

The University of Iowa

FY20 Annual Economic Development Report

The University of Iowa once again has been cited as one of the 100 most innovative universities in the world by Reuters. This recognition is indicative of the impact the university can have upon the economy of Iowa and is why economic development is a component of the university's strategic plan. As the university looks to implement its strategic plan through specific strategies, it is important to note that the university is focused on supporting the translation of intellectual work into applications and solutions which enhance economic development and impact the lives of our citizens. This strategy will be implemented through:

- Creating increased opportunities for entrepreneurial education, new venture creation, technology transfer, with a specific focus in medtech and edtech innovation, and
- Connecting faculty, staff, and students to organizations and subject matter experts to solve unmet needs in social, health, technical, and business problems

A robust plan incenting economic development, on a campus like the University of Iowa, is key to moving the ideas that are generated on campus to life changing impact for Iowans and beyond.

Subsequently, this report provides a description of eight of the UI's key initiatives in the economic development space—Protostudios, UI Research Park, Translational Research Incubator, UI Research Foundation, UI Ventures, MADE, Center for Advancement, and John Pappajohn Entrepreneurial Center.

I. Mobilizing to Address COVID-19

The University of Iowa mobilized to address the many challenges posed by the COVID-19 crisis. In addition to the direct care of Iowans impacted by the virus provided by the UI Hospitals and Clinics, UI faculty and staff drove innovative approaches to address new treatment options and shortages of personal protective equipment and key tools/equipment.

University of Iowa Pharmaceuticals (UIP), in the College of Pharmacy, is testing and manufacturing drugs for four separate companies to address COVID-19 symptoms. UIP entered its first agreement in April with Constant Therapeutics, LLC. Subsequently agreements with Pulmoquine Therapeutics, TrueBinding Inc., and Vasomune Therapeutics, Inc. were secured. UIP streamlined and accelerated its production processes to enable quick responses. For example, for Constant Therapeutics, UIP completed the entire project, including testing and manufacturing, in 8 weeks – which UIP estimates was half the time typically allocated to such a project.

The University of Iowa Research Foundation (UIRF) has assisted several researchers make their COVID-related discoveries available for commercial development through license agreements to promote the advancement of technologies critical to the immediate public welfare. These technologies range in application from novel personal protective equipment, therapeutic inventions, and research tools that can assist in COVID-19 research worldwide. UIRF's goal is to promote timely development, commercialization, and distribution of high impact inventions to the public. Several COVID-19 related technologies disclosed earlier this year have already been licensed to industry partners, including a novel negative pressure face shield and small molecule inhibitors against coronaviruses. To promote global research, UIRF has made COVID-19 research tools such as plasmids and mouse models available to both academic and industrial partners at minimal cost. Moving forward, the office continues to prioritize COVID-19 technologies and collaborations with commercialization partners to promote development of public health solutions.

The UI Innovation Team employed its advanced design and prototyping skills, coupled with its connections to industry, to advance several initiatives. With Geminii Health, a new medical start-up formed by three Iowa graduate students, the team assisted with concept, design and prototyping of COVID 19 Test Bottles. Geminii's idea was to provide the means for a home COVID-19 test kit to mail in for results where individuals would spit into the bottle and affix a cap to secure the sample.

The Innovation Team supported several ventilator-related projects. Motivated by concerns about a potential shortage of ventilators during the early stages of the pandemic, many UI faculty worked on a number of approaches. Anesthesiologists at the College of Medicine worked with the Protostudios team and a medical device start-up Oscillavent to create parts to enable a single use ventilator to be modified to accommodate multiple patients. The prototypes developed proved successful with UIHC ventilators in testing and the results were published in a research article in May 2020 (<https://pubmed.ncbi.nlm.nih.gov/32376612/>).

Protostudios developed a ventilator hose adaptor for a MERCY ER physician and a DEP Filter Exhalation Port (ventilator part duplication), which is a part that was identified as difficult to source and necessary for ventilating patients, for a member of the UI respiratory care team.

