UNIVERSITY OF DELAWARE MAGAZINE

Volume 30 • Number 4

BIG IMPACT, SMALL WONDER

A SPECIAL EDITION OF *UD MAGAZINE*
CELEBRATING UD'S STATEWIDE IMPACT

CONTENTS

4 Stepping up during the surge
As hospitals reached a pandemic-induced breaking point, UD students offered both hope and help.

6 From A to Z...
26 ways UD helps enhance the state.

10 Here for every student
UD's mission to cultivate learning and expand knowledge begins long before students set foot on campus.

19 Opening the doors
With locations in Wilmington, Dover and Georgetown, UD's Associate in Arts Program offers an affordable and accessible pathway to college for all Delawareans.

20 A coastal beauty
Across the state, UD works to protect and preserve our natural landscape.

24 A shining STAR
Learn how UD is creating a nexus of research innovation and economic development.

Cover illustration by Clair Rossiter

Did you guess right?
This photo was taken at Dewey Beach. Courtesy of VisitDelaware.com.

UNIVERSITY OF DELAWARE MAGAZINE
Volume 30, Number 4
December 2022

Managing Editor Artika Rangan Casini, AS05
Associate Editor Diane Stopyra
Art Director & Production Molly Chappell
Executive Editor John Brennan
Vice President for Communications & Marketing Glenn Carter
Creative Director Dave Keen
Contributing Design Don Shenkle, AS80, BE17M
Senior Photographer Kathy F. Atkinson
Photographer Evan Krape, AS09
Digital Imaging Specialist Kate Dempsey Pfister

The University of Delaware community values both personal and academic freedom. All members of the campus community have the personal responsibility to promote an atmosphere of civility in which the free exchange of ideas and opinions can flourish. We do so by learning from individual and collective differences and respecting every human being.

The University of Delaware **Magazine** (USPS 01-0743) is published quarterly by the University of Delaware Office of Communications & Marketing, 105 East Main St., Newark, Del. 19716-7201. To remove your name from the mailing list, please email bio-updates@udel.edu. Inquiries should be addressed to Artika Rangan Casini, Managing Editor, Office of Communications & Marketing, at Magazine@udel.edu. For information on advertising, please call (302) 831-2792. Periodical postage paid at Newark, Del. 19711 and at additional mailing offices.

The University of Delaware does not discriminate against any person on the basis of race, color, national origin, sex, gender identity or expression, sexual orientation, genetic information, marital status, disability, religion, age, veteran status or any other characteristic protected by applicable law in its employment, educational programs and activities, admissions policies, and scholarship and loan programs as required by Title IX of the Educational Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, and other applicable statutes and University policies. The University of Delaware also prohibits unlawful harassment including sexual harassment and sexual violence. For inquiries or complaints related to non-discrimination policies, please contact: Danica A. Myers, Interim Title IX Coordinator, 305 Hullihen Hall, Newark, DE 19716, 302-831-8063, titleixcoordinator@udel.edu. For complaints related to Section 504 of the Rehabilitation Act of 1973 and/or the Americans with Disabilities Act, please contact: Elizabeth Reed, Director, Office of Disability Support Services, Alison Hall, Suite 130, Newark, DE 19716, 302-831-4643, ecreed@udel.edu OR contact the U.S. Department of Education - Office for Civil Rights (https://www2.ed.gov/about/offices/list/ocr/know.html).

POSTMASTER: Send address changes to University of Delaware Magazine, Academy Building, 105 East Main St., Newark, Del. 19716.

Please share or recycle this magazine.

FROM OUR PRESIDENT

The First State ... the Diamond State ... the Blue Hen State—Delaware is undoubtedly a special place. Those of us fortunate enough to live and work here know that this is home to a rich and broad diversity of cultures, histories, perspectives and opportunities. As I always say, Delaware has it all.

Without a doubt, Delaware's greatest strength is its people. Wherever my wife, Eleni, and I go in the state, we are inspired by their energy and optimism. Delawareans are creators, builders, innovators and entrepreneurs. They are passionately devoted to caring for one another, strengthening their communities, protecting the natural beauty of our environment, and teaching and mentoring tomorrow's generations.

The Delawareans whom we encounter both on and off the University of Delaware campus—whether newcomers, or those with family roots that span generations—are immensely proud of our state. And rightfully so. Our culture is rich, our arts are vibrant, and our landscape is stunning. From anywhere in the state, we are a short drive from the forests and valleys in the north, the verdant farmland of central Delaware, and the picturesque yet fragile coastal ecosystems of the south.

What's more, we can boast of a unique combination of historical prominence—our pivotal roles in the nation's founding, growth, civil rights advancements and more—and extensive influence in today's global community and economy. As a hub of collaboration and progress, Delaware enjoys a relevance and reach that extends far beyond our borders.

The University of Delaware is inextricably tied to the state's remarkable past, actively shaping its dynamic present and deeply engaged in realizing its exciting future. The following pages capture just some of the compelling examples of UD's contributions to our state, made possible by our close partnerships and shared desire to reimagine the possibilities that lie ahead. This could only happen at a place as special as this. Eleni and I are truly honored to be a part of Delaware's vital growth and vibrant future.

Dennis Assanis

Dennis Assanis, President

A SMALL SAMPLING OF UD'S STATEWIDE IMPACT

By the NUMBERS

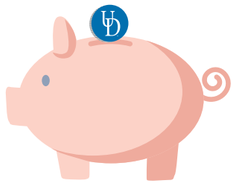
UD supports more than

26,000

jobs statewide each year. That's more than 6% of the state's workforce!

UD produces a

$3.19 Billion economic impact.



That means we're connected to $1 out of every $25 circulating in the state's economy.

UD draws more than

750,000

visitors each year who, along with our 24,000 students, spend more than $167 Million in the state.

Alumni living and working in Delaware earn about an additional

$1.2 Billion

statewide a year due to the education and credentials they received from UD. This translates to higher tax revenue, lower unemployment rates, higher statewide spending and much more.

>11,000

seniors from 45 high schools participated in College Application Month, a joint initiative through the Institute for Public Administration (IPA) and the Delaware Higher Education Office at the Department of Education. In addition to waiving application fees for all Delaware students who apply to college at UD and to institutions nationwide during the months of October and November, the program also focuses on career exploration to support students in a variety of postsecondary options. For more on IPA, turn to page 18.

About **9** out of **10** Delawareans who apply to UD are admitted.

>2,000

Delaware students have started their education through the Associate in Arts Program and gone on to earn bachelor's degrees from UD.

44,494

Number of UD alumni in Delaware

Over the last 20 years, nearly half of Delaware's Teachers of the Year have been UD graduates.

In the legislature, Gov. John Carney, BSPA84M, and 8 members of his cabinet are UD alumni

The top-three Delaware industries where Blue Hens work: Education, Finance, Healthcare

ASHLEY BARNAS

STEPPING UP DURING THE SURGE

UD STUDENTS VOLUNTEER TO HELP DELAWARE HOSPITALS

BY AMY CHERRY

While hospitals were the last place many people wanted to be during the COVID-19 pandemic, Yasmine Awayes had been eagerly awaiting an opportunity to step inside one and start getting clinical experience.

"Many hospitals told me, 'Sorry, at this time, we can't take any volunteers. Maybe, when COVID lightens up, you can come and help,'" recalls Awayes, HS23.

At that time, hospitals had no idea just how bad the situation would get. With the pandemic hitting in waves, the Omicron surge struck at a time when burnout was strong and staff members were already stretched beyond their limits.

"We were short-staffed going into the surge, so it was even worse when we started losing our own employees that were out for COVID. We were down a quarter of our staff on the laboratory side, so it was pretty crazy," says Kimberly Gillen, laboratory manager at Bayhealth Hospital, based in Dover.

