

# A collection of gems



Clarifying our impact  
on the Diamond State





## Delaware Is Rising

In its latest report on states' science and technology capabilities, the Milken Institute says it's more apparent than ever that successful economic development in the country's states and regions is tied to harnessing and nurturing the innovation assets within their borders. Last year, Delaware cracked the Milken State Index's top 10 for the first time. Clearly, Delaware is harnessing and nurturing.

The University of Delaware is a critical ally in these efforts. Our growing research enterprise is fueling discovery and invention on a scale we've never seen before, and we're leveraging those assets more effectively. We're bringing small science and technology companies into the state and assisting home-grown ventures. We're brokering big regional partnerships in industries vital to Delaware's prosperity, like health sciences, energy and national security. We're educating the leaders who will sustain a thriving Delaware, and—every day—we're reinvesting ourselves in the people and the neighborhoods of the Diamond State.

In all of this activity, we're building the "power of place." We're making Delaware a state in which talent and innovation attract talent and innovation; where dynamic people demand a dynamic environment—rich in the arts, humanities and culture; where ingenuity is valued, ideas flourish and creativity thrives. And the benefits accruing from *this* kind of community are incalculable.

Delaware is rising. Read on to find out how high.

Patrick T. Harker  
President

PHOTO BY EVAN KRAPE

## Delawareans First

As the state's flagship university, UD puts Delawareans first. In terms of admission to UD, that means Delaware students have a big leg up on those from out of state.

In 2006, UD launched its Commitment to Delawareans.

We promised admission to all in-state students who took certain courses in high school and earned qualifying grades in them.

If Delaware students follow this "academic roadmap" preparing them for college-level work, they're in. In fall 2010, nearly 89 percent of in-state applicants were admitted to UD.\*

Of course, access is as much about affordability as academic preparation. And so, in 2009, the University pledged to meet the full demonstrated financial need of in-state students and to cap students' debt at one-quarter the cost of a four-year UD education.

Forty-nine percent of the University's in-state freshmen and sophomores receive financial assistance through the Commitment—that's more than 1,300 students—and the average per-year aid package tops \$12,000. With the

