EXTRAORDINARY. EVERYWHERE.

Inside

COOLING CHICAGOLAND THROUGH STRATEGIC TREE PLANTING

MEXICO INITIATIVE OFFERS ENHANCED STUDENT EXPERIENCES, STRONGER ECONOMIES

COLLABORATIONS WORK TO BRING RELIABLE INTERNET TO RURAL REGIONS
ON THE COVER:
The Discovery Partners Institute headquarters will anchor a vibrant new innovation district.

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CREDITS
Designers: Steven Martin & Jeannetth Camilo-Arias
Writer/editor: Laura Mabry
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For a digital version of this report, please visit go.uillinois.edu/2023AnnualReport.

A MESSAGE FROM THE PRESIDENT
Reach and impact that extend through Illinois. And beyond.

What does it take to be the state’s greatest asset?
Our role requires creating access so dedicated learners can afford a world-class education. It means elevating and accelerating innovation to drive economic development and preserve the environment. It means breaking down barriers and lifting up communities.

How does the University of Illinois System accomplish all that? By being more than you might imagine. We are, of course, our universities in Urbana-Champaign, Chicago and Springfield.

• A hospital and network of clinics improving health and well-being, often for society’s most vulnerable.
• The Illinois Innovation Network, driving progress across the state through a network of hubs linking public universities, business and government.
• And IIN’s Discovery Partners Institute, delivering workforce training and economic development initiatives that are transforming Chicago and the region.

We are the U of I System. And together we are everywhere in extraordinary ways I’m so pleased to share with you.

This collection of stories – with a new look and feel – spotlights tangible examples of how people statewide benefit from the broad reach of system programs and pursuits.
You’ll see real-world examples of futures shaped and lives enhanced:
• Our Hope Chicago partnership launching another unique pathway to degrees and vocational training.
• The system partnering with rural communities to bridge the digital divide to boost equity.
• Illinois Connection activating system alumni and advocates to effect legislative change.

These stories hum with a vibrancy that captures a glimpse of the many, many ways our mission enriches our state.

Now get ready to experience Illinois’ greatest asset in action. As you do, I hope you feel the energy and momentum we promise to continue building everywhere for our state and our world.

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Thomas R. Bearrows
Paul Ellinger
Lester H. McKeever Jr.
James H. Moore Jr.
Adrienne Nazon
Jeffrey Stein
Jay Walsh

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*Denotes a student trustee

Donald J. Edwards
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Timothy L. Killeen
President

Nicholas P. Jones
Executive vice president and vice president for Academic Affairs

Robert J. Jones
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NEW DEBT-FREE PATHWAY CREATES BRIGHT FUTURES

Harumi Barron may never forget the day she learned about Hope Chicago.

Walking in, she knew it wasn’t a typical Benito Juárez Community Academy assembly. Parents’ attendance was mandatory. Apprehension evaporated, though, when Barron and her classmates saw the banners and T-shirts.

“They announced Hope Chicago meant going to college for free. It blew my mind when I realized they didn’t have to carry the weight of paying for college.”

Barron joins the first cohort of 4,000 students at five Chicago high schools – many from historically underrepresented groups – plus one parent or guardian each. Student support covers tuition and fees, room and board, books and a laptop.

“While U of I System financial aid nearly doubled in the last decade, Hope Chicago serves another game changer for placing a college degree within reach. Learners have so many paths to careers they’re passionate about at our universities,” said Nick Jones, system executive vice president and vice president for academic affairs. “Hope Chicago’s life-changing opportunities for students and families also strengthen and add diversity to the Illinois workforce.”

NAVIGATING COLLEGE

Barron now attends her dream college, University of Illinois Chicago (UIC). She found the urban campus welcoming from the start.

“That doesn’t mean the elementary education major wasn’t nervous. “It’s hard when you’re in a new environment. You worry you’ll be judged,” said Barron, who calls her first math class her favorite. “It was in a big lecture hall with lots of students. “But you still can make friends with the person sitting next to you.”

Beyond academics, Hope Chicago helps students adjust to college life and explore careers.

“As you can imagine, first-year students might feel confused or overwhelmed. Hope Chicago’s Campus Contacts serve as liaisons and advocates for Hope Scholars,” said Kara Holloway, UIC director of scholarships.

