

# IOWA STATE UNIVERSITY

## Strategic Plan Progress Report / October 2017

### 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.

- Established the institution-wide New Student Onboarding Task Force to improve the efficiency and quality of the onboarding process for all students
- Assessed the current status of high-impact educational activities (such as study abroad, capstone experiences, undergraduate research, student organization leadership, etc.) across all units
- Iowa State received funding through the University Innovation Alliance, Bill and Melinda Gates Foundation, and the Great Lakes Higher Education Corporation & Affiliates to launch a completion initiative that will fund modest grants to help students with unmet need complete their degrees
- The Iowa State University Foundation established 137 new scholarships in FY2017 to support students. In all, 6,059 students received more than \$14.7 million in private scholarship funding

### Goal 2: Enhance the University's Research Profile

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

- Grand challenge research themes, with an overarching theme of *Life on Earth*, were developed to represent an integrated view of Iowa State's strengths and opportunities, create a framework for prioritizing research investments, and establish a foundation for articulating the university's research portfolio and its impact
- Nanovaccine Institute researchers are developing biodegradable nanovaccines targeting both human and animal diseases, which aim to simplify manufacturing processes, eliminate the need for refrigeration, and reduce delivery costs around the world
- Researchers are advancing agriculture as they develop digital technologies such as sensors and software to help farmers make real-time management decisions that balance crop production and sustainability
- Iowa State leads the distributed refinery program of the nation's 10th Manufacturing USA Institute, RAPID, dedicated to improving the productivity and efficiency of biobased chemicals and biofuels manufacturing
- This year's Presidential Initiative winner brings together human science researchers and extension professionals to build a translational research network focused on bringing evidence-based wellness and prevention programs to communities in Iowa
- An arts and humanities visioning team identified strategies for reframing the Center for Excellence in the Arts and Humanities to engage artists and humanists, as well as integrate humanities, design, arts, and STEM scholars through team-based research initiatives



Iowa State's 2016 bachelor's graduates enjoyed an overall 95% placement rate within six months of graduation; of those who were employed, 64% of Iowa students, 28% of nonresidents, and 39% of international students remained in Iowa to begin their careers. Master's and Ph.D. graduates enjoyed 97% and 98% placement rates, respectively. Of Master's graduates who were employed after graduation, 46% are employed in Iowa, including 68% of Human Sciences graduates and 64% of Business graduates.



The U.S. Department of Energy Ames Laboratory, operated by Iowa State under a contract with the federal government, celebrates its 70th anniversary in 2017. The Lab, which was spawned from the Manhattan Project in the 1940s, conducts groundbreaking research in materials science and engineering, critical materials, chemical and biological sciences, materials preparation, decision science, and the forensic sciences. **Vitalij Pecharsky** (shown above), an ISU Distinguished Professor of Engineering and senior scientist in the Ames Laboratory, is working to develop new refrigeration materials and technologies.

## Goal 3: Improve the Quality of Life for All Iowans

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

- CIRAS teamed with Iowa Economic Development Authority and the Association of Business and Industry to create the “Year of Manufacturing” in Iowa, an initiative to increase the state’s manufacturing output
- Researchers submitted 130 disclosures of intellectual property, 29 patents were issued, and 50 new patent applications were filed last year. ISU technologies resulted in 85 license/option agreements worldwide (39 in Iowa) and provided the basis for 10 new startup companies (9 in Iowa); 199 license/option agreements are currently yielding income
- Students gained valuable professional experience while making contributions to Iowa companies. Career services offices documented 2,500 ISU interns who were employed by more than 1,000 different Iowa employers in 268 communities in 90 counties
- ISU Extension and Outreach teaches agricultural clients how to maximize returns to crop fertilizer expenses. In a follow-up survey in northeast Iowa, 137 participants managing 55,900 acres indicated that on average, this education reduced their input costs by \$17 per acre, for an estimated total value of \$950,300
- Due to housing crises, inflation, and recessionary layoffs, a growing number of people are facing financial stress, credit issues, and loss of income. ISU Extension and Outreach assisted in creating and/or retaining 352 jobs by helping start 117 new businesses and expanding or improving 87 existing businesses. Additionally, ISU Extension and Outreach trained 52 Volunteer Income Tax Assistance (VITA) volunteers who became IRS certified examiners. The VITA volunteers prepared 1,555 tax returns for Iowa citizens with low-incomes resulting in \$841,392 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.