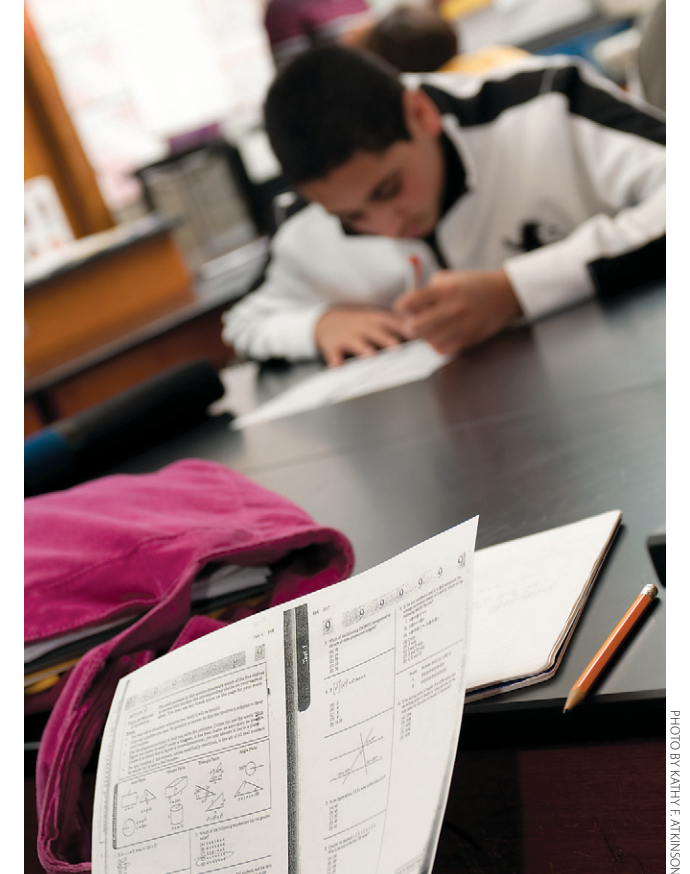
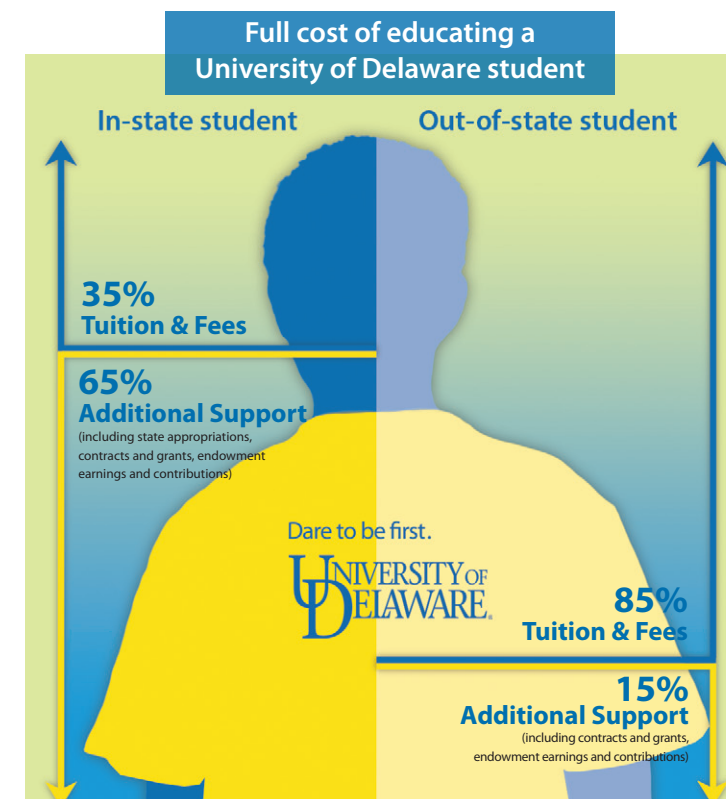


PHOTO BY KATHY FATHINSON

recession still affecting many Delaware families, the upward trend in eligibility will likely continue; this fall, we project 60 percent of in-state freshmen will qualify for aid through the Commitment to Delawareans.

\* More than 65 percent of in-state applicants were admitted to the Newark campus; another 23 percent were admitted to UD's Associate in Arts program, which is articulated with a four-year degree.



The average one-year cost to educate a UD student (undergraduate and graduate) in FY 2010 was \$27,250.



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in-state freshmen  
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## It Pays to Serve

The students who run UD's Garden for the Community are supplying safe, sustainable food to Delaware families in need. Students taking the Management Information Systems capstone course help Delaware nonprofits optimize operations, increase revenue and better serve clients. The students patrolling Delaware's senior centers—Wii gaming systems in hand—are improving older adults' physical and mental health. But all these students are doing something else, too; they're boosting Delaware's economy.

Last year, 12,000 UD students dedicated 160,000 hours to service learning, community-based research and volunteer

projects. Those efforts contributed \$4 million in goods and services to Delaware's economy—\$6.7 million to the national economy—and provided, at no charge, services that otherwise would have cost \$1.4 million.

Involvement in service learning and community-based research also correlates with quicker entry into the workforce, higher starting salaries—according to UD's Career Services Center, \$5,000–\$8,000 higher—and more rapid career advancement. For the class of 2011, that's a \$50 million net gain.



We can reach across  
the economic, social, geographic  
and ethnic spaces that divide us  
and create a caring world—  
one project at a time.

—Lynnette Overby, faculty director,  
Undergraduate Research and  
Experiential Learning



**SIDDIQ HAYNES**

**Siddiq Haynes** is a just-graduated English major, a letter-winning Blue Hen defensive tackle and a prolific community servant. While at UD, he gave 200+ hours of service to such organizations as the Boys & Girls Clubs of America, Special Olympics, March of Dimes, A.I. duPont Hospital for Children and New Castle County Youth Football.