FAMILY INFLUENCE

Barron grew up in Pilsen, a predominantly Latino community. Her father, Julio, has installed hardwood flooring since they moved to the United States from Mexico two decades ago. Her mother, Susana, stayed home to raise Barron and her siblings, Susana, 15, and Julio, 13.

“It’s a big responsibility being first generation and Latino,” Barron said. “When my dad calls me, he always says he’s my number one supporter. To represent my community this way is heartwarming.”

Her father plans to take advantage of the training Hope Chicago offers.

“My dad is looking at options for a trade program,” Barron said.

With family always top of mind, she takes being a role model seriously.

“My sister and brother tell me they want to be like me,” she said. “I tell them to be even better.”

The loving big sister even helped them learn English.

“I love engaging with children. It will be a gift to share knowledge when I’m a teacher,” she said. “I felt them to be even better.”

Lastly, Barron thanked her family.

“Without Hope Chicago, I would have to work 10 times harder to pursue what I’m passionate about,” she said. “It’s an amazing gift not to worry about financial barriers.”

WHAT’S NEXT

Discovery Partners Institute, part of the U of I System, is welcoming parents and guardians of Hope Scholars to grow their skills – and ultimately their income – through software development apprenticeships. Parents and students can support one another as they learn.

Harumi Barron, part of the first Hope Chicago cohort, plans to be a teacher when she graduates. Courtesy of Hope Chicago

Financial Aid Fast Facts: 20,000+ Pell Grant recipients annually across the system’s three universities.

36% of undergraduate in-state students have tuition and fees fully covered after aid and waivers.

2/3 of U of I System undergraduates pay less than full tuition and fees.
BRIDGING DIGITAL DIVIDE REAPS RURAL BENEFITS

Illinois Innovation Network unites partners for broadband mission

For his corn and soybean operation to thrive, Bryan Stevens knows what he needs to do: “Go hard. Go efficient.” That requires technology. But even basic tech can only do so much without high-speed internet.

Illinois farmers and communities need broadband internet to thrive. The Illinois Innovation Network (IIN) and its driven partners intend to make that happen by securing federal dollars earmarked for broadband for Illinois farmers and communities.

The Illinois counties Hancock, Edgar, Ogle, and McLean are part of a five-county Broadband Breakthrough cohort in the fall. Benton Institute for Broadband & Society will lead another cohort in the fall. Benton continues to collaborate with the system’s Illinois Broadband Lab and Office of the Vice President for Economic Development and Innovation, University of Illinois Extension, and the Illinois Department of Commerce & Economic Opportunity.

IIN-funded research will help them make their case. It provides attention-grabbing estimates of how much more farmers could produce with reliable internet. Public university partners said the total-economic gain of added production that would accompany increased broadband coverage at 3.6% for corn and 3.8% for soybeans. That amounts to more than $42 million in added revenue per year just in the five-county Broadband Breakthrough pilot, including Hancock County where Stevens farms.

“When farmers succeed, their communities prosper,” said Jay Walsh, who oversees the University of Illinois System-led IIN. “As a society, we are asking farmers to grow more food on fewer acres each year, and to be more efficient with herbicides and pesticides. They must have better connectivity to accomplish those goals. The system, the state, and our excellent partners are leading this essential push to address broadband disparities for our friends and neighbors.”

RURAL REALITY

Stevens sees the big picture. “Everything is data driven. My planter knows all the borders and waterways on the 1,700 acres we farm. I waste less because the planter won’t drop seeds where I don’t need them,” the Hancock County Farm Bureau president said. “Because of growth in many areas of the state, Illinois loses a little bit of farmland every day.

“We have to be more efficient with what we have. Every foot counts.”

The high-quality access Stevens needs for downloading and uploading geographic, weather, and other data requires fiber optic cable. That’s costly with customers spread out among acres and acres of crops. Estimates range from $35,000 to $80,000 per mile.

“Through Broadband Breakthrough, we’re spotlighting the benefits of broadband. When I share the data, people are shocked,” Stevens said about both the cost of adding access and how much more farmers could earn.

Illinois State University researcher John Kostelnick and his team layered data about cropland use and broadband coverage to make their impact projections. That work provides a toolkit for other counties to assess potential broadband value.