- Prepared for the fall-2017 Campus Climate Survey by establishing a campus-wide work team, contracting with a consulting firm, drafting of the survey items, and establishing awareness messaging
- Completed initial draft of new Visitor’s Code of Conduct to ensure that everyone visiting the ISU campus is made aware of our Principles of Community and expectations for conduct
- Strengthened resources to the Division of Diversity and Inclusion
- Revised wording in employment materials to underscore our commitment to recruiting prospective employees who value diverse perspectives and experiences
- Partnered with the Ames City Manager to establish an advisory board to address the needs of an increasingly diverse community
- Improved campus security climate by targeting staffing towards high-risk events and times, increasing foot/bike patrols, adding capacity to the SafeRide program, partnering with the City of Ames to provide additional coverage, and assessing incident data to better target resources
- Addressing areas of campus with poor lighting and mobility challenges, increased outdoor surveillance, and partnered with the City of Ames to improve non-vehicle mobility on community roadways

## Helping Iowa Grow

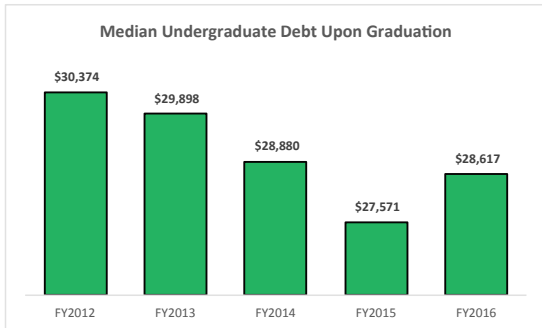
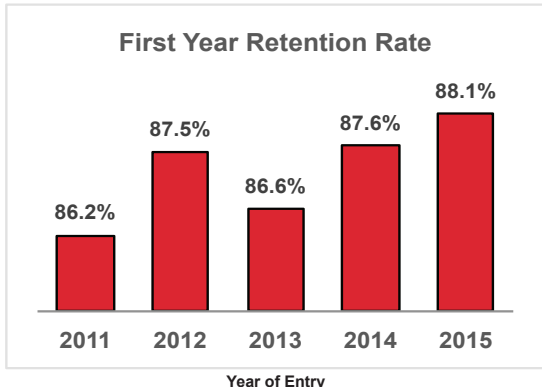
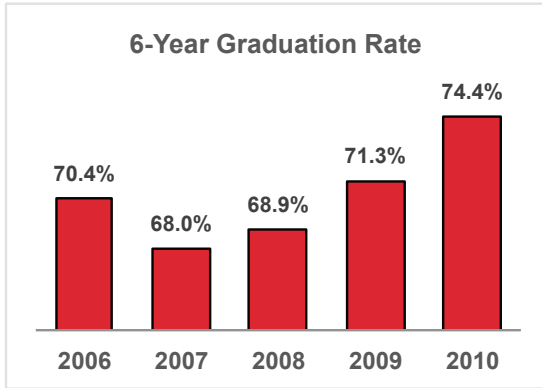


The U.S. faces a critical shortage of young people with the skills and training to meet 21st century workforce needs. One way ISU Extension and Outreach addresses this workforce and career readiness issue is by building STEM and literacy skills in K-3 youth. “STEM-Lit to Go!” curriculum will be used in all 99 Iowa counties in the fall of 2017 to assist K – 3 students in exploring key STEM concepts, including the engineering design process, conducting investigations, graphing, coding, and physics. In the photo above, Sara Nelson, an ISU post-doctoral research associate with dual appointments in the School of Education and Extension and Outreach 4-H Clover Kids, works with a student to construct a model roller coaster using a pool noodle.



