using UNI technologies. Three late-stage faculty research projects were assisted with research grants for projects that demonstrate commercial potential, two joint development agreements were initiated, and there were two additional UNI intellectual properties that were licensed and are actively being offered to the market.

Additive manufacturing expanded this past year with additional equipment purchases and installation. Applied research in refractory materials was conducted for ceramic sands and with 3D printer manufacturers. The AMC is working with CESMII, The Smart Manufacturing Institute, to share progress in embedded IoT sensors for the metal casting process. UNI has been asked to become a satellite center for the CESMII organization. Faculty in the Department of Technology are also working towards this effort.

As visitors returned to the AMC, an open house was held in conjunction with Stratysis and 125 persons attended from area manufacturers and foundries. For the year, approximately 1,000 visitors were hosted at the AMC. Collaborations with other universities continues within lowa by sharing facilities and expertise in additive manufacturing and metal casting. The AMC is also collaborating with universities outside lowa including Youngstown State and Texas El Paso, combining joint expertise with specialties in computer data acquisition and wireless communication technologies.

Examples of projects

The Early Founders student entrepreneurship program in the John Pappajohn Entrepreneurial Center was conducted in the summer of 2020, winter break 2020-21 and early summer of 2021. The program continued its virtual format due to COVID-19 with 14 students participating in the summer cohort, 11 in the winter cohort and an additional 10 in the recent summer cohort. Most of the student businesses that have not graduated are now tenants in the R.J. McElroy Student Business Incubator. The Early Founders program is receiving additional private donor support and will be expanded.



The AMC reorganized to place emphasis on Manufacturing 4.0 technologies, with a focus on sensors, IoT, automation, and additive manufacturing. Progress was made toward a fully automated investment casting shelling line. The AMC conducted applied research in refractory materials and ongoing research in wax and ceramics for additive manufacturing. Additional investigations were conducted with the American Foundry Association and include surface finish improvements through post processing methodologies. The AMC continued to support the defense industry supply chain in Iowa by providing engineering assistance and new and emerging manufacturing technologies.

Plans for next year

Plans for FY2022 include finalizing installation and demonstration of the burnout furnace for the automated investment casting shelling system along with robotic integration of a high temperature post-processing furnace. The system is scheduled to be operational by September 2021. The Investment Casting Institute will hold its annual meeting in conjunction with a tour of the newly automated shelling system. The AMC has received a new binderjet printer that will be used to support the research into direct printing of investment casting shells. A third large industrial beta-level sand printer will be installed and prepared for commercialization. The printer has been designed collaboratively by the company and the AMC and represents a significant improvement in speed from existing technology. The AMC will continue work on addressing industry needs for support and guidance in Manufacturing 4.0 technologies and shift emphasis to becoming a Foundry 4.0 Center.

Intellectual property workshops will be expanded to educate faculty, staff, and graduate students about the resources and assistance that is available to further develop technologies and ready them for commercialization. Innovator workshops will be continued for faculty and staff innovators to expand emphasis on commercialization. The Intellectual Property Team will work to grow the program from four participants and tailor the program to meet the unique needs of UNI.

Substantial reorganization of innovation programs has begun and will allow for more emphasis in innovation in the industrial sector and with the defense sector. Incubation services and space will expand to create an environment for more collaboration and spinoffs. Business transition will also be a priority and new partnerships are being formed to explore alternative types of business structures, including business coops.

Project 2: Entrepreneurship Outreach and Business Growth

Description of the project

UNI Entrepreneurship Outreach and Business Development programs focus on serving small-to medium-size enterprises through the Advance Iowa program. This is a statewide program in the CBGI, which has created new programming to fill gaps in the small- and medium-size



business ecosystem. The CBGI is the producer and manager of resources found at IASourcelink.com, which is an online resource guide for entrepreneurs. Other direct services offered alongside the IASourcelink program include the Business Concierge, which supports small businesses with their specific questions and research related to business growth. Student teams are engaged in helping small companies improve their digital presence through Panther Biz HQ.

The CBGI also works with family-owned businesses to improve their family governance and assist with generation transition of ownership. Additional services are helping to plan and prepare for the successful transition of business ownership and to provide leadership development services to prepare the next generation of business owners. Services are also offered to improve existing business operations and to help introduce innovation into the core strategy of our client companies.

What results have been achieved in the past year?