“Getting to help tackle a big challenge is encouraging,” Kostelnick said. “Seed grant funding from the Illinois Innovation Network has been critical. We were able to advance what we were exploring with the Illinois Soybean Association.”

SEEKING SUPPORT

Broadband Breakthrough uses Kostelnick’s research and other selling points to inform and engage stakeholders, some of whom could provide grants and other support necessary to gain federal funding. The program’s data and projections are part of what counties need to apply for the state’s Broadband Equity, Access, and Deployment (BEAD) and Digital Equity Act funding. President Joe Biden announced more than $1 billion in federal BEAD funding for Illinois alone.

Powerhouse equity advocate the Benton Institute for Broadband & Society manages Broadband Breakthrough. “What makes the Illinois effort ‘right’ is the breadth of partners working together to deliver outreach asset. In her Extension role, Nancy Esarey Ouedraogo focuses on community economic development. She says most farmers are enthusiastic about better internet.

“The same satellite internet is OK, but they know that doesn’t help future farm operations and their operations and their communities for the next generations,” she said. Legacy is on Stevens’ mind, too.

“We live where we do because my wife, Julie, and I wanted our daughters Caroline and Grace to know where their food comes from and to know the realities of life on the farm,” he said. “We still have to have a landline because our cellphone service is so spotty. I have to use a hot spot to try to get on the internet, and if it works, it’s really, really slow. That’s not the way it should be.

“Communities and people won’t grow without the internet.”

WHAT IS IIN?

Led by the U of I System, IIN connects communities and industry with the strengths and resources of the state’s public universities. Fifteen IIN hubs statewide collaborate to ensure Illinois’ strong role in the 21st century knowledge-based economy.

Kostelnick said. “Seed grant funding from the Illinois Innovation Network has been critical. We were able to advance what we were exploring with the Illinois Soybean Association.”

WHAT’S NEXT

After its work with Hancock, Edgar, Schuyler, Ogle, and McLean counties, the Benton Institute for Broadband & Society will lead another Broadband Breakthrough cohort in the fall. Benton continues to collaborate with the system’s Illinois Broadband Lab and Office of the Vice President for Economic Development and Innovation, University of Illinois Extension, and the Illinois Department of Commerce & Economic Opportunity.
SPRINGFIELD INNOVATION CENTER’S NEW HOME WILL SHIFT IDEAS TO REALITY

TalentESO is among a growing number of University of Illinois Springfield Innovation Center success stories. The Springfield-based start-up offers streamlined IT support so companies can focus on growth not tech.

Without the center’s incubator, TalentESO CEO Deepak Dhankher may have given up on his big idea. “Innovate Springfield gave me the connections I needed. The incubator ecosystem sets you up with other entrepreneurs and sets you up for success,” he said. In 2022, the UIS Innovation Center purchased space to create its new home thanks to funding from Gov. J.B. Pritzker’s administration. The $37.3 million supports several Illinois Innovation Network initiatives.

“Innovate Springfield is helping our launch Novear Therapeutics. The start-up not only slows the progression of hearing loss but also restores it using a two-drug combination. “We want to help people who lost their hearing because of damage from noise or treatments like chemotherapy. There’s nothing out there like this for them,” she said. Innovate Springfield provided Mukherjea a space to work, as well as grant writing and pitching expertise.”

Robert J. Jones said, “We are grateful such an incredible group of alumni stepped forward to back other members of the Urbana-Champaign family.” Illini Angels will support early-stage companies whose founders or leadership have connections to the U of I System. Support will include seed funding, networking, and mentorship. Entrepreneurs and big-data and analytics pioneer Paul Mogali is the inaugural director of Illini Angels. The Illini Angels network plans to focus on start-ups in engineering, computer science, healthcare, agriculture tech and energy.

“Illini Angels help start-ups with funding, mentorship and innovators in every field imaginable,” UIUC Chancellor Nancy Sullivan. “Illini Angels simplifies the investing process and lets founders focus on building.” Couston said. He is co-founder of Ascent Integrated Tech, which improves first responders’ safety. Nancy Sullivan, CEO and managing director of Innovate Springfield, says now is the time. “There’s been such pent-up demand for this idea. Illinois entrepreneurs, faculty and staff often hear from alumni who would like to invest in or engage with our start-ups. They know that great opportunities are born there every day,” Sullivan said.