The Team itself drove development of innovation internally as well. The Team spent considerable effort sourcing materials and working designs for fabric masks through March and April. The signature effort was the design, manufacture and sale of the Protostudios Face Shield (<https://iowamade.org/protostudios-face-shield>). Driven by concerns about shortages of PPE for health care workers, Protostudios worked with physicians at the UIHC on designs for face shields suitable to the particular needs of the health care community (light weight, secure hold, clear vision). They then took the resulting design and mobilized a network of 3D printers across the state to print the design to meet the acute needs of Iowa's health care community.

That 3D printing experience showed that more robust and scalable production was necessary to meet demand. The Innovation Team quickly began searching for and secured Iowa-based partners to supply key materials and to manufacture component parts. Those relationships with Iowa companies allowed the project to scale in a matter of weeks. The Iowa MADE team, a student-run effort to manufacture medical devices, worked to develop the production protocols, establish the manufacturing process, and secure the supplies needed to manufacture the face shields once the component materials arrived. They also submitted and successfully listed the shield with the Food and Drug Administration.

Employing UI employees temporarily displaced by university's shutdown in spring 2020 along with students, volunteers, and temporary workers, Iowa MADE will have manufactured and sold more than 35,000 face shields. Following initial sales to hospital systems (UIHC and Unity Point) and nursing homes, assisted living centers and physician/dental offices, the Innovation Team recognized there was strong consumer demand for the face shields. Pivoting to meet that demand, the Team established a distribution network with Hy-Vee and on-line and in-person direct sales efforts.

At the behest of the IEDA, the Chief Innovation Officer was asked to lead the development of several initiatives for the Governor to consider in the BioSciences utilizing resources provided to the State under the CARES Act. During spring 2020, proposals to support creation of nanovaccines and expand vaccine manufacturing capabilities were developed for consideration.

The John Pappajohn Entrepreneurial Center (JPEC) gave \$105,000 in grant support to thirteen Iowa-based start-ups working on various aspects of the COVID-19 challenge. JPEC also developed specific webinars and consulting services to address specific topics faced by entrepreneurs, such as managing finances during the shutdown.

The response to COVID-19 has taught numerous lessons to those tasked with fostering and supporting innovation and economic development at the UI. Those lessons will inform and improve future entrepreneurial programs, activities, and start-ups.

II. Organizing to Support Economic Development

The Chief Innovation Office, who reports to the Vice President for External Relations with a dotted-line report to the President, oversees and coordinates the economic development activities of the University of Iowa. Of the eight UI organizations listed below that contribute to economic development efforts, five report to the Chief Innovation Officer: Protostudios, UI Research Park, Translational Research Incubator, UI Ventures, and MADE.

In FY20, the “Innovation Team” focused its efforts around several broad themes, including:

Focus on MedTech and EdTech. The University supports a broad array of research and development efforts and possesses expertise across a wide range of disciplines, but external reviews commissioned by the State of Iowa have identified highly concentrated capabilities in the medical technology and education technology sectors. At the University, efforts are focused on exposing faculty, staff and students to the system of support which exists within the university and in the surrounding community to assist them in transitioning their research or other ideas towards commercialization.

Mobilizing an External Network. Drawing on the broad network of contacts of the Chief Innovation Officer in the medical device industry and the venture capital community, the Innovation Team is exposing UI start-ups and entrepreneurially minded faculty, staff and students to skills and connections heretofore unavailable on the Iowa campus. The network of 40 individuals is able to assess start-ups and offer them specific assistance while also helping to shape the overall effort. Additionally, a biotech entrepreneur CEO was contracted to support key faculty researchers on licensing strategies for UI intellectual property.

Creating a Concierge Service to Support UI Faculty Innovations. Under the direction of UI Ventures, the Innovation Team has begun laying the groundwork for a comprehensive suite of services to assist UI faculty looking to engage the innovative process. This service has and will continue to connect entrepreneurial faculty and companies with strategic support from medtech venture capital, FDA guidance, intellectual property guidance and intelligence on reimbursement strategies. In FY20, emphasis was on establishing support structures and outreach for Biomedical engineering, and the Colleges of Dentistry, Nursing, Medicine and Pharmacy. The Innovation Team also arranged for several venture capital firms (Drive Capital (OH), Sante Ventures (TX), 8VC (CA), Brandon Capital (CA) and Unity Point (IA)) to visit campus and interact with identified UI start-ups or prospective start-ups.