IASourceLink serves many businesses each year with direct assistance. A Chat Box was added to the site this past year and resulted in approximately 100 active chats each month. The success resulted in the need to add another program associate to the program. Overall, more than 73,000 people accessed the site to find lowa business resources. CBGI partnered with the lowa Department of Revenue to host seven webinars on IASourceLink with more than 2,200 attendees. The Business Concierge directly served 1,370 lowa small businesses and service providers. Panther Biz HQ continued to engage students and they worked closely with 22 lowa companies to improve their online marketing and brand presence. During FY21, 163 Advance lowa clients were served in 67 lowa counties. Since the program's creation, Advance lowa has served 1,108 businesses in lowa. In FY21, Advance lowa continued the UNI Family Business Forum, hosting six breakfast series events in the fall of 2020 and spring 2021. This breakfast series was attended by 371 people representing 57 family businesses.

Examples of projects

According to an article by Astrachan and Shanker, titled "Family Business Contribution to the US Economy," family businesses generate more than 60 percent of US GDP and 75 percent of private sector jobs. These businesses are often the economic engine for rural communities across lowa, providing employment, identity, and philanthropic resources to many places that lowans call home. The UNI Family Business Forum returned for a third year, but moved to a virtual format due to COVID-19. The change to virtual resulted in an increased participation and more geographic diversity. The Family Business Program also expanded the Next-Gen Peer groups and started a Legacy Peer Group.

Through web form integrations and website automation, the IASourceLink team were able to grow direct connections with Iowa businesses through the Business Concierge by more than 50 percent, reaching an all-time high of 1,370 business interactions. Additionally, self-directed



guides were created that allowed more than 300 people to get immediate assistance they needed to start their business.

Plans for next year

Advance lowa is making business ownership transition a major focal point of programming for the coming year. Recognizing that for many rural businesses, the prospective new ownership will come from within the organization or community, Advance lowa is partnering with private sector service providers, private foundations, and state agencies to provide support to transition many of these operations to an employee owned model. An estimated 200 participants from 50 distinct geographical communities will participate in various work sessions aimed at educating current and future business leaders in employee ownership.

IASourceLink, the Iowa Business Concierge, and the Panther Biz HQ will all be expanded to further reach across Iowa. These programs will continue to integrate the student experience with small business support programs and will provide high-end services remotely.

Project 3: Regional Development

Description of the project

The Institute for Decision Making (IDM) continues implementation of the EDA University Center's Business Retention and Expansion through Innovation (BREI) project focusing on helping businesses enhance their innovation and helping economic development organizations (EDOs) enhance their BRE programming. This past fiscal year's project has had a particular focus on building awareness of Industry 4.0/Manufacturing 4.0 among EDOs and community leaders and IDM is a partner in the statewide Industry 4.0 Partner Consortium that was organized by lowa's community colleges, and the Iowa State University's Center for Industrial Research and Service (CIRAS).

Moving forward, IDM will continue to assist local economic development organizations (EDOs) as they incorporate new discovery processes and protocols into their traditional BRE efforts, elevate their understanding of Industry 4.0/Manufacturing 4.0, and serve as catalysts for businesses utilizing technology for internal product development, process enhancement, and commercialization. Additionally, IDM will continue to facilitate an Intrapreneurship Resource Network (IRN) of service providers designed to enhance collaboration among the participants.

With the ongoing impacts of the COVID-19 pandemic, IDM led efforts to complete the third statewide business impact survey, which included a statewide report for the Iowa Economic Development Authority/Iowa Finance Authority (IEDA/IFA), a statewide report on nonprofits, and a statewide report on rural respondents for the Empower Rural Iowa Task Group and the Iowa Rural Development Council. IDM will conduct a fourth statewide business impact survey



during the next fiscal year, develop additional statewide and local survey data reports, and share best practices for assisting impacted businesses through the recovery process.

IDM continued to assist the Business Expansion and Strategic Trends (BEST) of Iowa program in adjusting the statewide implementation of BRE programming due to the COVID-19 pandemic. Efforts included revising the interview questions and processes used by local EDOs. IDM will continue to assist the BEST Management Team and EDOs with implementing the new interview questions and processes. IDM will assist with developing a statewide report documenting the existing industry interview results. IDM will also assist with updating the BEST of Iowa Local Reporting Template tool for local EDO's to utilize in comparing their existing industry data with statewide data.

Additionally, IDM continues to assist the Governor's Empower Rural Iowa and the Iowa Rural Development Council with regional and statewide rural development programming. IDM will also continue to assist the Iowa Department of Education, Iowa Workforce Development, and the Sector Partnership Leadership Council to support the regional sector partnerships around the state. IDM will continue supporting regional industry targeting, marketing, organizational management, and planning efforts as requested.

What results have been achieved in the past year?

