



THE UNIVERSITY OF  
ALABAMA IN HUNTSVILLE

PRESIDENT'S ANNUAL REPORT 2014

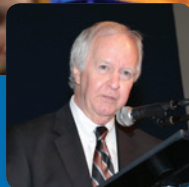
# BRAIN POWER

Research universities  
develop intellectual  
talent for workforce

## INSIDE:

### WHAT'S NEXT

A message from  
the President



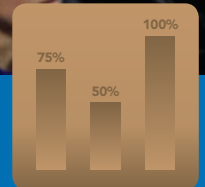
### HIGHLIGHTS

A brief recap of  
achievements

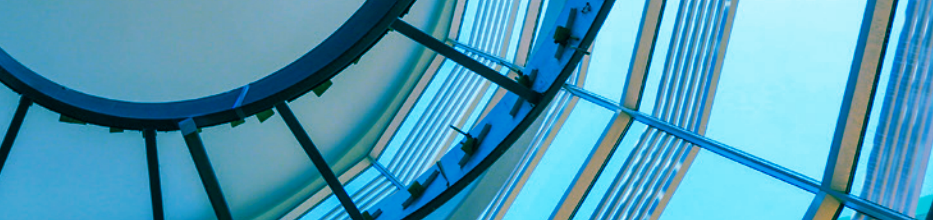


### DATA POINTS

An infographic  
snapshot







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The UAH campus is always growing and changing, from the recent completion of the Nursing Building addition, Roberts Recital Hall, and the Severe Weather Institute - Radar and Lightning Laboratories (SWIRLL) to the planned construction of a brand-new student services building!

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# Features



## President's Message

A look at UAH's role in the progress of our community as we prepare for economies of the future.



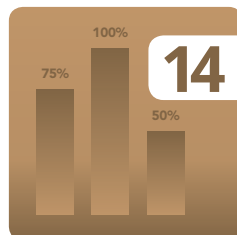
## Brain Power

UAH's biggest contribution to the local economy may be its ability to recruit, retain, and renew a skilled, high-tech workforce.



## Highlights

A brief recap of the recent accomplishments of UAH's faculty, staff, and students.



## Data Points

An infographic look at the year in review.



## Building Momentum

Implementing the Strategic Plan: FY14 accomplishments and the FY15 agenda.



# Economies of the Future

*“If we want to continue to progress as a community, it’s important that we retain our best students, recruit the best talent, and stimulate economic renewal through the programs offered by our research universities.”*

Everyone in my generation had familiarity with the 3 Rs of education – reading, writing, and arithmetic. It was a catchy phrase that pointed to the important foundation of a basic skills education program within public school systems.

If allowed a little literary license, I would like to introduce another concept for the 3 Rs that is crucial for the Huntsville area’s workforce development efforts – recruiting, retention, and renewal.

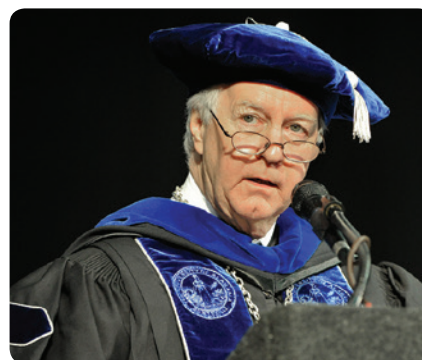
Huntsville has been more fortunate than most of the communities in the United States. Many cities and regions experience a brain drain, losing much of their intellectual talent as a result of the lack of job and career opportunities.

The greater Huntsville area, however, has the good fortune of an opposite experience – a brain gain. Our area has been the beneficiary of skilled intellectual talent through the movement of this labor to the favorable geographic, social, cultural, economic, and professional environments that we have to offer.

Several generations of the best and brightest moved to our area to support American priorities: the defense of our nation and the exploration of space. They brought or grew their families here because of the quality of life that we offer.

We have three great public school systems producing some very talented graduates, many of whom are attending The University of Alabama in Huntsville (UAH) or Alabama A&M and are leading the federal agencies at Redstone Arsenal and the high-tech corporations of Cummings Research Park.

UAH continues to build its capabilities and provide a critical mass of rigorous academic preparation, exposure to world-class laboratories, and hands-on experience through our cooperative education programs. The melding of these factors



produces excellent graduates who are well prepared to step into the world and make immediate and valuable contributions. In short, UAH is a smart place to learn.