For the first time throughout the two-year pandemic, some health care systems, like Bayhealth, reached a breaking point and were forced to activate Crisis Standards of Care protocol, which included re-deploying staff and physicians, postponing elective surgeries, adding new units and reallocating spaces for care, working with skilled nursing facilities to discharge patients to appropriate settings more efficiently and utilizing additional staffing support including the National Guard.

When the Delaware Healthcare Association and state stepped in to ask the public for help, UD's College of Health Sciences (CHS) students were some of the first to answer the call.

Uniquely prepared to assist during this difficult moment, nearly 200 CHS students signed up to volunteer in a variety of areas from clinical laboratory and nursing to nutritional support, patient sitting and clerical work. UD's Medical and Molecular Sciences Department and the School of Nursing were among the most represented.

At Bayhealth, Gillen said the situation had become so dire, they were forced to deploy non-essential workers from departments like information technology to the lab. That's when she got a dash of hope—students from CHS would be joining their team.

"These emergency students were like a godsend," she says.

As a feeling of relief washed over hospitals, students like Awayes, who aspires to be a doctor, also got her moment. She received an email from one of her faculty advisers stressing the urgent need for volunteers at Delaware hospitals. She responded immediately and, within a week, was placed inside the lab at Bayhealth Sussex in Milford.

The medical diagnostics major spent weeks helping lab staff by managing a flood of tests and processing samples. After her volunteer stint was finished, the Milford native offered to continue her work on the weekends. "I wanted to keep helping," she says.

Bayhealth's Gillen applauded the students' education and UD preparation, describing the young providers as hardworking, responsive and professional.

"I think it was great for them to see the state of affairs in healthcare right now and to jump in," says Gillen. "They garnered our trust. They rose to the challenge. They really did an amazing job. Having a little relief was a morale booster as well as a timesaver."

It was also a reminder of health science's relevance and impact.

"It is extremely rewarding to see how easily our students were able to step right into the professions for which they were trained," says Medical and Molecular Sciences Department Chair Esther Biswas-Fiss. "This speaks volumes about the quality, rigor and relevance of the educational experience in our programs."

More than a dozen UD students from the School of Nursing also served clinical rotations at both Bayhealth and Beebe hospitals during the Omicron surge. For many, the experience marked the first time they'd been exposed to patients with COVID-19.

"They did everything. They provided complete patient care," says Angeline Dewey, director of education at Bayhealth. "It became such a win-win because we were able to teach them and provide that practical experience, but then the student was able to support the nurse and help take care of the patients because nurses were taking care of extra patients."

Sarah Stuart, HS22, was placed in the Intensive Care Unit at Beebe Healthcare in Lewes, marking UD's first clinical partnership in nursing with the downstate hospital. She called the experience eye-opening.

"I hadn't really cared for patients with COVID...so I think it's important since no one knows when the pandemic is going away," she says. "Starting out, I could never have imagined I'd be at the place where I am now. The education that we've received is fundamental to be really good nurses. I feel UD has given us that."

Both COVID and the critical nursing shortage are challenging realities, says Elizabeth Speakman, senior associate dean of the School of Nursing.

"We wanted to do our part in helping our community deliver the vital care needed," she adds. "Our faculty and staff worked tirelessly to place our students in clinical facilities up and down the state. I am so proud of the many people who recognized this critical need and made healthcare delivery in Delaware a priority."

> **They garnered our trust. They rose to the challenge. They really did an amazing job.**
>
> *–Kimberly Gillen, laboratory manager at Bayhealth Hospital*

UD in DE from A to Z

Alternative keyboards

... and other assistive technologies designed to help people with disabilities live independently, safely and successfully. UD's newly opened Kent/Sussex Assistive Technology Resource Center in Milford, Delaware, houses hundreds of these devices, available for free loan across the state.

> "Each item in our inventory is there to help people with disabilities and their families see what is possible."
>
> – *Karen Latimer, an assistive technology specialist in UD's Center for Disabilities Studies*

Best place to work

UD has been consistently recognized by Forbes as one of America's Best-in-State Employers of 2022.

Cognition

UD has established the Delaware Center for Cognitive Aging Research to facilitate innovative, patient-centered research. As many as 19,000 Delawareans live with Alzheimer's disease, and the new center educates the community on modifiable risk factors, working to addresses mild cognitive impairment before it progresses to dementia.

Disaster preparedness

Sixty years ago, the Ash Wednesday nor'easter destroyed 1,932 houses along Delaware's coast. Across UD—from Sea Grant to the globally recognized Disaster Research Center—UD experts are working to prevent such devastation from happening again.

Estuary

An estuary is the coastal water body where freshwater from rivers and streams mixes with salt water from the ocean. The Delaware Estuary is losing about an acre per day of tidal wetlands, a problem that could worsen as sea level rise accelerates and land development intensifies along coastlines, causing what's known as "coastal squeeze." UD faculty are leading a four-year project to examine this problem from both sides (land and sea) and study ways living shoreline systems, such as oysters, can help us adapt and maybe even repair some of the damage.

Folklore

A playground in Tidewater Park that honors the history and folklore of the Nanticoke Indian Tribe opened last year, thanks to a joint project between UD and the town of Laurel, Delaware. The playground highlights stories of the land's first inhabitants, the Nanticoke, using symbols such as the rainbow crow, beaver, squirrel and giant turtle. Designed by UD experts, each feature includes a plaque telling the story that it represents along with QR codes that allow curious visitors to learn more from a traditional storyteller.

Galaxy

The Delaware Space Grant Consortium, administered by UD, introduces Delaware high school and college students to careers in (or related to) outer space. "I was expecting to do data processing," says Allyssa Tuano, EG21, who interned with NASA's AMES Research Center in Mountain View, California, in 2019. "Now I look back and I think: Wow. They really had an intern developing design concepts. What an amazing opportunity."

Hatching new ideas

From food trucks to fuel cell development, more than 700 Delaware-based startups have hatched at Horn Entrepreneurship, a nationally ranked program that nurtures innovators and their ideas. Since 2012, these UD-born businesses have created almost 300 jobs and generated an estimated $31 million in follow-on funding.

Innovation

UD is part of a new regional innovation network designed to accelerate the transformation of scientific discoveries into technologies that improve daily lives. The NSF Innovation Corps Northeast Hub is one of five new hubs in a nationwide network of universities formed to boost the economic impact of federally funded research—delivering benefits in healthcare, energy and the environment, computing, artificial intelligence, robotics, advanced materials and other areas—while building skills and opportunities among researchers from all backgrounds, including those historically underrepresented in entrepreneurship.

Junk removed from our streams

Both boat motors and bad storms can sever crab pot lines from their marker buoys. The derelict pots, now junk clogging up the inland bays, create navigational hazards, but they also become death traps for blue crabs, terrapin turtles and other marine life. Thanks to Delaware Sea Grant, more than 285 of these pots have been recovered from the inland bays since 2020, and recreational crabbers have access to regular training sessions on how to keep their pots intact.

Knitting

UD students help the local community via knitting: matching hearts for COVID patients and their families, plus stuffed octopuses with tentacles specifically designed to soothe premature babies. The group has even participated in something known as "yarn bombing." To raise awareness for Lyme disease, the students affixed lime green creations to parking meters, a clock tower and several building exteriors in downtown Newark. (The students are also responsible for the scarf that, during colder months, adorns a campus statue of Judge Hugh M. Morris, the late U.S. District Judge and namesake of UD's Hugh M. Morris Library.)

Lifelong learning

UD's Osher Lifelong Learning Institute has become the largest in the nation and serves members statewide. As a volunteer-driven learning cooperative for adults 50-plus, UD's OLLI program has nearly 2,000 active members and offers about 300 classes via virtual classrooms and through in-person locations in Dover, Lewes, Ocean View and Wilmington.