During the past fiscal year, IDM continued implementation of the University Center's BREI project; with a particular focus on assisting EDOs, community leaders and service providers elevate their awareness of Industry 4.0/Manufacturing 4.0. IDM developed and delivered a series of Industry 4.0 trainings for local EDOs, regional economic development groups, community college district leadership teams, and other service providers. IDM joined the statewide Industry 4.0 Partner Consortium that has been organized by Iowa's community colleges, and the Iowa State University's Center for Industrial Research and Service (CIRAS). The Consortium's creation has been spurred by IEDA's release of the report "Seizing the Manufacturing 4.0 Opportunity: A Strategic Plan for Iowa's Manufacturing Industry." Despite the challenges with the COVID-19 pandemic, IDM continued to assist local EDOs in implementing business interviews designed to identify opportunities to assist those businesses to enhance their innovation. IDM continued to work with service providers in the IRN to assist businesses to foster innovation and technology utilization, innovative practices, and research and development.

IDM continued to assist the Iowa Economic Development Authority/Iowa Finance Authority (IEDA/IFA) gather information from businesses related to the ongoing impacts of the COVID-19 pandemic. IDM led the completion of a third statewide survey and a statewide analysis and a report was completed for IEDA/IFA for the survey. A statewide report on the rural respondents was completed for the Empower Rural Iowa Task Group and the Iowa Rural Development Council, and a statewide report on nonprofit respondents was completed on behalf of the Iowa Council of Foundations. More than 30 local and regional reports were produced for EDOs,



chambers of commerce, and all of the state's Small Business Development Centers.

Additionally, IDM provided several statewide presentations organized by Main Street Iowa and the Iowa Council of Foundations.

Due to the COVID-19 pandemic, IDM assisted the BEST of Iowa in revising the interview questions and processes used by local EDOs in their BRE programming. IDM helped with the analysis of the statewide existing industry interview data and development of an Annual Report. IDM assisted in updating the BEST of Iowa Local Reporting Template tool used by EDOs to benchmark their community's and region's data with statewide data. IDM also assisted with developing and presenting a webinar for EDO's on how they could utilize and present their local existing industry data.

Examples of projects

IDM assisted IEDA/IFA in gathering information from Iowa businesses on the impact of the COVID-19 pandemic. The third statewide survey was completed in February and March 2021 with 6,457 businesses responding. Once again, IDM worked with IEDA/IFA staff and other statewide organizations to develop the survey instrument and to encourage businesses statewide to complete the surveys.

Several statewide reports were developed. The first was a statewide analysis and report for IEDA/IFA. A statewide analysis of rural respondents was completed for the Empower Rural lowa Task Force and the Iowa Rural Development Council, and a statewide analysis and reports were completed for the nonprofit respondents on behalf of the Iowa Council of Foundations. More than 30 local and regional reports were produced following the first survey for EDOs, chambers of commerce, and for all of the state's Small Business Development Centers.

As part of its continued implementation of the University Center's BREI project, IDM identified a need among Iowa's economic developers to elevate their level of awareness of Industry 4.0/Manufacturing 4.0. IDM developed and piloted an Industry 4.0 training session with one of the economic development regions in Iowa. The training was well received and other economic development regions expressed an interest in the training. During this time, IDM was asked to join the statewide Industry 4.0 Partner Consortium that has been organized by Iowa's community colleges and the Iowa State University's Center for Industrial Research and Service (CIRAS). As a member of the Consortium, IDM is delivering a series of Industry 4.0 trainings for local EDOs, regional economic development groups, community college district leaderships and other service providers.

Plans for next year

IDM will continue to assist businesses and local EDOs through the University Center's BREI project in the Cedar Valley region, and continue its participation in the statewide Industry 4.0 Partner Consortium by continuing to deliver Industry 4.0 awareness training in regions around Iowa. IDM will also continue to facilitate the IRN of service providers. IDM will assist in



launching a fourth statewide COVID impact survey and provide a statewide report to IEDA/IFA, a statewide rural respondents report, and a statewide nonprofit report. IDM will also continue to provide customized local reports for EDOs, the SBDC's, and others.

IDM will continue to assist the BEST of Iowa program and help the BEST Management Team and local EDOs implement the new interview/survey process. IDM will assist with the analysis of the statewide data and the development of the statewide report. IDM will help to update the Local Reporting Template tool for EDO's to utilize in comparing their existing industry data with statewide data. IDM will provide training for local EDOs focusing on how they can better utilize their BRE programming based upon the data produced through their company interviews.