WHAT’S NEXT
The UIS Innovation Center opening is scheduled for 2025.

“$21.9M separately funded research

“ILLINI ANGELS SIMPLIFIES THE INVESTING PROCESS AND LETS FOUNDERS FOCUS ON BUILDING.”

ILLINI ANGELS help start-ups with funding, mentorship

“The next great idea

“Industry experts Forbes and PitchBook recognize UIUC for its strength in developing entrepreneurs. A new network joined the list of supporters - topped by Ventures Accelerator and Research Park - to propel even more start-ups. Prominent UIUC alumni and the University of Illinois System’s venture capital arm, Illinois Ventures, joined forces to create Illini Angels. They know new ideas strengthen the Illinois economy and support communities. “Our alumni, our faculty, our students are leaders and innovators in every field imaginable,” UIUC Chancellor Paul Couston knows raising capital is challenging when rising stars want to focus on bringing their vision to life. He founded Optivolt Labs while a UIUC engineering student. “Illini Angels simplifies the investing process and lets founder focus on building,” Couston said. He is co-founder of Ascent Integrated Tech, which improves first responders’ safety. Nancy Sullivan, CEO and managing director of Innovate Springfield, says now is the time. “There’s been such pent-up demand for this idea. Illinois entrepreneurs, faculty and staff often hear from alumni who would like to invest in or engage with our start-ups. They know that great opportunities are born there every day,” Sullivan said.
“AND WHO BETTER TO STRIVE TO EFFECT CHANGE THAN THOSE WHO KNOW FIRSTHAND HOW MUCH IT MATTERS.”

UIC INFLUENCERS FOR CHANGE

Melodie Slaughter talks about being a differently abled Black woman with a kind of grace few can muster.

“Leading the Illinois Advocacy Coalition and making connections with legislators to not only tell them my story, but also share recommendations and solutions,” she said. “Melodie plans to stay connected to and involved with her alma mater after she completes graduate school at the University of Chicago. “Melodie is a fearless advocate, and she is selfless to her core. She always puts the needs of others before her own,” her brother said.

Marvin admires his sister’s efforts in the U of I System’s wide-ranging positive impact is good for Illinois residents and communities. “And who better to strive to effect change than those who know firsthand how much it matters.”

UIC siblings, recent graduates make advocacy their way of life

“Melodie received his bachelor’s degree in economics and political science in 2019 and his master of public policy from University of Chicago Harris School of Public Policy in 2021. They’re among the younger Illinois Connection alumni from universities in the University of Illinois System who use their experience and influence to ensure legislative support of the system’s work in societal equity, higher education, economic development, and more. Illinois Connection is a grassroots network — more than 30,000 strong — of alumni, students, faculty, staff, and friends of the U of I System. “Leading the Illinois Connection charge is always rewarding and often humbling,” said Marissa Brewer, the system’s director of advocacy. “Rallying supporters to help increase awareness and understanding of the U of I System’s wide-ranging positive impact is good for Illinois residents and communities. “And who better to strive to effect change than those who know firsthand how much it matters.”

FINDING SOLUTIONS

A chronic skin and muscle condition, juvenile dermatomyositis, brings Melodie pain and extreme fatigue. In addition to helping their young daughter cope with the subtle and not-so-subtle forms of racism that are a reality for many Americans, Melodie’s working parents were forced to battle school accommodation issues. “She’s helping find solutions so others can avoid the kinds of issues our family had to endure alone,” Marvin said. “We share the perspective of wanting systemic-level change.” Both Slaughter siblings served on the UIC Student Advocacy Coalition and worked as fellows in the government relations portion of the system’s Office of External Relations and Communications. When duties for both areas converged, Melodie was in her element. “The most enjoyable aspect was having conversations and making connections with legislators to not only tell them my story, but also share recommendations and solutions,” she said. “Melodie plans to stay connected to and involved with her alma mater after she completes graduate school at the University of Chicago. “Melodie is a fearless advocate, and she is selfless to her core. She always puts the needs of others before her own,” her brother said. “She is elegant in her ability to navigate spaces and places to make sure her voice is heard.”

JOIN ILLINOIS CONNECTION AT GO.UILLINOIS.EDU/JOINILLINOISCONNECT.

