



Brown University Financial Report
Fiscal Year 2016



BROWN

Brown University Summary

Fiscal years ended June 30

FINANCIAL (dollars in millions)	Fiscal Year 2016	Fiscal Year 2015
Principal Revenue Sources		
Tuition and Fees (net)	\$307.3	\$289.1
Endowment Support	\$153.5	\$142.7
Grants and Contracts	\$161.0	\$151.5
Current-use gifts and pledges	\$90.3	\$98.7
Principal Expense Categories		
Operating	\$765.1	\$739.5
Depreciation	\$73.2	\$71.4
Financial Balance Sheet		
Total Assets	\$5,000.2	\$5,132.0
Total Liabilities	\$1,197.9	\$1,212.6
Net Assets	\$3,802.3	\$3,919.4
Fundraising		
New Gifts and Pledges	\$300.7	\$292.2
Cash	\$217.3	\$188.7
STUDENTS		
Enrollment		
Undergraduate Students	6,652	6,548
Graduate Students	2,283	2,143
Medical Students	523	490
Degrees Conferred		
Bachelor's Degrees	1,591	1,641
Master's Degrees	626	520
Doctor of Philosophy	235	215
Doctor of Medicine	116	106
Annual Tuition and Required Fees		
Undergraduate	\$49,346	\$47,434
Graduate	\$49,146	\$47,240
Medical	\$54,292	\$52,196
FACULTY		
Campus-based Faculty (all ranks)*	732	720
Campus-based Clinical Faculty	653	658

*Campus-based faculty head counts include professor, associate and assistant professor, and lecturer and senior lecturer.

From the President



I am pleased to present the inaugural Brown University Financial Report. This report, covering the 2016 fiscal year, provides an opportunity to demonstrate the University's thoughtful stewardship of its resources to meet Brown's educational mission and bold aspirations.

A commitment to sustaining Brown's long-term financial security remains a top priority for the University as we make strategic investments to elevate Brown's stature as a leading institution of higher education that brings together innovative teaching with world-class, collaborative research.

As outlined in the Financial Statement Overview within this report, Brown's financial plan for Fiscal Year 2016 progressed with steady, modest growth. Despite turbulence in world markets that affected colleges and universities across the country, the University's revenue from tuition, fees and annual giving was higher than expected.

As a result, the operating budget achieved a surplus of \$2.5 million. Prudent planning that anticipated a possible revenue shortfall helped achieve these results.

Over the past several years, Brown has exercised strong financial discipline to close a deficit in the operating budget. A 2014-15 Deficit Reduction Working Group recommended steps that continue to contribute to cost savings and revenue enhancements, though continued success depends on building the University's financial strength over time. We'll accomplish this by maintaining balanced operating budgets and increasing the endowment.

As you will see in the Endowment Report prepared by the Investment Office, the endowment and other funds managed within the University's investment portfolio ended Fiscal Year 2016 at \$3.2 billion. The endowment and other managed funds provided \$166 million to the University, including \$153.5 million in distributions from endowed funds and \$12.5 million from University operating funds.

Brown's financial position also has been strengthened by spectacular growth in external research funding — with total anticipated project funding from new awards received last year 90 percent higher than the corresponding figure just two years earlier — as well as tremendous success in fundraising. The \$3 billion *BrownTogether* campaign, announced in October 2015, already has surpassed the \$1.25 billion mark. Thanks to the generosity of our alumni, parents and others, Brown enjoyed its best fundraising year in history, breaking records in new gifts and pledges (\$300.7 million), cash raised (\$217.3 million), and the size of the Brown Annual Fund (\$36.6 million). You can read more about this in the Report on Fundraising in the pages that follow.

The strength of Brown's financial position has made it possible to make remarkable advances in meeting the University's strategic priorities. It's fitting that the theme for this first Brown University Financial Report is the progress made in the past year on the University's strategic plan, *Building on Distinction: A New Plan for Brown*.

The plan was developed in an inclusive process in 2013 and launched the following year during the celebration of Brown's 250th anniversary. In the first year of the plan, Brown made early progress in numerous areas that strengthened the elements at Brown's core: our student-centered learning culture, emphasis on collaboration, and commitment to Brown as a diverse community that makes an impact on the world and society in innumerable ways. We expanded support for financial aid and graduate student fellowships, as well as resources for faculty scholarship.

An Operational Plan for *Building on Distinction* released at the beginning of the 2015-16 academic year significantly advanced our efforts by applying concrete actions to the aspirational goals set out in *Building on Distinction*. The successes of Fiscal Year 2016 created exceptional momentum for the work Brown will undertake over the next decade to position the University as a leader in higher education and research.

This report captures the breadth of the impact of focused investments in the people, programs and physical spaces that contribute to Brown's excellence and showcase our distinction.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Paxson'.

Christina Paxson
President, Brown University





Building on Brown's Distinction

Sustaining the Drive for Excellence

In 2014, Brown launched a new strategic plan, *Building on Distinction*, which reflects the University's sustained drive for academic excellence. The plan presents a strategy that leverages Brown's long-standing strengths: a student-centered approach to liberal learning, an environment that fosters collaboration across areas of inquiry, and a commitment to education and research that have a positive impact on society, now and long into the future.

Since *Building on Distinction* was established, Brown has made important investments that are taking the University to a new level of excellence. Brown is growing academic initiatives that bring people together to study challenging, important issues that demand integrated, multidisciplinary approaches, and it is developing innovative, rigorous educational programs that carry the idea of the Open Curriculum into the 21st century.

This report, which is organized around the framework of *Building on Distinction*, offers highlights and examples of the ways in which investments in Brown University's priorities from 2015-2016 have advanced the goals of the strategic plan. Although the report cannot begin to encompass the totality of the exceptional teaching, research, scholarship and campus development that reflect progress on Brown's priorities, it demonstrates the University's progress on a plan that sets the course for fulfilling Brown's greatest aspirations well into the next decade.

INTEGRATIVE SCHOLARSHIP

Every day at Brown, research, teaching and scholarship transcend traditional disciplinary boundaries to allow students and scholars to confront complex world issues. In seven areas of inquiry identified through *Building on Distinction* for focused investment, Brown's faculty and students are working together to draw connections and make an impact in exciting ways, addressing critical questions that demand a multidisciplinary perspective. The following pages offer examples of teaching, research, scholarship and collaboration in these themes during the 2015-16 academic year.

Cultivating Creative Expression

"We aspire to foster an environment in which artists operating at the highest levels of their crafts learn from and inform scholars in disciplines across the campus."

—*Building on Distinction*

From exhibitions to performances, to film screenings, seminars and discussions, creative expression at Brown is being used to explore human values, communicate new ideas, challenge societies and draw disparate groups together.

With a goal of consolidating and fortifying the arts to make Brown the leading university for innovative arts practice and education, a central effort during the 2015-16 year was to initiate strategic planning for a major arts initiative and a new performing arts center at Brown. Planning



GRANOFF CELEBRATES 5TH ANNIVERSARY

Upon its unveiling in 2011, the Perry and Marty Granoff Center for the Creative Arts raised provocative questions: Would “collaboration” prove more than a mere buzzword? What results would it yield? Could the building itself impact the scholarly practice or artistic expression that took place there?

In the five years since its unveiling, the Granoff Center has sparked a series of collaborations that stand as tangible answers to those questions. Neuroscientists, artists and others have teamed up to convey scientific concepts through animations. Artists have worked with biologists and experts in computational modeling to visualize the flight mechanics of bats. Dance students, working with peers in health and human biology, cognitive neuroscience and Middle East studies, have used ethnographic principles to adapt dances for individuals with Parkinson’s disease and autism spectrum disorders.

The center has become a place that encourages scholars to be both/and — both scientist and artist, for example — rather than either/or.

for the arts initiative, expected to formally launch in spring 2017, established an initial set of goals that include: supporting all that is experimental, forward-thinking and cutting-edge in the arts; facilitating greater opportunity for collaboration across arts departments, among artists, with other academic fields, and with external partners locally, nationally and globally; and enhancing opportunities for engaged activist artists and scholars whose work responds to contemporary issues. The plans for a new performing arts center included a facilities assessment and development of program priorities and principles for a space that will support performances by students, faculty

and visiting artists in music, theater, opera and multimedia.

Even as planning for the arts continues, creative expression across Brown energized the campus throughout the year. Among the many activities in the arts, Brown encouraged and created a public platform for cross-disciplinary student and faculty art through the 2015 faculty exhibition and the University’s 36th annual student exhibition. The faculty exhibition included an expanded selection of works across disciplines, as well as music and dance performances inspired by the exhibition. For the University’s 36th annual student exhibition,



Brown students, regardless of major, submitted work in a variety of media. The extensive survey of the visual arts at Brown highlighted the dynamic ways in which students are engaging and redefining the arts today.

Brown students and faculty performed in venues as far-ranging as Paul Taylor's dance studio in New York City — where Senior Lecturer in Theatre Arts and Performance Studies Julie Adams Strandberg and Brown's American Dance Legacy Initiative co-hosted the Rainbow Etude Workshop, based on seminal American choreographer Donald McKayle's dance masterwork "Rainbow 'Round My Shoulder" — and the Tempelhof Airport refugee camp. The camp is home to refugees from Syria, Afghanistan, Iraq and elsewhere, and the Brown Jazz Band performed there during its trip to Berlin, among concerts in other venues. Also in music, the Brown University Orchestra was featured in "Manhattan Intermezzo," a CD of well-known American and British works in jazz and popular song recorded with pianist Jeffrey Biegel.

Brown welcomed performers, artists and art critics to campus for engaging discussions, including actor Robert De Niro's visit to the Ivy Film Festival to screen the documentary "Remembering the Artist: Robert De Niro, Sr." Award-winning film critic Joe Morgenstern, known for his thoughtful reviews of movies spanning the genres, delivered the 16th annual Casey Shearer Memorial Lecture, and writer Zadie Smith, known for her explorations of multiracial communities in England and the U.S., gave a workshop and reading in April as part of the Writers on Writing series. The Boston Modern Orchestra Project visited Brown twice for a residency that included a public performance featuring faculty works, a lecture by its conductor, Gil Rose, and reading and recording sessions with Brown composition students.

Notable exhibits included the David Winton Bell Gallery's "Dead Animals, or the curious occurrence of taxidermy in contemporary art," and the national tour of "First Folio! The Book That Gave Us Shakespeare!" which celebrated one of the world's most treasured books with a wide-ranging series of open-to-the-public events and exhibits.

A significant milestone for the arts at Brown was the celebration of the fifth anniversary of the Perry and Marty Granoff Center for the Creative Arts.

The center is a force for new work and collaboration across the disciplines. The center also has become an arts destination, hosting scores of high-profile exhibits in its first five years, like those this past year by James Weingrod, whose major mural project spanned the Center's walls, floors, ceilings and stairways, and toyed with notions of inner and outer space, and Daniel Wickerham and Malcolm Lomax, whose groundbreaking performance art incorporated activism, social exchange and stand-up comedy. A piece marking the fifth anniversary surveyed art projects, exhibitions, classes and events centered in the building.

Understanding the Human Brain

"This theme will support Brown scholars in their efforts to understand functions of the brain that distinguish us as humans, discover treatments for disorders that diminish our capacities and create technologies to improve lives."

—Building on Distinction

Throughout the year, scientists at Brown continued to engage in research that is bold, innovative and novel, helping to unlock and explain the complexity and mysteries of the brain. Scientists in and collaborating with the Brown Institute for Brain Science are mapping cells and connections, decoding signals, and mimicking and repairing the complex functions of the nervous system.

A team that included neuroscience assistant professor Alex Jaworski and undergraduate Holly Gildea reported in the journal *Science* that they discovered a protein crucial to connecting neurons across the spinal cord. Also, biology professor Diane Hoffman-Kim and a multidisciplinary team published in *Tissue Engineering* an extremely inexpensive method of synthesizing living, working — though not thinking — minibrains, which have many applications for basic and clinical neuroscience.

Two other major findings occurred in the study of sleep. Psychology researchers led by research Associate Professor Yuka Sasaki and colleagues showed in *Current Biology* that when people sleep somewhere for the first time, one brain hemisphere stays more alert, as if on watch. Psychiatry and Human Behavior Professor Mary Carskadon, meanwhile, led research published in the *Journal*

of *Clinical Endocrinology & Metabolism* showing that nighttime light, from electronic gadgets, for instance, substantially affects the production of the sleep-cueing hormone melatonin in boys and girls aged 9 to 15.

Meanwhile, research collaborations that intersect with engineering advanced other areas of brain science. A research group led by Tayhas Palmore, professor of engineering and chemistry, developed a new approach to analyzing images of neurons taken from microscopes. The Neuron Image Analyzer picks out delicate neuron structures that can be difficult to discern, helping scientists better assess the growth of those cells.

In addition, the BrainGate collaboration led by engineering professor Leigh Hochberg announced in *Science Translational Medicine* major improvements in the performance of the brain-computer interface system that has allowed clinical trial participants with severe paralysis to move computer cursors and robotic arms just by thinking about moving their own arm and hand. BrainGate is a premier example of collaboration between Brown and the Providence VA Medical Center. In Fiscal Year 2016, the two institutions and other Rhode Island hospitals and academic institutions signed an agreement to collaborate on brain science research.

Faculty and students at Brown truly are driving research and discovery in brain science, pushing beyond the last frontier of biomedicine to enable better mental health and to produce fascinating new insights into how we think, feel and behave.

Sustaining Life on Earth

“We will build an academic program focused on the relationship of the environment to human societies, combining the efforts of natural, physical and social scientists, together with humanists, to understand the determinants of environmental change, alter norms of human behavior, consider ethical issues related to sustainability and develop sound environmental policies.”

—*Building on Distinction*

The Institute at Brown for Environment and Society (IBES) is driving efforts at the center of developing new insights into the challenges of sustainability by

focusing on the people and systems of the planet that are most at risk.

Ecologists, climatologists, sociologists, economists, historians and other scholars across Brown engaged in dynamic collaborations over the past year to address complex environmental challenges from the multiple perspectives they require. One of the most critical questions surrounding climate change is how it might affect the food supply for a growing global population. Researchers from IBES showed that, when faced with adverse climate conditions, farmers in Brazil often choose to cultivate smaller plots of land and plant fewer crops per growing season. The research, co-authored by graduate student Stephanie Spera and professors Jack Mustard and Leah VanWey, suggests that additional government subsidies might be necessary to bolster food production as the world’s climate continues to change.

Spera and Mustard also led research showing that as the wooded savannas of Brazil’s Cerrado region are converted to farmland, they recycle less water back into the atmosphere, which could affect future rainfall in the Cerrado and elsewhere. The work underscores the importance of protecting critical biomes like the Cerrado.

Physicist Brad Marston led research that could aid in developing more accurate computer simulations of Earth’s changing climate. Even when run on powerful supercomputers, climate models must ignore small-scale dynamics created by clouds and local turbulence. Marston’s approach puts some of those important dynamics back in, which could help in making better predictions about how climate change will unfold around the globe.

Work toward developing renewable sources of energy is a key part of efforts to sustain life on Earth while mitigating the drivers of climate change, and Nitin Padture, professor of engineering, is helping to improve the efficiency of solar cells made from the material perovskite while developing new fabrication methods to improve their commercial viability. With perovskite seen as a promising option for making next-generation solar cells more affordably, Padture now leads a \$4-million grant from the National Science Foundation to continue his work on perovskite.

Elsewhere on campus, Brown chemist Shouheng Sun led a group that created a new catalyst that can convert excess carbon dioxide into ethylene, a key commodity chemical. The catalyst could be a step toward reducing the use of fossil fuels in the chemical industry.

Campus Sustainability

Research and scholarship in the theme of Sustaining Life on Earth complements ongoing efforts to promote sustainability on campus. As reported in Brown's ninth annual Sustainability Progress Report, Brown continues to make great progress on energy conservation projects and sustainability initiatives, including a reduction in carbon emissions that currently stands at 27 percent, below the University's interim 2016 target of 31 percent.

Brown completed a heating efficiency study that has identified a major project to increase the campus thermal efficiency that will help lead the way toward achieving the University's 2020 Greenhouse Gas Goal of 42 percent below 2007 levels.

Some other campus sustainability highlights over the past year include a 26.6 percent waste diversion rate — with about 1,761,500 pounds of waste either recycled, donated, re-purposed, composted or otherwise diverted from the landfill — and a partnership between the University's Energy and Environmental Office and its C.V. Starr Program in Business, Entrepreneurship and Organizations. The partnership involves mentoring a five-student senior capstone project to assess the University's transportation footprint, associated greenhouse gas emissions and potential programs to increase alternative transportation use.

Creating Peaceful, Just and Prosperous Societies

"We will establish Brown as a leading center of international studies that integrates rigorous scholarship and education with active engagement in the world of international affairs, and we will support scholarship and public discourse on institutions and ideas that promote social justice and economic prosperity domestically and internationally."

—Building on Distinction

Central to Brown's efforts in this area is the Thomas J. Watson Jr. Institute for International and Public Affairs. The Watson Institute is securing its standing as a consequential contributor of scholarly analyses and policy solutions to current and future social, economic and political challenges.

Over the past year, Watson-affiliated scholars and students have engaged with a diverse range of topics, including partisanship and the Supreme Court, the uncertainty of global financial markets, the death toll from the conflicts in Afghanistan and Pakistan, the unraveling of the European Union, and the intersection of climate change and humanitarian relief efforts. Through these and other initiatives, the Watson Institute is transforming the way we understand the world intellectually, and the way we improve the world through policy.

Watson's impact extends beyond Brown's campus. For several years, Watson has hosted the Brown International Advanced Research Institutes (BIARI), which brings more than 100 young scholars, primarily from the Global South, to study with Brown faculty on cutting-edge issues of the day, such as climate change and economic development. This past year, BIARI held its first regional institute in Spain, attracting 22 academics and practitioners from 21 European institutions, 10 countries and 11 countries of origin.

Watson's various regional programs were also active in developing innovative programs. For example, the Brown Brazil Initiative expanded its Opening the Archives Project, which provides open access to thousands of declassified primary documents about Brazil's military dictatorship to researchers around the world. In addition, the Program in Middle East Studies hosted a teach-in on understanding the refugee crisis that has implications for reshaping Europe, as well as an event deconstructing the coup in Turkey and the future of democracy in that country.

A \$50 million gift to the Watson Institute announced in November 2015 will fund construction of a new building, expansion of the institute's faculty, and initiatives in the area of research, scholarship and policy.

Other centers across Brown that are actively engaged in work to deepen Brown's impact in

ASSESSING THE IRAN NUCLEAR DEAL

In September 2015, the Watson Institute hosted the panel discussion “Assessing the Iran Nuclear Deal,” bringing together experts from Watson, other academic departments at Brown and the Naval War College. These experts offered their perspectives on the politics and science behind the Joint Comprehensive Plan of Action (JCPOA) negotiated among the UN Security Council’s five permanent members to restrict Iran’s nuclear activities in exchange for sanctions relief. As national events continue to shape national and international discussions about peace and security, Watson serves as a convener and driver of important public discourse.



addressing societal challenges include the Center for the Study of Race and Ethnicity in America (CSREA), the Center for the Study of Slavery and Justice (CSSJ) and the Political Theory Project (PTP). Throughout the year, CSREA facilitated meaningful and accessible conversations on pivotal issues like police bias and the history of racial profiling; the appropriations of native cultures; and the ways structural racism is manifest and reinforced across different dimensions of everyday life.

At the Center for the Study of Slavery and Justice, faculty and staff began a Civil Rights Movement Initiative for youth at nearby Hope High School. They also helped to bring together community partners and local institutions to discuss plans for organizing remembrance ceremonies and installing historic public markers that acknowledge four

Rhode Island sites as arrival ports for enslaved Africans who survived the transatlantic human trade known as the Middle Passage. CSSJ hosted more than 70 events on and off campus over the course of the year, including supporting programs in its human trafficking research cluster.

The Political Theory Project, whose mission is to investigate the ideas and institutions that might make societies free, prosperous and fair, explored issues at the intersections of race and journalism after the police shooting of a young black man in Ferguson, Missouri. PTP also held a forum on child abuse and the Constitution’s Sixth Amendment, and hosted a conversation with renowned economists Jeffrey Sachs and Daron Acemoglu on the causes and consequences of wealth creation, among other initiatives.

Exploring Human Experience

“Investment in this theme will continue to develop a robust environment for the study of human experience in all its diversity throughout history and around the world. Specifically, it will build on the success of the Cogut Center for the Humanities and the Humanities Initiative to promote creative critical thinking and informed public dialogue about the most challenging questions facing humanity.”

—*Building on Distinction*

Research and scholarship in the humanities this year advanced Brown’s goals to learn from the historical record, analyze present conditions and further Brown’s contributions to society.

Throughout the year, a \$1.3 million grant from the Andrew W. Mellon Foundation helped build Brown’s initiatives in the digital humanities. The grant funded Brown’s Digital Scholarship Initiative, which is supporting the development, publication and preservation of digital publications, with an emphasis on long-form digital publications by Brown faculty in the humanities and humanistic social sciences.

The digital humanities were at the center of undergraduate Katherine Lamb’s summer research on a trove of centuries-old handwritten papers from Timbuktu, which turned out to be largely about magical “recipes” for talismanic protection or instructions for practicing spellcasting or divination. Lamb used Brown’s Digital Scholarship Lab to examine the texts and prepare to share her findings. In thinking about how humans will read and write in the future, Professor of Literary Arts John Cayley asked students to think of the virtual reality CAVE as housing new machines for writing and reading, positing that virtual and augmented spaces will have a role in literature production going forward.

Also in the classroom, Brown students studying language and literature worked with middle-school students to explore “Romeo and Juliet” in English and Spanish, relate the key conflicts in the play to their own contemporary experiences, and help them create adaptations of the play. The students’ work was part of a program titled “iShakespeare

para todos!” held in conjunction with Brown’s hosting of the “First Folio! The Book That Gave Us Shakespeare!” traveling exhibit.

Several faculty showcased their research and scholarship in lectures and performances, including Amanda Anderson, professor of humanities and English and director of the Cogut Center for the Humanities. Anderson delivered the Clarendon Lectures in English, including “Psychology Contra Morality,” “In the Middle of Life,” “Psychic Life and the Claims of Others” and “A Human Science.”

In an example of work that crosses the humanities and health, clinical scholar, researcher and consultant Barry Prizant worked to alter the way autism spectrum disorders are understood and treated through his book “Uniquely Human: A Different Way of Seeing Autism.” Prizant, who is an adjunct professor of theatre arts and performance studies, also co-developed a new musical theater and arts program at Brown that addresses these issues.

Prominent lectures in the humanities this year included “More Alienation, Please!” by renowned Slovenian cultural theorist and philosopher Slavoj Žižek, as well as Jonathan L. Walton delivering the 2016 Martin Luther King Jr. Lecture on “Love, Power and Empathy in an iLife Era.” Walton is a noted social ethicist, scholar of American religions and professor.

In an important exhibition that fulfilled the promise of the humanities to transcend the humanistic fields to prompt discussion about historical and cultural issues, the John Hay Library displayed a pair of slave shackles — objects that Professor Anthony Bogues, director of the Center for the Study of Slavery and Justice (CSSJ), described as “necessary for us to have a full and frank conversation about the character of slavery and the making of our modern world.” At CSSJ, faculty and students also explored the stories of African Americans who migrated to Appalachia to work as coal miners in the 20th century, while the exhibit “DIGNITY: Tribes in Transition” at the Watson Institute aimed to capture the fleeting period of world history where traditional and contemporary cultures collide.

Using Science and Technology to Improve Lives

“Our plan for enhancing the study of science, engineering and technology will emphasize an interdisciplinary approach to innovation, grounded in a broad understanding of local and global needs and concerns.”

—Building on Distinction

Brown is engaged in innovative research where engineering intersects with mathematics, physics, chemistry, environmental science, computer science, biology and medicine to make a deep impact.

Brown announced support in January 2016 for the Humanity-Centered Robotics Initiative, an interdisciplinary group of researchers looking for ways to maximize the societal benefits of robotics. Robotic technologies hold the promise of improving medical care, aiding the disabled and helping people in their daily lives.

In the School of Engineering, Daniel Mittleman’s lab is developing the critical components that could help make terahertz networks a reality. Terahertz radiation could one day provide the backbone for wireless systems that can deliver data up to one hundred times faster than today’s cellular or Wi-Fi networks. And other researchers have made significant progress in a technique called plasmonic interferometry, which could one day be used to build hand-held sensors to test water for lead, E. coli and pesticides, or make biosensors that can perform a complete blood workup from just a single drop. A fundamental advance in plasmonics technology

made by Brown engineering professor Domenico Pacifici could make such devices more practical to build.

Brown scientists are working at the forefront of discovery in bioengineering, as well as interdisciplinary collaboration to support the study of geology and the environment. A new technique developed by engineering professor Christian Franck can track cell movement in complex environments that mimic actual body tissues, and separate research by geologist Brandon Johnson helps explain why some landslides travel much farther than scientists might expect, endangering towns and cities far from where slides originate. Johnson’s study could be a step toward better predicting where these devastating landslides are likely to occur, while Franck’s work contributing to an understanding of how cells move through different tissues in the body could be useful in treating conditions from cancer to autoimmune disorders.

In the areas of nanotechnology and biomedical applications, Brown is expanding its capacity for nanoscale research and experimentation. The University celebrated the topping off for the new research building for the School of Engineering in May, after a groundbreaking in October 2015. The building, slated to be completed in 2018, opens a new chapter for the Ivy League’s oldest engineering program. The new three-story, 80,000 square-foot structure will include specialized facilities for nanoscale and biomedical engineering, along with two full floors of new lab space designed to expand cross-disciplinary research aimed at addressing the world’s critical problems and challenges.

“Engineering research evolves quickly and fundamentally. For much of the last century, engineering has focused on the macroscale — rockets, bridges and giant machines. But today engineers work increasingly on the scale of just a few atoms. Research at the nanoscale requires entirely new kinds of facilities, equipment and spaces.”

—Larry Larson, Sorensen Family Dean of Engineering



Deciphering Disease and Improving Population Health

“This theme will rely upon the close alignment of Brown’s Alpert Medical School and School of Public Health and synergies with faculty across the campus to create the knowledge on which population health can be improved, and educate skilled professionals to use this knowledge for the benefit of people in Rhode Island and around the world.”

—*Building on Distinction*

At the Warren Alpert Medical School, scientists, clinicians, students and scholars from across the University worked closely together to convert scientific discoveries into medical breakthroughs. The medical school is advancing an ambitious vision to become one of the country’s leading centers for biomedical research.

A team led by Dr. Jack A. Elias, dean of medicine and biologic sciences, published findings in the journal *Scientific Reports* showing that suppressing the misregulated activity of a specific protein could prevent cancer from spreading to the lungs of mice. In another lab, Peter Belenky, assistant professor of biology, produced a fundamental new insight into how antibiotics work — a crucial issue as antibiotic resistance mounts. In *Cell Reports* his group showed that the antibiotics kill bacteria by setting their metabolism fatally awry.

In yet another exciting study still underway, five biology labs came together in a new collaboration to take an unconventional but promising approach to combating ALS: searching for gene variants in animals and people that suppress the disease.

Elias also announced a 10-year strategic plan for the Division of Biology and Medicine, with the Brown Institute for Translational Science standing as its cornerstone. BITS, as the institute is now known, focuses on translational science — the practice of ensuring that breakthroughs in basic research are advanced to the point where they can make a meaningful medical difference for patients, and that urgent scientific questions identified in the clinic or among patient populations become research priorities in the lab.

To tackle the immense complexity of genomics and other “big data” challenges in biology, Brown earned an \$11.5-million, five-year grant from the National Institutes of Health to establish a Center for Biomedical Research Excellence in Computational Biology of Human Disease.

In the area of population health, Brown continued to bring together rigorous research, innovative education and community service, moving beyond preventing disease to actually reshape health care and safeguard vulnerable populations. Epidemiology assistant professor Joseph Braun published studies in the journals *Environmental Research and Obesity* showing that exposure of expecting mothers to the pervasive industrial pollutant PFOA is associated with early termination of breastfeeding, and that *in utero* exposure of their children is associated with higher body-mass index and faster weight gain during early childhood. Professor Braun also earned a \$1.5 million NIH grant to further study the effects of pollution exposure during pregnancy.

Researchers in the School of Public Health also produced key insights into health care for aging Americans. Momotazur Rahman, research assistant professor of health services, policy and practice, published findings in the journal *Health Affairs* showing that private Medicare Advantage plans have a record of dropping enrollees just as those patients need more expensive care. In addition, a team led by professor Vincent Mor provided strong evidence in the *Journal of the American Geriatrics Society* that despite a debate on the matter, flu shots really do reduce deaths and hospitalizations among the elderly.

To help address Rhode Island’s tragic epidemic of opioid overdose, Brown faculty members contributed significant research, clinical and policy insights. The Warren Alpert Medical School convened hundreds of medical, nursing, social work, pharmacy and physical therapy students from around the state for a day of integrated team training to prevent and treat opioid addiction. To support the Governor’s Overdose Prevention and Intervention Task Force, public health associate professor Brandon Marshall, and a team including two undergraduates, developed a “dashboard” website with detailed but intuitive statistics and other information on the epidemic.

One of the greatest developments this year was the establishment of the Hassenfeld Child Health Innovation Institute in conjunction with the University's hospital partners. Launched with a \$12.5 million gift from the family of retired Hasbro Chairman and CEO Alan Hassenfeld — a gift to be matched by Brown — the institute's first foci are research and teaching in three childhood health challenges: autism, asthma, and healthy weight, nutrition and physical fitness.

EDUCATIONAL LEADERSHIP

"In the coming decade, we will strengthen our position as a leader in education. We will continue to emphasize close interactions between students and faculty in an environment that inspires students to carve their own intellectual and creative paths."

—*Building on Distinction*

Enhancing the Curriculum

As part of the planning process for *Building on Distinction*, the University found that Brown students study widely across the curriculum, and they leave the University with an education that is both deep and broad. However, to maintain a strong curriculum that meets the ever-changing needs of students, Brown has been focused on strengthening the curriculum in key areas and expanding opportunities for students to connect their educational experiences with the world beyond campus.

Over the course of the 2015-16 academic year, the Office of the Dean of the College developed "Wintersession," which launched in December 2016. Designed to increase opportunities for intensive and hands-on learning in an energizing and engaging environment, the program offers undergraduate students 10 innovative on-campus, destination and online courses in seven departments from



STUDENT'S SENIOR THESIS AWARDED GATES FOUNDATION FUNDING

For his senior thesis, undergraduate computer science student Wilson Cusack developed a text-message platform that helps match rural farmers in the developing world with buyers for their goods. Cusack, a native of Grand Rapids, Michigan, thought the platform could fill a need for rural farmers in the developing world who often have trouble finding buyers and getting a fair price for what they grow. The Bill and Melinda Gates Foundation agreed. The foundation awarded Cusack \$100,000 to pilot the project in Ghana. Cusack's project demonstrates what's possible with an undergraduate curriculum focused on problem-based learning and research opportunities that help students make an impact on the world beyond Brown.

across the humanities, social sciences and the science, technology, engineering and math fields (STEM). The courses will allow students to develop computational skills for the life sciences; travel to Thailand to engage critically with issues of global humanitarianism; gain the tools and knowledge to successfully develop startups using lean frameworks; analyze the interplay of race, sex and class in the modern American musical; and more.

Brown is also focused on increasing growth in pre-medical and STEM education, as well as in courses that address critical questions of identity, equity and justice. Among a range of initiatives, the Dean of the College has provided support for a significantly expanded New Scientist Catalyst Program, a uniquely blended academic orientation program for entering students from groups traditionally underrepresented in STEM fields.

Technology and Education/Data Fluency and Analysis

Preparation this year for the 2016-17 launch of a Data Science Initiative included planning for courses to provide students with innovative educational opportunities relating to “big data.” To equip students for the data-enabled economy, faculty in the Data Science Initiative will partner with departments across campus to create data science course sequences to promote data fluency in students studying in a variety of disciplines. New faculty added through the initiative will expand the course options already available at Brown. Current course offerings include two introductory courses — “Data Fluency for All” in Computer Science and

“What’s the Big Deal with Data Science” in Applied Math — both designed to introduce the field to students without much experience with data science techniques.

In the area of technology and education, the Online Team in Brown’s School of Professional Studies continues to support faculty and departments in the design, development, delivery and facilitation of online and blended courses. A new blended Executive Master in Cybersecurity that launched this year added to existing programs in healthcare leadership and science and technology leadership, in addition to the Executive MBA, offered in partnership with internationally top-ranked IE Business School in Madrid, Spain.

Connecting the World

The Karen T. Romer Undergraduate Teaching and Research Awards — or UTRAs, as they are commonly known on campus — continue to provide opportunities for students to work shoulder-to-shoulder with faculty as they dive into scholarship on a variety of topics. From academic research to the collaborative development of new courses, hundreds of Brown undergraduates worked on UTRA projects across all disciplines, both on campus and in 10 countries across the globe.

Students performed research on the toxicology of e-cigarettes, examined how Abraham Lincoln used both ancient rhetoric and Bible scripture to effectively relate to the political turmoil between the North and South, created a self-guided tour for mobile phones of a historic house and explored the

BrownConnect TOTALS AS OF 2015-16

12,591 Unique students and alumni using the BrownConnect site

429 Unique employers posting Brown-specific internship opportunities

52,600 Alumni profiles viewed by students

\$2.7 million Total amount spent on awards/summer earning waivers

BROWN 
connect

properties of a class of crystalline materials that is emerging as a promising component in next-generation solar cells.

In another program offering students a bridge between theory and practice, students benefited from opportunities offered through BrownConnect, CareerLAB's newest program, now in its second year. BrownConnect provides students with information on summer research opportunities and internships, and connects them with alumni and parent employers who are looking specifically for students from Brown. The program is succeeding in tapping into the extended University community to enhance internship access and create mentoring relationships. It also connects students to funding that provides access to internship and research opportunities. In summer 2016, more than 2,150 students participated in research and internship opportunities through BrownConnect, and almost 620 funding awards were given.

Also in its second year, Brown's Engaged Scholars Program is offering yet more opportunities for students to connect academic learning with social impact, linking the classroom and community through co-created experiential research, projects and internships. The Swearer Center for Public Service acts as the hub for the program, which has expanded from five academic departments to 12 and admitted 63 new scholars for its second year. Participating departments range from engineering to theatre arts and performance to political science.

To support graduating students in launching business ventures with a strong potential for social impact, the Social Innovation Initiative at the Swearer Center created the Embark Fellowship, with additional funding from the Brown Entrepreneurship Program and its alumni advisory board. The fellowship is designed not only to help student ventures gain traction, but also to encourage the Brown alumni community to support new graduates in the field.

Innovative Graduate and Medical Education

Brown's innovations in the education of its graduate and professional students include enhancing graduate education with new master's programs.

The Warren Alpert Medical School welcomed the inaugural cohort of students to its first-in-the-nation Primary Care-Population Medicine dual-degree program. Sixteen students began an academic journey in which they will earn M.D. and Sc.M. degrees in a curriculum that teaches them to become leaders in the context of a rapidly changing health care landscape.

In addition, the Department of Sociology launched a master's degree (Sc.M.) program in social analysis and research, and the School of Professional Studies launched a new Executive Master in Cybersecurity. Through the new cybersecurity degree, Brown is educating the next generation of security leaders to possess a deep understanding of the technological, legal, policy and people issues surrounding cybersecurity. The 16-month program aims to produce security leaders with a deep understanding of the technological, legal, policy and people issues surrounding cybersecurity. The program is designed for people with significant professional and managerial experience, and responsibility for security in business, education, financial services, government, healthcare, policy, regulatory, retail or other sectors in which cybersecurity is an increasingly critical concern.

The Data Science Initiative referenced earlier in this report also will provide new opportunities for master's education. A data science master's program will offer a deeper dive into the methods applied by data scientists. In addition to a core curriculum focusing on foundational mathematical and computational techniques, an elective class will let students explore particular applications of their choice. A capstone project will help students apply what they have learned to real-world questions and problems.

The impact of Brown's student-centered approach to graduate education was exemplified this year by geology students who made key contributions to the future of NASA's planetary exploration program. In August 2015, NASA held a workshop to help select landing sites for its newest Mars rover to launch in 2020. Brown Ph.D. students Tim Goudge and Kevin Cannon each led presentations on areas they believe would be of critical scientific importance. Those two spots are now leading contenders on NASA's list of potential landing sites for its Mars 2020 rover.





ACADEMIC EXCELLENCE

“We will continue to cultivate a community of faculty, students and staff with the diversity and breadth of experience required for excellence, and to provide members of this community with the opportunities and resources needed for success.”

—*Building on Distinction*

Brown hired 32 new faculty in 2015-16, with 24 filling vacancies and seven identified as helping the University fulfill the ambitious goals of *Building On Distinction*. The successful recruitment of some of the top scholars in the nation and the world reflects Brown’s drive to cultivate an excellent, diverse faculty that values Brown’s distinctive approach to scholarship and education in the service of society.

Among these is Professor of Public Policy Eric Patashnik, who arrived at Brown from the University of Virginia to direct the growing program in public policy at the Watson Institute. Patashnik is the editor of the *Journal of Health Politics, Policy and Law* and a Non-Resident Senior Fellow at the Washington-based Brookings Institution policy nonprofit. Another notable addition to the faculty this year was Professor of Islamic Studies Shahzad Bashir, a scholar of religion who studies 14th century Persianate societies of Iran and South Asia and comes to Brown from Stanford University.

These scholars join the ranks of senior hires across departments that add to Brown’s academic excellence. This includes a powerhouse trio of economists: professors Emily Oster and Jesse Shapiro from the University of Chicago, and associate professor John Friedman, formerly of the National Bureau of Economic Research, the Harvard Kennedy School and the White House. They all represent only a sample of the top scholars and researchers recruited to Brown.

To continue to cultivate the excellence of our student body, Brown sustained efforts to strengthen financial aid; increase access to summer educational and career-oriented opportunities that complement the on-campus educational experience; bolster career counseling, including the hire of additional support for health careers advising; and provide enhanced resources for research, teaching and professional development for graduate students.

Included in these enhanced resources were the creation of new or expanded positions serving doctoral students: an assistant provost for global engagement; the conversion of an associate dean of student support to a full-time position; and an associate dean of diversity initiatives converted to a full-time position.

In addition, the Graduate School saw its first cohort of Dean’s Faculty Fellows; offered new “effective performance” workshops; provided new interdisciplinary opportunities for students to collaborate beyond their areas of concentration; and prepared for its first cohort of Graduate Community Fellows.

Brown also continued to deepen the diversity of experiences among students. Financial aid continued to be the fastest-growing area of Brown’s budget, with \$122.5 million allocated for the FY16 scholarship budget and \$120.5 million approved for FY17. These investments support a drive to recruit and enroll the best and brightest students from around the world to bring the range of perspectives necessary to confront the complex societal challenges Brown has committed to address.

In February, Brown released *Pathways to Diversity and Inclusion: An Action Plan for Brown University*. Referred to commonly as the “Diversity and Inclusion Action Plan,” or DIAP, the plan details concrete steps Brown will take to cultivate a community that reflects the diversity of thought and experience needed to sustain academic excellence. Distinct from diversity initiatives at some other universities, Brown’s DIAP recognizes that issues of diversity and inclusion are implicated in all aspects of Brown’s commitment to fulfill its academic mission. This includes attracting and supporting the very best students, staff and faculty to Brown from all backgrounds and perspectives.

The DIAP also seeks to strengthen the overall learning environment by, among other things, leveraging scholarly resources to expand the University’s academic leadership and impact. Among many initiatives this past year, the University launched a new Native American and Indigenous Studies Initiative; sponsored “How Structural Racism Works,” a series of academic lectures and workshops designed to undertake an extended campus-wide examination of structural racism in the United States; and unveiled the

FY16 External Grants and Awards

Brown's academic excellence was bolstered by 516* new external grants and awards that funded groundbreaking and innovative research, teaching and scholarship that are having a deep impact on a variety of fields. This is just a small sampling of grants spanning the academic disciplines.

- \$3.10 million to Applied Mathematics from the U.S. Army for basic research in math
- \$3.75 million to Applied Mathematics from the U.S. Army for research to improve modeling of complex phenomena
- \$1.20 million to the Brown Institute for Brain Science from ALS Finding a Cure for research in the genetics of ALS
- \$5.91 million to the Center for Alcohol and Addiction Studies from the NIH's National Institute on Alcohol Abuse and Alcoholism for research in alcohol and HIV
- \$3.03 million to the Center for Environmental Health and Technology from the NIH's National Institute of Environmental Health Science for research on childhood obesity
- \$4.70 million to the Center for Epidemiology and Environmental Health from NIH's National Center for Complementary and Integrative Health for research in mindfulness influences and health
- \$6.08 million to the Center for Gerontology and Health Care Research from the NIH's National Institute on Aging for research in video-assisted advance care planning in nursing homes
- \$1.02 million to the Center for Health Equity Research from the NIH's National Institute of Mental Health for The Brown Initiative for HIV and AIDS Clinical Research for Minority Communities
- \$3.22 million to the Center for Statistical Sciences from the American College of Radiology for research on dementia
- \$2.03 million to Cognitive, Linguistic and Psychological Sciences from the NIH's National Institute of Mental Health for research on the role of the hippocampus in memory
- \$559,190 to Earth, Environmental and Planetary Sciences from the National Science Foundation for research in climate change in polar regions
- \$11.52 million to Ecology and Evolutionary Biology from the NIH's National Institute of General Medical Sciences Centers of Biomedical Research Excellence (COBRE) award for computational biology
- \$350,000 to Education from the W.T. Grant Foundation for research in teacher influences on students' non-cognitive competencies
- \$17.55 million to the Institute for Computational and Experimental Research in Mathematics (ICERM) from the National Science Foundation for 5-year renewal as one of eight NSF-sponsored mathematics institutes across the country and the only one in New England
- \$1.60 million to Molecular Pharmacology, Physiology and Biotechnology from NIH's National Institute of General Medical Sciences for research into a protein implicated in ALS
- \$4 million to Molecular and Nanoscale Innovation from the National Science Foundation for research in solar energy cells
- \$1.46 million to Molecular Biology, Cell Biology, and Biochemistry from NIH's National Institute of General Medical Sciences for research in embryonic development and neurological function
- \$10.77 million to Pathology and Laboratory Medicine from NIH's National Institute of Environmental Health Science as a Superfund Research Program renewal
- \$1.70 million to the Political Theory Project from the Charles G. Koch Charitable Foundation
- \$1.50 million to the School of Engineering from the National Science Foundation as an NSF Scalable Nanomanufacturing Award
- \$2.10 million to the School of Engineering from the Office of Naval Research for research in catalysts design
- \$250,000 to the Watson Institute for International and Public Affairs from the Virginia B. Toulmin Foundation for research into access to sexual and reproductive health in Latin America and the Caribbean

NSF CAREER Awards

In addition, the following faculty earned NSF CAREER Awards — ranging from \$400,000 to \$627,000 — which is the National Science Foundation's most prestigious award in support of junior faculty who exemplify the role of teacher-scholars:

- Colleen Dalton of Earth, Environmental and Planetary Sciences
- Claude Franklin Goldsmith of the School of Engineering
- David Henann of the School of Engineering
- Andrew Peterson of the School of Engineering
- Jeff Huang of Computer Science
- Joo-Hyun Song of Cognitive, Linguistic and Psychological Sciences
- Anastasios Matzavinos of Applied Mathematics

*Funding levels reflect total dollars over the funded period, in some cases for multi-year awards.

campus-wide Provost's Visiting Professors program, which will offer short-term appointments at Brown to exceptional faculty from historically underrepresented groups. Brown also enhanced its academic excellence through expanded professional development for faculty, students and staff.

Evolving to meet emerging needs

Throughout the 2015-16 academic year, extensive planning for multiple major initiatives paved the way for new academic and educational programs to launch in 2016-17. Some were envisioned in the strategic priorities of *Building on Distinction*, while others demonstrate the ways in which Brown continues to evolve to meet the needs of a rapidly changing world.

- **A new center of learning to serve as a resource for students in the renovated Sciences Library:** Repurposed floors in the Sciences Library were renovated to host the Language Resource Center, the Sheridan Center for Teaching and Learning, the Writing Center and a new computer lab for social science research.
- **First-Generation College and Low-Income Student Center:** In a way that is truly “Brown,” students drove efforts to partner with the administration to boost support for those who are the first in their families to attend college. The center was configured to provide office and meeting space, as well as a community lounge and a shared classroom/event space, all centrally located near key academic support centers.
- **Data Science Initiative:** The goal of the initiative is to catalyze new research programs to address some of the world's most complex challenges and provide students with innovative educational opportunities relating to “big data.” Brown's departments of mathematics, applied mathematics, computer science and biostatistics will serve as the initiative's hub, but a key focus will be to create a campus-wide community in data science, engaging students and faculty in life and physical sciences, social sciences and the humanities.
- **Jonathan M. Nelson Center for Entrepreneurship:** To provide all students with a strong academic grounding in entrepreneurship, blended with applied experiences and mentorship opportunities, Brown planned for new space to house classrooms,

workspace, and areas for faculty and students to collaborate on developing new ventures. The Nelson Center will operate in collaboration with existing departments, schools and centers at Brown to provide students with a strong academic grounding in entrepreneurship, blended with applied experiences and mentorship opportunities.

- **Brown Arts Initiative:** As noted earlier in this report, Brown engaged in extensive strategic planning for the spring 2017 launch of an initiative that aims to make Brown the leading university for experimental arts practice and education.

CAMPUS DEVELOPMENT

“The campus is beloved by members of its community. Its eclectic mix of architectural styles emphasizes the University's long history as well as its forward-looking outlook. Its human scale and compact size supports intellectual exchange across disciplines and instills a sense of community among our members.”

—*Building on Distinction*

The *Building on Distinction* plan outlines Brown's goals for a campus that both provides state-of-the-art learning and research environments for Brown students and faculty, and also fosters a sense of connectedness, cultivates collaboration and supports community.

The Built Environment

Some of the efforts contributing to improvements of the physical campus are outlined in previous sections of this report. These include the renovation of the Sciences Library to house a new learning space and also the First-Generation College and Low-Income Student Center, planning for space to house the new Nelson Center for Entrepreneurship, funding for an expanded Watson Institute for International and Public Affairs, and the construction of a new engineering building.

In addition, in September 2015, Brown's new building for the Division of Applied Mathematics opened for occupancy. The three-story, 13,000-square-foot structure provides office space for applied mathematics faculty, graduate students,

postdoctoral researchers and visiting researchers, as well as meeting and seminar rooms.

Among investments to improve libraries and research facilities, the University opened the Sydney E. Frank Digital Studio in the Rockefeller Library, which is supporting collaborative learning in the digital humanities and other areas. And for undergraduate biologists, the University debuted an innovative new laboratory space fully reimagined to answer the question, “Will open-ended research and high-tech collaboration make biology more exciting and engaging for students?” The room’s physical configuration and embedded technology encourage team science to learn from laboratory challenges that are real scientific investigations.

Planning for many other projects is underway, including dormitory renovations and improvements to spaces supporting athletics. Among these projects are renovations to the football complex within the Olney-Margolies Athletic Center, resurfaced fields within a renewed baseball/softball complex, and an extensive renovation and partial rebuilding of the Marston Boathouse.

Building Community

In addition to building the physical campus, Brown launched several initiatives with the goal of reinforcing community. The offices of the president and provost jointly kicked off the “Reaffirming Community Values” series of lectures and workshops for students, faculty and staff. The events encourage reflection, discussion and debate with the goal of promoting Brown’s commitment to being a tolerant, respectful and inclusive community that is fully committed to freedom of expression.

Strategic planning in the division of Campus Life included surveys on residential climate as part of efforts to strengthen the residential community. And Brown initiated a deep exploration of the ways in which all members of the extended community engage with the University. The assessment is part of a project that seeks to build a comprehensive new strategy that will take advantage of Web and digital communications and tools to provide better access and utility to online services; offer personalized and relevant communications; and improve avenues for engagement for Brown students, faculty, staff and alumni.

“With the support of dedicated faculty and staff, talented and creative students, and committed alumni, parents, and friends, we can build on our distinction and set Brown on a path of increasing academic excellence and societal importance during its second 250 years.”

**—President Christina Paxson
*Building on Distinction***





Financial Statement Overview

Letter from the Chief Financial Officer

Reflective of both Brown's ongoing efforts to hold down operating expenses while growing new sources of revenue, as well as considering the low-return environment reflected in global economic markets, Brown posted better than expected operating results for the fiscal year ended June 30, 2016. While challenges remain ahead, a strong balance sheet and continued improvement in operating performance will ensure ongoing support for Brown's strategic aspirations.

Operating Performance

On a consolidated basis, the University completed Fiscal Year 2016 with a small operating surplus. The approved financial plan for fiscal 2016 continued on a path of steady, modest growth, supporting Brown's broad academic mission and carefully targeting resources to sustain excellence in research and teaching. In developing the 2016 financial plan, we had expected that the University would incur \$961 million of expenses against \$951 million of operating revenue, requiring about \$10 million of reserves and balances set aside in prior years to support current operations. Brown planned for this use of reserves to ensure that the University could support critical academic and research priorities while we simultaneously developed plans to expand revenues and continue to manage and control our expenses. At year-end, revenue from tuition, fees and annual giving was higher than expected. As a result, the operating budget achieved a surplus of \$2.5 million.

The University's endowment spending policy balances the need for current income with the equally important goal of preserving the endowment's value in order to provide funding for future generations. For FY 2016, the endowment and other managed funds provided \$166 million to the University, inclusive of \$153.5 million in distributions from endowed funds and \$12.5 million from University operating funds. This was equivalent to 18 percent of the University's fiscal 2016 operating budget, supporting need-blind admissions, professorships, graduate student fellowships, library acquisitions, the Division of Biology and Medicine, more than 60 academic programs, all varsity sports and building maintenance.

FY16 Financial Statement Summary

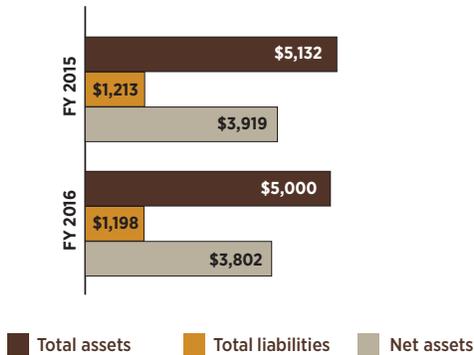
The pages that follow present the highlights of Brown University's audited financial statements for the year ended June 30, 2016. These statements reflect the University's financial condition at the close of Fiscal Year 2016 in accordance with U.S. generally accepted accounting principles. The full 2016 Financial Statements, including footnotes, are available online.

FY 2016 Financial Statements and Independent Auditor's Report

<http://brown.edu/go/financialstatements>

As shown on the Balance Sheet in the 2016 Financial Statements, on June 30, 2016, the University reported total assets of \$5 billion, liabilities of \$1.2 billion, and net assets — total assets minus liabilities — of \$3.8 billion. Net assets decreased by \$117 million from 2015, or 3 percent, reflecting a reduction in the value of the University’s investments, net of growth in new gifts, pledges and sponsored funding.

Assets and Liabilities
\$ in millions (rounded)



Brown’s investment portfolio — the endowment plus other investments net of investment-related liabilities — decreased \$119.3 million, or 3.3 percent, from \$3.57 billion on June 30, 2015, to \$3.45 billion on June 30, 2016. The depreciated value of Brown’s land, buildings and equipment remained constant at \$1.06 billion as of June 30, 2016.

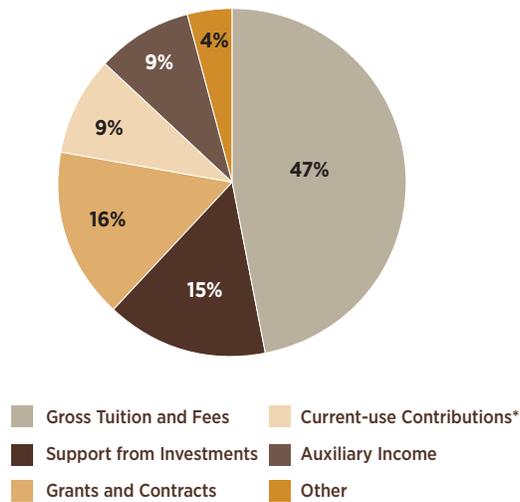
Liabilities decreased in total by \$14.6 million, ending FY16 at \$1.197 billion, primarily as the result of an increase in the defined benefit pension plan and the interest rate swap liabilities, offset by a decrease in liabilities associated with investments. Bonds, loans and notes payable on June 30, 2016, were \$845 million, which is a slight decrease of \$541,000 from the prior year. In October 2015 Brown issued \$45 million in tax-exempt debt used in part to redeem taxable bonds, pay down our commercial paper program and provide funds for some critical capital projects. Moody’s and Standard and Poor’s reaffirmed our ratings of Aa1 and AA+, respectively, and gave Brown a “stable” outlook for the future.

As shown on the Statement of Activities, the change in net assets from operating activities, which includes interest and depreciation expenses, was a positive \$3.4 million. Total operating revenues increased by 4.1 percent to \$841.6 million, primarily

the result of increases in net tuition revenue and endowment appropriated. Total expenses, before depreciation, increased at just 3.4 percent to \$838.2 million.

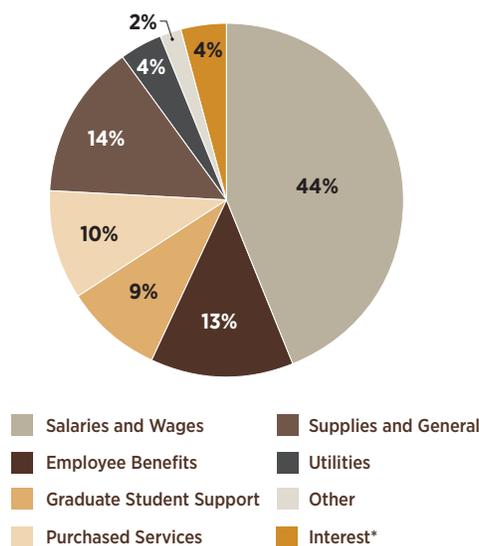
The University derives its operating revenue from five main sources: student tuition and fees (net of scholarships and fellowships), grants and contracts, contributions, endowment income, and sales and services of auxiliary enterprises such as dining and housing.

Operating Revenues - Fiscal Year 2016



*Gifts and pledges for endowment and plant are not included in current-use contributions. They are shown on financial statements under non-operating.

Operating Expenses - Fiscal Year 2016

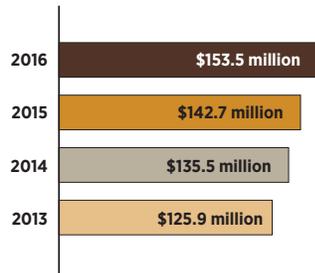


*Includes interest expenses for liquidity reserve fund

Student tuition and fees (not including room and board) continue to represent the largest portion of income, totaling \$482.5 million, up 7.1 percent from the prior year. This large increase was due to planned increases in undergraduate, graduate and medical enrollment. Tuition, room and board for 2015-2016 increased by 4.4 percent from the prior year. Scholarships for undergraduate and graduate students, which are shown as an offset to tuition and fees, totaled \$175.2 million, an increase of 8.5 percent from the 2015 level.

Brown received a total of \$161.0 million in direct and indirect support from external sponsors of research grants and training programs, an increase of 6.3 percent from the prior year, as award activity continues to improve from the end of the federal stimulus programs in 2014. Endowment income distributed for operating support increased by 7.5 percent to \$153.5 million. The amount distributed in Fiscal Year 2016 represented 5 percent of the endowment's market value at the start of the fiscal year.

Endowment Payout
\$ in millions (rounded)



Operating expenditures, excluding depreciation, totaled \$765.1 million in Fiscal Year 2016, up approximately 3.4 percent from the previous year. Salaries, wages and benefits, which account for about 57 percent of total expenses, increased overall by 5 percent, primarily due to a small increase in the total number of faculty and staff. Due to a number of energy-efficiency programs and lower unit costs for oil and gas, the cost of utilities decreased by more than 6 percent, from \$29.6 million to \$27.8 million. The University has been aggressive about locking in energy prices when rates are favorable.

As a result, even as Brown adds new buildings and more space, we have been able to reduce our utilities budget. Interest expense totaled \$29.0 million and was just 3.8 percent of Brown's total expenses excluding depreciation. Finally, plant and equipment depreciation totaled \$73.2 million.

Brown's financial position is stable, and although the overall market was challenging, our endowment has performed well relative to our peers and we continue to enjoy outstanding bond ratings from the ratings agencies. Given ongoing market concerns, however, we anticipate continued constraints on our resources. But we are also encouraged by continuing growth in federally sponsored awards, excellent fundraising results, and growth in other revenue streams such as from the School of Professional Studies as well as other master's degree programs. Overall, I can positively reaffirm that the Brown community — faculty, staff, students and alumni — is as committed as ever to sustaining our tradition of excellence, enhancing our reputation for innovation in education and advancing our place among the world's great universities.

Lindsay Graham
 Vice President for Finance and
 Chief Financial Officer

Endowment Report

Brown University Investment Office

At Brown, the core of the endowment's mission is to provide budgetary stability to ensure that the University allows future students the same opportunities that students have today. This includes opportunities to engage in the learning, research and discovery of an institution that is addressing some of the world's most pressing challenges.

The Brown endowment, therefore, is managed with a dual mandate: preservation of capital and prudent growth. The Investment Office pursues this dual mandate through a diversified yet flexible asset allocation policy designed to deliver the highest risk-adjusted returns under multiple economic scenarios. To execute on this policy, the Investment Team remains focused on utilizing the endowment's primary advantages of long-term capital and a highly supportive and knowledgeable community to support Brown in building partnerships with world-class investment managers.

The mission of Brown's endowment is to financially support the many endeavors of the University's faculty and students, shape the character of Brown as an institution and ensure its permanence. Approximately 5% of the endowment's value is contributed annually to the University in order to support investments in people, access and affordability, innovative education and research, initiatives in campus infrastructure, and student life. The endowment enables Brown to realize the goals of *Building on Distinction*, the strategic plan that is guiding the University's growth and development.

During Fiscal Year 2016, the endowment provided \$166 million to the University, representing 18% of the annual operating budget and equivalent to approximately \$18,500 per student. This funding supported financial aid, professorships, academic programs, research resources and other essential activities of a leading research institution.

Fiscal Year 2016 Performance

Despite a challenging market backdrop across asset classes, the Brown endowment defended University assets via tactical asset allocation and prudent portfolio positioning.

In the fiscal year from July 1, 2015, to June 30, 2016, volatility in global markets and record low interest rates created significant headwinds for investors. Brown's endowment returned -1.1% over this time frame. After the payout to the University of \$166 million, offset by generous gifts of \$83 million, the endowment¹ and other funds managed by the Investment Office ended Fiscal Year 2016 at \$3.2 billion.

The endowment outperformed its global benchmark, the MSCI All-Country World Index (ACWI) return of -3.7%. Notably, the MSCI ACWI ex-US delivered a -10.2% return. The endowment's explicit United States and U.S. dollar bias helped shield it against much of the tumult in global markets.

1. As of June 30, 2016, the Investment Office managed \$3.2 billion. Of this \$3.2 billion, \$2.4 billion is considered "true" endowment and \$0.5 billion is considered "quasi" endowment. The remaining \$0.2 billion are University operating funds and other funds invested alongside the endowed funds.



Fiscal Year Annualized Returns

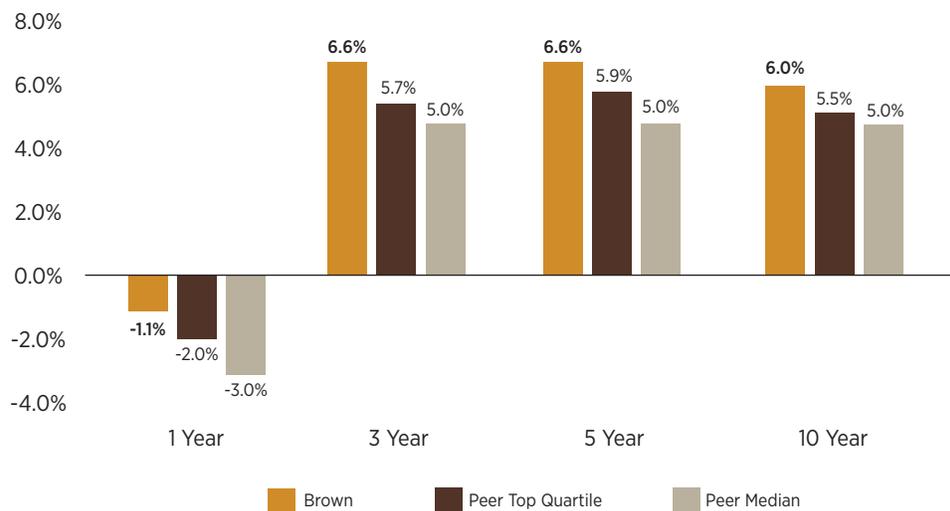
	FY	Annualized Returns			
	2016	3 Year	5 Year	10 Year	20 Year
Brown Endowment	-1.1%	6.6%	6.6%	6.0%	8.9%
Aggregate Benchmark ¹	-2.0%	5.1%	4.5%	4.4%	N/A
70/30 MSCI ACWI/Barclays Aggregate	0.1%	5.2%	4.5%	4.6%	5.7%
MSCI All-Country World (ACWI)	-3.7%	6.0%	5.4%	4.3%	5.6%
MSCI All-Country World (ACWI) ex-US	-10.2%	1.2%	0.1%	1.9%	4.3%
S&P 500 Index	4.0%	11.7%	12.1%	7.4%	7.9%

Performance versus Peers

The Brown endowment's -1.1% return for the fiscal year that ended June 30, 2016 represents a 1.9% premium to the median return of its peer colleges and universities.

During Fiscal Year 2016, the turbulent macroeconomic environment muted average endowment returns. Brown's -1.1% return exceeded the Cambridge Associates universe of 144 colleges and universities² mean and median return of -2.9% and -3.0%, respectively, representing a +1.9% performance premium to the median.

FY 2016 Brown Performance versus Cambridge Associate Peers



1. Aggregate benchmark is a weighted average of blended asset class benchmarks.

2. Cambridge Associates Fiscal Year 2016 College and University Flash Statistics, Summary of Investment Pool Nominal Total Returns, as of September 30, 2016.

Asset Allocation Policy

The endowment is diversified across asset classes through professional external managers and passive indexes to ensure that it is positioned for multiple macroeconomic environments.

The Brown endowment is managed with a dual mandate: preservation of capital and prudent growth. The Investment Office pursues this dual mandate through a diversified yet flexible asset allocation policy designed to deliver the highest risk-adjusted returns under multiple economic scenarios.

Preservation of capital requires ongoing awareness of potential risks. The Investment Team continually reviews correlations, geographic and factor exposures, and liquidity. Although fully invested, the endowment retains appropriate liquidity to fund the University payout and unfunded obligations even during a severe market decline.

Endowment Asset Allocation

Asset Class	Allocation	
	Current Policy Range	6/30/16
Public Equity	15% - 60%	24%
Long/Short Equity		20%
Market Neutral	15% - 50%	9%
Multi-Strategy		8%
Private Equity	10% - 30%	20%
Real Assets	5% - 25%	5%
Total Risk Assets	60% - 110%	86%
Fixed Income	0% - 40%	7%
Tail Hedges	0% - 5%	0%
Cash	-10% - 30%	7%
Total Endowment		100%

Purpose and Use of the Endowment

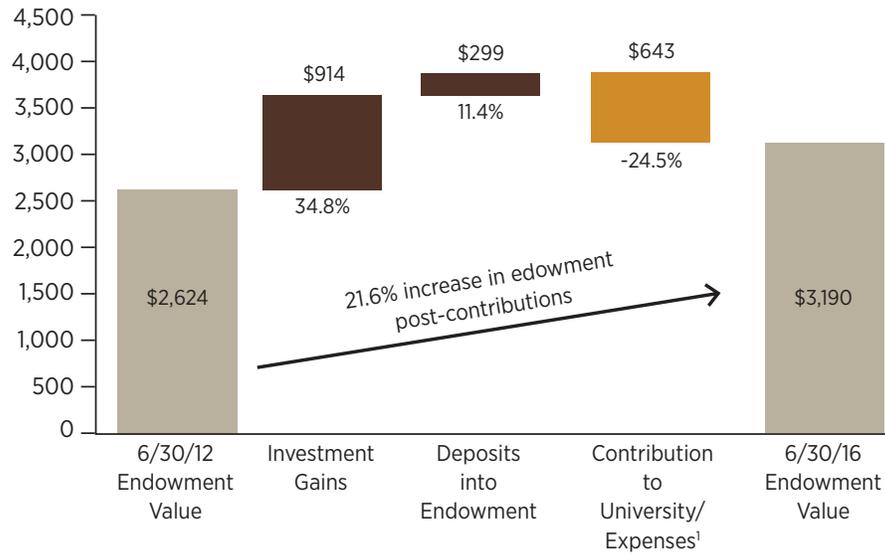
The endowment's mission is to financially support the many endeavors of the University's faculty and students, shape the character of Brown as an institution and ensure its permanence.

During Fiscal Year 2016, the endowment provided \$166 million to the University. This included an estimated \$153.5 million in distributions from endowed funds and \$12.5 million from the payout on the University's operating and renewal funds included in the investment portfolio, a total representing 18% of the annual operating budget, equivalent to approximately \$18,500 per student.

Since President Christina Paxson assumed office in July 2012, the endowment¹ has received almost \$300 million in gifts and generated \$914 million in investment gains, allowing the endowment to contribute \$643 million to the University. Notably, these investment gains are larger than the endowment in its entirety in 1997.

1. References to the endowment include the endowment as well as other funds managed by the Investment Office.

Paxson Presidency Components of Change in Endowment Value
June 30, 2012 - June 30, 2016
(dollars in millions)



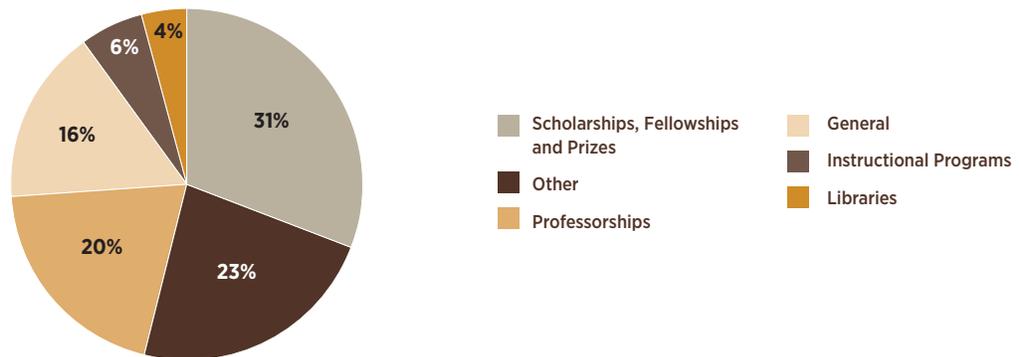
The Power of Gifts and Compounding

Donor support is crucial in fulfilling Brown's mission.

The Brown endowment was established in 1769 with an initial gift of \$4,500. Since that time, generous donations from alumni, parents, students and friends of Brown have been, and continue to be, crucial in supporting Brown's educational mission.

An endowed gift, distinct from donations to the Annual Fund which are spent during the current fiscal year, is typically donated with the intention that the principal will be invested prudently and provide an ongoing income stream to support a specific endowed purpose. Today the annual payout from Brown's 2,900 endowed accounts supports many vital activities such as professorships, academic programs and scholarships. The University is committed to ensuring that every person who should attend Brown, can attend Brown. Forty-two percent of the Class of 2019 receives some scholarship award, and the average undergraduate scholarship is over \$46,000.

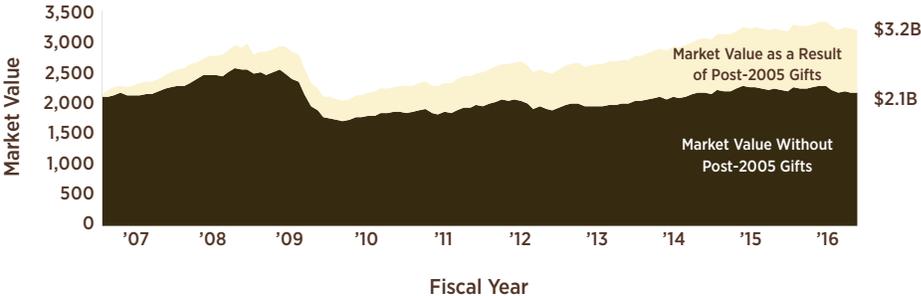
Endowment Payout Distribution by Purpose



1. Contribution to the University was \$604 million. Includes both university and Investment Office expenses (\$39 million in aggregate).

During the last 10 years, the power of the support of the Brown community has had a profound impact on the appreciation of the endowment. Gifts and the compounding of those gifts resulted in an additional \$1.1 billion of value to the endowment and boosted the annual payout by more than \$50 million a year.

10-Year Impact of Gifts



The Brown Sustainable Investment Fund

Donors are given a fossil-fuel-free giving option.

Over the course of the past year, the Investment Office worked with multiple partners to establish the Brown University Sustainable Investment Fund (BUSIF) with the aim of providing a new giving option for the Brown community. The partners in establishing the fund were the Office of the President, the Investment Committee of the Corporation, Brown’s Socially Responsible Investment Fund, students from the PLCY1710 course “The Theory and Practice of Sustainable Investing,” and other members of the Brown community.

This fund embraces Environmental, Social and Governance (ESG) considerations, promoting active solutions to the challenges of climate change, among other environmental and societal concerns, while seeking superior financial performance. This fund is part of Brown’s efforts to promote sustainability across all of its categories of activity as outlined in President Paxson’s *Building on Distinction*.



Report on Fundraising

Brown University Division of Advancement

In October 2015, Brown University launched the \$3-billion comprehensive campaign *BrownTogether*, the largest fundraising campaign in its history. The campaign is supporting investments in people, innovative education and research, and initiatives in campus infrastructure and student life, enabling Brown to realize the goals of *Building on Distinction*, the strategic plan guiding the University's growth and development well into the next decade.

During the 2016 fiscal year, July 1, 2015, to June 30, 2016, Brown's Division of Advancement worked with alumni, parents and friends to advance President Christina Paxson's top strategic initiatives, including fundraising for a School of Engineering building, additional endowed faculty positions and increased financial aid. This included new gifts for a

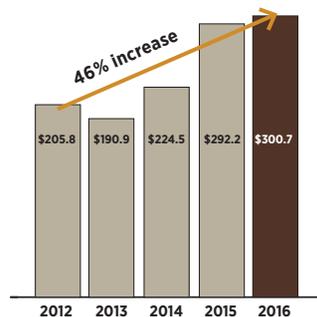
nucleus fund that had reached almost \$950 million before the public launch of the campaign.

Following the public launch of *BrownTogether*, donors continued to fortify the financial stability of the University through gifts and pledges to specific priorities, including the Brown Institute for Brain Science, The Warren Alpert Medical School, the BrownConnect internship and mentoring tool, and the Watson Institute for International and Public Affairs. Thanks to the generosity of alumni, parents and all who support Brown, the University broke three records in fundraising this year: in new gifts and pledges, in cash raised and in the size of the Brown Annual Fund, which reached \$36.6 million. In total, Brown raised more than \$300 million in new gifts and pledges in FY16.

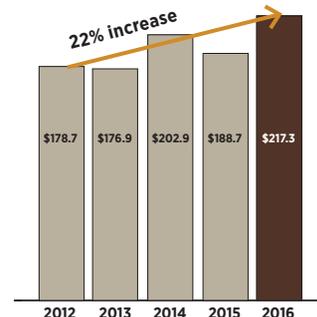
Fiscal Year 2016 Final Fundraising Results

\$ in millions

New Gifts and Pledges
Fiscal Year Comparison



Cash
Fiscal Year Comparison



These gifts are moving Brown closer to its goals in four campaign focus areas: Our People; Education and Research; Campus and Community; and the Brown Annual Fund. In the following pages is a snapshot of progress in crucial sectors of growth for the University during FY16.

OUR PEOPLE

BrownTogether Goal: \$1.1 billion

**Cumulative Raised as of June 30, 2016:
\$277 million**

“BrownTogether aims to raise \$1.1 billion in support of sustainable excellence – strengthening our distinctive community of scholars by funding new endowed professorships, recruiting more faculty from historically underrepresented groups, increasing undergraduate financial aid, strengthening opportunities for undergraduate internships, and offering expanded fellowships and other support for graduate and medical students.”

—BrownTogether Campaign Case Statement

FY16 Highlights

\$31 million in new gifts and pledges to financial aid

This funding is enabling Brown to attract the best and brightest students regardless of their financial circumstances. It includes endowed funding for students from low- and middle-income families, as well as international students, in order to ensure a more economically and culturally diverse student body.

12 endowed faculty positions (full, assistant or professor of practice); 1 endowed deanship

Endowed deanships, professorships and faculty research funds have fostered accelerated progress in crucial areas, such as population health, engineering and international affairs. The increased support that faculty have for their research and the critical mass of expertise Brown has achieved in certain areas has helped to generate substantial external research funding. Below is a sampling of endowed professorships and deanships added during FY16.

- 4 professorships affiliated with the Watson Institute
- 2 professorships in the performing arts
- 1 professorship in the Brown Institute for Brain Science

- 1 professorship in the School of Public Health
- 1 professorship in the Institute at Brown for Environment and Society
- 1 professorship and 1 deanship in the School of Engineering
- 1 professorship in the Department of Computer Science
- 1 professorship in the Department of Economics

EDUCATION AND RESEARCH

BrownTogether Goal: \$900 million

**Cumulative Raised as of June 30, 2016:
\$315 million**

“Through BrownTogether, we aim to raise \$900 million that will empower collaboration and innovation in education and research. These pursuits are inextricably linked at Brown, where all researchers teach and all students are encouraged to participate in research.”

—BrownTogether Campaign Case Statement

FY16 Highlights

\$25 million gift to establish an entrepreneurship center

The Jonathan M. Nelson Center for Entrepreneurship will operate in collaboration with existing departments, schools and centers at Brown to provide students with a strong academic grounding in entrepreneurship, blended with applied experiences and mentorship opportunities. Entrepreneurs-in-residence and a range of student-led activities will also be housed in this center.

More than \$10 million raised for internship and undergraduate research opportunities

The Office of the Dean of the College is driving the growth of both educational innovation and experiential learning opportunities through a variety of initiatives. These include the BrownConnect mentoring and internship program, which connects students to internship and summer research opportunities and offers stipend support for those taking low-paying or unpaid internships; Undergraduate Teaching and Research Awards, which allow students to pursue an independent research project over the summer or one semester; and the Engaged Scholars Program, which combines classroom learning with community engagement.



These programs are attracting the kind of students who will thrive at Brown and are ensuring they get practical experience with community partners before they enter the job market.

Brown Institute for Brain Science (BIBS)

Approximately \$4.8 million was raised in FY16 for faculty research within the institute. This research has implications for those who suffer from ALS, muscular dystrophy, autism spectrum disorder and Parkinson's disease. These funds have also helped BIBS faculty garner increased funding from external entities such as the Keck Foundation and the National Science Foundation.

Hassenfeld Child Health Innovation Institute

A gift of \$12.5 million created this research institute, which brings together faculty and students in the Warren Alpert Medical School and the Brown University School of Public Health with clinicians from surrounding hospitals and practitioners in community health organizations in Rhode Island to examine three areas of child health: obesity, autism and asthma.

CAMPUS AND COMMUNITY

BrownTogether Goal: \$600 million

**Cumulative Raised as of June 30, 2016:
\$195 million**

"BrownTogether seeks to inspire \$600 million in support of the evolution of our campus as a dynamic, living laboratory where great minds come together to develop knowledge to serve the world."

—BrownTogether Campaign Case Statement

FY16 Highlights

School of Engineering Building: \$12.5 million raised

Funds donated to the School of Engineering Building in FY16 brought the total raised to \$58 million, allowing the University to start construction. Once completed, the building will feature 20 laboratory modules designed for multidisciplinary research teams and specialized facilities for nanoscale and biomedical engineering. It will provide a home for 15 faculty members, 20 research associates, more than 80 graduate students and all undergraduates in this fast-growing concentration.

Athletics

• **Facilities: \$10.7 million raised**

• **Team endowments: \$5.6 million raised**

Support for team facilities and their endowments is strengthening Brown students' ability to learn from competition and boost their physical health in tandem with their academic growth. Facilities gifts allowed the University to resurface the baseball and softball fields and break ground on a renovation of the Olney-Margolies Athletics Center (OMAC) to create a state-of-the-art football complex. During this time, two head coaching chairs were also established through the generosity of donors, adding much-needed resources to the endowments of wrestling and men's rugby.

BROWN ANNUAL FUND

BrownTogether Goal: \$400 million

**Cumulative Raised as of June 30, 2016:
\$104 million**

"Through a \$400 million investment in unrestricted resources, BrownTogether will support transformative experiences for students and academic excellence each and every year."

—BrownTogether Campaign Case Statement

FY16 Highlights

The Brown Annual Fund has established itself as the cornerstone of Brown's success, sustaining the daily needs of our students and faculty, and giving the administration flexibility to seize opportunities for growth that continue to arise. The areas where Annual Fund money has the largest impact include financial aid, graduate student support, faculty research support and aspects of the student experience, including libraries, technology and internship support.

During the past fiscal year, multiple donors established Brown Annual Fund Scholarships for domestic students with new commitments of \$100,000. In addition, donors provided stipends for undergraduates taking unpaid or low-paid internships over the summer and graduate student stipends for travel to conferences and symposia. For faculty, Brown Annual Fund gifts provided funding for curriculum development, leading to new first-year and sophomore seminars; underwrote new equipment in laboratories around campus; and supplemented salaries for junior faculty in a number of departments.

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Financial Statement Overview

Finance and Administration

Endowment Report

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Fundraising Report

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BROWN

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Fiscal Year 2016

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