### UD IS A CITIZEN UNIVERSITY.

From a record 112 nominees, Haynes was named the 2010 Allstate AFCA Good Works Team Captain, one of the most prestigious off-the-field honors in collegiate football. It was the first time a captain was selected from among the 22 team members. On his way to Texas for the Blue Hens' NCAA championship game, Haynes took a detour to New Orleans and—with his Good Works teammates—spent a morning clearing vacant, overgrown lots in the Lower Ninth Ward.

## The Economics of Agriculture

While agriculture's central role in Delaware's early growth is clear, its value in the state's modern economy is severely underreported. An economic impact study by the University of Delaware shows agriculture's aggregate in-state contribution is \$8 billion a year—far higher than the \$1.1 billion typically cited.

That's because the agriculture census counts only the market value of Delaware farm products. When you factor in revenue from the processing and manufacturing of agricultural and forestry products and the multiplier effect of agriculture-related expenditures and employment, the impact rises steeply.

The agriculture industry supports nearly 30,000 full-time, part-time and seasonal jobs, and accounts for 40 percent of the state's land use.

UD's College of Agriculture and Natural Resources is solving complex agricultural, environmental and ecological problems, supporting Delaware's farmers and an industry increasingly reliant on technological and biological innovation.



PHOTO BY DANIELLE QUIGLEY



## Turning Ideas Into Assets, and Assets Into Jobs

The Office of Economic Innovation and Partnerships (OEIP) works with UD faculty, researchers and students to turn discovery into invention, and to leverage that intellectual property through licensing and commercialization.

The first step in getting good ideas out of the University and into the marketplace is filing an invention disclosure. In 2010, the number of disclosures filed by UD faculty, staff and students was up 65 percent over 2009, and the number resulting in a patent application more than doubled.

OEIP works closely with UD's inventors throughout the IP development process—from disclosure through startup launch and beyond. The Office is building UD's entrepreneurial culture and capacity, creating more opportunities for entrepreneurship and a tight network supporting those who pursue it.

But OEIP's work extends far beyond the University. The OEIP-housed Small Business & Technology Development Center (SBTDC) helps Delaware's small business owners grow their companies. In 2010, SBTDC clients secured \$11.5 million in new capital and \$44.7 million in federal contracts. Combined, that's a 33-percent jump over 2009.

With its many partners inside and outside UD, like Newark's Delaware Technology Park and the Delaware Biotechnology Institute, OEIP has helped create 2,356 direct Delaware jobs—and more than 6,500 direct and derived jobs—which has, in turn, produced \$508 million in labor income.



PHOTO BY KATHY F. ATKINSON

## Our Environment in Focus

In the same way that Delaware INBRE (page 7) catalyzes collaborative research and education in health sciences, Delaware EPSCoR—with significant support from the National Science Foundation (NSF)—builds a statewide network for environmental science, engineering and policy research.

Since 2005, 155 faculty from Delaware colleges and universities have participated in EPSCoR, and the program has supported 13 faculty hires. Direct EPSCoR funding into Delaware totals \$34 million—including \$8 million from the state—and another \$17 million in research awards leverages EPSCoR dollars.

EPSCoR funding has seeded research centers like UD's Delaware Environmental Institute and the Center for Science, Ethics and Public Policy. But it also helped launch a less likely venture—UD's Office of Economic Innovation and Partnerships (previous page). OEIP's proving ground was turning EPSCoR discoveries into marketable inventions. The market is ready: Since 2005, 13 patents have been awarded to the partnering institutions, and 26 more are pending. Three companies, launched with EPSCoR's startup assistance, are now thriving.

*Partnering with UD in the NSF Experimental Program to Stimulate Competitive Research (EPSCoR) are Delaware State University, Delaware Technical and Community College and Wesley College.*



Since its start, OEIP has helped create 2,356 direct Delaware jobs—and more than 6,500 direct and derived jobs—which has, in turn, produced \$508 million in labor income.