IDM will continue to support the economic development regions as requested with regional targeting, marketing, organizational management, and planning efforts. IDM will work closing with the Governor's Empower Rural Iowa Taskforce and the Iowa Rural Development Council to develop and implement rural development programming to assist rural communities and regions. IDM will also continue to assist with the statewide workforce efforts and the regional sector partnerships in partnership with the Iowa Department of Education, Iowa Workforce Development, and the Sector Partnership Leadership Council.

Project 4: Competitive and Market Intelligence

Description of the project

Strategic Marketing Services (SMS) develops and manages a competitive and market intelligence program for small- to mid-sized lowa companies and organizations. The purpose of devoting investments to competitive and market intelligence projects is to foster economic growth across lowa by stimulating business expansion opportunities. Accurate information is needed to make sound market entry or expansion decisions. Gathering and analyzing information to make sound business decisions is what SMS provides. Established businesses are required to pay at least one-half of their project cost with a match from RIF funds. SMS has a goals of assisting a minimum of 12 lowa companies per year with either advanced market research projects or tailored consulting services. Priority is given to businesses in the state's target industry clusters.

What results have been achieved in the past year?

The economic impact of the COVID-19 pandemic continued to affect demand for our services. However, SMS again worked with our BCS partners to assist lowa organizations in understanding the impact of the pandemic in our state. An example of this is our repeat work with IDM in assisting the lowa Economic Development Authority (IEDA) in studying what lowa businesses and organizations have experienced during pandemic recovery and how they continue to handle related challenges. Nearly 6,500 lowa businesses and organizations provided survey responses. Topics included impact on revenue and employment, supply chain



issues, operational concerns, and impact of received financial assistance. The IEDA has utilized the study findings to continue providing needed resources and assistance programs. Additionally, regional, county, and local reports have been provided to economic developers, community agencies, and local decision makers for use in strategy and policy planning.

During FY21, SMS completed five Iowa projects with eight organizations including the BEST of Iowa Management Team comprised of the following organizations: Mid-American Energy, Iowa Area Development Group, Alliant Energy, Black Hills Energy, and the IEDA. Other organizations were the United Ways of Iowa, Charles City Area Development Group, and the Cedar Valley Regional Partnership.

Additionally, SMS provided three consultations to Iowa-based organizations. They included the Iowa 4-H program, Grow Cedar Valley, and the Janesville Consolidated School District.

Examples of projects

SMS in collaboration with IDM once again assisted the BEST of Iowa Management Team (IEDA, MidAmerican Energy, Black Hills Energy, Alliant Energy, and the Iowa Area Development Group) with their annual business study. However, with the unique challenges created by the COVID-19 pandemic in 2020, IDM and SMS expanded their work with the BEST of Iowa team to develop a new set of interview questions and an online interview tool since the local employer interviews needed to be conducted virtually. In a span of three months, 813 Iowa companies from 76 different conties were interviewed with SMS and IDM providing oversight and troubleshooting challenges that arose. This program collects existing business data through interviews with local employers by local economic developers. The data collected helps economic development organizations and their partners identify such things as business expansion opportunities or potential issues that could lead to a business downsizing or closure in their community. The statewide data also helps to inform and shape Iowa's economic development programs and policies.

SMS in collaboration with IDM assisted the United Ways of Iowa in assessing the statewide impact of COVID-19 on the ALICE (Asset-Limited Income-Constrained Employed) population in Iowa to inform how to best support Iowa ALICE families throughout long-term recovery and beyond. A statewide online survey was developed and deployed by local/regional United Way partners. A total of 2,967 surveys were collected and utilized for analysis. Key survey topics included COVID-19 pandemic concerns, overall impact on household income, changes in employment and household finances, impact on households, childcare and education, and assess federal stimulus receipt and utilization of funds. The United Way of Iowa shared key findings and data with their local/regional partners with the aim of providing targeted assistance directly to their constituents.

SMS, in collaboration with IDM, assisted the Cedar Valley Regional Partnership (CVRP) in assessing current wage data for targeted industry sectors and occupations among employers in Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy counties. Just over 100 regional



businesses provided wage and benefit information. This study will help the Cedar Valley Regional Partnership and Grow Cedar Valley track wage and benefit data by occupation type and aid in attracting new talent to existing industry and prospective employers.

Plans for next year

SMS will continue to consult with, and provide market research services for, lowa businesses, public/private partnerships, utilities, economic development organizations, non-profit organizations, statewide associations, and government entities as SMS leverages RIF dollars to strengthen lowa's economy. As pandemic recovery continues, lowa businesses and organizations will benefit from market intelligence. SMS will continue planning to assist a minimum of 12 lowa companies with advanced market research project studies or tailored consulting services. lowa businesses/organizations will be eligible at a minimum to receive a discount of up to 50 percent of the project cost, but not to exceed \$10,000.