Extending Advanced Prototyping Services to Medical Innovators. With the financial support of the IEDA, Protostudios acquired an advanced anatomical printer to assist medical device innovators. The new machine is located inside the UI Hospitals and Clinics and will enable Protostudios to better reach, engage and serve medical innovators.

Administration of the Innovation Fund for the College of Medicine. In partnership with the College of Medicine, the Innovation Team designed and administered a \$100,000 GAP fund that Dr. Brooks Jackson, Dean of the College, had set aside to promote faculty innovation in medical device and software. The Innovation Team solicited entries, reviewed and coordinated the evaluation of the entries, and administered the funds.

III. University of Iowa Economic Development Infrastructure



The UI Research Foundation (UIRF) works in conjunction with faculty and staff researchers to transfer their research from the lab to the global marketplace. UIRF assists researchers in securing intellectual property (IP) protection, marketing new technologies, and collaborating with and licensing to industry partners. UIRF also supports faculty start-ups, through streamlined agreements, connections to resources, patent prosecution management and strategy, and funding referrals.

UIRF manages a diverse portfolio of inventions including educational materials, engineering advancements and physical materials, imaging and diagnostics technologies, and a large variety of therapeutic inventions.

protostudios

Protostudios is a state-of-the-art, rapid-prototyping facility located in the MERGE co-working space in downtown Iowa City. It works with UI researchers, researchers from other Iowa universities and healthcare institutions and community members to develop fully functional prototypes of product ideas, allowing innovators to test, redesign, and determine manufacturing paths and demonstrate usability to investors. Protostudios primary focus is on biomedical and electronics prototyping with access to 3D printers (plastics, metals, ceramics) milling, laser/wet jet cutter, printed circuit board fabrication, and consulting from on-staff industrial designers and engineers. Anatomical modeling of human organs prior to complex surgeries is developing into a key value add of Protostudios.

The creation of Protostudios was funded through a \$1.5 million Strategic Infrastructure Fund grant from the Iowa Economic Development Authority, and the authority approved a \$200,000 grant to outfit additional space for new equipment that expands the organization's capabilities.



The UI Research Park leases building sites and space to growing technology companies that require sustained research relationships with the university. The park is home to a world-class business incubator program that has nurtured over 100 UI start-ups and other new ventures since its founding. Incubator tenant companies can draw on both the research and business resources of the university, including access to UI libraries, hazardous waste management

services, support for SBIR/STTR grants (Small Business Innovation Research/Small Business Technology Transfer federal grants), educational seminars, networking opportunities, and shipping/package handling.

The BioVentures Center (BVC) in the park contains wet laboratory modules that can be shared for life science companies and office/dry laboratory modules for engineering and technology-based companies.

The park is also home to four of the university's specialized core facilities. These facilities provide technical support services critical to the growth of start-up companies as well as existing industry partners:

- University of Iowa Pharmaceuticals offers contract analytical, development, and GMP manufacturing services to the pharmaceutical and biotechnology industry.
- Center for Biocatalysis and Bioprocessing operates a microbial fermentation facility and specializes in both upstream and downstream bioprocessing with expertise in process scale up for food products, biofuels, biopharmaceuticals, and other biotechnology products.
- National Advanced Driving Simulator conducts research and development on driving safety for the government, military, and industry partners.
- State Hygienic Laboratory is the state's environmental and public health laboratory, serving all ninety-nine Iowa counties as well as out-of-state clients by testing and tracking infectious diseases and illnesses.



The Translational Research Incubator (TRI) serves as the wet-lab counterpart to Protostudio's dry-lab program. The TRI space, located in the Medical Laboratories building on the university's campus is a complement to the UI Research Park as it can house up to four early-stage research-based biomedical or life science companies focused on commercializing technology developed at the University of Iowa.