## HARNESSING THE WIND

UD's 2-megawatt onshore wind turbine powers the University's Lewes campus—but its value goes beyond emissions-free energy. Turbine research being conducted in Lewes is building the U.S. knowledge base on the viability, cost-efficiency and impacts of wind energy.

Plus, UD and the National Renewable Energy Laboratory are working toward testing commercial wind turbines off the Delaware coast. A test site in Delaware could mean significant jobs in wind-energy manufacturing and engineering.

**UD IS IDEA LEADERSHIP.**

PHOTO BY EVAN KRAPE



# The Architecture for Collaboration

Growing Delaware’s life and health sciences sector is a key state priority—with good reason. Health sciences is the Delaware Valley’s #1 employer and critical to economic growth.

Strengthening the state’s health sciences capacity is Delaware INBRE, a research and training network linking the state’s colleges and universities and clinical care providers with the goal of developing a pipeline of biomedical research personnel who can win competitive federal grants.

Since its launch in 2001, Delaware INBRE has secured \$45 million from the National Institutes of Health to develop this biomedical infrastructure, and the state has committed a

\$5 million match. In that time, the network has supported more than 50 biomedical pilot research projects by junior faculty and trained 800 students from its partner institutions.

Equally important is that Delaware INBRE has helped build the state’s architecture for collaboration and spawned several more interdisciplinary and inter-institutional initiatives.

One of them is the Delaware Health Sciences Alliance (DHSA), which began with the INBRE grant. DHSA is a partnership among UD, Nemours/Alfred I. duPont Hospital for Children, Christiana Care Health System and Philadelphia’s Thomas Jefferson University. Its work focuses on Delaware’s chief health care needs: biomedical research that can be quickly applied to patient care; high-quality education for the region’s health professionals; and better health care access, delivery and outcomes for all Delawareans.

*Partnering with UD in the Delaware IDeA Network of Biomedical Research Excellence (INBRE) are Christiana Care Health System, Delaware State University, Delaware Technical and Community College, Nemours and Wesley College.*

## NURSING DELAWARE TO HEALTH

Some projections show Delaware in 2020 with just over half the nurses it needs, and the state is stepping up its response to the shortage. With state support, UD will expand its accelerated nursing program by 10 students; its traditional four-year program by 17 students; and its RN-to-BSN program—which articulates closely with Delaware Tech’s nursing program—by 26 students.

# Helping the Wounded Warrior

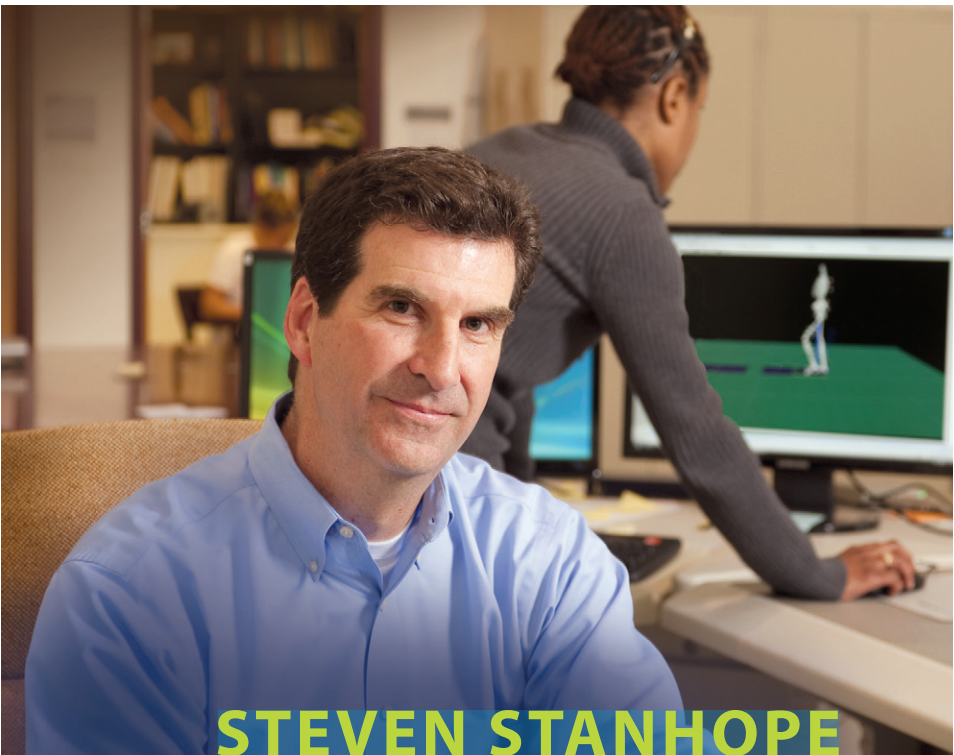
In 2010, UD signed an R&D agreement with the U.S. Army’s Research, Development and Engineering Command, yielding joint research in antenna technology, rapid prototyping, information assurance, mobile networking—everything that goes into the electronic battlefield.