ADVOCATE BIOS

Tom Livingston, president of government affairs at CES, Transportation, is a 1990 University of Illinois Urbana-Champaign graduate with a bachelor’s degree in mass communications/media studies. He completed a University of Illinois Springfield master’s in public administration in 1997.

How did your degrees prepare you for your career? Two pre-law courses, Law & Politics of Poverty and Law & Politics of the Environment, and the professor, Stuart Nagel, prepared me for law school.

What is the most memorable moment of your career? I was sworn in as a lawyer by Justice William Rehnquist (later chief justice) in a private ceremony in his U.S. Supreme Court chambers.

What do you advocate for the U of I System? The system’s strength traces its roots in an unbroken line back to the Morrill Act and President Lincoln’s vision for higher education. It is meaningful to work with others to make sure that commitment continues.

What do you tell people about your advocacy efforts? Policy makers really do value hearing from citizens about how college shaped their path.

What do you do when you’re not working? I enjoy following the activities of our high school- and college-age children.
ACROSS THE STATE

Our impact reaches small towns, large cities and everything in between.
Participants in the new Diverse Supplier Development Program stand ready to share what they’ve learned.

“It was amazing to work with the students on a high-impact emerging technology project so they could put their knowledge and skill into action.”

The University of Illinois System program helps diverse businesses grow their firms’ capacity to become successful vendors. The program enlists student consultants from University of Illinois Urbana-Champaign and University of Illinois Chicago to help address business owners’ specific operational needs. "Participants in our first cohort especially liked the tangible takeaways MBA student consultants provided so business owners can improve their operations,” said Sharla Roberts, director of the U of I System Office of Procurement Diversity (OPD). “They’re already implementing suggestions and sharing them with their subcontractors.”

The program welcomes minority-, woman-, person with disabilities-, and veteran-owned businesses at no cost to participants. The diversity procurement program lives out the system’s commitment to creating a more inclusive Illinois economy.

“Small businesses are economic engines in our communities,” said Dale Morrison, OPD associate director. “If diverse professionals aren’t loading small businesses, we get the status quo. Diverse business owners share ideas and solutions we wouldn’t have otherwise.”

REMOVING BARRIERS

With decades of experience, Roberts and Morrison know the potential pitfalls. “We’re here to help remove barriers that limit the success of people in disadvantaged areas and from underrepresented communities,” Roberts said.

The advantages add up. In addition to networking and sharing experiences with other participants, business owners are helping build a talent pipeline. “The students were pleased with how helpful and engaged the business owners were,” Morrison said. The description “engaged” might be an understatement with Bell, whose PhD concentration was organization development. "Jerry was one of the most energetic participants,” Morrison said. “He always had great questions, great insights.”

GROUP EFFORT

Olsi Shehu’s student consulting group worked closely with Bell and Ranga Chandrasekaran, a UIC professor of information and decision sciences, as well as biomedical and health information sciences. “Through meetings, interactions, and reviews, our project united AI, technology, and healthcare,” Chandrasekaran said. “The immersive process embodied the true spirit of experiential learning, fostering critical thinking, and creating innovative business solutions.”

Bell’s small business, founded on technology consulting and emerging technology support, changed Shehu’s interest – and his future. “Applying what I was learning in class to a real-world situation was so valuable. I told people this was a starting point of a life-changing experience for me,” Shehu said.

UP NEXT

While the second cohort will grow from 25 to 30 participants, the goal is keeping things small enough to stay personal.

Roberts and Morrison credit a host of contacts in the system offices and at the universities in the system with the program’s early successes. “Everywhere we turn, we find supportive partners who see and embrace the many benefits these businesses provide in our communities and our state,” Roberts said. Every bit of the experience fueled Shehu’s interest – and his future. Business Utilization at the U.S. Department of Health and Human Services.

“It was great to network with someone that important,” Shehu said. “We explained the problem that the product helps solve and the benefits the solutions will provide. He gave us feedback and guidance to help secure funding.”

Bell’s extra effort is helping Shehu become a successful IT manager. “I didn’t just show up. I had certain things I wanted to share with the team so I could create value,” Bell said.

Learn More

Explore vendor opportunities and support at obfs.uillinois.edu/
supplier-diversity.