ILLUSTRATIONS BY CLAIR ROSSITER

Master gardeners

With the help of UD's Master Gardener program, the Lutheran Community Services Food Pantry in Wilmington produced more than 3,400 pounds of food. Delaware has nearly 300 Master Gardener volunteer educators; statewide, the Master Gardeners volunteer more than 20,000 hours per year.

Nurses

To address the 800 unfilled nursing positions in the state every year, UD developed the Highmark Diversity Scholars program, an intensive workforce training initiative funded by Highmark Blue Cross Blue Shield Delaware to diversify healthcare workforce pipelines. Awarded to Delaware natives, who receive partial tuition scholarships, the program also includes a mentorship program that matches scholars with a practicing clinician and minority faculty member. Meanwhile, UD's online RN Refresher Program offers experienced nurses who have been on hiatus the opportunity to refresh their knowledge and skills, learn the (new) ropes and re-enter practice.

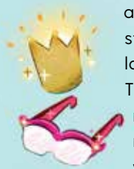
> **"We wanted to provide support to Delawareans so that they can give back to the state."**
>
> *–Associate Dean Jennifer Saylor, who helped launch UD's Highmark Diversity Scholars program, an intensive workforce training initiative that aims to diversify healthcare workforce pipelines*

Oysters

A UD-based program aims to nurture 75 million baby oysters in Lewes in a new hatchery. These humble environmental helpers can each filter up to 50 gallons of water per day, helping the planet while providing an economic boost to the state's aquaculture industry.

Promise

Through the First State Promise program, UD is helping Delawareans afford a world-class education that's close to home. For most Delaware families with incomes less than $75,000, UD aims to cover full tuition for full-time students on the Newark campus. That includes about half of the families in the state, and those above the cutoff may receive other forms of financial aid.



Queen of STEM

and current undergraduate student Jackie Means helped launch STEM Day in Delaware. Through her outreach, the medical diagnostics major and neuroscience minor inspires young women to pursue careers in the sciences.

Reducing health disparities

Cooperative Extension agents address health disparities among rural and medically underserved communities via myriad initiatives. Most recently, they received a grant to educate Delawareans on COVID vaccines.

Sand

Using data collected via underwater sensors engineered by the Center for Applied Coastal Research, UD experts are building and fine-tuning computer models to predict sediment transport. These predictions are essential for coastal communities looking to safeguard homes and other infrastructure from beach erosion and flooding. The models will help determine who may need to evacuate in the leadup to a hurricane or nor'easter, and for deciding where to place jetties, breakwaters, sand bags and other protective assets.

Taxes

Through the Lerner Tax Clinic, UD accounting students prepare free tax returns for low-to-moderate-income Delawareans. Meanwhile, UD's Center for Economic Education and Entrepreneurship provides economic literacy and personal finance education to k-12 teachers and students across the state, helping more than 3,000 Delaware teachers each year alone.

Underserved small business support

Delaware's Small Business Development Center is working to reduce barriers and improve resource access for small business owners, particularly those from underserved or disadvantaged backgrounds. Most of Delaware's 73,000 small businesses are privately or family owned–49% are women-owned and 52% are minority-owned.

Veterans

On campus, approximately 350 enrolled students have served or are currently serving in a branch of the military, while around 400 are the dependents of veterans. Resources for this population include a Veteran and Military Success Center, which serves as a place to connect, find resources or simply hang out and study. Additionally, the University is actively developing strategies for creating more pathways to higher education for military personnel.

Wellbeing support

As the name suggests, UD's Partnership for Healthy Communities partners with communities across the state to improve the health and wellbeing of all Delawareans. In one of its newest initiatives, 24 Wilmington residents have been trained as "ambassadors" to offer wellbeing guidance and support to those experiencing trauma.

X-Ray Crystallography

This UD lab allows researchers to examine small-molecule crystals, which are often used to research new drug therapies. As an extension service, the facility accepts sample submissions from collaborators across the state.

Yautias

Yautias are one of many food items that could help food pantries better meet the needs of the diverse communities they serve. In addition to yautias (a tropical plant eaten much like potatoes), UD nutrition and dietetics students identified chorizo, okra, rotis and naan as other under-donated food opportunities. The students teamed up with the Food Bank of Delaware to study and ultimately enhance the availability of culturally relevant foods, particularly in areas with high international populations.

Zelkova tree

This tree is one of more than 4,000 plant species thriving within the University of Delaware Botanic Gardens. A 15-acre space that serves as a learning laboratory for students as well as the wider community, UDBG offers a robust lineup of lectures and workshops. Without a gate or an admission fee, it regularly offers green-thumbed enthusiasts and plant ignoramuses alike a much-needed moment of calm.

ILLUSTRATIONS BY CLAIR ROSSITER

AMBRE ALEXANDER PAYNE

HERE FOR EVERY STUDENT

HOW UD HELPS STRENGTHEN AND ENHANCE EDUCATION ACROSS THE STATE

BY ARTIKA RANGAN CASINI, AS05

Pop quiz.

In the early days of the pandemic, most children attended school via Zoom, though a few returned to the classroom. Of the two groups—online and in person—who performed better on Delaware's 2021 state assessment?

Counterintuitive as it may seem, the online students scored higher. Significantly so.

At first glance, the data made Jeff Klein scratch his head. But as senior policy scientist in UD's Center for Research in Education and Social Policy, he also knew that numbers alone don't tell the story.

"On the surface, it sounds pretty surprising," Klein admits. "But by talking to districts and understanding their policies, we found many schools had prioritized in-person learning for students with severe disabilities or limited English language skills. So, the ones who were coming back to class were also those with greatest need."

This approach—of finding meaning beyond the data; of partnering deeply and directly with educators on the ground; of bridging the gaps between research, policy and practice—underpins UD's efforts to understand and enhance education at all levels across the state. Indeed, the University's very mission to cultivate learning and develop knowledge begins right here, with this goal.

"We have a tremendous amount of research-based knowledge in instruction, curricular design, special education, disabilities studies, really all the areas that support and strengthen school success," says Gary Henry, dean of the College of Education and Human Development. "Our job is to prepare the next generation of educators, but it's also to ensure our expertise extends far beyond our walls."

Through the Professional Development Center for Educators (PDCE), UD faculty and staff do just that, partnering with the Department of Education on various initiatives and working with school districts and charter schools across the state to provide systemic support, such as raised test scores, increased college application rates, enhanced literacy, culturally responsive teaching and more.

Some Delaware school districts have seen great increases in Latinx and Haitian-Creole populations, for instance, but how do you teach math when you don't speak those languages? That's where someone like Faith Muirhead, math expert and PDCE senior associate director, comes in. In the first half of 2022, she and her fellow team of 15 math content experts have collectively provided more than 2,000 hours of coaching to help teachers answer questions like this and more.

"The goal is to solve authentic problems," says colleague and Associate Director of Literacy Jaime Daley, who, alongside 15 literacy specialists, has delivered more than 1,500 coaching days. "We don't go into a school to 'fix it.' We go in

EVAN KRAPE

KATHY F. ATKINSON

EVAN KRAPE

From top to bottom: UD-developed robots teach Delawareans about cybersecurity; students at Milford Central Middle School learn how UD professors are working to "make math fun"; and the governor congratulates the 2021 graduates of UD's Teacher Residency Program, six of whom chose jobs in the Red Clay School District

On opposite page: A UD student teacher works with students at Middletown High School

to partner. We're working in classrooms with a systemic view of how to support sustainable improvements."

Then, there's the Delaware Academy for School Leadership (DASL), which uses evidence-based best practices to support school leaders through all stages of growth, from coaching assistant principals to building and sustaining mentorship networks for school leaders to much more.