With a five-year, \$19.5 million grant from the Department of Defense, UD is also focusing on the soldiers who come off that battlefield. Steven Stanhope is leading a team of researchers to improve orthopedic rehabilitation for soldiers with musculoskeletal injuries.

With better body armor and emergency care, more soldiers are surviving combat injuries. But with high-velocity weapons and explosives, those injuries are severe—often resulting in serious impairment or amputation.

The grant was awarded to UD but involves a consortium of military training facilities, academic researchers and rehabilitation institutes. Stanhope is principal investigator and consortium director. Partners include Spaulding/Harvard Rehabilitation Hospital, the University of Texas at Austin, the Mayo Clinic, two Army Medical Centers and two Naval Medical Centers.

“Our goal is to see every wounded warrior living a full and engaging life,” says Stanhope.




**Steven Stanhope** is a professor in UD’s Department of Kinesiology and Applied Physiology, with joint appointments in the Department of Mechanical Engineering and the Biomechanics and Movement Science Program. The DOD grant on which he’s principal investigator capitalizes on UD’s strengths in rehabilitation science, advanced materials and physical therapy.



In 2010, UD’s grant and contract funding topped \$181 million, more than double the sponsored expenditures of a decade ago.







Every year, 700,000 people visit the University of Delaware for plays, concerts, recitals, lectures, conferences, sporting events and art exhibitions. While here, they contribute \$18 million to Delaware's economy.

## Curtain Up

Professional theatre is alive and thriving in Newark. Some of America's most experienced and respected regional theatre actors make up UD's Resident Ensemble Players (REP), and each season the company stages several critically acclaimed productions.

During the 2010–11 season, the REP played to more than 29,000 theatregoers. That's a 30-percent climb over the season before—which was, itself, a 44-percent jump over 2008–09. Total ticket revenue for the 2010–11 season was \$393,000—money that supports the performers and productions.

SRO: The REP's production of *A Midsummer Night's Dream* sold out during its 10-day run in winter 2010.

PHOTO BY AMBRE ALEXANDER

## UD's Building Boom

UD is building for the future. A major program of capital investment will touch every aspect of students' college experience. With planning or construction under way for a new UD Bookstore, improved and expanded athletic and recreational facilities, a new housing complex and dining hall, renovated classroom space and new state-of-the-art research and teaching labs, UD is a beautiful work in progress.

Current capital projects will add or improve about 907,000 square feet on campus, and should employ more than 3,500 workers during construction.

UD takes a long view toward campus transformation. We're examining our built environment, green space, utility infrastructure, vehicle and pedestrian traffic, parking and environmental impact to ensure that—separately and together—the University's dramatic changes support a connected campus, an engaging environment and opportunities for responsible, sustainable growth.

The nearly 200,000-square-foot Interdisciplinary Science and Engineering Lab will house classrooms, teaching laboratories and core research facilities, along with several of UD's renowned energy and environmental institutes. The ISE Lab will be built with donor support and is scheduled to open in 2013.



Current campus projects  
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PHOTO BY JON COX

The average American eats about 16 pounds of fish and shellfish every year.

