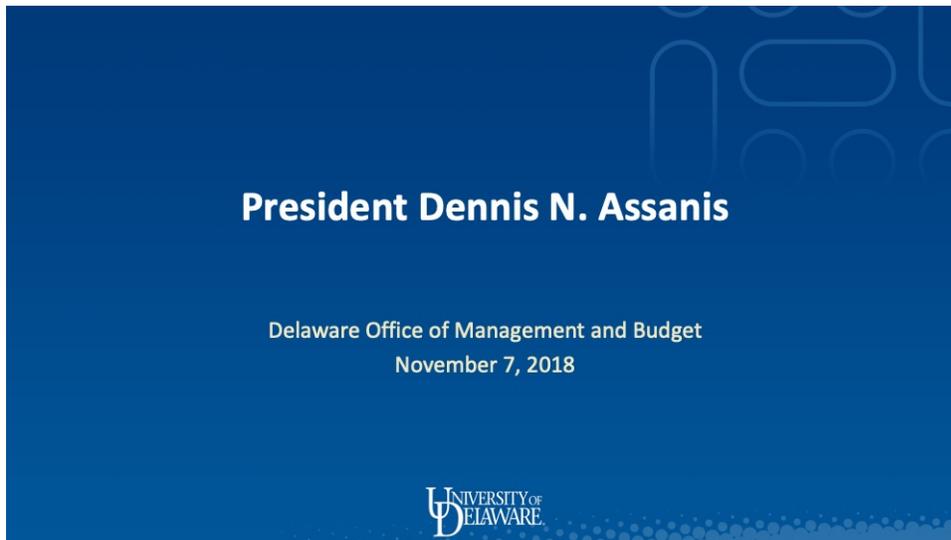


UD President Dennis Assanis — Presentation to Delaware Office of Management & Budget, Wednesday, Nov. 7, 2018, Legislative Hall, Dover

INTRO



Good morning, Director Jackson and other members of the OMB staff. Thank you for the opportunity to present the University of Delaware's budget appropriation request for FY2020. We know you have a difficult job, and, as always, we appreciate your time and attention today.

We have several people here who can address any specific questions you might have about our presentation. Let me take a moment to acknowledge two of them, whom you already know: **Provost Robin Morgan** and **Executive Vice President Alan Brangman**. We want to share with you how strategic investments in higher education will benefit the entire state, now and for decades to come.

The University of Delaware enjoys very productive partnerships with Delaware State University and Delaware Technical Community College, as well as Wesley College. We work together to serve the education needs of Delawareans and help develop the economy of our state. Each of us plays an important role, and the state needs all of our institutions of higher education to be strong and vibrant to be able to serve the state to our full potential.

That's why we all need a strong partnership with the state. The support of Gov. Carney and the General Assembly is an essential ingredient in our shared success.

Investing for Impact

Our Priorities

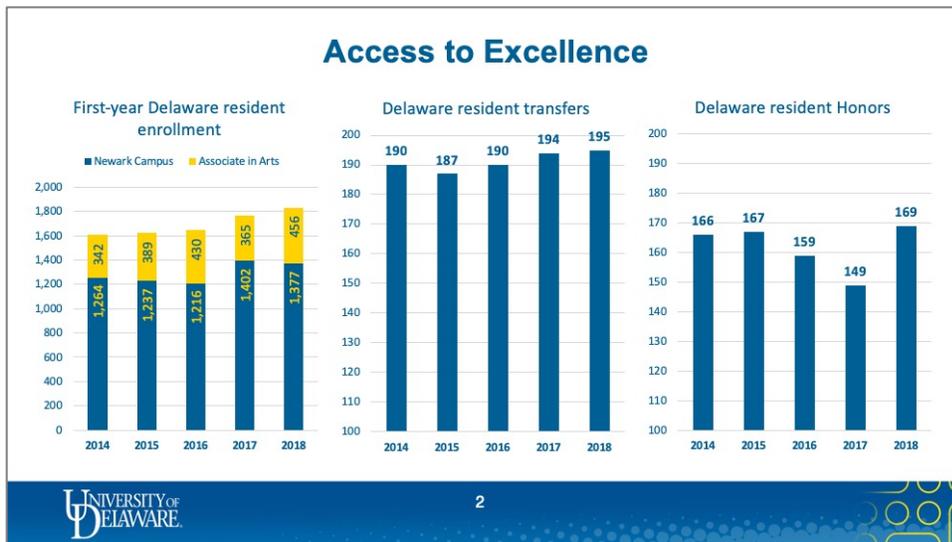
- ❖ Access to an Excellent and Affordable UD Education
- ❖ Ensuring Modern Facilities
- ❖ Driving an Economic Impact for the Future



At the University of Delaware, our partnership with the state is built on our three-part land grant mission of teaching, research and service to the community. Fulfilling that mission means we're committed to providing access to an affordable education, leading all of our students to success and doing so with modern, up-to-date facilities. Ultimately, UD's mission is to help build a robust and resilient economy in Delaware through key investments in innovation.

ACCESS TO EXCELLENCE

The University of Delaware's most important asset and product is our people, especially those who are from Delaware.



Our enrollment of Delawareans continues to grow each year.

Our new class of first-year students includes a record number of Delawareans — more than 1,800 undergraduates on the Newark Campus and in our Associate in Arts program.

The Associate in Arts program is one of our most successful access points for Delawareans. This pathway provides students with additional guidance and support to help them succeed at UD. It’s also an affordable option, since students who qualify for the state’s SEED program can complete their first two years of education tuition-free.

Associate in Arts students take courses in Wilmington, Dover and Georgetown. After earning their Associate’s degree, 90% of them transition to the Newark campus to finish their bachelor’s degree.

Many students, though, start their education at a different school and then transfer to UD. This year, we enrolled 195 transfer students who are Delawareans. Most of them — about 120 — came from Delaware State or Delaware Tech.

Also, this year we’re particularly pleased that we have 169 first-year Delawareans in our Honors program, which is a record high. These students graduated from high school with an average GPA of 4.11. Out of all the great schools they could have attended, we’re proud they chose UD.

All of these numbers reflect a strong and ongoing commitment to ensuring that Delawareans have access to a world-class education that’s close to home.

BUILDING INCLUSIVE EXCELLENCE

We’re also committed to building a diverse and inclusive community at UD.



We're seeing steady and significant gains in the enrollment of Delawareans from underrepresented minority groups over the past several years. These are primarily students who are African-American and Hispanic.

Among our first-year Delawareans on the Newark Campus, almost 1 in 4 come from an underrepresented minority group.

Over time, this steady growth in first-year diversity is helping to increase the diversity of the entire campus community. Almost 22% of the Delawareans now on the Newark Campus come from underrepresented minority groups.

Building Inclusive Excellence



Spectrum Scholars

- ❖ College-to-career program for students with autism
- ❖ Support and career guidance
- ❖ Focusing on students in Computer & Information Science or Electrical & Computer Engineering
- ❖ Backed by 10-year grant from JPMorgan Chase

UNIVERSITY OF DELAWARE

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We're also very excited about a new program we announced a few weeks ago to help students with autism succeed at UD. We've always had students with autism, and we've worked to support them in a variety of ways. Now, thanks to a 10-year commitment from JPMorgan Chase, we're launching the Spectrum Scholars program to provide even more support and guidance for students with autism.

I'd like to show you a short video that further explains this unique program.

[VIDEO: udel.edu/005278]

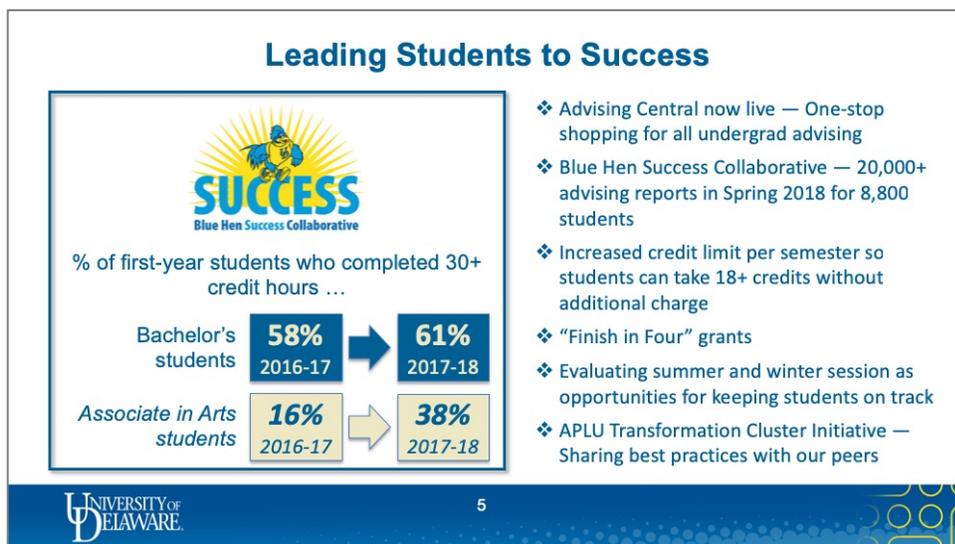
We believe the Spectrum Scholars program can become a model for other universities that want to partner with corporations to help talented students get a good education and find a satisfying career.

In building our inclusive culture, it's also important that our faculty reflect the growing diversity we see in the world. This year, 60% of our new faculty members are women, and 15% come from underrepresented minority groups.

Diverse faculty bring diverse perspectives, and students benefit by seeing and hearing from professors who challenge them and can lead them to success.

LEADING STUDENTS TO SUCCESS

Getting students in the door is only the first step, of course. Once students are here, we need to ensure they have the support and resources they need to succeed.



One of our new initiatives is the Blue Hen Success Collaborative, which uses predictive analytics and intensive advising to help keep students on track to graduation.

Students need to complete about 30 credits a year to earn their bachelor’s degree within four years. If they don’t, it will cost them more money to graduate or they might not earn their degree at all. So it’s a critical issue for students.

By using the Blue Hen Success Collaborative tools, we’ve been able to help more students earn those 30 credits in their first year. That increase of three percentage points — from 58% to 61% — represents more than 125 students who are now on a more reliable path to graduation.

This initiative has been even more successful in our Associate in Arts program, increasing from 16% of students to 38% — a difference of about 100 students.

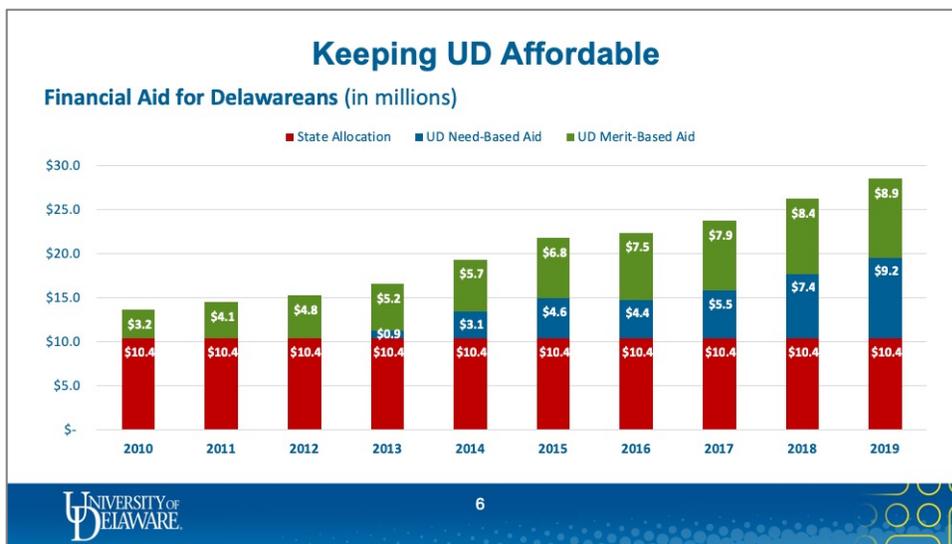
We’ve instituted several other initiatives to help students graduate on time. We increased the credit limit for full-time students, so now they can take 18 credits a semester without additional charge. We provide modest “Finish in Four” grants to help students meet their financial needs and get across the finish line.

And we're participating in a nationwide initiative with other members of the Association of Public and Land-grant Universities to share what works in leading students to success.

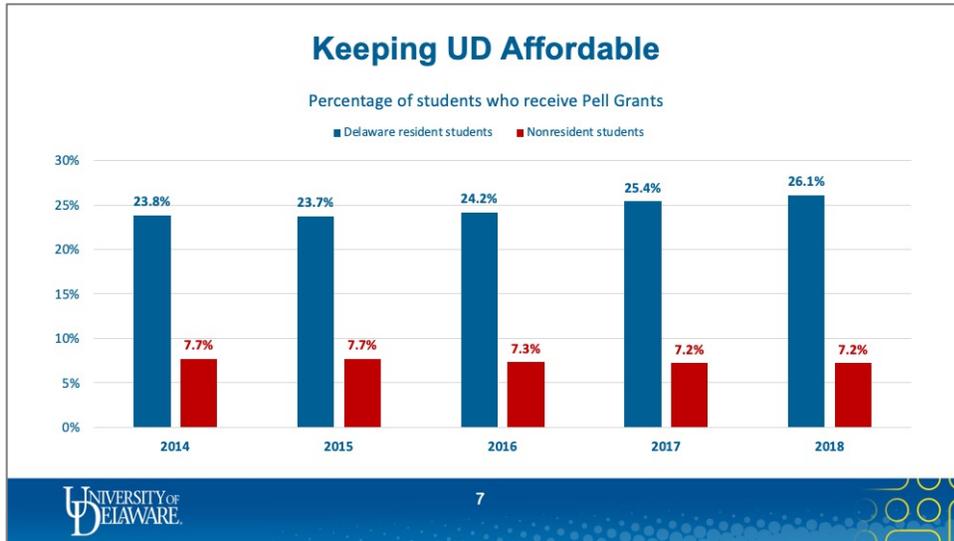
These efforts — and many others — are why UD has one of the top 20 graduation rates in the nation among public institutions. And our alumni find success after they leave campus, with about 95% of them working, serving in the military or pursuing further education within six months after graduation.

KEEPING UD AFFORDABLE

What makes all of the excellent programs and opportunities possible is financial support.



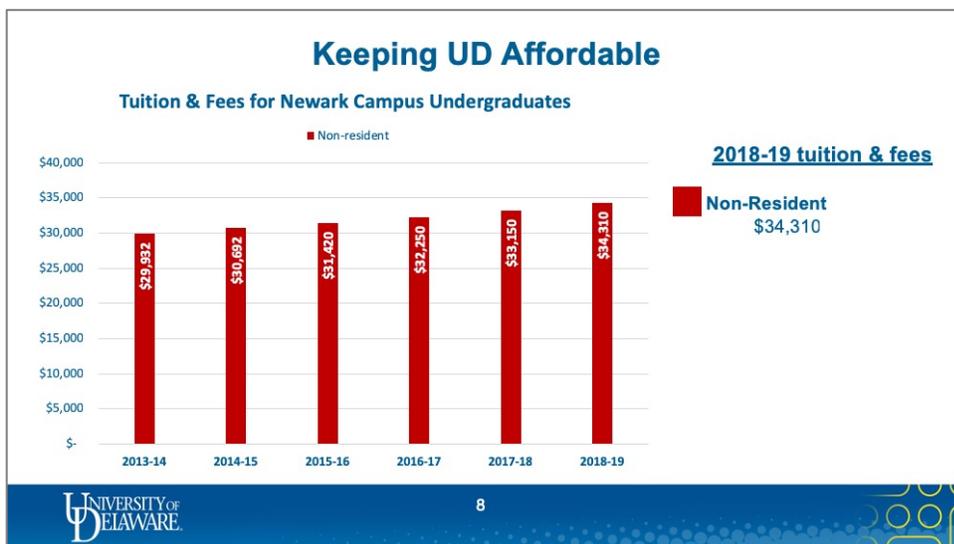
For students, that means financial aid to help cover tuition and other costs. Over the past decade, UD has steadily increased the amount of financial aid that we provide to Delaware resident students, based on both their financial need and their academic merit. As Delaware's flagship university, we are committed to making education affordable for our in-state students.



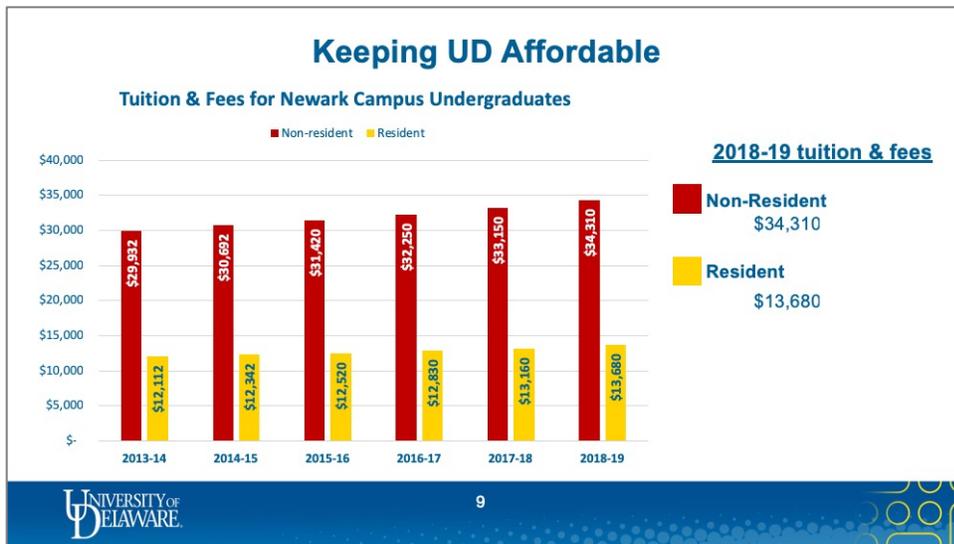
That commitment means we're enrolling a growing number of students who need financial assistance. Here you see how the percentage of students who receive federal Pell Grants has been increasing steadily over the past several years.

Pell Grants provide financial aid to the neediest students. But the grants only cover a portion of tuition, so UD provides additional funds to help make up the difference. Most of that aid goes to help Delawarean students, which is why more than 26% of our in-state undergraduates receive Pell, compared to less than 8% of non-resident students.

In fact, we take a lot of other steps to help Delawareans afford a UD education.



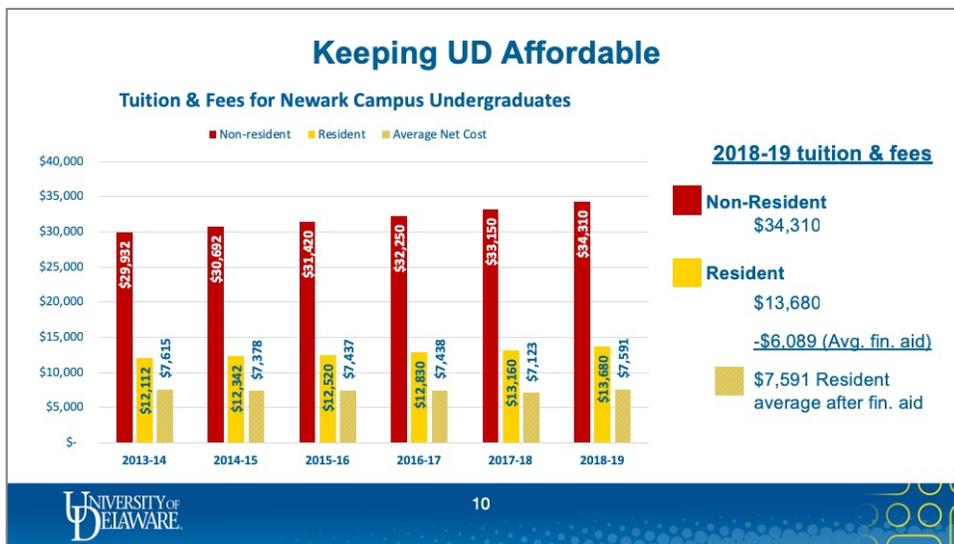
In this chart, you can see our tuition and fees for non-residents going back to 2009.



And now the yellow column is tuition and fees for Delawareans during the same period. You'll notice a couple of things. The first is that Delawareans pay about 60% less than what non-residents pay. That's largely because of the state's assistance.

You'll also notice that while both rates rise over time, they rise much more slowly for Delawareans. We don't like raising tuition, but we try very hard to lessen the impact on students, especially those from Delaware.

These figures are the "sticker price" for tuition and fees — the published rates. But the cost is reduced even further for resident students because of financial aid provided by UD and other sources — based on both family income and a student's academic achievements.



Here you see the average net cost for Delawareans after we apply financial aid. Those are the little columns way down at the bottom of the screen.

If you look all the way to the bottom right of the screen, you'll see that the average net cost for a Delaware resident student this year is less than \$7,600.

That's less than it was five years ago — without adjusting for inflation.

This is what I mean when I say we're absolutely committed to keeping UD affordable for Delaware residents. The state's investment in UD is an investment in every Delaware resident student in our classrooms.

Our primary way of helping Delaware resident students afford their education is through the Commitment to Delawareans financial aid program, which guarantees that students won't have to borrow more than 25% of the cost of a four-year UD education. Over the past decade, UD has helped more than 5,000 Delaware resident students by providing about \$50 million in need-based financial aid through that program. For them, UD's Commitment to Delawareans has helped make a college education possible, and we're very proud of that.

Now we're considering how we might be able to expand that initiative.

Keeping UD Affordable

<p><u>UD's Commitment to Delawareans</u></p> <ul style="list-style-type: none">❖ Meet the full demonstrated financial need of all qualified Delawareans, based on the Estimated Family Contribution as determined by the Free Application for Federal Student Aid❖ Students will not be asked to borrow more than 25% of the cost of a four-year UD education❖ Excludes transfer students	<p><u>UD's Reimagined Financial Aid Program</u></p> <ul style="list-style-type: none">❖ Cover tuition and fees for families with AGI below \$75,000❖ Cover partial tuition and fees for families with AGI of \$75,001 to about \$100,000❖ Includes transfer students
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The current Commitment to Delawareans program is confusing for families and doesn't cover transfer students.

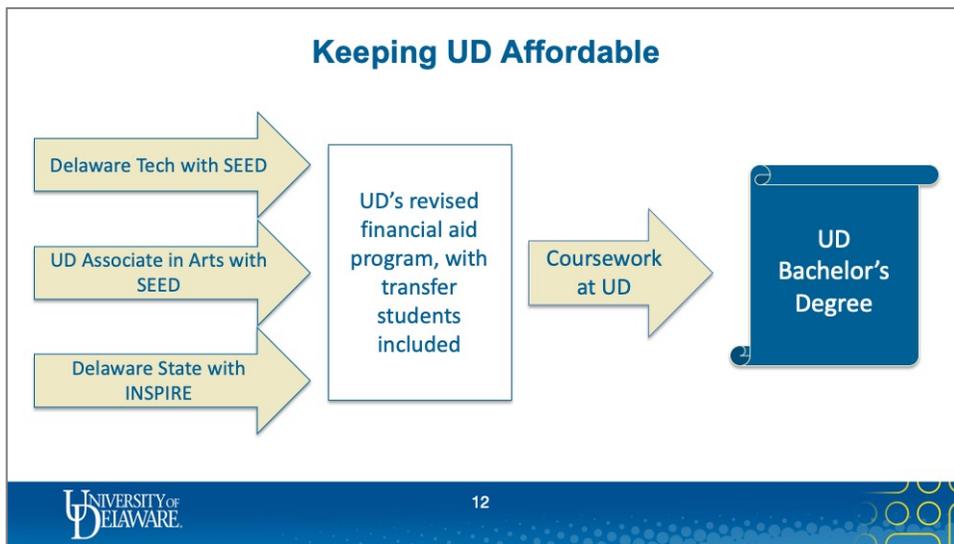
As we explained in the detailed budget request we submitted last month, we're thinking about reimagining the program so we can cover full tuition and fees to students — including transfers — whose families have an adjusted gross income of less than \$75,000 a year.

That threshold is the median family income for Delaware, which means half of the state's families would qualify.

We also want to provide partial aid on a sliding scale to families who have adjusted gross incomes up to about \$100,000. This would cover an additional 16% of the state’s families.

A large majority of our transfer students would qualify for full or partial financial aid so this would be a huge benefit for them. It would encourage more students to take advantage of community college programs and still earn their bachelor’s degree from UD.

To expand our financial aid program in this way would cost us \$9 million to \$10 million a year over and above what we’re providing now. This is why we are requesting an increase of \$9 million in our operating appropriation for FY2020 as the state’s contribution toward expanding financial aid to Delawareans.



It’s important to note that our financial aid program would be a *supplement* to the state’s SEED program.

By covering transfer students, our revised program would allow Delaware residents to start their education at Delaware Tech through the SEED program and then come to UD to earn their bachelor’s degree. This could provide a low-cost pathway to a bachelor’s degree, similar to the way our successful Associate in Arts program works now.

Our revised program would also work in concert with the INSPIRE program at Delaware State.

Education is an investment — for the public, as well as individual students — and this funding would have an immediate and far-reaching impact on Delaware resident students, their families and their entire communities for many years to come.

...

Providing an excellent and affordable education is the primary way we serve Delaware, but it's far from the only way.

MAKING AN IMPACT

Making an Impact

UD Cooperative Extension — Addressing Delaware's Opioid Crisis



UD Cooperative Extension community health specialist Gina Crist prepares Seaford High School students to be peer educators and health ambassadors.

Seaford High School students will visit middle school classrooms to deliver an anti-opioid message as part of the Well Connected Communities initiative.

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For example, UD's Cooperative Extension has promoted sustainable agriculture, good nutrition and personal well-being for more than a century. Its community outreach programs have been popular and successful because they reach people where they live and provide information they need every day.

Cooperative Extension is also working with communities to tackle the opioid crisis in Delaware. During the summer, students from Seaford High School worked with UD faculty and staff to become peer educators and health ambassadors as part of the new Well Connected Communities program. They'll help deliver an anti-substance abuse program in middle school classrooms.

Another way that UD serves Delaware is through our research and the innovations it produces.

UD had more than \$145 million in sponsored research expenditures in FY2018. This is funding that comes into Delaware from federal agencies and a variety of other sources to enable groundbreaking discoveries and advances in science, engineering and health care, as well as the arts and humanities.

Over the past decade, innovations at UD have resulted in more than 130 patents being issued and 26 start-ups being launched.

Many of our research projects involve multiple partners.

Making an Impact



EPSCoR — Established Program to Stimulate Competitive Research

- ❖ Develop solutions to water issues related to human, economic & ecosystem health
- ❖ UD, DSU, Delaware Tech & Wesley
- ❖ \$19.2M for 5 years



Delaware Clinical & Translational Research ACCEL

- ❖ Develop research infrastructure, professionals and programs to promote health in Delaware
- ❖ UD, State, DSU, Christiana Care, Nemours & Medical University of S.C.
- ❖ \$25M for 5 years



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We recently received a \$19.2 million, five-year renewal of the EPSCoR grant that UD shares with Delaware State, Delaware Tech and Wesley College. EPSCoR is the Established Program to Stimulate Competitive Research, and we're working together to develop solutions to water issues related to human, economic and ecosystem health.

Also, the Delaware Clinical and Translational Research ACCEL program was renewed for another five years to develop research infrastructure, professional workers and programs to promote health in Delaware. As you know, this \$25 million grant includes a \$5 million commitment from the state and is a partnership with Delaware State, Christiana Care, Nemours and the Medical University of South Carolina.

BUILDING THE LEARNING ENVIRONMENTS OF TOMORROW

So, we have excellent students and faculty. We have programs that prepare students to succeed. And we have a network of partnerships throughout Delaware and the world that connects our people to the most important and complex challenges facing society.

To bring it all together, we also need modern, up-to-date facilities where students can learn in a stimulating environment and can use the tools they'll encounter in the workforce.

Many of our most interesting learning spaces aren't classrooms at all.

Building the Learning Environments of Tomorrow



Center for Biomedical & Brain Imaging



Virtual Reality "Cave"



Art Conservation at Winterthur



Designing adaptive clothing in STAR Campus research labs



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In UD's Center for Biomedical and Brain Imaging, for example, students learn to use and analyze research results from a state-of-the-art fMRI.

Students in Art Conservation work at Winterthur Museum to restore priceless objects from around the world.

Some of the most exciting projects are happening in the Health Sciences Complex and the new Tower on the STAR Campus.

In the Move To Learn Innovation Lab, students are designing and making adaptive clothing for people with disabilities — things like shirts that help children move their arms and pants that are easier for a person in a wheelchair to put on and take off.

Other students are working with our virtual-reality "cave" to research how neurological impairments affect balance and movement. Nursing students are learning to care for patients using realistic simulators developed at UD. Still other students and faculty are learning to identify and measure cognitive limitations in older adults by watching them in a room that's set up like a small apartment.

And about 40 undergraduate students are participating in research in the Speech-Language Pathology program. As you know, the state invested significant funds over several years to create this program because Delaware lacked professionals to work in this important field. I'm proud to report that our first class of 25 students has completed their master's program, and eight of them have started their careers here in Delaware. This is in addition to the Speech-Language-Hearing Clinic that serves the public at the STAR Campus.

Students need these kinds of hands-on learning spaces so they can compete for high-quality careers after they graduate. And faculty need modern research and development

facilities to produce the discoveries and innovations that help create a stronger economic future for Delaware.

This is why we're requesting \$10 million in the FY2020 capital budget to continue providing modern laboratories and equipment so students have an excellent learning experience. This investment from the state would yield significant results for the entire state.

Building the Learning Environments of Tomorrow



UD's Building Inventory

Classrooms & Labs	57
Farm/Auxiliary	126
Physical Education	19
Other Academic	58
Residence Halls	38
Other Housing	98
Dining Halls	4
Student Activities	8
General Services	33
Plant Operations & Services	22
TOTAL BUILDINGS	463
TOTAL SQ. FOOTAGE	9,233,438

UNIVERSITY OF DELAWARE 16

Maintaining UD's essential facilities also requires a sustained financial commitment.

UD has more than 460 buildings with more than 9 million square feet of space. Nearly 90% of our buildings are used for academic programs — such as classrooms and laboratories — or for student residences, dining halls or other student activities.

Because of various budget pressures over the past several years, the university put off some maintenance, and we were left with backlog that exceeded a half-billion dollars.

Recently, we've had to double our spending on deferred maintenance to reduce that backlog. We've got it down to about \$435 million now. That's still significant, but we're moving in the right direction.

We appreciate that the state was able to double its capital investment in UD last year — providing \$10 million toward our maintenance backlog, instead of the roughly \$5 million the university had been receiving in previous years.

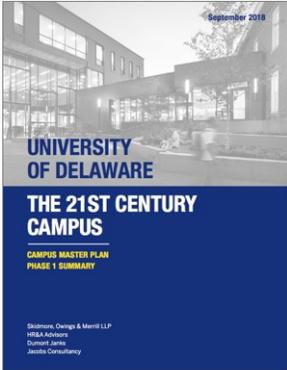
To help reduce our backlog further, we're asking the state to continue providing \$10 million for deferred maintenance in the FY2020 capital budget. Funding deferred maintenance at that level would mean that both the university and the state — as *partners* in the education of students — have doubled our commitment to providing up-to-date facilities for the future.

BUILDING THE CAMPUS OF TOMORROW

Building the Campus of Tomorrow

Campus Master Plan

- ❖ Interviewed UD stakeholders to identify themes for the future
 - ❖ A Connected Campus
 - ❖ An Amplified Campus
 - ❖ A Translational Campus



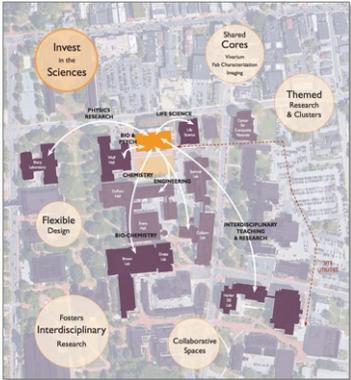


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It's important to point out that our comprehensive capital strategy is being guided by a new Campus Master Plan.

We want to make sure that the three main parts of our Newark campus — the traditional campus centered around The Green, as well as the north and south campuses, including STAR — are connected in meaningful ways. We believe that a more unified vision for the campus will position us to have a positive impact on the community in both the short- and long-term future.

Building the Campus of Tomorrow



McKinly Laboratory

- Models and mechanisms of human disease
- Science and technology of quantum materials
- Mind, brain and behavior

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One challenge that we're embracing as an opportunity is the rebuilding of McKinly Lab. After an extensive fire last year, we're going to redesign the building to get more research and instruction out of the same footprint. And we're going to bring some of our physics,

biology, chemistry, psychology, engineering and life sciences assets together under one roof to create a more interdisciplinary and flexible facility.

The McKinly project will also remove about \$45 million in deferred maintenance projects from our backlog.



We're also beginning an extensive rebuilding of Worrilow Hall. Worrilow is a critical element of our Poultry Health System, which helps promote and sustain the health of Delaware's poultry industry. Like McKinly, Worrilow is going to become an interdisciplinary teaching and research facility, with modern labs and flexible learning spaces. That project will cost about \$40 million.

INVESTING IN ECONOMIC DEVELOPMENT

Worrilow, McKinly and our other capital projects are just a few examples of how UD makes a major economic impact on Delaware and the entire region.



A new study — commissioned by UD and performed by an independent consultant — estimates that the university’s spending and the economic activity we support has a \$2.8 billion impact on the state of Delaware. That activity supports more than 24,000 jobs in Delaware, and it generates \$86 million in annual tax revenue for the state.

Taken together, it’s clear that UD is a wise investment for the state. Every dollar that the state invests in the university through our annual appropriation generates \$23 for Delaware’s economy.

We’re proud of that impact because economic development is an essential part of our land grant mission. UD’s size and stature as a top-tier research university puts us in a unique position to fulfill that mission in Delaware. It’s our job to be a hub of discovery and innovation, so that we can actually help *create* the industries of the future and prepare students to work in jobs that don’t even exist yet.

Knowledge and technology developed at research universities like UD are spun out to become marketable products and services. Studies show, for example, that patents produced at a university tend to be developed *near* that university. UD provides both the seed and the soil for economic growth.

Strong partnerships between states and their universities are benefitting communities all over the country. Look at any region of our country that’s thriving and rebounding from economic setbacks — from Silicon Valley to Ann Arbor, Michigan, to North Carolina’s Research Triangle — and you’ll find a research university like UD that produces the innovations and the workforce to fuel the economy. More research and invention mean greater productivity, more entrepreneurs and more of the dynamic companies that Delaware needs for a secure future.

We’re seeing this happen at the STAR Campus.

Investing in Economic Development

Newark Assembly Plant — 1950's and pre-2009



As you know, Chrysler had provided good-paying jobs for families in the community for decades, first by making tanks for the Army during the Korean War and later by assembling vehicles for the American public.

Investing in Economic Development



STAR Campus — 2009



When Chrysler shut down the plant about a decade ago, the empty site could have become a drag on the region's economy.

Investing in Economic Development

STAR Campus — Today



But today, the STAR Campus is growing.

As I mentioned, the new Tower at STAR recently opened, with UD's College of Health Sciences occupying the first seven floors. In the Tower, we're seamlessly connecting education, research and clinical services in one facility. Each of those elements helps drive the others and provides authenticity and urgency to our work.

Also, now that the STAR Campus has been designated as a federal Opportunity Zone, tax incentives will help attract more businesses and entrepreneurs. It will develop further when the Newark train station is finished, making the STAR Campus even more accessible to students and workers from throughout the region.

Investing in Economic Development

Chemours Discovery Hub



And we're helping to keep Chemours research jobs here, too, by providing the company a unique opportunity to locate its new innovation center on the STAR Campus and partner with UD.

This is the kind of work that Gov. Carney and the Delaware Business Roundtable are talking about when they point to UD as a major driver of innovation and entrepreneurship in the state. Traditional economic pillars of the state no longer have sufficient size or strength to attract world-class talent and produce cutting-edge technology at the scale that the state needs. As the Roundtable pointed out, "that mantle must now be assumed by the University of Delaware and other higher education institutions in the state."



One of the best examples of how we're embracing this opportunity is our biopharmaceutical initiative.

This effort is centered around the National Institute for Innovation in Manufacturing Biopharmaceuticals, or NIIMBL. UD serves as the headquarters of this national partnership, which includes 150 public agencies, corporations, nonprofits and academic institutions. NIIMBL will be housed in our Biopharmaceutical Innovation Building, which is now taking shape on the STAR Campus.

The rapid advancement of biopharmaceuticals is changing the face of health care in the United States. It also has the potential to reshape the economic landscape of Delaware, with the creation of 1,500 to 2,000 jobs over the next decade in the state's biopharma industry — everyone from skilled technicians to PhD researchers. UD will also be educating people to lead and work in the biopharmaceutical sector.

It is important to remember that UD was identified as the "sweet spot" for the NIIMBL opportunity because of the expertise and resources in biotechnology that had been built up

here over the past two decades. That capacity came from strategic investments by UD and the state in the Delaware Biotechnology Institute.

Without those investments — beginning back when Tom Carper was governor and continuing ever since then — Delaware would not have this amazing opportunity today.

And this brings me to the Higher Education Economic Development Investment Fund.

Creation of this fund in the FY2019 budget was an excellent idea because it recognizes the incredible potential of the University of Delaware and the other institutes of higher education to have a huge and far-reaching impact on the entire state.

We have NIIMBL today because of state investment. We have more speech pathologists working in Delaware because of state investment. We have countless innovators and entrepreneurs — as well as teachers, engineers, nurses, artists and more — all because of state investment.

The Higher Education Economic Development Investment Fund should become an ongoing resource that leverages more of these kinds of opportunities to strengthen Delaware's future. We respectfully suggest that the Fund be doubled to \$22 million in the FY2020 budget and that it be maintained at that level — or more — in subsequent budgets.

FY2020 REQUEST SUMMARY

Investing for Impact

Our Priorities

- ❖ **Access to an Excellent and Affordable UD Education**
 - Investment: \$9M to expand financial aid for Delawareans
- ❖ **Ensuring Modern Facilities**
 - Investment: \$10M for deferred maintenance
 - Investment: \$10M for laboratories and equipment
- ❖ **Driving an Economic Impact for the Future**
 - Higher Education Economic Development Investment Fund: \$22M in FY2020



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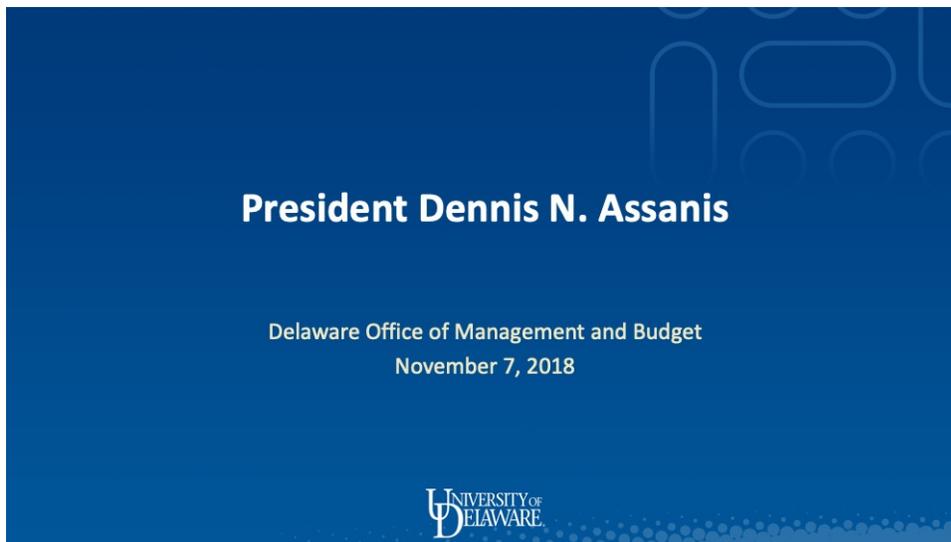
As I mentioned at the beginning of my presentation, the University of Delaware is grateful for the strong and productive partnership we have with the state.

We depend on investments from the state to help us provide an excellent and affordable education for Delawareans, and together we can expand these opportunities to help more students and families.

We need investments from the state to ensure that students have the tools and resources they need to succeed at UD and long after graduation.

And we need state investment to continue making a deep and lasting impact on Delaware's economy far into the future.

Thank you again for your time and attention today. We'll be happy to answer any questions you may have.



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