### IOWA STATE UNIVERSITY

Center for Industrial Research and Service



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## The Iowa Workforce Skirmishes By Ron Cox, PhD, CIRAS director

A historical look at lowa's labor force leads to a new approach for companies to address systemic workforce shortages.

Merriam-Webster dictionary defines skirmish as "a minor fight in war usually incidental to larger movements." This seems a fitting description of the labor force issues that have been brewing in lowa—and what the data suggests we will be enduring for years to come. That is, we aren't in a full-out war for employees quite yet—but we are getting close.

How has this shortage of workers gotten so bad, so fast? Is this all due to COVID-19? The following analysis will show that COVID-19 accelerated the unavoidable, and that we need to look at the workforce from a different

perspective if Iowa companies want to continue growing here.

How we arrived at our current state is a multifaceted phenomenon. Nationally we are seeing workforce shortages, resulting in part from increased demand and supply chain issues, but also exacerbated by other factors like a declining rate of population growth and a downward trend in the labor force participation rate. In lowa, low population increases, unevenly distributed population growth, a high and plateauing labor force participation rate, and other more complex factors all

contribute to our workforce issues.

#### **Demand**

The 2020 recession was the shortest, and maybe most unusual, in U.S. history. It led to a rapid increase in demand for goods and services across the country and the opportunity for many lowa companies to grow. Unfortunately, a corresponding need to increase the workforce came just as many workers were leaving it for a variety of reasons related to COVID-19. This led to a large demand for labor, in lowa and across the country, which may or may not be

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short lived. When you add lowa-specific challenges that have been building for decades, the prospect of an all-out workforce war may be our future.

#### **Population**

In 1950, lowa, Minnesota, and Florida had nearly identical populations. Fast forward to today and we see that Minnesota has almost twice lowa's population and Florida is seven times our size (see Figure 1).

Florida's substantial growth has been driven by a variety of economic transformations, together with the growth of support industries.

Differences between Minnesota and lowa are more subtle. Many attribute Minnesota's steady population increase to growth in the Twin Cities area. In fact, over the past 100 years, Minneapolis-St. Paul and Des Moines have had similar rates of growth. When looking outside the Minneapolis-St. Paul and Des Moines metro areas, Minnesota's noncapital growth rate exceeds the growth of lowa outside of the Des Moines metro area. Several different factors are responsible for this slow but sustained growth (e.g., international migration).

Over the past 50 years, lowa has been ranked the 5th-slowest-growing state in the United States. Every state around us has grown faster than we have. Since our workforce comes from our

population, this slow growth adversely affects the ability of companies to find new employees at a time when the demand for their products and services is increasing.

#### **Lumpy Growth**

Though our overall state population growth rate is slow, not every region of Iowa has fared the same. The Des Moines-Ames area, the Cedar Rapids-Iowa City area, and Davenport have grown at about the U.S. average rate of growth over the past 70 years. The nonmetro counties, in aggregate, have seen a reduction in population in this same period. However, all areas of the state are experiencing workforce challenges regardless of their population trends.

#### **Labor Force Participation**

Many lowa companies have expanded over the past decades despite our slow population growth, in part due to the percentage of lowans that work. lowa is consistently one of the top states in labor force participation rate (see Figure 2).

There are a variety of subtleties hidden in this graph. For instance, the farm crisis of the early 1980s may have helped other industries grow as farmers and their spouses entered the workforce to supplement lost farm income. In the latter half of the 20th century, women entered the labor force in large numbers

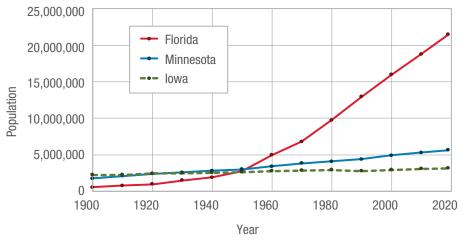


Figure 1. A comparison of state populations.