LEARN MORE
UI Health opens new locations to serve communities’ needs

UI Health, part of University of Illinois Chicago, opened three outpatient facilities in 2022 to reach people where they are.

“The multidisciplinary partnerships that led to each of these sustainability initiatives are based on great collegiality and cooperation between diverse scientists and institutional partners,” UIC Vice Chancellor for Research Joanna Groden said. “Each study addresses important problems facing many, if not all, communities.”

FUEL CELL POWER
UIC engineers helped develop a material that could give fuel cell systems a competitive edge over the battery systems that power most electric vehicles.

“Fuel cells are an attractive alternative because of their higher driving range, fast recharging capabilities, lighter weight, and smaller volume,” said Reza Shahbazian-Yassar, College of Engineering mechanical and industrial engineering professor. “The holdup? The catalysts that create the reactions fuel cell systems require were expensive and scientifically impractical. High-resolution imaging helped scientists create a workable additive. Now scientists can make an inexpensive iron-nitrogen-carbon fuel cell catalyst more durable and cost-effective.”

SPECIALTY CARE BUILDING
The Specialty Care Building opened in September 2022 and houses the Bruno and Sallie Pasquinelli Outpatient Surgery Center.

“UI Health takes a comprehensive approach to treating the medical condition of patients – but also the structural social determinants of health that influence the health and wellness of our neighborhoods and communities,” UIC Vice Chancellor for Health Affairs Robert A. Barish said.

UI Health Fast Facts

1.3M+ Patient visits in FY2022
1,180+ Physicians and advanced practitioners
40+ Outpatient clinics

UIC TARGETS SUSTAINABILITY SOLUTIONS ON MYRIAD FRONTS

Here’s just a portion of the sustainability-focused advances at University of Illinois Chicago in 2022.

“Fuel cells are an attractive alternative because of their higher driving range, fast recharging capabilities, lighter weight, and smaller volume,” said Reza Shahbazian-Yassar, College of Engineering mechanical and industrial engineering professor. “The holdup? The catalysts that create the reactions fuel cell systems require were expensive and scientifically impractical. High-resolution imaging helped scientists create a workable additive. Now scientists can make an inexpensive iron-nitrogen-carbon fuel cell catalyst more durable and cost-effective.”

CARBON CAPTURE
UIC researchers developed a way to turn a dangerous element into something useful. They capture carbon from factories’ flue gas and turn it into ethylene. We use ethylene everywhere – plastic packaging, antifreeze, vinyl siding, and more.

“There is an urgent need to develop efficient technologies for integrated carbon capture and conversion to sustainably produce net-negative fuels,” said Meenesh Singh, UIC chemical engineering assistant professor.

Urban Climate Change

UIC and its academic and community partners are using $25 million from the U.S. Department of Energy to study urban climate change effects at neighborhood, local, and regional levels. The group, which includes Argonne National Laboratory, will establish an integrated field laboratory called Community Research on Climate and Urban Science. Focused on the Chicago area, the lab will use community input to identify questions and specific areas of urban climate change to study, ensuring that research results directly benefit residents.
To get to the how and why of the ComEd collaboration, the DPI team fielded questions about the data modeling and machine learning that are key to ComEd’s tree-planting plan to enhance Chicagoland climate resiliency.

**What is ComEd's resilient canopies initiative?**
ComEd is investigating natural responses to climate change, including afforestation which uses tree planting to reduce ambient temperatures. This can help at-risk communities often hard hit by heatwaves.

**How does Discovery Partners Institute help?**
DPI uses sophisticated analytical techniques to evaluate how tree canopy coverage reduces temperature and energy demand amid our world’s changing climate. For example, on a typical day the temperature within a block can vary as much as 3.5 degrees Fahrenheit with quality tree shade compared to open sidewalks. DPI uses advanced computing combined with visualization to identify optimal tree allocation to maximize natural cooling in the Chicago region. This helps mitigate the detrimental rising temperatures that climate change causes.

**How does DPI use data to suggest the best possible locations for tree planting?**
Using high-performance computing combined with advanced geographical information systems (GIS) analyses, we are developing heat-exposure maps for the current and future climate so we can identify strategic locations to plant trees to reduce heat impacts.