"We're like a life vest," says longtime director Jackie Wilson, who retired from UD last year. "We're a reminder that there's a community of support here."

This past fall, those two UD units—PDCE and DASL—merged into the newly launched School Success Center (SSC), designed to ensure Delaware leaders and teachers grow together.

The SSC will bring to fruition a model of support UD partially enacted in Laurel School District, where members of PDCE and DASL worked to close substantial gaps in student performance. Before UD's partnership, there was a 20% gap in math proficiency between Laurel's third to eighth grade students and the state average. While there were many factors that affected student achievement during this time, UD's efforts helped reduce the difference to less than 2%. In reading—in this school district, which is home to the second-fastest growing population of non-English speakers—seventh graders now beat the statewide average in proficiency.

> **"Our job is to prepare the next generation of educators, but it's also to ensure our expertise extends far beyond our walls."**
>
> *—Gary Henry, dean, UD College of Education and Human Development*

"We have a model that has worked in other states and in Delaware," says Henry. "Now, we can put it into more systematic use."

After all, positive, systemic change is at the core of education's future—at UD and beyond.

The Wilmington Learning Collaborative, for example, is an initiative launched by Gov. John Carney, BSPA84M, to streamline curriculum across a voluntary network of city schools and improve student outcomes. Its approach relies, in part, on Henry's prior research around school improvement.

Having evaluated urban school improvement in Memphis, Atlanta and Charlotte, the dean and his research team identified teaching capacity as key to school success. This is true even in Delaware, especially now, as teacher and principal shortages plague the nation and state.

But this arena is also where UD offers some of its greatest support, growing—and diversifying—the supply of Delaware teachers by more than 100 each year.

Since 2015, nearly 90% of UD graduates who took jobs as Delaware public school teachers remained in those jobs after their first year. And that first year is critical. "It's when we see the highest turnover rates," says Henry.

The good news: By year three, the figures remain high, with 81% of UD graduates choosing to stay in Delaware public schools.

Beyond the numbers, UD is working to ensure that the educators in our schools reflect the students in their classrooms. To that end, the Teachers of Tomorrow program introduces underrepresented high school juniors and seniors to college life and to UD's various teacher education programs through an immersive, two-week, on-campus summer institute. After the workshop, students can even take two virtual undergraduate courses at no cost: Lifespan Development and Cultural Diversity, both of which count toward the teacher education curriculum. Free to Delawareans, the donor-funded program aims to help diversify the state's teaching workforce.

Another recent program, the Delaware Teaching Fellows, offers scholarships as forgivable loans for graduates who remain in the state and teach in a high-need public school for at least four years after graduation. Also privately funded, the fellowship is exclusive to Delaware residents.

But even non-residents find a reason to stay in state. "We successfully import some of the best and brightest students from across the country to UD," says Henry. "And many stay here because of the connections they've made."

Since 2015, more than 150 out-of-state students remained in Delaware to teach. Jamie Forrest, EHD17, is one such transplant. Post-college, she always envisioned returning to her native New York, but this small state provided a much-needed sense of community.

"Everyone in Delaware—professionals and legislators—really cares," says Forrest, who has worked as a certified reading interventionist at New Castle Elementary School. "People show up. That's my passion. I want to ensure there's someone here for every student."

EVAN KRAPE

A cohort of rising high school juniors and seniors who are interested in becoming teachers takes part in the College of Education and Human Development's "Teachers of Tomorrow" program.

EVAN KRAPE

WHERE STUDENTS BECOME SCHOLARS

For Smyrna High School junior Tianna Muiruri, 2022 was a summer of firsts. She'd never stayed in a college dorm before, never been away from her family for more than a few days, never presented one of her poems to a group of students she'd only met two weeks earlier.

But after joining UD's College Readiness Scholars Institute (CRSI), she did just that, discovering a newfound confidence along the way. Joined by 43 other high school juniors from across Delaware, Muiruri spent two weeks in June 2022 living and learning on UD's Newark campus, as part of an intense college preparatory summer program.

Established in 2013, CRSI has encouraged nearly 300 students from under-resourced Delaware communities to pursue higher education and boasts an impressive success rate: 89% of participants go to college, many to UD.

At no cost to families, students live in the residence halls, dine in the dining halls, take English and math classes and get acquainted with college expectations. The program isn't easy. The classes are rigorous, the assignments mandatory. Students are up at 6 a.m. and classes begin at 8. "It's strict. You learn time management," says Jaelyn Handy, a high school junior from New Castle County. "I wanted to quit," adds Muiruri, smiling. She stuck with it and found support from her peers and the admissions staff who run the program.

The rigor is the point: getting students to believe that much is expected of them because they have much to offer. Such encouragement is particularly necessary as many students who attend CRSI come from families that have never sent a student to college. In CRSI, "they start to see that education can be part of their success if they are willing to work for it," says Tim Danos, associate director of pre-college programs.

Each summer, while CRSI students are on campus, it's tradition to hold a talent show. When it was her turn, Muiruri read her poem "Reflections," which she wrote in her dorm room. She'd done a lot of reflecting while in the program, calling her experience at UD "restorative after a hard COVID year," in which the quadruplet had mentored her two sisters and brother while also coping with classes over Zoom. Like so many students during the pandemic, she struggled, but felt now that she was "coming out of her shell."

"It's magical to watch as the community forms," says Amber Thompson, an admissions counselor and mentor for the program. "The students who walked into the residence hall the first day are not the same as those who walk out."

—Adam Shutz

BRINGING UD TO THE STREETS (AND CLASSROOMS/BEACHES/PARKS/RESTAURANTS/FARMS/SHOPS/NURSINGHOMES/RIVERS/ETC.) OF DELAWARE

Strengthening the state (and the world) is key to UD's mission.

In 2015, the University received the Carnegie Foundation's prestigious Community Engagement Classification, highlighting an institutional commitment to the cause. Since then, as director of UD's Community Engagement Initiative, Prof. Lynnette Overby has helped Blue Hen scholars apply their knowledge in New Castle, Kent and Sussex counties—in genuinely beneficial ways. "We cannot force our research onto a community," she says. "If we really want to make a difference, there has to be collaboration." Efforts detailed on the following pages range from high-tech to humanistic and span disciplines (health, education, culture and more). But all share a common goal: making life better for Delawareans, one project at a time.

GROUNDBREAKING EVENT: Delaware Agriculture Week in January marked its 17th year delivering research-based information to growers and professionals across Delmarva. Sponsored by the Cooperative Extensions of UD and Delaware State, and the Delaware Department. of Agriculture, the event serves the agriculture industry—Delaware's largest economic driver.

Did you know: *UD's Carvel Research and Education Center in Georgetown is a 347-acre research farm that trains a new generation of Delaware growers and plant scientists. This summer, it hosted paid interns like Millsboro resident Aaron Doll, currently receiving free UD tuition thanks to the Associate in Arts Program (see page 19).*

EQUIPPING THE KIDS: More than 4,000 (and counting) children throughout Delaware are now armed with skills necessary to cope with anxiety, develop greater self-esteem and resist substance abuse and peer pressure. Cooperative Extension educators bring the nationally rated, science-backed Botvin LifeSkills program into community centers and schools around the state, where they share strategies for improving everything from self-image to assertiveness.

The results:

96 percent of middle schoolers who now disagree that smoking makes you look cool

100 percent of elementary school students who report learning that smoking leads to yellow teeth and cancer

86 percent of middle schoolers who say they will turn down any offers of beer, wine or liquor

CASH-SAVVY CLASSROOMS: Teach Children to Save Day, produced each April during National Financial Literacy Month in partnership with the Delaware Bankers Association, introduces the important ethic of saving early and often to third and fourth grade students in all three Delaware counties. With the help of more than 100 bank volunteers, guest presenters visit nearly 300 classrooms each year to deliver an important 45-minute lesson. Approximately 7,000 students are reached annually.