Much of the support for TRI goes to purchasing equipment that can be shared among the company tenants. This allows companies to focus their limited resources on technology-specific development to maximize their funding. The space is ideal for small start-ups that need to conduct early-stage proof-of-concept experiments, often with SBIR/STTR funding, in order to attract the investment needed to expand operations at the UI Research Park and other locations in the eastern Iowa region.



UI Ventures assists university faculty and staff in creating new companies based upon their research. It facilitates connections between the faculty and outside mentors, services and investors and serves as a liaison between the company and university services. Working closely to support the University of Iowa Research Foundation, UI Ventures actively engages with outside investors and business experts to improve visibility of UI companies, and bring business expertise to campus. In addition, UI Ventures manages the TRI incubator and operates the MADE program to encourage faculty and staff innovation and entrepreneurship throughout campus.

MADE

 THE UNIVERSITY OF IOWA

Iowa MADE is a first of its kind program, in the nation, whose mission is to encourage and facilitate the UI community to bring innovative, need-based products to market with the goal of enhancing economic development at the university as an extension of research and scholarship.

MADE is a manufacturing and e-commerce initiative launched in FY18 with 3 objectives: 1) bring simple, low volume technology to market; 2) contribute to a cultural transformation around innovation on campus; and 3) provide students with an opportunity to learn first-hand the tools necessary to bring a product to market. The program crosses technology sectors with the first products to launch being low risk medical devices developed at UIHC across several departments. Products are available for sale through the iowamade.org website and revenue is used to reimburse development costs to encourage continued support of innovation and development. All technologies remain available for licensing to an external company through UIRF.

An undergraduate student operations team maintains the FDA compliant quality system, manufacturing, product management, marketing, and sales. These students have the unique opportunity to gain in depth real-world experience and leadership skills on campus to complement their classroom education.



The John Pappajohn Entrepreneurial Center (Iowa JPEC) offers nationally recognized comprehensive entrepreneurial education programs that are available to all Iowans. At the undergraduate level, Iowa JPEC and the Department of Management and Entrepreneurship offer a BBA in Management with an Entrepreneurial Management Track (on-campus and online) to Tippie College of Business students. Iowa JPEC and the College of Liberal Arts and Sciences offer a BA in Enterprise Leadership (on-campus and online). In addition, Iowa JPEC offers the Technological Entrepreneurship Certificate for engineering students, the Certificate in Entrepreneurial Management for all undergraduate students, the Certificate in Arts Entrepreneurship for arts students, and the Certificate in Media Entrepreneurialism for journalism and mass communication students. Advanced entrepreneurship courses are also offered to MBA students at several locations across the state of Iowa.

Iowa JPEC and its university partners also play an important role in the development of Iowa-based technology and high-growth start-up companies. Whether providing one-on-one consulting services and group training, working with start-up companies on technology transition, directing UI students on advanced field study projects, or providing training and seminars to business executives, Iowa JPEC seeks to support the next generation of entrepreneurs and business leaders.



The University of Iowa Center for Advancement (UICA) advances the UI through engagement and philanthropy, and its Corporate and Foundation Relations group promotes economic development through connecting corporate partners with the UI's strengths. In addition to connecting established companies with the university, the Center for Advancement is a key player in tapping UI's extensive alumni base to support entrepreneurship and technology commercialization through monetary resources and, equally important, advice and expertise.