**Who can benefit from this work?**
In Chicago, at-risk south- and west-side communities have seen some of the most significant public health impacts from heatwaves. Because climate change is likely to make extreme heat events more frequent, longer lasting, and intense, strategies like these are important tools to ensure an equitable energy transition.

**Why is DPI uniquely qualified to perform this kind of work?**
DPI is uniquely positioned to strengthen academic-industry partnerships. Our excellent team of researchers and corporate-engagement professionals works collaboratively with industry to solve pressing problems that impact their businesses and communities. For this project, DPI experts in climate science and urban sustainability are helping make Chicago communities and ComEd infrastructure more resilient to the effects of climate change.

**Why is climate change mitigation important to DPI in Chicago and beyond?**
Climate change affects us all. As we continue to experience its devastating effects, we must work together to address challenges. In Chicago alone, projections show a substantial increase in the likelihood of more intense heat waves and storms by 2050. Extreme heat and flooding could greatly impact Lake Michigan shorelines and the Chicago region. DPI leads climate change mitigation efforts in Chicagoland and globally while helping the region cope with climate change impacts.

**How does the state of Illinois benefit from DPI’s climate-focused expertise?**
We must find ways to become more resilient without causing greater adverse effects. One way we can reduce the impact of rising temperatures is with more extensive and strategically planned tree canopy coverage at targeted locations. Besides reducing temperature, trees also have a dramatic effect on improving moods, reducing stress, and lowering blood pressure. The broader research and development DPI conducts aims to improve quality of life for all Illinois residents.
Presidental Initiative: Expanding the Impact of the Arts and the Humanities funded 10 projects in 2022 out of 22 proposals. Support totaled $1.54 million in the initiative’s second round.

Water, a binding agent for communities

“Rivers of Illinois” unites experts and community members. It showcases local culture and opens dialogue about the environment and climate change.

“This work brings people together with the mighty waters of the Prairie State,” Rachel Havrelock said. Havrelock is a University of Illinois Chicago professor and director of The Freshwater Lab focused on environmental justice. Engaging with the Chicago River, participants added artwork and plantings to give new life to a neglected park. Rio de Bienvenida/River of Welcome received the 2022 Friends of the Parks VIP Innovation Award.

Havrelock worked with Anne-Marie Hanson, a University of Illinois Springfield associate professor of environmental studies who is on the Discovery Partners Institute executive committee. “The UIS Confluence Lab shared freshwater science and art activities with over 3,500 people at Lincoln Memorial Garden’s Fall Harvest Festival in Springfield,” Hanson said. The lab encourages the UIS community to unite passion and talent to create innovative solutions for environmental challenges.

Learn more about “Rivers of Illinois” at TheBackwardRiver.org.

Black nurses gain spotlight of honor

“Mapping Care Project: The History of Black Nurses in Chicago” exists for many reasons. Because COVID-19 showed that nurses are vital. Because society often relegates nursing as “women’s work.” Because our nation’s history all but omitted nurses of color.

“This project is in response to all those factors. It’s essential to amplify the voices of Black nurses. Our past is not disconnected from the present,” Karen Flynn said. Flynn is an associate professor of African-American, gender and women’s studies at University of Illinois Urbana-Champaign. She joined forces on the project with Gwyneth Franck, clinical associate professor at UIC College of Nursing. Franck is also the director of Midwest Nursing History Research Center.

The traveling exhibit prompted awareness at Chicago Public Schools and a city library. Flynn hopes the public engagement so key to the humanities also provides inspiration. “I want young people on the spectrum of Blackness and gender to hear Black nurses’ stories and say, ‘I am able to do this,’” she said.

Through photos, narrative and oral histories, anyone can explore “Mapping Care” at go.uic.edu/BlackNursesProject.
I-MMÁS students present their research findings as part of the UIUC experience.

Professor Hanna Holscher. "She also played an important role in the laboratory.

A competitive swimmer as a tween and teen, Camorlinga is no stranger to intense commitments. "I had swim practice before and after school every day," she said, adding she'd like to be a dietician who works with athletes. "I've been there, so I know how important quality nutrition is for a good performance."

**PARTNERSHIP IN ACTION**

I-MMÁS is building a greater presence of Mexican and Mexican-American students in Illinois as it enhances interactions between the U of I System and Mexican schools and businesses. Collaboration that supports scientific, technological and innovation research reached an important boots-on-the-ground milestone in 2022. The U of I System opened a Mexico City office at Autonomous National University of Mexico, the largest university in Latin America. De Mejia says the unity I-MMÁS promotes is essential.