**Doris Hicks**, seafood technology specialist with the Delaware Sea Grant Program, is making sure every ounce is safe.

Hicks is researching the effectiveness of processing practices designed to destroy harmful microorganisms in oysters and clams. She's developing antimicrobial packaging for ready-to-eat seafood. She helps seafood distributors and processors implement food safety measures, and trains workers in preventing food contamination.

But Hicks isn't just making sure our seafood is safe; she's making sure it's delicious, too. Her annual crab cake, chowder and rockfish cook-offs get the region's best chefs (and wannabes) thinking seafood.



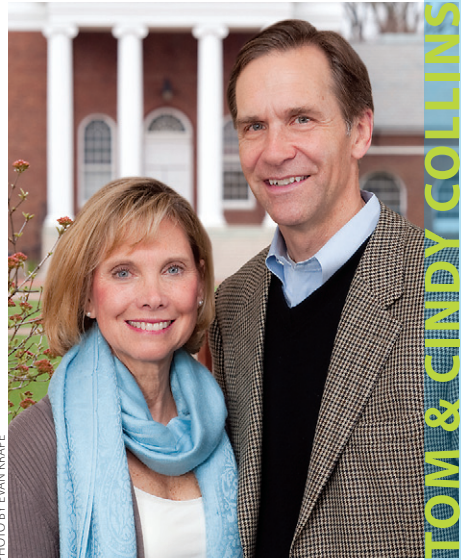


PHOTO BY EVAN KRAVE

**Tom and Cindy Collins** chair the Parents Fund Council, a group dedicated to building relationships with parents that lead to their financial support of UD. Tom and Cindy's son, Andrew, is pursuing a double major in economics and finance, with a minor in entrepreneurial studies.

The family's connection to UD began with Cindy's father, who came to the University on the GI Bill. He told his children that his days at UD were the best of his life. And so Cindy and her siblings—all six of them—chose UD, too. Many of those brothers and sisters married Blue Hens, and a few have Blue Hens of their own. UD runs deep.

Speaking of her family's history with UD, Cindy says the University has helped three generations find success and lasting friendships, and she's grateful for the role UD played in their lives.

UD is *still* a big part of Tom and Cindy's life. In addition to their work on the Council, they enjoy UD football games and theatre productions; strolling Main Street for shopping and dining; and biking through campus to see what's changed—and what's endured.

## The Gift of Higher Education

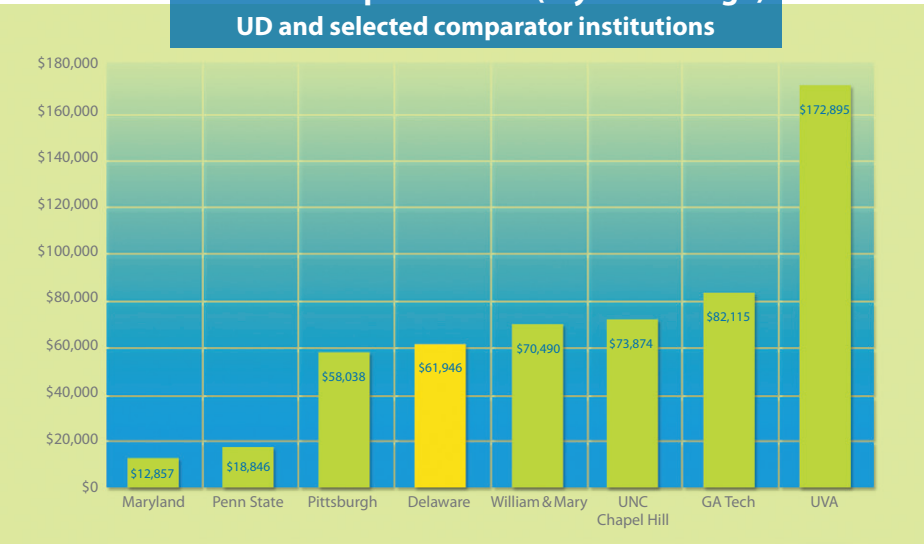
The economic downturn continues to constrict state support to the University; annual appropriations that made up 17 percent or more of UD's operating budget from 2004 through 2008 will likely dip to less than 12 percent next fiscal year. In these challenging times, gifts from donors are an increasingly important source of revenue. Last year, UD raised \$41.1 million in pledges and new gifts from University alumni and friends, a 30-percent jump over 2009.

Some of these gifts go to interests designated by the donor—for instance, student scholarships, community learning programs or capital projects. Others are unrestricted, going to the areas of greatest need. In both cases, private giving reduces UD's reliance on tuition and state appropriations to fulfill our teaching, research and service missions.

Endowing the future: Many gifts to UD—from friends, corporations, foundations and other private entities—go to our

endowment, a permanent pool of money that must be maintained in perpetuity. The donors' original gifts are invested, and a portion of the return is used according to each donor's wishes. The remainder is reinvested to grow the account. In this way, we preserve the endowment's principal to provide funding for future generations. In 2010, UD's endowment was valued at \$1.1 billion.

**Endowment per student (5-year average)  
UD and selected comparator institutions**



UD's chapter of Engineers Without Borders prepares for a bridge-building project in San Jose Petacalapa, Guatemala.

## When Global Is Local

At UD, studying abroad doesn't necessarily mean going overseas—not when Sussex County has such a dense Latino population, fueled by more than 20 years of strong immigration and ready work in southern Delaware's poultry industry.

Through the Global at Home program, students head south to Georgetown, Del., several times a semester to get a firsthand account of the social, economic and political issues faced by the town's sizeable Guatemalan population, to understand the factors that lead to global migration and to explore its effect on the small community. The students stay with immigrant families and partner with local groups in activities that ease new residents' integration into the Delaware community and economy. Back on campus, students take anthropology,

political science and Latin American studies courses, taught in Spanish to provide as immersive an experience as possible.

Global at Home works in tandem with Making It Home, a project begun nine years ago with a focus on southern Delaware's Guatemalan residents. That focus has evolved over the years, and projects now include fieldwork in Delaware's immigrant community and in Guatemala; international partnership-building and fundraising; engineering projects (the first of which brought clean water to the Guatemalan village of San Isidro); help for immigrant families navigating U.S. legal and social systems; and a documentary that tells the community's unique story. The projects deal with improving the conditions that compel people to leave their homes and frustrate their attempts to make new ones feel "real."



# UD's Economic Impact in the Diamond State and Beyond

The University of Delaware is one of the state's largest employers, with nearly 3,900 faculty and staff earning \$350 million a year—money that's pumped back into neighborhoods and communities statewide. UD's payroll and purchases together contributed \$638 million to the regional economy (Delaware, Maryland, New Jersey and Pennsylvania).

Students spent about \$65 million off campus last year, and visitors to UD—about 700,000 of them—contributed another \$18 million. As a group, UD's alumni are an economic force. Of the nearly 152,000 alumni living and working around the world, roughly 41,500 call Delaware home, and thousands more live

in neighboring states. Throughout the four-state region, these Blue Hens stimulate \$1.5 billion in spending.

Last year, the entire UD community—the University itself; its employees, students, visitors and alumni; the companies it's helped launch and develop—stimulated \$3.9 billion in spending in Delaware alone, and those expenditures supported more than 30,000 jobs.

UD remains one of the best investments around: Last year, every state dollar allocated to the University returned \$12.95 to Delaware's economy.

At Harvard, **Sujata Bhatia** teaches biomedical engineering, and serves as the discipline's assistant director of undergraduate studies. Before that, she was a principal investigator at DuPont, where she worked on developing bioadhesives that close wounds and polymers that can be used as interventional medical devices.

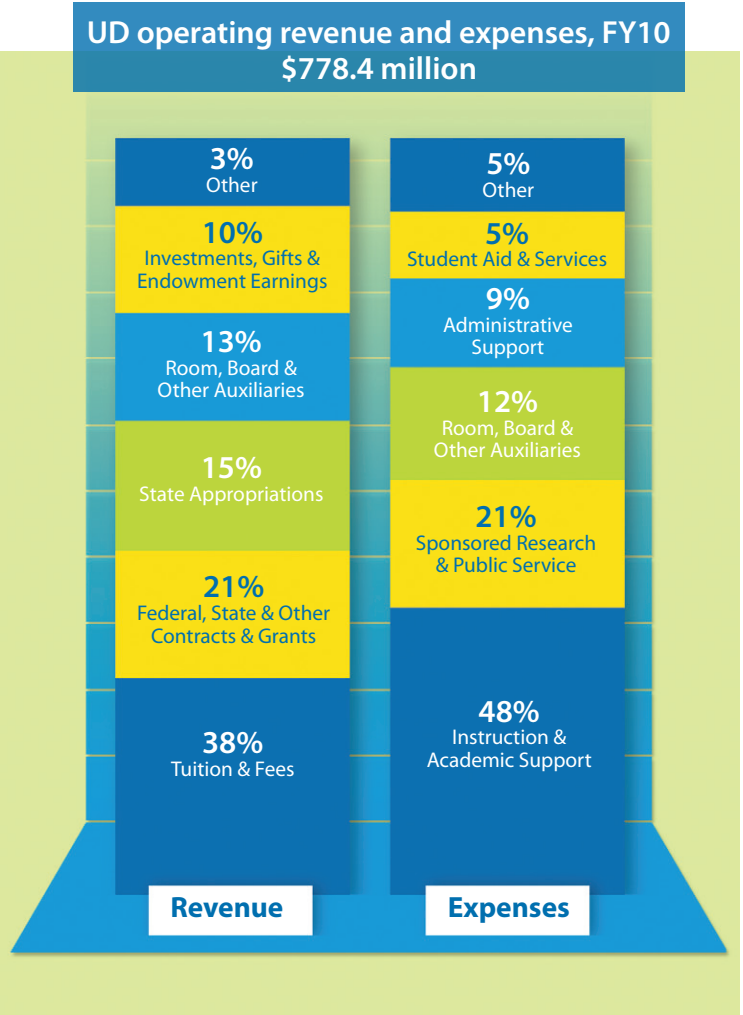
Bhatia earned four degrees from UD—all in the same year: biology (B.S.), biochemistry (B.S.) and chemical engineering (B.ChE., M.ChE.). She then enrolled at the University of Pennsylvania, where she earned—again, simultaneously—her medical and doctoral degrees.

Bhatia is dedicated to UD. She's president of the Engineering Alumni Association and past president of the New Castle County Alumni Club. She's served as a mentor through the Women in Engineering program, and remains on faculty in UD's Department of Chemical Engineering. Just seven years out of UD, Bhatia was awarded the University's Presidential Citation for Outstanding Achievement.

**UD IS A TALENT MAGNET.**



PHOTO BY EVAN KRAPE



More than 58 percent of UD's \$778.4 million in annual revenue comes from sources outside the state. As a nonprofit institution, the University's revenues and expenditures are equal to one another.



Dare to be first.



www.udel.edu

College of Agriculture and Natural Resources  
College of Arts and Sciences  
Alfred Lerner College of Business and Economics  
College of Earth, Ocean, and Environment  
College of Education and Human Development  
College of Engineering  
College of Health Sciences

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#### SOURCES

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Office of Development, University of Delaware

Office of Economic Innovation and Partnerships, University of Delaware

Office of Facilities and Auxiliary Services, University of Delaware

Office of Undergraduate Admissions, University of Delaware

Office of Undergraduate Research and Experiential Learning, University of Delaware

Research Office, University of Delaware

Resident Ensemble Players/Professional Theatre Training Program, University of Delaware

#### FOR MORE INFORMATION

For more information or to obtain copies of this report, please contact the Office of Communications and Marketing at 302-831-2792. An online version is available at [www.udel.edu/diamondreport/](http://www.udel.edu/diamondreport/).

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