IV. UI's Economic Development Activities in FY20

Impact on economic growth in Iowa

- The UI Research Park is home to 32 companies, employing over 2500 total employees, 800 of those located on the park. Total payroll associated with Park companies is more than \$2.9 million.
- UI Ventures currently supports 47 companies including 1 that formed in FY20.
- MADE had 3 products on the market in FY20 and students continued to develop an additional 7 products originating from the Colleges of Medicine and Dentistry, and the UIHC Dept of Nursing.
 - One MADE student graduated and had multiple job offers in the region directly related to the student's work at MADE.
- Because of the COVID19 epidemic all Protostudios client work was put on hold on or about March 17th. At that time Protostudios efforts were redirected and dedicated to the design and fabrication of COVID19 related products. The three major products were: Face shields; N95 face masks; and ventilator sharing. Those efforts resulted in the planned fabrication of 35,000 Protostudios specially designed shields. The N95 face mask effort was dropped due to ample commercial supply. Under the direction of UIHC researchers, Protostudios designed and fabricated prototype pieces for a 4:1 ventilator sharing modification kit. The ventilator kit is unique in that the “exhaust” air of the ventilator is filtered before being released.
- As the Iowa spread of COVID19 slowed and commercial supply chain for PPE caught up with Iowa demand, Protostudios resumed working on client projects on or about June 15th. Protostudios client base continued growing in number and breadth in the last 8 months. The majority (~65%) of our work involves the design, design refinement, and fabrication of medical devices. In FY20, emphasis was placed on expanding relationships with Iowa fabricators, especially injection molding houses and metal fabricators.
- Protostudios’ nascent anatomical printing service took a big step forward with the award of additional IEDA grant for the purchase of a specialized anatomical printer. That printer is located within the University of Iowa Hospitals and Clinics.
- Protostudios added additional capability with the acquisition of an ExOne sintering furnace. ExOne has agreed to restore the Innovent metal printer to ready status. It has been in stasis for over a year as we worked through the furnace issue with ExOne.
- Excellent collaboration continues this year with Protostudios’ counterparts at the University of Northern Iowa and Iowa State. The three organizations were in almost daily contact through the height of the COVID19 activity as each sought advice and expertise from each other and coordinated on project activity.
- Iowa JPEC

- Start-up Companies Served (New Business Starts) 275
- Program, Seminar & Workshop Participants 8,812
- Estimated Job Creation 419
- Hours dedicated to Clients 21,607+
- Total Clients (Individuals receiving assistance) 1,061
- Total Youth Impacted (K-12) 35,488
- Seed Money Awarded \$460,800
- Total Participants Across All Programs) 15,378
(Including Academic, Outreach, and Youth)
- UI Center for Advancement assists with aligning recruiting efforts and providing access to UI faculty and staff. It promotes corporate partner and foundation student scholarship and programming opportunities. UICA facilitates UI's partnership with ICR Iowa to promote "Boomerangs" to return to the state to fill job openings.

Promotion of economic growth in Iowa

- UI Ventures continues to bring leading business executives to campus from across the US, arranging presentations and one-on-one meetings with faculty startups to facilitate conversation and resources for the startups. In FY20, UI Ventures hosted a Writing Workshop focused on scientific product storytelling and targeting faculty entrepreneurs.
- UI Research Park's BioVentures Center traditionally hosts monthly lunch and learns in collaboration with SBDC and JPEC throughout the year for start-up companies and the multi-purpose room and other conference rooms in the BVC are used by several collaborating groups, including the Iowa Innovation Corporation and the Iowa Economic Development Authority (IEDA). These activities were suspended due to COVID but are anticipated to return once allowed.
- Iowa JPEC:
 - Academic Program – Iowa JPEC delivers campus-wide and online undergraduate education and technology innovation coursework in the MBA program. Majors (BA or BBA) and certificate programs exist for all undergraduate students at UI including specialized programs for students in engineering, performing arts, and journalism. During FY20, 4,982 students enrolled in 207 classes, 299 students received a degree and 152 students earned an entrepreneurship certificate.
 - Founders Club / Bedell Lab Student Incubator – The student incubator housed at the 10,000 sq. ft. Bedell Entrepreneurship Learning Laboratory has 17 private offices for the most advanced start-ups, numerous co-working spaces for the others, and several conference rooms. This campus-wide program is open to students from every college and major. The students receive intense mentoring and support as they launch or expand their

businesses. The program, one of the first of its kind in the nation, has impacted 1440 students since opening in 2004. During FY20, the Founders Club supported 78 student start-ups made up of 188 students. An example of a student startup supported by the Founders Club in FY20:

- OpenLoop, co-founded by Dr. Jon Lensing (20MD), is a health-tech solution that intelligently matches healthcare providers with medical practices or hospitals seeking quick and efficient temporary staffing. During the pandemic, OpenLoop made their services free for an 8-week period in order to help place providers in areas where they were most needed. Prior to COVID, the company was focused solely on placing doctors, but they quickly developed new intakes and matching systems for all healthcare providers including everyone from assistants and technicians to nurses and physicians. The company grew by 800% over the course of a few weeks.
- Hawkeye Startup Accelerator - Throughout the twelve-week program, accelerator teams meet daily to launch their start-up by using Lean LaunchPad methodologies. Through brunch-and-learns, work sessions with experienced mentors, weekly pitches, and lectures, the Hawkeye Startup Accelerator aims to drive the start-up process for students, while increasing their start-ups' chance for success. In FY20, 15 teams and 24 students participated.
- Iowa Medical Innovation Group (IMIG) – IMIG is a two-semester interdisciplinary program that introduces students to all phases of medical device/technology development. Students from the colleges of Business, Engineering, Law, and Medicine collaborate in a real-world environment to identify a medical need, create a solution, and move it through the development and commercialization process.
- Business plan and pitch competitions – Iowa JPEC hosts and sponsors a variety of elevator, business model and business plan competitions for UI students. During FY20, a total of \$460,800 was awarded to start-ups.
- Iowa Innovation Challenge – In order to increase campus-wide entrepreneurial activity and accelerate technology commercialization, a new year-long training program and competition launched in FY20. Administered by the John Pappajohn Entrepreneurial Center and co-sponsored by the Office of the Vice President for Research, UI Research Foundation and Office of the Chief Innovation Officer, the program had 94 participants in FY20.
- Iowa Innovation and Entrepreneurship Honors – In order to recognize and celebrate entrepreneurship activity and success, several new awards were created in FY20. Administered by the John Pappajohn Entrepreneurial Center, the following were awarded in FY20:

- Alumni Entrepreneur of the Year to Scott Heiferman (Co-founder and Chairman of Meetup)
 - Young Alumni Entrepreneur of the Year to Roby Miller (Founder, TelePharm)
 - Graduate Student Startup of the Year to Jaison Marks (Co-founder, CartilaGen)
 - Undergraduate Student Startup of the Year to Andrew Austin (Co-founder, Peak3 Digital)
 - Faculty/Staff Startup of the Year to Dr. Michael Abramoff (Founder and Executive Chairman, Digital Diagnostics)
 - Venture School Business of the Year to Todd Thompson (CEO, SmartScripts).
- IdeaStorm Competitions are entry level pitch competitions that require no prior experience. Students simply share their idea with the crowd in two minutes or less. This introduced 91 new students to entrepreneurship in FY20.
- Iowa Startup Games – This program is a “start-up weekend” for college students that brings together students from all areas of study to build a business in a weekend. During FY20, 87 students participated.
- Jacobson Institute for Youth Entrepreneurship – The Jacobson Institute is a comprehensive program that enriches K-12 students’ lives through classroom and practical educational experiences. Programming and impact includes:
 - BizInnovator Program – Curriculum and teacher training focused on entrepreneurship and business. In FY20, 174 teachers from 161 schools in 32 states used the curriculum nationwide and impacted 6,960 students.
 - STEM Innovator Program – This professional development program for teachers infuses innovation and entrepreneurship into K-12 classrooms. In FY20, 252 educators from 100 schools in 18 states received curriculum, training, and support, impacting 27,919 students.
 - Summer Camps – Offered online (COVID), Naperville, IL and West Des Moines, IA. 148 youth from 20 states participated. Participants ranged in age from 5th-12th grades.
 - Innovator Competition – Competition for high school students to showcase their business startup, invention, or innovation. 157 students from 47 schools across 22 states participated. A total of \$6,500 in seed capital was awarded.
- Seminars, Workshops, and Lecture Series – Iowa JPEC hosted more than 87 different opportunities last year for students, faculty, and people from the community. In FY20, over 8,812 attendees came to learn from experienced entrepreneurs on a variety of topics.

- Alumni-Student Mentoring Program – This program was established to connect entrepreneurship students with esteemed alumni in order to enhance students’ professional and personal development for future success. In FY20, 203 students were paired alumni mentors.
- Okoboji Entrepreneurial Institute - Iowa JPEC established the annual, week-long Okoboji Entrepreneurial Institute (OEI) in a partnership among state of Iowa universities and colleges, as well as Iowa Lakes Corridor Development in 2006. Today, this summer program continues to provide students with an immersion into entrepreneurship and business strategy and develop an outstanding network of peers and business professionals. In FY20, this program was not held due to COVID-19.
- Student Organizations – Several campus-wide clubs and organizations focused on entrepreneurship are sponsored by Iowa JPEC.

Summary of FY20 economic development activities

- UIRF:

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Disclosures	98	139	147	151	93	143	83	95
Licenses + options	29	32	40	40	58	51	48	37
Patent applications	142	184	190	297	148	153	160	146
Provisionals	57	47	65	88	49	35	42	36
PCTs	29	21	22	29	29	17	16	24
Regular US	85	90	110	142	83	44	53	38
Foreign	28	73	58	126	36	57	49	48
Issued patents	74	80	50	67	42	74	54	72
US	24	25	24	25	24	27	22	17
Foreign	50	55	26	42	18	47	32	55

- Wellmark Venture Capital Fund
 - Three companies funded at \$100,000 each
- Business Consulting Program
 - Iowa clients served 73
 - Industries include: profit, non-profit, NGO, start-up/entrepreneurial, retail, engineering, financial, veterans’ services, software/IT, manufacturing, restaurant, research, event coordinating
 - Iowa counties represented 16
 - Linn, Johnson, Washington, Carroll, Woodbury, Polk, Des Moines, Warren, Allamakee, Appanoose, Plymouth, Dallas, Clinton, Dubuque, Scott, Muscatine
 - Hours dedicated to one-on-one consulting 15,840
- Institute for International Business
 - Iowa clients served 3

- Industries include: Healthcare technology, non-profit (sustainability), food processing, architect/engineering, real estate, agriculture
- Iowa Innovation Associates (IIA) Internship Program
 - Student internships 23
 - Iowa businesses served 16
 - Iowa counties represented 5
 - Johnson, Polk, Dallas, Linn, Jefferson
 - Industries include: Agriculture, Environmental, Automotive, Finance, Medical, Data Analytics, software/IT, retail, marketing
- Iowa Medical Innovation Group (IMIG)
 - Number of participants (individuals) 24
 - New venture projects 1
 - UI faculty and administrative mentors 1
 - Venture School – entrepreneurial training Number of teams 74
 - Number of participants (individuals) 112
- UI Innovator Workshops (National Science Foundation NSF I-Corps Program)
 - Number of businesses 44
 - Number of participants (faculty & staff) 65
- Hawkeye Startup Accelerator
 - Number of teams 15
 - Number of participants 24
- Small Business Development Center
 - Start-ups companies served (new business starts) 6
 - Total clients counseled (individuals assisted) 339
 - Estimated job creation 127
 - Hours dedicated to clients 8177
 - Total capital – loans + equity \$7,986,000
 - Workshops 1

Support of Economic Development Outreach in Iowa

- UICA has presented its Impact Report to dozens of corporate partners to demonstrate specific examples of campus wide engagement with those partners. Examples of engagement include recruitment, experiential learning, board and speaking activity, as well as philanthropic support. The compilation of this information in one report enables UI's corporate partners to evaluate and extend their engagement with the university.
- Venture School Entrepreneurial Training Program – Iowa JPEC offers an immersive “Lean LaunchPad”, business model canvas, eight-week boot camp training program named Venture School to accelerate start-ups. Venture School is offered in multiple locations across Iowa. The program emphasizes real-world entrepreneurship through experiential

learning, a flipped classroom, and immediate feedback. During FY20, workshops were offered in Coralville/UI, Davenport/EICC, Iowa City, Cedar Falls/UNI, Des Moines, Sioux City, and Mason City/NIACC. There were 74 teams made up of 112 entrepreneurs.

- UI Small Business Development Center – The UI hosts an SBDC that serves a five county area (Cedar, Johnson, Iowa, Poweshiek, and Washington counties). During FY20, the UI SBDC served 339 start-ups. This contributed to the creation of 127 jobs and \$7,986,000 in equity being raised.
- Institute for International Business (IIB) – The IIB is dedicated to advancing knowledge and international skills in business and educational communities through research, education, and consulting. During FY20 7 International consulting projects were completed by University of Iowa students and faculty.
- Business Consulting Program – Iowa JPEC offers business consulting services to entrepreneurial and start-up companies around the state. During FY20, 110 projects were completed for 73 clients in 16 counties (Linn, Johnson, Washington, Carroll, Woodbury, Polk, Des Moines, Warren, Allamakee, Appanoose, Plymouth, Dallas, Clinton, Dubuque, Scott, and Muscatine).
- Iowa Innovation Associates Internship Program – Iowa JPEC provides funding support enabling Iowa start-ups to hire UI student interns as they work to grow their businesses. In FY20, 23 students were placed in 16 start-ups in these Iowa counties: Johnson, Polk, Dallas, Linn, Jefferson.
- Pappajohn Entrepreneurial Ventures Competition – In partnership with the Pappajohn entrepreneurship centers at ISU, UNI, Drake, and NIACC, Iowa JPEC sponsors this annual competition to support start-ups around the state. Each year, over \$50,000 is awarded in total to three companies.
- Wellmark Venture Capital Fund – Iowa JPEC is the regional administrator of the \$5 million Wellmark Venture Capital Fund that supports the creation and growth of new businesses throughout the state. Iowa JPEC screens applications, performs due diligence, evaluates business concepts, and assists applicants with their business plans. Iowa JPEC partners with area angel investors, equity fund managers, lenders, the Iowa Economic Development Authority and the Small Business Administration to help business owners secure additional funding. During FY20, three businesses each received \$100,000 in funding.
- UI Innovators Training Program (NSF I-Corps) – The University of Iowa was awarded a multi-year National Science Foundation (NSF) I-Corps Site grant in FY15 to support UI faculty, staff, and student entrepreneurs. This program is a joint effort between the Office of the Vice President for Research and Economic Development, UI Ventures, and Iowa JPEC. The goal of this program is to accelerate 90 faculty and staff start-ups. During FY20, 44 start-ups made up of 65 faculty and staff participated.
 - Viewpoint Molecular Targeting, Firefly Photonics, and Theion Agriculture are examples of an early stage businesses being supported by this program.

- Regional Partnerships / Eco-system Development – Iowa JPEC partners and engages with numerous local, regional, and statewide organizations to support entrepreneurs and contribute to the vital entrepreneurial ecosystem. These organizations include chambers of commerce, economic development organizations, business accelerators, state agencies, other universities, and community colleges.
- National Engagement – Iowa JPEC engages with several national and international organizations focused on small business, entrepreneurship, economic development and technology commercialization. This includes not only membership but also committee participation and invitations to present best practices.

Regents Innovation Funds Spent to Promote Economic Development in Iowa

- Protostudios: \$230,276 for personnel and general expenses
- UI Research Park: \$103,308 for BioVentures Center personnel, operating/general expenses
- UI Ventures and MADE: \$652,342 for personnel, consultants, student interns, and general expenses

The University of Iowa recognizes the important role it has to play in the state's economic development ecosystem. The university is committed to improving the quality of life in Iowa through a sustainable cycle of research and creative activity. Research at the University of Iowa makes Iowa a healthier, more prosperous, and attractive place to live. The university will continue to ensure that every dollar invested in research is leveraged by developing new economic opportunities for Iowans.