"I-MMÁS contributes to the system's objective of building human capital for stronger economies."

**FUTURE STEPS**

As the end of the semester grew near, reality set in for Camorlinga. "I'm sad this is getting over. I will miss the amenities in the lab and the lab staff," she said. "They are good people. They are overachievers, and that is inspiring."

The good vibes flow both ways. Graduate researcher Mara Perez Tamayo said. "One of Andrea's many good qualities is that she works well independently and as a member of our research team, which is essential in clinical research." Camorlinga takes back to Mexico more than new lab skills.

"My time here has had a huge impact on my future professional life," she said. "As I determine what to do after school, this enriching experience opened doors for me."

The U of I System leads essential collaborations such as these across the globe.

The U of I System is establishing a liaison office in New Delhi, with branch offices in Bengaluru and Mumbai, to further develop relationships with companies and higher education institutions, as well as support student recruitment.

**RESEARCH CONNECTS IDEAS, INNOVATION ACROSS BORDERS**

Andrea Aguirre Camorlinga at UIUC's Edward R. Mendlik Laboratory.

In a lab in East Central Illinois, Mexico's Andrea Aguirre Camorlinga found her people. They understand her gut microbiota jokes.

"When I said 'Oh my gut' instead of 'Oh my God,' and everyone got it, I knew I was living the dream," Camorlinga said.

The Tec de Monterrey University senior spent spring semester at University of Illinois Urbana-Champaign. She enjoyed nutritional sciences classes and research as part of the new Mexican & Mexican-American Students Initiative (I-MMÁS). A University of Illinois System program, I-MMÁS develops win-win academic and research partnerships that pave the way for economic opportunity in Illinois and Mexico.

The first cohort of 15 I-MMÁS students from Mexico did internships at UIUC. Students from Mexico studying here, as well as Mexican-American students doing internships in Mexico, receive educational support and mentoring.

After exploring options, a Division of Nutritional Sciences internship at UIUC was an easy choice for Camorlinga.

"I was super interested. I didn't think about it twice," she said.

**ENHANCED SUPPORT**

Executive Director Elvira de Mejia said I-MMÁS internships allow students to apply the knowledge they gain in their classes in practical ways. "I-MMÁS provides an enhanced support program for our current and future students across the system's three universities," she said. "The program helps students with the successful completion of their higher education experience while facilitating their future career opportunities."

Student researchers from Mexico have been involved in the USDA-funded trial "Microbial and metabolomic impact of walnut consumption for economic opportunity in Illinois as it enhances interactions between the U of I System and Mexican schools and businesses. Collaboration that supports scientific, technological and innovation research reached an important boots-on-the-ground milestone in 2022. The U of I System opened a Mexico City office at Autonomous National University of Mexico, the largest university in Latin America. De Mejia says the unity I-MMÁS promotes is essential.

"Together we can develop sustainable collaborations with Mexican universities, companies and the Mexican-American community in Illinois to address societal challenges and build a more equitable future," the head of UIUC's Division of Nutritional Sciences said. "I-MMÁS contributes to the system's objective of building human capital for stronger economies."

**FUTURE STEPS**

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THE IMPACT CREATED BY THE UNIVERSITY OF ILLINOIS SYSTEM

$5.0B OPERATIONS SPENDING IMPACT
$1.3B RESEARCH SPENDING IMPACT
$1.6B HOSPITAL SPENDING IMPACT

$193M CONSTRUCTION SPENDING IMPACT
$838M START-UP & SPIN-OFF COMPANY IMPACT
$3.60M VISITOR SPENDING IMPACT
$387M STUDENT SPENDING IMPACT

$9.5B ALUMNI IMPACT
164,154 JOBS SUPPORTED
$18.9B TOTAL ECONOMIC IMPACT

FOR EVERY $1 SPENT...

$5.20 STUDENTS GAIN IN LIFETIME EARNINGS
$3.10 TAXPAYERS GAIN IN ADDED TAX REVENUE & PUBLIC SECTOR SAVINGS
$4.40 SOCIETY GAINS IN ADDED INCOME & SOCIAL SAVINGS