Scholarly and creative works in the University Library’s Digital Repository have been downloaded more than 11.2 million times since 2012. Among universities in the Digital Commons Network, Iowa State’s open-access repository is the largest contributor in the education, engineering, life sciences, and medicine and health categories; the second largest contributor in the physical sciences and mathematics; third in arts and humanities, and business; and fifth in social and behavioral sciences.

## Goal 1: Ensure Access to the ISU Experience

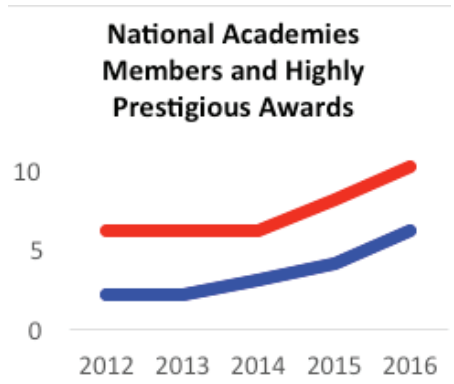
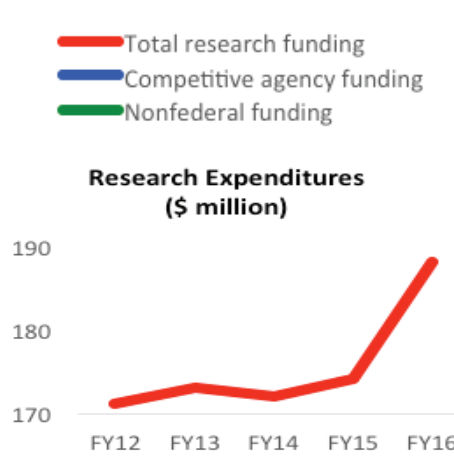
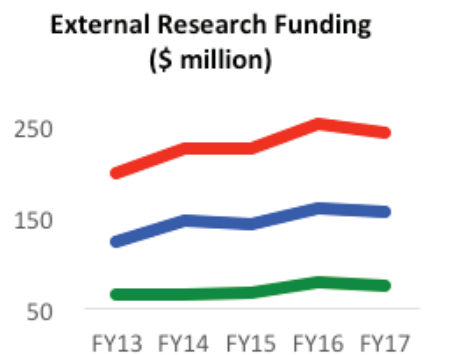


Figures Shown for Students Having Debt

### FY2017 Initiatives

- Improved student success in gateway math, physics, and computer science classes.
- Deployed predictive advising analytics campus-wide.
- Participated in a federal grant with 10 other institutions to improve advising for low-income and/or first generation students.
- Expanded veterans, student counseling, student wellness, and learning community services.
- Deployed a new learning management system that improves efficiency and collaboration.
- Pilot-tested CashCourse and a peer advisory system to improve students' financial literacy.
- Developing student support plan to close the achievement gap for populations with six-year graduation rates that have been historically lower than overall rates.

## Goal 2: Enhance the University's Research Profile

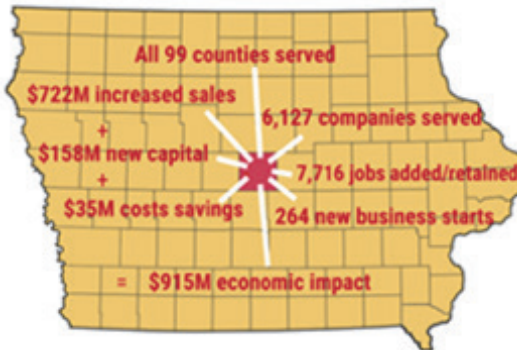


### FY2017 Initiatives

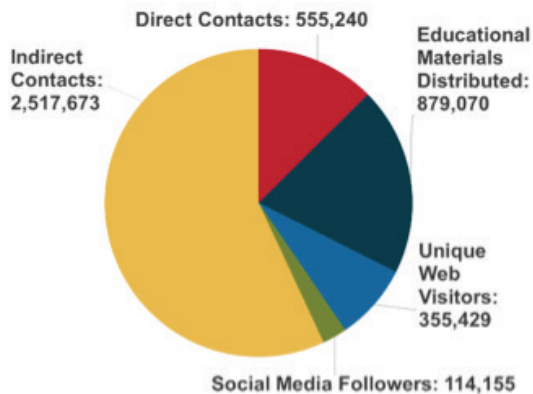
- External research funding has increased by 26% over the last five years, from \$199M to 244M.
- Increases in FY2017 research funding include the U.S. Department of Energy, nonprofit organizations, and philanthropic donors.
- National Endowment for Humanities and National Endowment for the Arts fellowships and funding were at their highest level in five years.
- \$23M for research in data-driven sciences was secured by Presidential Initiative for Interdisciplinary Research and Plant Science Institute scholars.
- Grants Hub research proposals were up 32% over the previous year, with \$56.6M in new awards since its inception in 2015.
- Nearly \$4M in funding for new research instrumentation was received in FY2017 from the Keck Foundation, the Roy J. Carver Trust, and the National Science Foundation.

## Goal 3: Improve the Quality of Life for All Iowans

### CIRAS AND SBDC FY17 IMPACT



### EXTENSION AND OUTREACH: 4,421,567 IOWA CONTACTS\*



\* FY16: all contacts totaled 9,407,229.

### ISU Research Park Productivity

- 13 new companies
- 27 companies in ISU Startup Factory
  - > \$5 million capital raised
  - 40 new jobs created
- 12 student-run CYStarters companies

### Research Park Totals

- > 70 tenant companies
- > 1,700 employees
- > 250 student interns

### FY2017 Initiatives

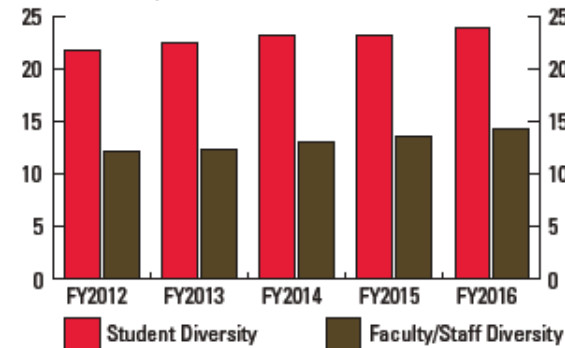
- The Center for Industrial Research and Service and Small Business Development Center served 13,700 different Iowa companies in the last five years, helping create or retain 35,550 jobs, and generating more than \$2.8 billion of total economic impact.
- Two new entrepreneur programs were launched at the ISU Research Park: The ISU Startup Factory, a 52-week intensive program targeted at technology companies, and CyStarters, the Pappajohn Center's 10-week summer program for student businesses.
- ISU Extension and Outreach is a 99-county campus, connecting the needs of Iowans across their lifespan with university research and resources. More than one million Iowans benefit from educational programs for economic growth, thriving communities, and sustainable environments.

## Goal 4: Enhance and Cultivate the ISU Experience

### Campus Climate Assessment Progress

- Establish Goal 4 Implementation Team
- Issue Survey Tool RFP and conduct review
- Award Survey Tool contract
- Conduct stakeholder meetings
- Develop Tool, Marketing Plan and IRB
- Administer survey and conduct analysis
- Draft report
- Conduct focus groups
- Develop strategic action-oriented initiatives
- Reassess and conduct continual improvement

### Diversity



### FY2017 Initiatives

- Comprehensive climate survey to guide diversity and inclusion efforts across the institution.
- Campus-wide effort to connect and build broader and more meaningful relationships.
- Multi-layered analysis/effort to strengthen recruitment and retention of diverse students, faculty, and staff.
- Visitors Code of Conduct to ensure Iowa State's Principles of Community are understood and followed by everyone on campus.

### Campus Crime Incidence