MARIA ERRICO

DIFFERENT STROKES: An explosion in recreational kayaking and stand-up paddleboarding in southern Delaware is a boon for the local economy. To nurture this interest, Delaware Sea Grant—administered by the UD's College of Earth, Ocean and Environment—worked with community partners to curate a team of local paddling enthusiasts and produce a Coastal Delaware Paddling Map and associated website. The final product can be found at chambers of commerce as well as online at paddlecoastaldelaware.com.

Did you know: *After the onset of COVID-19, Delaware Sea Grant supported a Southern Delaware Tourism digital marketing campaign to ameliorate the effects of the virus. More than 450 hotel bookings were attributed to the campaign.*

COURTESY OF EDWARD LEWANDOWSKI

Kayaking on Broad Creek near Laurel, Delaware

FULL-CIRCLE FASHION: The food on your plate today could be what you're wearing tomorrow. UD Prof. Kelly Cobb is taking food waste and agricultural waste (think chicken feathers) from local restaurants and farms around Delaware, and she's turning these products into natural, sustainable dyes. The dyes are then tested on unsold clothes from the Goodwill of Delaware and Delaware County. Now, Cobb is working to secure funding for the creation of a regional, circular supply chain and—eventually—the creation of an open-source model for use by Goodwills across the nation. "Change can begin right here in Delaware," she says.

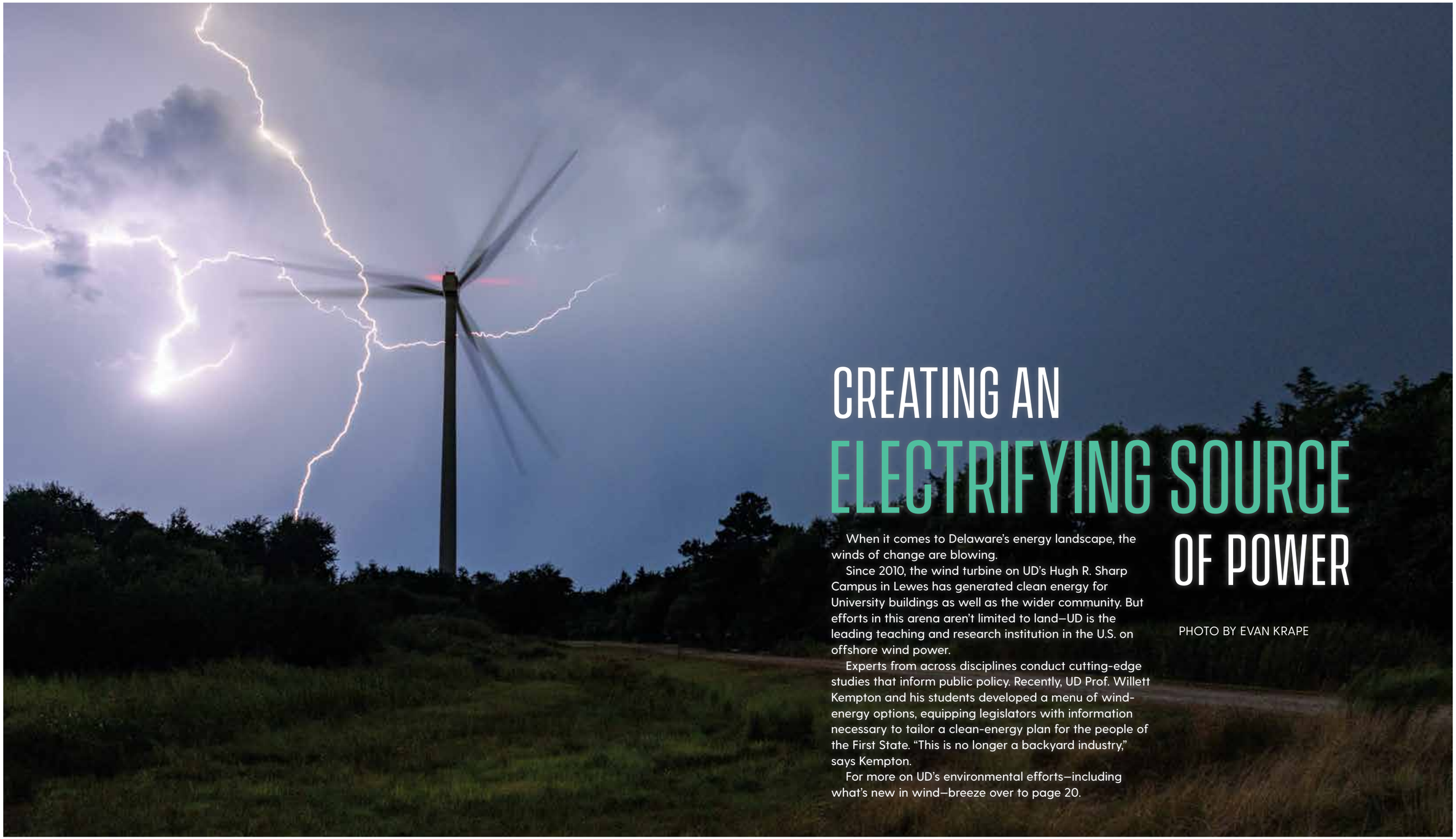
A bundle dye of regional plants with milk plasma thickened with corn dextrin. Image Maddie Knutson.

> **"When you're stressed out, and you feel like everything's falling apart in the house, it's really hard to be pleasant and want to sit and read books and enjoy time with the kids. So I do feel like it has put me in a better frame of mind, which makes me react to the children in a much better way."**
>
> *—A participant from "Shining the Light on You," a 15-week, evidence-based virtual program developed by UD researchers in collaboration with the state and the Delaware Institute for Early Childhood to support childcare workers, who are often low-income women of color. Topics spanned self-care, stress management, financial literacy and more.*

HEALTH FOR ALL: 1,007. That's how many people received primary health care in the first half of 2022 in non-clinical settings such as senior centers, schools, barber shops, churches, food pantries and more, all because of a new program from UD and community partners. Because of HEALTH (health, engagement, access, learning, teaching and humanity) for All, Delawareans in underserved neighborhoods are getting their medical needs met, and Blue Hens are breaking through systemic barriers to healthcare.

> **"When parents dropped off their kids, the first person they saw was a UD student in scrubs. It helped them feel that this was someplace safe for their child."**
>
> *—Partner school participant in the HEALTH for All program*

PHOTO BY ASHLEY BARNAS



CREATING AN ELECTRIFYING SOURCE OF POWER

PHOTO BY EVAN KRAPE

When it comes to Delaware's energy landscape, the winds of change are blowing.

Since 2010, the wind turbine on UD's Hugh R. Sharp Campus in Lewes has generated clean energy for University buildings as well as the wider community. But efforts in this arena aren't limited to land—UD is the leading teaching and research institution in the U.S. on offshore wind power.

Experts from across disciplines conduct cutting-edge studies that inform public policy. Recently, UD Prof. Willett Kempton and his students developed a menu of wind-energy options, equipping legislators with information necessary to tailor a clean-energy plan for the people of the First State. "This is no longer a backyard industry," says Kempton.

For more on UD's environmental efforts—including what's new in wind—breeze over to page 20.

20 examples of SERVING THE STATE

BY SARAH PRAGG

Across UD, faculty, students and staff work in countless ways to enhance the quality of life in Delaware. This is particularly true for the Institute for Public Administration (IPA), founded in 1973 and based in the Biden School of Public Policy and Administration as a public service and applied research center. Thanks in large part to funding from the state of Delaware, IPA collaborates with state agencies, municipal governments, nonprofits, communities and businesses to improve all aspects of the state. With a half-century of public service, there are easily 50-plus ways IPA serves Delaware. Here are just 20 examples of recent partnerships.*

1 Establishing all-day preschool and wrap-around services for high-needs schools in Wilmington through the Redding Consortium for Educational Equity

2 Developing flood resilience policies for coastal communities

3 Tracking the economic impact of the state's watersheds to highlight the multi billion-dollar importance of keeping our water clean and safe

4 Designing virtual tours of Delaware's seven byways—roadways with scenic, historic, natural, cultural, recreational and archaeological significance throughout the state

5 Developing the Delaware Equitable Planning for Local Adaptation Needs (DE PLANS) website that features local emergency planning tools and resources for Sussex County

6 Creating the "New Castle County CARES 4 Seniors" website to help older adults and service providers identify and coordinate essential services

7 Designing a plan to improve mobility for individuals with special transportation needs throughout Delaware

8 Working with the Delaware General Assembly to offer the Legislative Fellows Program, in which UD students contribute their research and writing skills to assist legislators on critical public policy issues through a six-month internship...and have been doing so for 41 years and counting!

9 Teaching community mediation techniques to New Castle County police officers

10 Connecting high school students from the city of Wilmington with environmental issues, resources and job opportunities through the Wilmington Green Jobs Program

11 Monitoring and reporting data on the educational progress of low-income students across the state

12 Maintaining a public online directory with contact information for state, county and local government leaders in Delaware

13 Designing a series of workshops to help ombudsmen facilitate contentious meetings among long-term care patients, their families and those who serve them

14 Launching the second cohort of the Delaware Department of Labor's Leadership Academy, which engages 25 managers and emerging leaders in a four-month leadership development program

15 Designing a GIS story map to track and address food insecurity issues, starting with a pilot in Sussex County and then expanding statewide

16 Highlighting stories of underrepresented entrepreneurs on the *First State Insights* podcast

17 Evaluating the efficacy of physical barriers on public buses to mitigate the spread of COVID-19

18 Training over 200 town administrators throughout the state to become certified municipal clerks

19 Evaluating state-funded programs that provide early childhood care for low-income families

20 Removing 11 industrial dams from the Brandywine River so that the American shad fish can be reconnected with their spawning habitat

* For more examples of IPA's statewide impact, please visit bidenschool.udel.edu/ipa

OPENING THE DOORS OF

ACCESS AND AFFORDABILITY

Increasing access to higher education is integral to UD's mission.

One of myriad ways the University is opening doors is through the Associate in Arts Program (AAP), an affordable pathway to college for Delaware residents. With locations in Wilmington, Dover and Georgetown, the two-year program offers small class sizes, specialized advising and low or, in most cases, no tuition. Students are full-fledged Blue Hens who, after earning an associate degree, may transition to UD's main campus, which nearly nine out of 10 do.

"As much as the students need to be ready for post-secondary education, the faculty, staff and institution need to be ready for the students," says David Satran, AAP director. "We need to welcome them with a curriculum and experience that speaks to their needs and ambitions."

By opening doors to a greater pool of scholars, AAP is advancing ideas of what it means to be a college student. But AAP is itself continually evolving. Now, with a recently secured grant to help meet the post-COVID moment, the program is broadening its services. This includes the hiring of four new positions: two mental health counselors and two student engagement and support facilitators. Two of these positions will be based in Wilmington, and two will be shared between Dover and Georgetown. The move is the latest manifestation of a bona fide commitment to the people of the Diamond State.

"UD shows its commitment to Delaware in many different ways," says Satran. "We can't do much better than making the University an inclusive environment—in a really sincere way."

It's a mission that AAP students are paying forward, long after they graduate.

Consider Christian Wills, an alumnus of AAP who went on to earn a bachelor's degree in English from UD's main campus in 2020. Today, he's so inspired by the commitment to equitable education and community outreach that was modeled for him by AAP, Wills spends his days as a student advocate for junior high schoolers in Wilmington. As a mentor, he strives to replicate the sense of belonging that was afforded to him as a new college student several years ago.

"The staff and professors nurtured not just my learning, but my self-discovery," he says of his AAP community. "Now, I try to relay to my own students: In this community space, everyone is worthy."

—Diane Stopyra

EVAN KRAPE

EVAN KRAPE

A COASTAL BEAUTY

HOW UD WORKS TO PRESERVE AND PROTECT OUR NATURAL LANDSCAPE

BY DIANE STOPYRA

> **Here at UD, people aren't just sitting around diagnosing problems and hoping for a better future. They're working for it.**
>
> *–Prof. A.R. Siders, co-director of the Climate Change Hub*

It happens under a full moon. In May and June, thousands of bulbous-shelled horseshoe crabs–10-legged creatures that predate the dinosaur–emerge from the Delaware Bay for an orgy. The shoreline becomes a glistening spectacle of arthropod whoopee that draws in-the-know locals and visitors hoping for a glimpse of the local phenomenon.

"It's one of those magical moments offered up by nature," explains oceanographer and UD Prof. Fabrice Veron. While he doesn't study the animals himself, they fall under the research purview of UD's College of Earth, Ocean and Environment, where he serves as interim dean. Typically, he and his colleagues are more comfortable talking metrics than magic. But even Delaware's most scientific minds have to admit: When it comes to the natural environment, this small state ranks high in enchantment.

Consider the serene quiet of a sunrise over Broadkill River. The intoxicating smell of lavender fields in Milton. The mesmerizing sight of 1,000 snow geese in Bombay Hook National Wildlife Refuge. From the north end's hilly Piedmont region to a Coastal Plain that boasts three state forests and 380 miles of shoreline, Delaware is a tide-washed canvas–osprey-dotted skies give way to dazzling wetlands and amber-hued bogs. Inland, rows of watermelon, corn and barley span more than 2,000 farms.

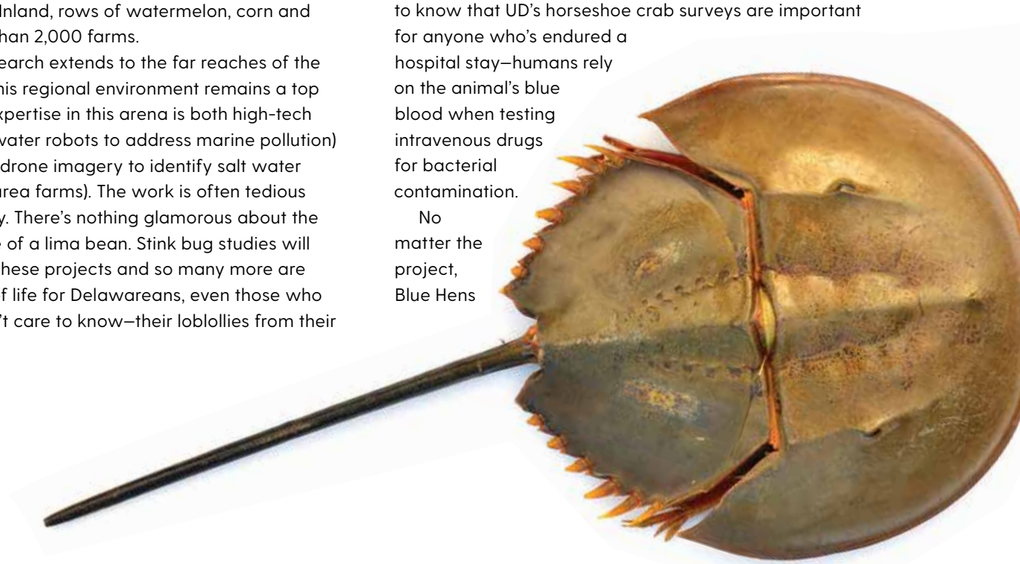
Even as UD's research extends to the far reaches of the globe, preserving this regional environment remains a top priority. Blue Hen expertise in this arena is both high-tech (developing underwater robots to address marine pollution) and high-up (using drone imagery to identify salt water encroachment on area farms). The work is often tedious and downright dirty. There's nothing glamorous about the reproductive phase of a lima bean. Stink bug studies will never be sexy. But these projects and so many more are improving quality of life for Delawareans, even those who don't know–or don't care to know–their loblollies from their laurels (native trees, for the uninitiated).

To begin with, UD's environmental efforts safeguard the economy. Research from the University's Clean Water Center has led to greater political investment in the Delaware River Basin, a $22 billion asset tied to 600,000 jobs and a slew of recreational opportunities, from boating to birdwatching. And Blue Hens within UD's College of Agriculture and Natural Resources support an $8 billion agricultural industry in myriad ways, like providing sustainability training to farmers, or using state-of-the-art technology to identify avian diseases among the state's 200 million commercial chickens.

In some cases, the outcomes of UD's environmental efforts are highly visible. Consider a new Offshore Wind Training Center in Lewes, set to recruit and educate an emerging wind-energy workforce.

In other cases, the payoffs for everyday Delawareans are a bit more tangential, but just as real. UD's entomological research? It helps protect the hops in your favorite beer from death-by-spotted-lantern-fly. Anti-erosion work? It keeps the break of your go-to surf spot intact, so you can hang 10 for years to come. And even if you fail to see the magic in that aforementioned mating spectacle, you might be interested to know that UD's horseshoe crab surveys are important for anyone who's endured a hospital stay–humans rely on the animal's blue blood when testing intravenous drugs for bacterial contamination.

No matter the project, Blue Hens



preserving Delaware's environment—land, sea or sky—share a common motivation: a sense of responsibility to the people of the Diamond State. For Delaware Sea Grant, a program that conducts research and outreach for the benefit of coastal communities, this manifests in myriad ways, from training environmental educators to prepping for oil spills to assisting the state's fledgling oyster aquaculture industry. In the latter category, Delaware's first oyster hatchery is in development and set to alleviate a dire bivalve bottleneck.

"It's always top of mind that much of our work is funded by taxpayer money," says Joanna York, Delaware Sea Grant director. "It's critically important to all of our people that we're good stewards of those dollars. We care about these communities, and we want to have a positive impact on the people who live here."

In a state as low-lying as Delaware, achieving a positive impact increasingly means managing the effects of climate change. From units across campus, researchers are combating ocean acidification, sea level rise, even Wilmington's so-called heat islands, urbanized pockets whose higher temperatures are detrimental to human health. In CEMA, the Center for Environmental Monitoring and Analysis, UD experts provide real-time weather monitoring services that inform decision making and disaster preparedness at the state level.

Bringing these efforts together under one umbrella is the Mangone Climate Change Science and Policy Hub, which facilitates collaboration between scholars and external partners in order to better engineer solutions for the people—and natural wonders—of Delaware.

"If the beaches narrowed, if the horseshoe crabs weren't here, if the birds stopped migrating across this place, that would fundamentally change what the state is," says Prof. A.R. Siders, co-director of the Climate Change Hub. "Sometimes, I think we take for granted that all these iconic things we love so much will always be around. But keeping them here and healthy requires a lot of stewardship."

As to whether Siders and her eco-minded colleagues across campus are up to the task... let's just say the Blue Hen doesn't rely much on hope.

"That's something you need when you're not taking action," she says. "Here at UD, people aren't just sitting around diagnosing problems and hoping for a better future. They're working for it."

EVAN KRAPE

PHOTOS BY KATHY F. ATKINSON, EVAN KRAPE AND MONICA MORIAK

REDESIGNING DELAWARE

In 2018, Laurel got a makeover.

Located along a tributary of the Nanticoke River, the Sussex County town struggled with flooding. So Jules Bruck, then a professor of landscape architecture at UD, designed a constructed wetland and other green infrastructure to mitigate the problem.

Once these plans for a more sustainable—and attractive—downtown area were implemented, Bruck turned to her colleague on the initiative, Ed Lewandowski of Delaware Sea Grant. "If we can do this for Laurel," she told him, "we can do this for other small towns in Delaware."

The Coastal Resilience Design Studio, CRDS, was born.

Bruck curated an interdisciplinary team of Blue Hen student designers, researchers and engineers interested in helping Delaware's towns become more socially, economically and environmentally resilient. Funded by Delaware Sea Grant, the team has worked on eight projects to date, from designing a riverfront walk in Claymont to planting dune vegetation in Fenwick Island State Park.

Some of the CRDS initiatives have been relatively small, like launching a farmers market in Frederica to combat food scarcity. Others have involved reimagining entire towns. In Little Creek, the team completed a master planning process which envisions new crosswalks, a dog park, micro retail village and restored wetlands—all in varying stages of development. In every case, the student-led designs undergo a technical review from state agencies to ensure feasibility.

"Each project has proven catalytic in terms of securing grants and funding," Bruck says.

But the work of CRDS has proven successful in another way, too: Imparting hope for a sustainable future to Delaware's most vulnerable residents.

"You can write it down in words, but when you actually show what a town can look like? This gets people very motivated to work toward it, and that is very exciting."

> **If the beaches narrowed, if the horseshoe crabs weren't here, if the birds stopped migrating across this place, that would fundamentally change what the state is.**
>
> *—Prof. A.R. Siders*

WHAT IS COOPERATIVE EXTENSION?

More than 53 tons.

That's how much excess nitrogen—killer of marine life commonly found in fertilizer—has been kept out of the Chesapeake Bay and other watersheds, thanks to the work of UD's Cooperative Extension.

This unit is part of a nationwide educational and outreach network established in 1914. At 111 Land-Grant colleges around the country, Cooperative Extension offices help community members apply high-level research to improve wellbeing. The goal of the Blue Hen iteration is simple: Bring University knowledge to the people of the First State in ways they can use.

"We have offices in every county in Delaware, and they're composed of people who live, work, worship and play in these communities," says director Michelle Rodgers. "They are trusted and passionate messengers, and they offer unbiased, research-backed information to improve wellbeing."

The 70 employees and more than 3,000 volunteers of UD's Cooperative Extension zero in on major focus areas: agriculture, positive youth development, and nutrition and wellbeing. Environmental work is integrated into all of the above. Initiatives range from a nature-centered camp for kids to a Master Naturalist program that equips everyday citizens for tree planting, invasive species control and the installation of sustainable landscapes. Via an aforementioned nutrient training program, farmers and homeowners become better stewards of their land and, in the process, protect the health of Delaware's estuaries for generations to come.

By these and other efforts under the Cooperative Extension umbrella, it is estimated that one in 10 Delawareans (and counting) are impacted.

"This is very much a reciprocal relationship," Rodgers says. "Members of the community own these issues and—through our work together—they become part of the solution."

SHINING STAR

EVAN KRAPE

A NEXUS OF RESEARCH INNOVATION AND ECONOMIC DEVELOPMENT FOR THE STATE

UD improves lives in Delaware and beyond. For proof of this transformational work, look to the University's 272-acre solar plexus: the Science, Technology and Advanced Research (STAR) Campus. Once the location of a sprawling Chrysler assembly plant, this discovery and innovation hub boasts more than 30 enterprises engaged in healthcare, energy, education, economic development, incubation, research, community engagement, manufacturing and more. Over $500 million has been invested into the site in just over 10 years, creating high-value jobs and paying dividends for the state with over 1 million square feet of occupied space.

Consider STAR's six-story Fintech Innovation Hub, where engineers, computer scientists and business leaders connect to enhance Delaware's robust financial services sector. Beyond numbers and calculations lies an even greater mission of economic equity. In addition to boosting the growth of small businesses, a major focus is building wealth in minority and low- and moderate-income communities while increasing equitable access to credit in Delaware.

Meanwhile, in the $165 million Ammon Pinizzotto Biopharmaceutical Innovation Center, approximately 300 researchers work to advance capabilities in the realms of biomedical engineering, pharmaceutical discovery, manufacturing technologies and molecular and medical sciences. COVID-19-related projects are part of those important efforts and include innovations to accelerate vaccine manufacturing.

Equally thrilling is work happening inside the nearby Chemours Discovery Hub, where leading scientists with the global Chemours chemical company brainstorm and develop solutions to big problems in the automotive, electronics, energy and telecommunication industries. Because of this mission, another 300 research jobs are kept in-state, while Blue Hen interns learning from industry leaders are primed for success.

For those who remember the 2009 closing of the Chrysler assembly plant, which eliminated more than 2,000 jobs, these STAR Campus developments are, in the words of Delaware Gov. John Carney, BSPA84M: "one of the most exciting things happening to the economy in this state." But they're something else, too: an opportunity to enhance and enrich the lives of Delawareans, one discovery at a time.

A CONVERSATION WITH...

As a child touring the Chrysler assembly plant with her uncle, ***Tracy Shickel*** never dreamed this site would one day become STAR Campus, a 272-acre innovation hub tasked with solving the world's most pressing problems. And she never dreamed that she'd one day be an integral part of this ecosystem, working to pair UD researchers with industry and community partners. "Life is a boomerang," says Shickel, BE87. Here, the associate vice president of corporate engagement (and a skip of a recreational curling team) reflects on her job, her UD pride and some of the reasons STAR's future looks so bright.

What does your average day look like? I think of myself as a UD concierge. I focus on growing the impact of UD innovation, and that's accomplished through various corporate partnerships, so I spend a lot of time aligning internal and external parties—fact-finding and figuring out where the common interests might be.

What does that process look like? It's all relationship management. We have 30 tenant organizations on STAR Campus, so I get to know them, their business models and what they need to grow. Then I facilitate those connections. It feels a little like a hobby of mine: putting together jigsaw puzzles.

Biggest puzzle you've ever completed? 5,000, but the dog kept walking away with the pieces.

Do you have a dream tenant? I'd say research companies are the dream tenants, although the arts and humanities have a place in an innovation ecosystem, too. During the pandemic, we worked on some cool projects, like using GIS technology to map all of the public artwork in Newark, or partnering with the Delaware Department of Transportation to get students' motivational artwork displayed in bus and train stations.

Of all the STAR initiatives, which excite you most? The pandemic certainly highlighted the importance of our work enhancing the country's ability to manufacture biopharmaceuticals. And then there's our Fintech ecosystem, which will bring together thought leaders to address the financial health crisis in the U.S. I can't wait to see what comes out of this, because if our society can't crack financial health and equity, we're doomed.

Is there a way to quantify the economic impact of all this for the state? More than 3,000 people now work at STAR, far exceeding the 2,100 jobs that were lost when Chrysler shut down, and thousands more visit every day.

There are so many big promises emerging. Do you ever want to fold under the pressure of bringing this to fruition? There are a lot of big promises, but that's what gets you out of bed in the morning. The possibilities are just so compelling. Don't tell anybody, but I really do have the best job on campus.

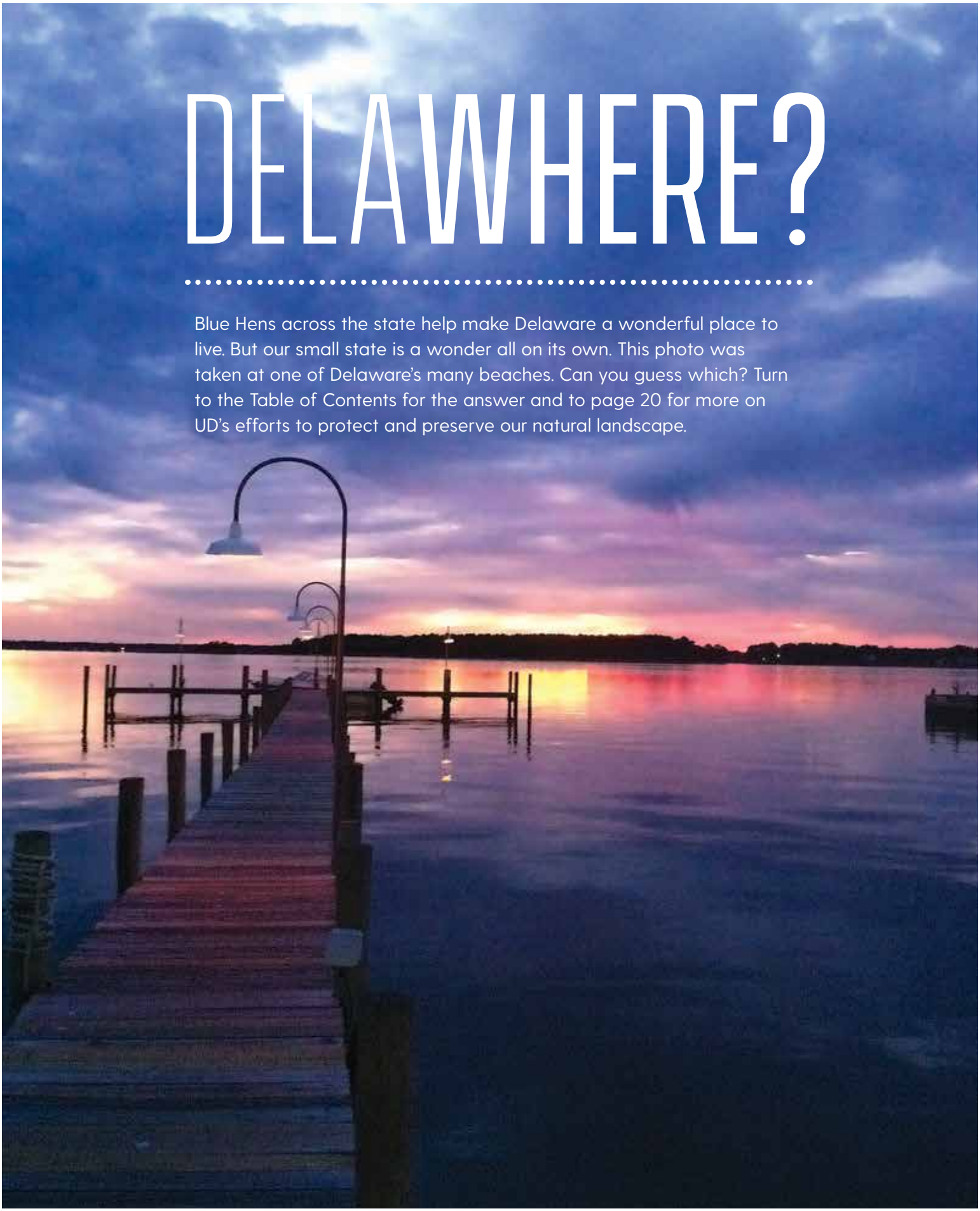
What gives you hope? I see students of this generation, and I know their commitment to inclusive change is going to transform the way we innovate. And I see how UD's commitment to sustainability, equity and inclusion is integral to our ecosystem. When you incorporate real care for people and the planet into your decision making, great things happen.

> "More than 3,000 people now work at STAR, and thousands more visit every day."

PHOTO BY KATHY F. ATKINSON

DELAWHERE?

Blue Hens across the state help make Delaware a wonderful place to live. But our small state is a wonder all on its own. This photo was taken at one of Delaware's many beaches. Can you guess which? Turn to the Table of Contents for the answer and to page 20 for more on UD's efforts to protect and preserve our natural landscape.



COURTESY OF VISITDELAWARE.COM