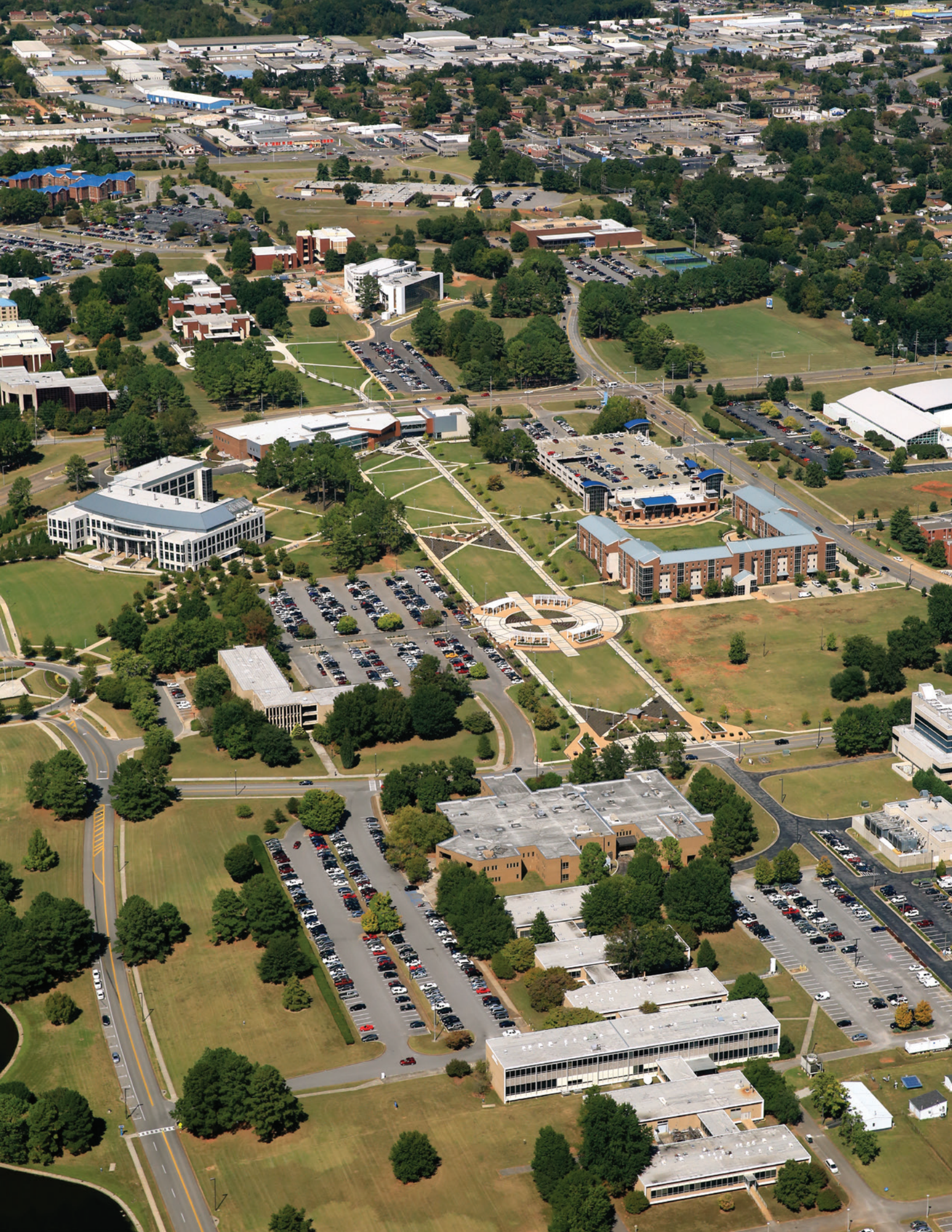
In the economies of the future, the organizations with staying power and growth potential will be those most dependent on knowledge – research, innovation, new ideas, new technologies, and upgraded talent for their workers.

Intellectual talent plays an important role in helping an economy to develop. The economy of a city, county, region, state, and nation that has a large number of world-class scientists, engineers, artists, and humanists can be more innovative than one that does not.

If we want to continue to progress as a community, it’s important that we retain our best students, recruit the best talent, and stimulate economic renewal through the programs offered by our research universities.

This concept was probably best stated recently by one of our community leaders, Dorothy Davidson: “One of the things that’s important for any society, and for any economy, is the concept of constant renewal. A key component of Huntsville’s constant renewal and the future of our economy is The University of Alabama in Huntsville.”









# BRAIN POWER



## RESEARCH UNIVERSITIES RECRUIT AND RETAIN INTELLECTUAL TALENT, AND PROVIDE RENEWAL FOR THE NORTH ALABAMA WORKFORCE

The University of Alabama in Huntsville is classified as “a very high research activity” institution by the Carnegie Foundation for the Advancement of Teaching, and, as such, it plays an important role in the city’s economy.

It is a major center of employment with more than 1,500 faculty, researchers, and staff members. It is an incubator for more than a dozen high-tech start-ups like biotech ventures iXpressGenes Inc. and GeneCapture, and Vastly and NextStorm, which develops weather prediction apps. And it is a bastion of innovation, having been awarded 15 patents and generated more than \$5.2 million in patent license income over the past five years.

But perhaps UAH’s greatest contribution to the local economy is its high-quality, technologically focused graduates, many of whom go on to join the local workforce. Over the years, UAH alumni have occupied both leadership and support positions with NASA’s Marshall Space Flight Center (MSFC), the U.S. Army,

the HudsonAlpha Institute for Biotechnology, and corporations in Cummings Research Park, among others.

“With its robust academic programs, UAH serves as a pipeline of intellectual talent for the city’s business and government communities,” says Dr. Christine Curtis, UAH’s Provost and Executive Vice President for Academic Affairs. “Our students are fully prepared, upon graduation, to become valuable members of the workforce. And thanks to our internship and co-op programs, they often already have real-world experience under their belt when they arrive at their place of employment.”

Joining UAH in this effort is fellow research university Alabama A&M, a land-grant institution known for its particularly strong agricultural and engineering programs. There are more than 12,000 students enrolled in the two universities.

Together, says A&M President Dr. Andrew Hugine, Jr., the two campuses “add momentum

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*Our system of higher education bears an important responsibility for ensuring that our workforce is prepared for the demands of economic change. America’s reputation as the world’s leader in higher education is grounded in the ability of these versatile institutions to serve the practical needs of the economy by teaching and training and, more significantly, by unleashing the creative thinking that moves our economy forward.*

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– Alan Greenspan, Former Chair of the U.S. Federal Reserve

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to a progressively vibrant cycle that sustains economic development, cultural activity, and social well-being.” That gives the Tennessee Valley as a whole “an enviable edge” over other communities of its size. “We are proud to be an integral part of the region’s lasting appeal,” he says.

## RECRUITING

The process begins, of course, with recruiting the best students. Over the years, UAH has consistently raised the bar for enrollment, in keeping with its status as one of only two universities in Alabama to be ranked as “very competitive” by Barron’s Profile of American Colleges. As a result, the average ACT score of UAH’s incoming freshmen is now 26.7, among the highest in the state.

UAH also offers its students 16 research centers, state-of-the-art laboratories, and a world-class faculty dedicated to groundbreaking research, an advantage that most teaching universities simply cannot. The disparity grows further when you consider the end result, points out Dr. W. David Allen, a professor and researcher of labor economics in UAH’s College of Business Administration.

“It’s very important for us to produce technologically skilled graduates, as this helps make them marketable in a high-tech environment like Huntsville,” he says. “But I think what distinguishes a research university in particular is the emphasis on critical thinking and the development of ideas. By exposing students to academic research, bringing the insights of research into the classroom, and helping them craft their own, it becomes easier for students to understand where ideas come from and how we sharpen them. Those are the ones



UAH student Chrissa Mayhall completed a co-op at the U.S. Army’s Aviation and Missile Research Development Engineering Center.



UAH student Adam Dzuibanek worked on the Hexacopter as a co-op with NASA MSFC.

who become builders and leaders.”

Another notable Huntsville institution that plays an important role in recruiting talented students to Alabama is the U.S. Space & Rocket Center. Young adults from every state in the nation and from 68 countries around the world travel to Huntsville to attend the immensely popular Space Camp. There, they receive an up-close look at the space-related activities and research that is taking place on the UAH campus.

## RETAINING

The retention of students requires two courses of action. Perhaps most important is the retention of students in local school systems to attend local universities, such as UAH and Alabama A&M. School systems in North Alabama produce gifted graduates, many of whom are immensely qualified to step into the robust academic setting that research universities offer. Consequently, keeping those students in the local area should be a priority for superintendents and local school boards. The strategy of a “home-grown” workforce cannot be overstated.

The second course is student retention once they enroll in college. Many of the factors that give research universities the edge in recruiting are just as applicable when it comes to retention. Studies have shown that students engaged in research are both more likely to graduate with an undergraduate degree and to pursue a graduate degree. Other benefits include clarification or confirmation of career plans, increased career preparation, and greater networking opportunities – all of which strongly influence a student’s decision to complete their degree, or degrees, and seek employment.



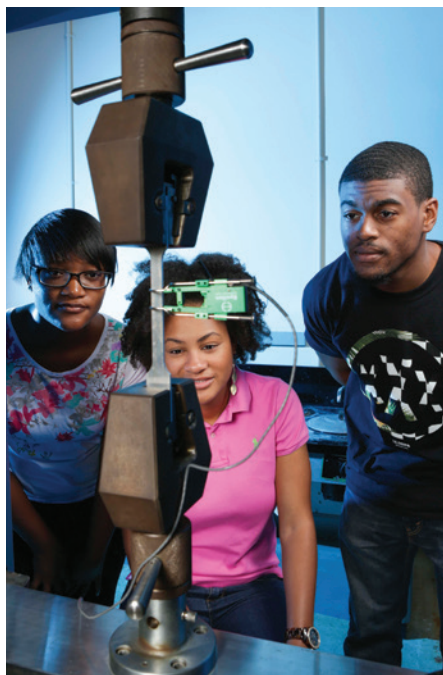
That's especially important in Huntsville where many jobs require not just an undergraduate degree but also one or more post-graduate degrees. "We are very interested in having a world-class education system, from pre-kindergarten to the Ph.D. level, supporting the Arsenal," said Colonel Bill Marks, Garrison Commander at Redstone Arsenal. "We want to attract the best and the brightest to join Team Redstone."

## RENEWING

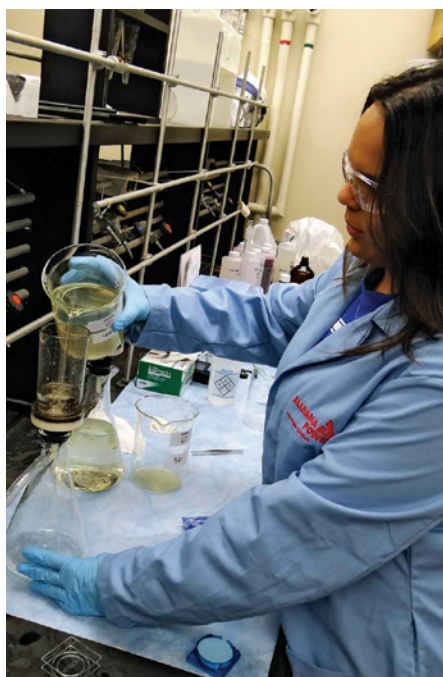
Yet providing a skilled workforce involves more than just successfully recruiting and retaining students. It also requires a university to anticipate successfully the direction of the local economy as it becomes more diverse so that it can effectively renew the workforce. UAH has done just that. With the considered growth of key programs and the addition of new ones, its graduates have been able to meet the region's employment needs.

"Where UAH truly excels is working with existing businesses and organizations to ensure that students are well prepared for their chosen career paths," says Huntsville-Madison County Chamber of Commerce CEO Chip Cherry. "Our prospects are impressed by the university's capabilities and the attitude of the UAH leadership, and comments by the UAH team such as 'What do we need to do to get ready to meet your needs?' impress our clients."

A perfect example is the College of Engineering's mechanical and aerospace engineering program and the College of Science's recently added space science graduate programs. With their focus on aerospace systems engineering and



Cooperative education programs help UAH students get hands on experience before earning a diploma.



UAH student Dorian Baez-Nieves strengthened her engineering skills as a co-op with Southern Company.

space research, these programs have provided Redstone agencies – Marshall Space Flight Center; the Army Aviation and Missile Research Development and Engineering Center; the Missile Defense Agency; the Army Materiel Command; and others – with a steady supply of high-caliber employees already fully versed on the latest trends and discoveries in the field.

"UAH's emphasis on research in both science and engineering aligns very well with MSFC's missions and objectives," says Dr. L. Dale Thomas, Associate Center Director, Technical Office of the Director of MSFC. "The best and brightest want to solve the hardest problems and tackle the most challenging research. UAH is a valued member of the MSFC team, and has made noteworthy contributions to MSFC's success through the contributions of their faculty and students."

And there's no doubt this trend will continue going forward, thanks to UAH's strategic plan and its emphasis on emergent job sectors like cybersecurity and big data; biotechnology; aerospace and systems engineering; Earth, atmospheric and space science; and gaming and entertainment arts. As increasing numbers of graduates in these cutting-edge fields join the workforce, more pioneering startups will take root and flourish, renewing the city's economy and driving it toward an even more high-tech future.

"Our ever-expanding curriculum ensures that our graduates are prepared to meet not just the demands of today's jobs, but also tomorrow's," says Dr. Curtis. "At the same time, Huntsville's business and industry leaders know that they can depend on UAH as a reliable source for their employees, regardless of the field. It's something we have been able to balance successfully for more than 50 years. We plan to do so for many more."

# FACULTY & STAFF HIGHLIGHTS

**Four faculty members** from the Department of Biological Sciences – Drs. Leland Cseke, Luciano Matzkin, Eric Mendenhall, and Joseph Ng – were appointed Adjunct Faculty Investigators at the HudsonAlpha Institute for Biotechnology. “Academia plays a key role in HudsonAlpha’s mission to foster and contribute innovations in technology, methodology, and practices that serve to improve quality of life,” says Jim Hudson, one of the founders of HudsonAlpha and a UAH alumnus. “Diverse backgrounds, philosophies, skills sets, and knowledge are typically foundational to positive, life-changing innovations.”

**Dr. John F. Kvach**, Associate Professor of History and the Director of UAH’s Center for Public History, has written a book that shows that the political gridlock currently plaguing the nation has done so since its earliest days. *De Bow’s Review: The Antebellum Vision of a New South* – set during a time when the country was even more divided – reopens the debate on sectionalism and secession in the years leading up to the Civil War. But it does so through the eyes of one of the South’s most controver-

sial figures: journal editor and fire-eater James Dunwoody Brownson (J. D. B.) DeBow. “I argue that De Bow was the most influential editor in the Antebellum South,” says Dr. Kvach, who was also recently awarded both the Historic Preservation Award and the Historic Preservation Medal by the National Society Daughters of the American Revolution.

**Dr. Yeqing Bao**, Associate Dean of the College of Business Administration and Associate Professor of Marketing, published a coauthored article entitled “Are relational ties always good for knowledge acquisition? Buyer-supplier exchanges in China” in the *Journal of Operations Management*, the top-ranked journal in the Operations Research & Management Sciences Category according to Journal Citation Reports.

**Dr. Rob Griffin**, Assistant Professor of Atmospheric Science, and **Dr. D. Brian Landrum**, Associate Professor of Mechanical and Aerospace Engineering, collaborated on a helium-filled airship whose

remote-controlled capture and release docking mechanism charges a smaller quad-rotor unmanned aerial vehicle. “I would like to continue to enhance the airship/quad-copter system capabilities, including autonomous docking,” says Dr. Landrum. “I have had preliminary discussions...about future applications in precision agriculture, public safety, and weather monitoring.”

**Dr. Ravi Patnayakuni**, Associate Professor of Information Systems, was asked to serve as an associate editor for *Decision Sciences Journal*, a top-tier journal in operations and management science.

**Dr. Erin Colwitz**, Associate Professor of Music and Director of Choral Activities, visited Bangkok, Thailand, with her husband, respected composer Dr. William Dehning, to headline the Chulalongkorn University Choral Festival. Underwritten by the U.S. Embassy in Bangkok, the trip included visits with school choirs from Montfort College, Montfort College Primary Section, and Dara Wittayalai School. “It



► **The College of Business Administration** hosted “A Conversation on Climate Change,” featuring noted scientists **Dr. John R. Christy**, Distinguished Professor of Atmospheric Science and Director of UAH’s Earth System Science Center, and Dr. Kerry Emanuel, Professor of Atmospheric Science at MIT. The conversation, which attracted over 400 attendees, was moderated by Dr. Russ Roberts, a research fellow at Stanford University’s Hoover Institute and the host of the EconTalk podcast.





► **Dr. Louise O'Keefe**, Assistant Professor in the College of Nursing and Director of UAH's Faculty/Staff Clinic, received the American Association of Nurse Practitioners' 2014 State Award for Excellence. Only one nurse practitioner in each state receives the award annually, making it one of the most prestigious.

was so fascinating to listen to them when we first got there, and then listen to them at the end," says Dr. Colwitz. "They made so much progress."

**Dr. Virginia (Suzy) Young**, Director of UAH's Office for Proposal Development, was elected to the board of the Association for Unmanned Vehicle Systems International, the world's largest non-profit organization devoted exclusively to advancing the unmanned systems and robotics community.

**Dr. William Setzer**, Professor and Chair of the Chemistry Department, published his 300th peer-reviewed article. "Phytochemical investigations of *Lonchocarpus* bark extracts from Monteverde, Costa Rica," co-authored by Caitlin E. Deskins, Dr. Bernhard Vogler, Noura S. Dosoky, Bhuwan K. Chhetri, and William A. Haber, appeared in the international journal *Natural Product Communications*.

**Dr. Udaysankar Nair**, Assistant Professor in the Department of Atmospheric Science, was awarded a Faculty Early Career Development grant of almost \$750,000

from the National Science Foundation (NSF). The 5-year grant will support a study of land use and land cover changes on Asian islands, including how those changes might be altering weather patterns. It will also fund a multidisciplinary project to develop new tools for teaching atmospheric dynamics. Nair is the first Atmospheric Science faculty member to receive this particular award, one of the NSF's most prestigious, which supports junior faculty who are establishing their careers in research and education.

**Dr. Christine Curtis**, former Senior Vice Provost and Director of Strategic Planning at the University of South Carolina, was appointed UAH's Provost and Executive Vice President for Academic Affairs.

**Dr. Marsha Adams**, former Senior Associate Dean of Academic Programs in the Capstone College of Nursing at The University of Alabama, joined UAH as the Dean of the College of Nursing.

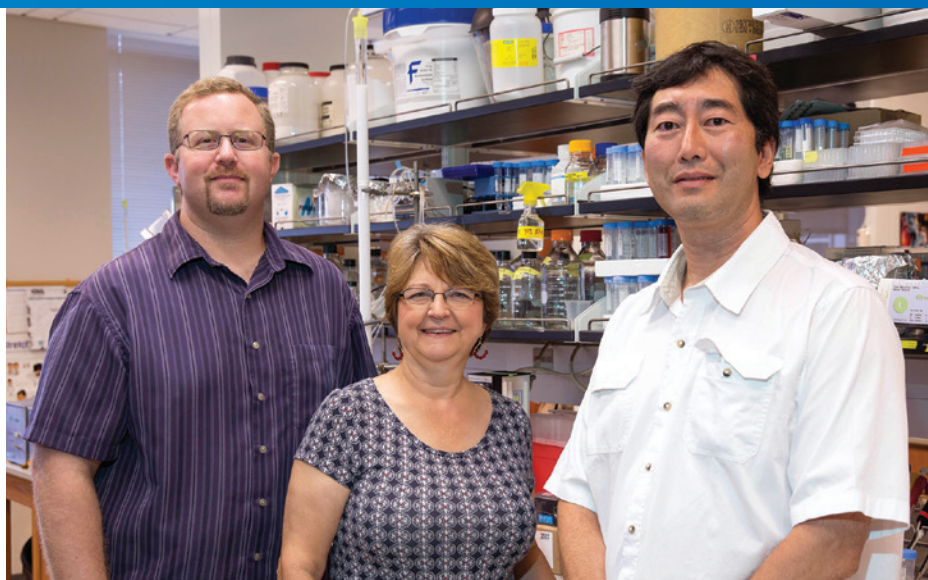
**Dr. Sundar Christopher**, former Chair of the Department of Atmospheric Science, was named Dean of the College of Science.

**Dr. William Wilkerson**, former Chair of the Department of Philosophy, was selected as Dean of the Honors College.

**Dr. Michael Anderson**, Associate Professor of Civil and Environmental Engineering, received a \$51,241 grant from the U.S. Department of Transportation (DOT) to establish a Center for Freight and Infrastructure Research and Education at UAH; a \$25,874 grant from Auburn University for the evaluation of maintenance compliance for 5309 and 5310 agencies; a \$1,193,614 grant from the Alabama DOT for the procurement of a simulator to support rural transit driver training; and a \$50,000 grant from the Alabama DOT to provide travel demand modeling support and training for the DOT and the metropolitan planning organizations located in Alabama.



## RESEARCH BRIEFS



- ▶ **Drs. Luciano Matzkin, Debra Moriarity, and Joseph Ng**, all of the Department of Biological Sciences, received a five-year \$638,277 grant from the National Science Foundation to develop and assess methods to improve the retention and graduation rates of STEM students in partnership with the HudsonAlpha Institute for Biotechnology.

**Dr. Gary P. Zank**, Director of UAH's Center for Space Plasma and Aeronomic Research, organized a workshop to address the next decade of research in the field of solar and coronal physics. "The Huntsville Workshop 2014: Solar and Stellar Processes from the Chromosphere to the Outer Corona" was held in Orlando, Fla., and focused on current and future missions and projects expected to advance our understanding of the field considerably.

**Dr. Haley Hoy**, Interim Associate Dean of Graduate Programs in the College of Nursing, received a two-year \$695,106 Advanced Education Nursing Traineeship grant from the Health Resources and Services Administration, part of a larger U.S. Department of Health and Human Services program to address the growing shortage of primary care providers across the nation.

**Dr. Sarma Rani**, Assistant Professor of Mechanical and Aerospace Engineering, received a \$173,000 National Science Foundation grant for his collaborative research effort with Cornell University on the role of microphysical processes and turbulence intermittency in droplet coalescence in warm cumulus clouds.

The new **Human Dimensions, Discovery, and Decision-Making Laboratory** (HD3 Lab) in UAH's Earth System Science Center addresses environmental concerns throughout the southeastern U.S. through the analysis of remote sensing datasets and geospatial applications. With multiple components including GIS workstations, a spectroradiometer, and a multispectral camera, the HD3 Lab is the ideal facility in which to evaluate project feasibility and test prototype methodologies for product creation and data collection.

**Dr. Sara Graves**, Professor of Computer Science and Director of UAH's Information Technology and Systems Center, was awarded a total of \$1,460,625 from NASA Marshall Space Flight Center to fund five proposals.

**Dr. Joseph Ng**, Professor of Biological Sciences and the Director of UAH's Biotechnology Science and Engineering Program, sent an experiment – Protein Crystals for Neutron Crystallography – to the International Space Station (ISS). Focusing on enzyme inorganic pyrophosphatase in a microgravity environment, the experiment was flown to and from the ISS on SpaceX's Dragon spacecraft. "We got the samples back and things look very exciting," says Dr. Ng, who plans to publish his findings later this year.

**Dr. Phillip Farrington**, Professor of Industrial & Systems Engineering and Engineering Management, received a \$400,000 grant from the U.S. Army Space and Missile Defense Command to support the Integrated Product Team/Innovative System Project for the Increased Recruitment of Emerging STEM Students (InSPIRESS) outreach program, which educates and encourages high school youths to pursue engineering and science in college. He also received \$600,000 for the third installment of a \$3.5 million grant from NASA Marshall Space Flight Center to fund a research program in systems engineering.

**Dr. George Nelson**, Assistant Professor of Mechanical and Aerospace Engineering, was awarded a \$202,413 grant from the National Science Foundation to perform research with Texas A&M University on alloys for high-capacity anodes in Li-ion batteries. He is also leading the UAH side



of a team selected for an Air Force Phase II SBIR to develop an oxidation-resistant high-temperature heater for wind-tunnel applications. This work will continue a collaboration first established through the UAH Industry/University Cooperative Graduate Student Research Program with local industry partner Plasma Processes.

**The Office of the Vice President for Research and Economic Development** was awarded a \$4.2 million National Science Foundation grant to establish a CyberCorps®: Scholarship for Service program at UAH. The scholarships will be awarded for up to four semesters of study at UAH and will cover full tuition, up to \$2,000 reimbursement for health insurance,

up to \$1,000 reimbursement for books, and stipends of either \$20,000 for bachelor's degree students or \$25,000 for master's degree students during the academic year. In return, the recipients will serve in the government at the federal, state, or local level for up to two years upon completion of their degree.

**Dr. Yongbin Lin**, a research scientist at UAH's Nano and Micro Devices Center, has been working on a nanodevice for the early detection of diseases in collaboration with the Joint School of Nanoscience and Nano-engineering in Greensboro, NC. The device is ready for packaging into a lunchbox-size unit that ultimately may use a smartphone app to provide test results.

The Office of Technology Commercialization issued

**6 PATENTS THIS YEAR**

and received a total of  
**\$1,031,733**  
in patent license income



**UAH and the HudsonAlpha Institute for Biotechnology** announced the establishment of the HudsonAlpha–University of Alabama in Huntsville Entrepreneurship Collaboration. The new partnership aims to strengthen the business skills of life science sector startups at HudsonAlpha and enhance the educational experience for students in UAH's College of Business Administration.

# ACADEMIC BRIEFS



► **Morgan Gilley**, a marketing major in the College of Business Administration, was accepted into Disney's College Program and spent a semester greeting/assisting guests and operating the rides at Peter Pan's Flight and It's a Small World. The internship fulfilled her childhood dream of working with the company, and she plans to pursue a full-time job there after graduation.

**Deidra Fortenberry Carter**, a student in the College of Nursing's Doctor of Nursing Practice program, won first place for her poster presentation at the 6th Wernher von Braun Memorial Symposium sponsored by the American Astronautical Society. Her poster was entitled "Promoting human health through manned space flight."

**Guanyu Huang**, a doctoral student in the Department of Atmospheric Science, earned the award for Best Technical Content Presentation at the 18th Joint Conference on the Applications of Air Pollution Meteorology. His presentation, entitled "A sensitivity study of ozone

entrainment flux on boundary layer micrometeorology fields," was based on research Huang conducted with **Dr. Mike Newchurch**.

**Mitchell Bott and Daniel O'Brien**, doctoral candidates in the Modeling & Simulation program, both won a Rear Adm. Fred Lewis Interservice/Industry Training, Simulation, and Education Conference Postgraduate Scholarship, which is awarded annually by the National Training and Simulation Association (NTSA). "Only once before in the 26-year history of the scholarship have both awards in a single year gone to students at the same university," said the students' advisor, **Dr. Mikel D. Petty**, who is director of UAH's Center for Modeling, Simulation, and Analysis and coordinator for the

Modeling & Simulation program. Each will receive a \$10,000 scholarship to support their studies.

**Michelle Morris**, a master's student in the Department of Biological Sciences, received the Taylor & Francis Biomolecular Crystallography Best Poster Prize at the 2014 American Crystallographic Association Annual Meeting in Albuquerque, NM. Her poster was titled "Monoclinic and rhombohedral crystals of inorganic pyrophosphatase from *Thermococcus thio-reducens*."

**John O'Brien**, a history major, won best undergraduate paper at the 2014 Alabama Regional Phi Alpha Theta Conference with his presentation on migration and divorce



► **Eight undergraduate teams** from the College of Business Administration competed for \$10,000 in scholarship prizes in the Boeing New Business Challenge. The first-place winner of a \$7,000 tuition scholarship purse was Nestegg Bio, pitched by Tanner Carden, Devon Bane, Gavon Carden, and Tim Gualdin. The second-place winner of a \$3,000 tuition scholarship purse was Ginger's Cupcake Shop, pitched by Rachel Bray, Austin Mordecai, and Cole Rickles.





- Charger Union, Roberts Recital Hall, the new Nursing Building addition, and the Severe Weather Institute - Radar and Lightning Laboratories (SWIRLL) were all completed during the past year. Dignitaries joined Alabama Gov. Robert Bentley as he cut the ribbon on the SWIRLL facility last October.

in antebellum North Alabama. "John is very smart, researches and presents arguments like a professional historian, and writes well – and he has a great sense of humor to boot," says O'Brien's advisor, **Dr. Christine Sears**. "I'm so proud of his research, written work, and Phi Alpha Theta best paper win."

**Matthew Bedford**, a doctoral candidate in the Department of Space Science, was one of just seven students nationwide to receive a University of Illinois at Urbana Champaign's Blue Waters Graduate Fellowship. Candidates were evaluated based on their academic record, GRE score, related experience and service, research plan and its relationship to use of the Blue Waters supercomputer, and letters of reference. The fellowship is funded with a \$50,000 award, which

covers a stipend, tuition, and an allocation of 50,000 node hours on the Blue Waters system. Bedford is studying solar winds and will present his research at the 2015 Blue Waters Symposium.

**Vineetha Bettaiah**, a Ph.D. candidate in the Computer Science Department, was nominated for the best paper award at the 2014 Science and Information Conference in London. "An effective subsequence-to-subsequence time series matching approach," co-authored by **Dr. Heggere Ranganath**, was one of just five papers selected for the honor from over 150.

**The Charger Cheerleaders** took the top spot in the International Open Co-Ed Cheer and the Open Partner Stunt events at the 2014 JAMfest National Series in

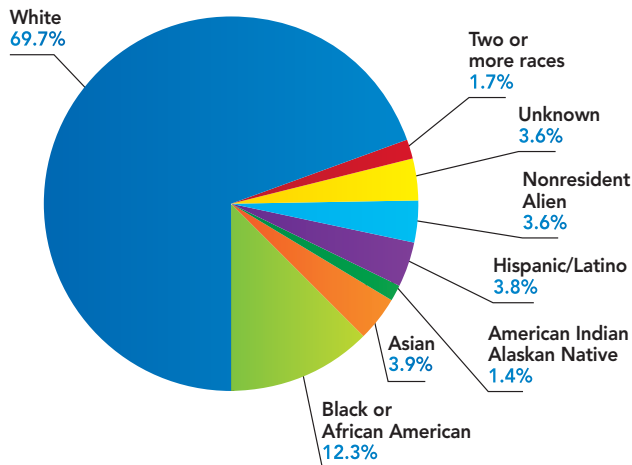
Mobile, