

STRATEGIC PLAN PROGRESS REPORT

Goal 1: Ensure Access to the ISU Experience

Provide an exceptional education offering practical, global, and leadership experiences that shape the well-rounded citizens and informed critical thinkers needed in the 21st century.

- Iowa State's 2017 bachelor's graduates enjoyed an overall 94% placement rate within six months of graduation; of those who were employed, 62% of resident students, 22% of nonresidents, and 29% of international students remained in Iowa to begin their careers. Master's and Ph.D. graduates enjoyed 96% placement rates. Of master's students who were employed after graduation, 42% are employed in Iowa, including 66% of Business graduates and 53% of Human Sciences graduates.
- Recent gifts to the Iowa State University Foundation are enhancing student success, including a \$159 million endowment to support the College of Liberal Arts and Sciences; a \$50 million gift to name the Debbie and Jerry Ivy College of Business; \$14 million in additional support for the Student Innovation Center; and major gifts to establish the Robert T. Hamilton Poultry Teaching and Research Farm, and the Chassis Dynamometer System and Control Project.
- Iowa State continues to promote access and affordability for Iowa students. Fall 2018 enrollment includes a record 4,863 domestic multicultural students, who represent 14% of the student body, and more than 7,500 first-generation students.

Goal 2: Enhance the University's Research Profile

Conduct high impact research that addresses the grand challenges of the 21st century.

- Iowa State was selected to lead the National Institute of Antimicrobial Resistance Research and Education, an interdisciplinary and inter-institutional effort to address the challenges of antimicrobial resistance and improve the health of humans, animals, and the environment.
- ISU worked with the Iowa Economic Development Authority to grow and accelerate the transfer of research discoveries to the market in the priority areas of biobased chemicals, precision and digital agriculture, and vaccines and immunotherapeutics.
- Iowa State was named a National Science Foundation Innovation Corps site to enable researchers to explore the commercial potential of their emerging technologies and expand ISU's culture of entrepreneurship.
- Researchers are part of a multi-institutional effort funded by the Defense Advanced Research Projects Agency to study the use of viruses and aphids to activate desirable traits that allow corn plants to withstand stresses brought about by drought or disease.
- I-Change, a newly funded Presidential Initiative, focuses on multidisciplinary research approaches to implement small, strategic changes in agricultural practices that can deliver abundant, affordable, and safe food to the world, as well as positive outcomes for natural landscapes.
- Iowa State is part of a newly funded Department of Defense Multidisciplinary University Research Initiative to examine how additive manufacturing processes impact the properties of final products, aligning with Iowa's economic development focus on advanced manufacturing.



Iowa State faculty and staff are working to make textbooks and course materials more affordable for students. Two faculty in the Department of English saved students \$179,000 in a single semester — \$130 for each of nearly 1,400 students — by using e-materials for their course. Another professor in Mathematics adopted an open source textbook that was free online, or available for a nominal price for students who prefer a printed version.



CATS
Center for the Advancement of Topological Semimetals

The U.S. Department of Energy (DOE) Ames Laboratory, operated by Iowa State under a contract with the federal government, will lead a new Center for Advancement of Topological Semimetals (CATS). The center, one of the newest Energy Frontier Research Centers, is part of a \$100 million DOE effort to accelerate the scientific breakthroughs needed to strengthen U.S. economic leadership and energy security. Ames Laboratory scientist and ISU professor Rob McQueeney will partner with researchers from national and international institutions on the discovery of new materials, and how to harness them for transformative changes in areas such as photodetection, light harvesting, and spintronics.

Goal 3: Improve the Quality of Life for All Iowans

Provide services and programs dedicated to economic development and the promotion of healthy communities, people, and environments.

- The Iowa Lean Consortium, founded eight years ago to promote business efficiency throughout the Iowa economy, merged with the Center for Industrial Research and Service. With over 130 member organizations, ILC provides the philosophy and tools to meet business challenges through members serving members.
- Researchers submitted 145 disclosures of intellectual property, filed 89 new patent applications, and received 42 patents last year. ISU technologies resulted in 51 license/option agreements worldwide (21 in Iowa) and provided the basis for two new Iowa startup companies; 185 license/option agreements are currently yielding income; ISU was ranked among the top 100 universities worldwide granted U.S. patents in 2017.
- Students gained valuable professional experience while making contributions to Iowa companies. Career services offices documented 2,400 ISU interns who were employed by more than 1,000 different Iowa employers in 268 communities in 89 counties.
- ISU Extension and Outreach offered a short course in feedlot management for beef producers; 16 participants expected an economic return of \$10-15 per head, providing an economic impact of \$5-7.5 million. Over 600 survey respondents who participated in forage programs reported an economic return of at least \$500.
- ISU Extension and Outreach community development specialists helped 28 minority owned businesses start or improve their businesses last year. Participants in the Volunteer Income Tax Assistance program prepared tax returns for nearly 1,400 low-income Iowans, generating \$667,000 in refunds.

Goal 4: Enhance and Cultivate the ISU Experience

Create an environment where faculty, staff, students, and visitors are safe and feel welcomed, supported, included, and valued by the university and each other.

- Results from a 2017 university wide climate survey were communicated to campus in spring 2018, and led to the creation of workgroups to address the experiences of students, post docs, faculty, merit, and professional and scientific staff.
- Student Affairs implemented a comprehensive approach to communicate and set expectations around Iowa State's Principles of Community throughout its many initiatives and activities.
- Iowa State is collaborating with the Ames mayor's and city manager's offices, and the Ames Chamber of Commerce, to expand ISU's efforts to create a more inclusive community, and strengthen the university's town and gown relationship.
- Iowa State's Public Safety Department rededicated its efforts to build a best practice Engagement and Inclusion Officer Initiative by hiring a full-time officer to run the program, with a focus on serving international students and organizations, serve as a liaison to the International Students and Scholars Office, and develop educational programming.
- Academic Affairs continues to emphasize transparency in creating and maintaining a more inclusive campus climate through the distribution of its annual Diversity and Inclusion Report.
- The Public Safety Department staffed a new crowd observation team during large athletic events to enhance game day safety and security.

HELPING IOWA GROW



The U.S. faces a critical shortage of young people with the skills and training to meet 21st century workforce needs. Through 4-H youth development programs, ISU Extension and Outreach connects with 1 in 5 Iowa K-12 students to build their STEM skills, improve college and career readiness, provide service opportunities in their communities, and retain them as future young professionals in Iowa. In the photo above, former NASA Astronaut Mae Jemison talks with 4-H youth about the importance of STEM and the impact it has on their lives.



David Peters, associate professor of rural sociology, is leading a five-year project that uses big data to predict and prevent the spread of opioid abuse in rural and micropolitan areas.



Jeannette Mukayisire (center, in striped dress), a human sciences specialist with ISU Extension and Outreach, offers research-based financial education classes to residents of the Meskwaki Nation in Tama.