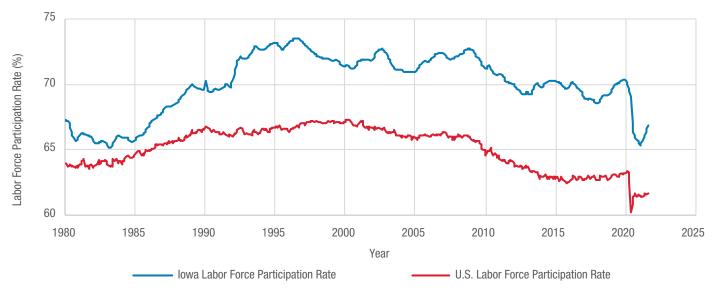


Figure 2. The lowa labor force participation rate exceeds the U.S. average.

in lowa and across the nation, making a significant addition to the job market. The loss of manufacturing jobs in the 1990s also freed up labor, directly and indirectly aiding the growth of lowa's finance and health care sectors.

Unfortunately, lowa may be close to reaching the upper limit of its labor force participation rate. After a sharp increase in lowa in the 1980s (versus the United States), we have now plateaued. Prior to COVID, 70% of lowa's counties had fewer than 300 individuals looking for work, and we are now getting back near those levels. Unemployment does remain slightly higher than pre-COVID levels; but, for each one additional person on unemployment, roughly three additional lowans have left the workforce.

### Is It Time to Change How We Look at Workforce?

CIRAS surveyed companies in the early 1970s, and the number one issue negatively impacting their growth was the lack of labor. Fifty years later, workforce remains the number one problem for many lowa companies.

Given that there is not another silver bullet waiting in the wings to solve our workforce needs, what options do we have?

### A New Approach to Solving Our Workforce Challenges

CIRAS has studied lowa's workforce dilemma and has developed a new approach to addressing some of our issues. The work, funded in part by the Economic Development Administration, looks at solving our complex workforce problem using an approach similar to how a complex fighter aircraft is designed. We linearize the problem by breaking diverse individuals into 28 different types of potential workforce solutions, which then can be separately analyzed. These different workforce elements are grouped into five categories:

- Individuals who are not employed (e.g., females with young children who are not currently working)
- Employed individuals (e.g., people working in other states that might be convinced to work in lowa)
- Process improvements (reducing the need to hire more workers by getting more output from existing workers)
- Automation (reducing the need to hire more workers by providing automation support to existing workers)
- K-16 students (e.g., apprenticeships)

To understand the number of prospective workers available in each of these 28

different groups, we looked at how each lowa county compares with 1,100 Midwest county peers. We compared lowa only with regional peers to ensure we did not inflate the potential to attract different types of individuals into the workforce. For instance, migration rates to southern states are high, but it may not be reasonable to expect that lowa can achieve migration rates equivalent to Florida's.

Figure 3 shows a sample comparison of labor force participation rates for 65- to 74-year-olds. There is a significant variation in success from one Midwest county to the next. If a county is able to move up in the rankings and attract more of a particular type of worker into the labor force, we can turn that potential into an estimate of the actual number of local workers available. In this case, we can estimate the number of 65- to 74-year-olds that might be pulled into the labor force if we performed as well as our Midwest peers.

The 28 different labor force potentials are combined into a *Workforce Vector*<sup>SM</sup>, basically the direction a company might go to find the most workers.

Our experience suggests there are several steps a company or community must go through to become more

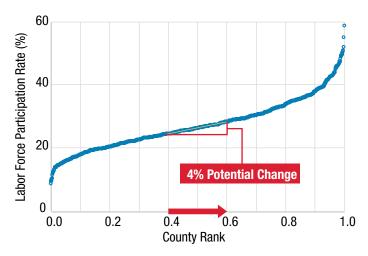


Figure 3. Differences in the participation rate of 65- to 74-year-olds.

successful at building their workforce. First, a company must evaluate what has and has not worked in the past.

Next, after evaluating the local workforce vector, the company must decide who to pursue. The greatest success will likely occur if limited resources are targeted to a few groups that fit best within the existing company framework.

After a company or community chooses the direction they want to go (that is, the workforce elements they want to target), the root causes preventing those individuals from entering the workforce are explored. For example, the lack of affordable daycare or the lack of available part-time jobs may be limiting "females with children less than six years old" (one of the 28 labor force potentials) from entering the workforce.

The last step is the most resource and time intensive—changing how you operate your business to address the root causes that are keeping your labor targets from entering the workforce or from coming to work at your company. These root causes need to be addressed and sustained before the marketing message is changed to capture the attention of the targeted groups. Since many of the root issues affecting employment are similar across different types of groups of individuals, changing behaviors and processes in one area of the company can improve the potential to attract a number of different groups of individuals.

#### **Call to Action**

CIRAS staff are working with companies and communities to help them develop workforce strategies that target specific elements of the *Workforce Vector*<sup>SM</sup>. Those that have been willing to change how they think about their current and future workforce have seen success in attracting and retaining employees, which has supported sales growth.

For more information, contact Brenda Martin at bkmartin@iastate.edu or 515-570-5282.

### **CIRAS to Lead Multistate Diversity Effort**

A new program to attract under-represented minorities to technical and managerial roles in manufacturing is the focus of a \$919,000 award received by CIRAS. CIRAS, in partnership with Manufacturing Extension Partnership (MEP) centers in three other states, will create a structure for an internship program to build a pipeline of future employees for MEP centers and small- to medium-sized manufacturers (SMMs).

"The need to recruit top talent has become critical in many business sectors, including manufacturing," said Mike O'Donnell, CIRAS associate director. "Large companies have the resources to improve diversity. But smaller companies are struggling, especially in technical and managerial talent, because they don't know who to partner with or how to change their practices to attract and retain under-represented minorities."

The program, which involves partner centers in Illinois, Kansas, and Ohio, gets underway this fall. Each center will recruit two candidates for internships next summer. O'Donnell said the ideal candidate will be an undergraduate student in engineering, business, agriculture, or a science field with an interest in learning more about manufacturing and careers in manufacturing. The centers will develop and leverage partnerships with professional societies for under-

represented students as one means of attracting prospective interns. Participating students will work alongside manufacturing experts to assist SMMs with implementing change in their business.

"The need to recruit top talent has become critical in many business sectors, including manufacturing,"

— Mike O'Donnell

"This program represents a chance

for students to work with manufacturers and see what it takes to be successful," O'Donnell said. "It's also an opportunity to experience a manufacturing career without making a long-term commitment."

The technical experience of the internship will be supplemented with professional-development activities, community-building events, and networking opportunities to ensure a well-rounded experience that will help interns build successful careers in manufacturing.

Future plans include expanding the program to 10 centers. CIRAS is the lead partner in the award, which was received through a competitive awards program of the National Institute of Standards and Technology's Manufacturing Extension Partnership (NIST–MEP).

For more information, contact Mike O'Donnell at modonnll@iastate.edu or 515-509-4379.



American Packaging Corporation has been able to streamline its reporting process by automating calculations and production charts.

### **Automated Data Makes for Rapid Reports and More Problem Solving**

A Story City food packaging company expects to save more than three-and-a-half weeks of labor over the next year after CIRAS helped the business automate weekly and monthly reports for managers.

Dennis Sankot, production manager for American Packaging Corporation, used

to spend about 16 hours a month transferring data from the company's ERP (enterprise resource planning) computer system into weekly and monthly reports. Sankot now spends about 4 hours a month on the reports after CIRAS project

manager Kirk Haaland showed him how to automate various calculations and the production of charts.

Production data now goes directly from the ERP into a Microsoft Excel spreadsheet. That enables automated calculations and creates charts on other sheets within the same workbook. Charts then are linked automatically to a designated Microsoft PowerPoint file.

Sankot said the data, which is used by American Packaging managers to monitor the productivity of various people and machines, now flows much more

quickly into reports that managers can use in their decision-making operations.

"[This] frees up time to spend a greater portion of our time on problem identification, problem solving, and problem resolution."

— Dennis Sankot

CIRAS helped the company create "a more efficient process," he added.

"Hopefully, a quicker path to get it there frees up time to spend a greater portion of our time on problem

identification, problem solving, and problem resolution," Sankot said. "The more time a manager can spend

on the shop floor with the crews and working to solve problems, that's really where the value is. But you have to have the data to know where the true opportunity is."

Haaland described the project as a simple change to help capitalize on the true value of technology. American Packaging was already making datadriven decisions, but other lowa businesses may feel stymied by not

For more information, contact Kirk Haaland at khaaland@iastate.edu or 515-520-7623.

knowing how to use the data they already have.

"This is just the first step for a lot of smaller manufacturing companies in Iowa," Haaland said. "If they can learn the value of their data, then hopefully they'll be compelled to do more with it.



### AT A GLANCE

**American Packaging** 

**FOUNDED**: 1902

EMPLOYEES: 345 (lowa), 929 (U.S.)

**OVERVIEW**: In Iowa, American Packaging makes flexible food packaging that customers use to create sealed bags with custom logos.

**IMPACT**: Roughly 144 hours annually in saved labor that can be used on highervalue tasks.

LEARN MORE: www.ampkcorp.com



### **Deco Products Uses CIRAS Team to Tackle Internet Marketing**

Project manager Paul

Gormley launched the

first CIRAS Internet

A Decorah manufacturer of precision zinc die castings expects to see more than a \$1 million increase in sales thanks to work by CIRAS to help the company improve its internet marketing.

Dave Magner, director of sales and marketing for Deco Products Company in Decorah, said his company first turned to CIRAS about five years ago for advice on internet marketing in advance of a long-needed update to the company's website. Several small projects ultimately led to long-term relationships with some of the outside experts CIRAS uses to teach its internet-related boot camps.

"I think those relationships help facilitate a holistic approach—not just having a Google AdWords campaign, but having something that is synergistic with our SEO and all desired goals," Magner said. "I think what is nice about this approach is that you have these different experts, and they all work together well."

#### AT A GLANCE

**Deco Products Company** 

FOUNDED: 1960

**OVERVIEW**: The largest standalone dedicated zinc die casting manufacturer in North America.

EMPLOYEES: 220

IMPACT: More than \$1,000,000 in new sales.

FOR MORE: https://decoprod.com/decoa-leading-zinc-die-cast-company/

Marketing Strategy Boot Camp in 2009. It featured a mixture of classroomstyle presentations and one-on-one coaching.

Sessions were taught by Gormley and a mix of subject-matter experts who were brought in to handle specific topics, such as search engine optimization (SEO).

Previously, CIRAS only focused on specific elements of a company's business plan. Company requests for more diversified assistance has led to a new engagement model. Gormley compared the new model, which allows for a longer-term advisor relationship, to a company learning how to ride a bicycle.

"We help you build the bike," Gormley said. "We put the training wheels on, then we walk behind you and hold the seat until you are ready for us to let go.

"The ultimate goal is for companies to operate their digital marketing themselves," Gormley said. "Some

"I think what is nice about this approach is that you have these different experts, and they all work together well."

— Dave Magner

just take longer to get comfortable with the process.

"What we're trying to create are great consumers of digital marketing services," Gormley said. "We're

trying to get them to the point where they no longer need us."

With Deco, CIRAS first helped the company assess its needs, then assembled a team to help create a digital-marketing strategy, redevelop and optimize their website for search engines, and execute a pay-per-click strategy. Magner said that the work quickly moved Deco to the first page of search results "for most of the keywords we care about.

"Because of the CIRAS team's work, the amount of opportunities Deco obtains through its website has doubled each of the last three years," Magner said.

"We've changed the whole structure of our budget around," he said, "and are confident that we're much more effective now."

For more information, contact Paul Gormley at gormley@iastate.edu or 319-721-5357.

### **CIRAS Helps Appraiser Get First-ever Government Contract**

A Windsor Heights real estate appraisal company was awarded its first-ever government contract last February after reaching out to CIRAS for assistance with the process.

Neilly & Company Real Estate Appraisals received \$3,900 from the U.S. Department of Agriculture to determine the value of a facility

(RFQ) with the proper documentation.

Mickey Neilly located in Jefferson. Justin Niceswanger, a government contracting specialist with the CIRAS Procurement Technical Assistance Center

"This can be a challenging process because paperwork needs to be submitted in the proper format," Niceswanger said. "If you miss one small thing, it can be the reason you're eliminated from consideration."

(PTAC), helped owner Mickey Neilly respond to a request for a quote

Neilly contacted Niceswanger the day the proposal was due.

"Her paperwork was in good shape. It just needed some rewording here and there," Niceswanger said. "I do recommend that people reach out sooner than later, however. It can be time consuming to respond to a government solicitation, especially for the first time. Our program has experience assisting businesses in understanding what needs to be included in their offers to the government and in making the layout easier for government evaluators to read."

State and federal RFQs are more difficult to complete, even for clients who are familiar with bidding on municipal and county contracts. Registering with the government can streamline the process for federal-level RFQs by ensuring all provisions have been met. This, too, is something CIRAS can help clients do.

"I called CIRAS because I heard they could help with the process of getting government contracts," said owner Mickey Neilly. "I met with Justin several times prior to this award to explore opportunities with government and state agencies.

When this opportunity came up, he helped me with the bid process for this award. Justin also assisted with the initial contact with the City of Des Moines Real Estate Division. I successfully passed the process to be added to their approved appraiser list. Because of CIRAS, I will absolutely bid on other opportunities."

For more information, contact Justin Niceswanger at jnice@iastate.edu or 515-509-9565.

#### AT A GLANCE

**Neilly & Company Real** Estate Appraisals, LLC

FOUNDED: 2013 **EMPLOYEES: 2** 

**OVERVIEW**: Commercial appraisals (industrial, office, retail, special use, and multifamily properties).

**IMPACT**: The company received its first government contract and gained the tools to compete for future work.

LEARN MORE: Neilly & Company, 515-279-0864

### **Grant Paves Way for Businesses to Compete** for DOT Work

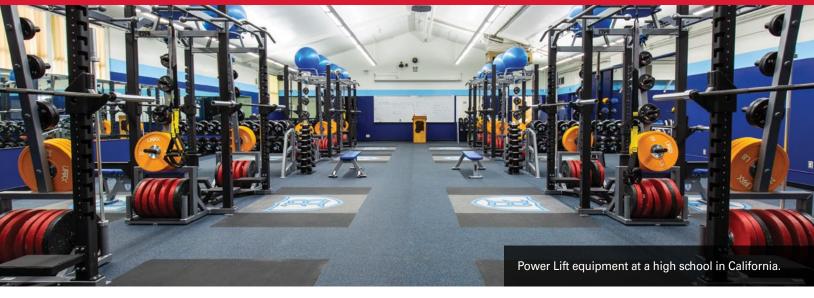
CIRAS has received an Iowa Department of Transportation (DOT) grant to help prepare disadvantaged business enterprises (DBEs) to compete for highway construction projects and other DOT-funded work.

This \$133,000 DBE Support Services grant will fund CIRAS staff to offer one-on-one assistance to DBEs, which are generally defined as small businesses that are 51 percent or more owned by economically and socially disadvantaged individuals. Mary Zimmerman, manager of the DBE project, will coordinate services to DBEs by leveraging existing programs such as the CIRAS Procurement Technical Assistance Center (PTAC) and by coordinating conferences, training, and networking events aimed at providing the technical skills DBEs need to better compete for work.

The new grant dovetails with government contracting services available through CIRAS. The DBE Support Services program can assist DBEs with all aspects of their business such as marketing, website development, financial accounting processes, and estimating and bidding, to name a few. CIRAS can supplement those efforts by assisting the DBEs with understanding the entire government procurement process and helping them pursue other government work aside from the Iowa DOT.

"A company that's new to government contracting needs to build their past performance so they improve their chances of winning a contract," said Jodi Essex, PTAC government contracting director. "Performing as a subcontractor can help with that. CIRAS has relationships with many prime government contractors, and the DBE program is working on building relationships with prime Iowa DOT construction contractors so that we can host networking events and help those small companies or DBEs connect with these businesses in hopes of getting some subcontracted government work. And by working together, we can ensure there's no costly duplication of effort,"

For more information, contact Mary Zimmerman at maryz@iastate.edu or 515-450-1278.



### **CIRAS Helps Company Rebound after Fire**

A central lowa manufacturer of sports performance equipment credits CIRAS with getting the company back on track after a fire left them dealing with extensive smoke and water damage.

"Without them, we would've been set back a year or more, and if we'd tried to move forward on our own through trial and error, it probably would've been longer than that," said Chris Conner, general manager of Power Lift in Jefferson.

The assistance CIRAS provided helped Power Lift get their product out the door a lot sooner, resulting in more than \$1 million in sales retained.

CIRAS account manager Derek Thompson contacted Conner soon after hearing about

the August 2018 fire. Thompson said he and other CIRAS team members regularly monitor the news, reaching out whenever a natural disaster or catastrophe impacts a client or prospective client.

"We just want them to know that we're here to help," Thompson said. "For Power Lift, that meant offering our



resources. Whenever I talk to Derek, he tells me, 'I have a resource for this. I have a resource for that.' It's reassuring to have access to so much expertise."

— Chris Conner

services for a new plant layout to replace one we'd just finished for them."

The first layout, which had been completed but not implemented, used the plant's existing footprint. Modifications were needed when fire, smoke, and water damage changed that footprint. CIRAS provided more than 40 hours of time to help with the new design plus assistance securing other resources to recover from the fire, which saved the company \$50,000.

Conner said the new layout is working well and all but one department has found a home within it. And the next time he needs help, Conner added, he won't hesitate to contact Thompson.

"Of course, I hope we never go through anything like another fire, but I know there are many other ways CIRAS can help businesses like ours," he

For more, contact CIRAS account manager Derek Thompson at thompson@iastate.edu or 515-419-2163.

added. "They have so many resources. Whenever I talk to Derek, he tells me, 'I have a resource for this. I have a resource for that.' It's reassuring to have access to so much expertise."

The myriad resources offered by CIRAS are available to all lowa manufacturers to help them remain resilient in an everchanging business climate.

"All businesses must be ready for the next disaster," said Mike O'Donnell, CIRAS associate director. "Whether it's planning for the future, responding to today's emergency, or putting your business back together after a disaster, we're here to help with things like developing continuity plans, finding alternate suppliers, or even finding a temporary location for your work."

#### AT A GLANCE

Power Lift

**FOUNDED: 1999** 

**NUMBER OF EMPLOYEES: 60** 

**OVERVIEW:** Manufacturer and distributor of quality strength-training, conditioning, and sports performance equipment.

IMPACT: The company was able to quickly resume operation after a fire, resulting in more than \$1 million in sales retained.

LEARN MORE: www.powerliftusa.com

### STAFF NEWS



**Kelly Freel** has joined CIRAS as a counselor for the Procurement Technical Assistance Center (PTAC) at CIRAS. Kelly has a bachelor's degree in business management from Iowa State University. She joins CIRAS after nearly two decades of work in public procurement and contracting. As a Senior Contract Manager at ISU, she was responsible for soliciting, awarding, and administering contract requirements for Iowa State University and the Regent Universities.

In her new role, Kelly will primarily serve Polk County as a government contracting specialist.



**Jennifer Garcia-Velazquez** has joined CIRAS as an events coordinator. Jennifer, who received her bachelor's degree in nutritional science from Iowa State University, previously worked for Science Bound, Iowa State University's precollege through college program to empower Iowa students of color to pursue degrees and careers in ASTEM (agriculture, science, technology, engineering, and mathematics) fields and education.

In her new role, Jennifer will be responsible for managing the logistics of a variety of educational events across Iowa. She also will serve as the office manager in Ames.



Rachel Hahn has joined CIRAS as the account manager for the food industry.

Rachel has a bachelor's degree in chemical engineering from the University of Iowa. She joins CIRAS after spending the past decade in food and food-ingredient manufacturing. She has extensive experience in plant maintenance and capital equipment, including leading cross-functional teams on major business projects.

In her new role, Rachel will focus on helping food, feed, and bioscience companies thrive by connecting them with resources at CIRAS, Iowa State, and throughout Iowa. She is based out of Cedar Rapids.



**Eric Higgins** has joined CIRAS as a project manager specializing in automation.

Eric is a graduate of Southeastern Community College and Western Illinois University with degrees in automated manufacturing technology and industrial technologies. A change agent in manufacturing for 30 years, he has extensive experience in process improvements, equipment upgrades, automation of manual processes, and Lean management and facilitation.

Prior to joining CIRAS, Eric worked for several lowa businesses such as Collins Aerospace, Maytag, Schneider Electric, and Toro.



After eight years, **Carey Novak** has retired from CIRAS as a project manager, where his work focused on serving Iowa State University's College of Engineering Capstone program. Carey came to Iowa State from Bradley University, and he had previous experience at Iowa State supporting companies with technology transfer. Throughout his career, Carey's work has been beneficial not only for CIRAS and the College of Engineering, but also for the companies involved and the students who have been able to gain firsthand experience through the program.

### **Spring 2022 Career Fairs**

Engineering Career Fair Tuesday, February 8, 2022 12:00–5:00 p.m.

Scheman Building and Hilton Coliseum

**Business, Industry, and Technology Career Fair** Wednesday, February 9, 2022

12:00-5:00 p.m.

Hilton Coliseum

### **UPCOMING EVENTS**

#### Iowa's TSB Program & Introduction to the Small Business Development Center (SBDC)

November 17, 2021

Webinar providing an overview of the TSB program and how to do business with the SBDC.

#### ■ Using SAM.gov November 22, 2021

Webinar providing information on how to use the SAM.gov website to find potential bidding opportunities, generate email alerts, and run reports.

#### ■ Information Security Workshop: Secure your Business December 3, 2021

In-person event in Ames, Iowa, with CIRAS and three Iowa cybersecurity firms for a wide-ranging discussion of the benefits and problems associated with the business in the information age.

# ISO 9001:2015 Internal Auditor Training

December 6–7, 2021

In-person event in Ames, Iowa, to train participants on how to effectively conduct internal quality system audits.

#### Structured Problem Solving Virtual Workshop

**December 7, 2021** 

Virtual training to learn how to go beyond the basics of Plan-Do-Check-Adjust (PDCA) to explore key skills needed for lasting success in problem solving.

For details on these and other events, visit www.ciras.iastate.edu/events-workshops.

### **Capstone Design Program**

Connect your company with the future workforce through the College of Engineering's Capstone Design program.

- Receive additional technical resources to solve problems and explore ideas.
- Access students, who can also be assessed as future employees.

For more, contact Mayra Ramirez at ramirezm@iastate.edu or 515-520-3101.



### X-ray Imaging Positions PowerFilm to Quickly Fix Potential Problem

An Ames manufacturer of solar panels avoided scrapping \$30,000 of incorrect work after lowa State University experts helped the company find a way to inspect 750 problem panels for a potential defect.

Dan Stieler, president of PowerFilm, said he turned to CIRAS and Iowa State's Center for Nondestructive Evaluation (CNDE) after discovering that one of six workers had been assembling the panels incorrectly—a problem that wasn't caught by the company's normal inspection process.

#### AT A GLANCE

PowerFilm, Inc.

**FOUNDED**: 1988

**OVERVIEW:** Specialization in the design, engineering, manufacturing, and assembly of custom solar solutions.

**EMPLOYEES: 54** 

IMPACT: Saved \$30K in scrap and received an additional \$300K in orders from this customer.

**FOR MORE:** 

www.powerfilmsolar.com

Proper assembly requires a solder bridge in a specific position to ensure the electrical connection is stable over the long term, Stieler said.

"The problem is that the testing that we do is an electrical test," he said. "The panels do still work without the solder connection, but the solder connection itself provides a higher level of reliability."

Dave Utrata, a project manager with CNDE, quickly helped PowerFilm devise a way to check the suspect panels to see if the solder connection was in the correct place.

"It was not easy to see what I saw visibly," Utrata said. "But once we used x-ray imaging, it was a no-brainer."

Stieler then found another lowa company with an x-ray system and made arrangements to inspect all 750 panels. About one-fourth were found defective and were fixed.

"We were super happy with the result," Stieler said. "It took a bit of time and effort, but in the grand scheme of things, it was worth it. It keeps our reputation intact and keeps our customers happy without having to remake \$30,000 worth of product and without delaying other customer orders to do it."

For more information, contact Dave Utrata at heydave@iastate.edu or 515-294-6095.

### **ILC Annual Renewals Now Open**

New ILC memberships and renewals are currently being accepted. Rates, which are available on the ILC website, will not change for 2022. In addition, the ILC is offering an "Annual Conference Special." Any organization that signs up as a new member will get 14 months of membership for the price of 12. A full list of member benefits can be viewed online at www.ciras.iastate.edu/iowalean/join-the-iowalean-consortium/.

The ILC is a member-driven organization that aims to help organizations improve their productivity while sharing lessons learned. The ILC brings people together to share ideas and best practices while providing opportunities to learn from each other as well as national subject matter experts.

"One thing members repeatedly tell us they value from their membership is the opportunity to tour other organizations, to get eyes on other operations, and to hear their struggles and know that they're not alone in their challenges," said ILC program director Tracy Schuster. "We expect to offer more company tours in 2022, both virtually and in person, to help meet this member request. We want to help organizations connect, share ideas, learn, improve, and, most importantly, thrive."

The Iowa Lean Consortium (ILC) recently celebrated 10 years of connecting organizations to each other and the resources they need to improve their productivity. The program's decade-long success can be attributed, in part, to its responsiveness and its ability to adapt to the way it meets needs of members and customers as it's done during the pandemic.

Schuster said, "We just kept asking ourselves, 'What does this make possible?' and kept reaching out to members to find out how we could best help." In response, the ILC offered virtual workshops, tours, and more Lean coffees online to help organizations connect with and learn from each other.

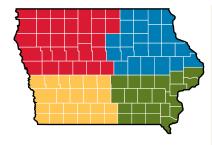
For more information, contact Tracy Schuster at tschust@iastate.edu or 515-715-0164.



Since 1963, we have delivered proven services to enhance the performance of industry. Our approach—Engage. Educate. Embed.—creates specific solutions that allow each business and its community to prosper and grow. Coupled with a satisfaction guarantee, our typical client has achieved a 200% ROI. Clients have reported an economic impact of more than \$3 billion over the past five years.

#### Locate your county to find your best introduction to CIRAS.

In addition to four regional account managers, CIRAS has four regional government contracting specialists,\* a statewide account manager for the food industry, and one for economic development. More staff information can be found at www.ciras.iastate.edu/staff.asp.



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### GROWING YOUR BUSINESS

# CIRAS Expands Supplier Scouting Capabilities through IEDA Partnership By Melissa Burant

The risks of having a global supply chain have never been more apparent. Severe weather events, the pandemic, and geopolitical issues have disrupted the global supply chain. The impacts of this are felt by every lowa manufacturer. Finding new suppliers, especially local ones, is hard. A Google search is a great starting point but typically does not get you the answer you need.

In response to this disruption, CIRAS and the lowa Economic Development Authority (IEDA) are partnering to help lowa manufacturers work through supplychain issues.

CIRAS is expanding its supplier scouting program to help companies identify suppliers, commodities, and manufacturing capabilities; they are also working to match companies to opportunities (both lowa to lowa and nationwide) using the MEP National Network™ (e.g., lowa company seeks companies outside lowa to manufacture its parts).

To further assist in supplier scouting and leveraging the capability for lowa companies to connect to others in

the state, IEDA has launched a statewide portal for lowa manufacturers. Manufacturers can now register their business with the portal and highlight the capabilities or supplies it offers—in some ways, a tool for marketing what lowa has to offer to other lowans and a consolidated landing space for lowa's manufacturers to find others within the state and be found themselves by new customers or partners in industry.

As subject matter experts in the manufacturing sector and partners with lowa's manufacturers for more than 50 years, CIRAS will work with IEDA to help shape the portal into a useful tool for lowa companies. Both agencies share a mission of promoting growth within the state, and they look forward to leveraging this tool to support continued growth for lowa's economy.

Keep your eyes open for the opportunity to register with the portal—it will be a chance to highlight the homegrown capabilities lowa has within its borders.

For more information, contact Melissa Burant at mmburant@iastate.edu or 563-726-9958.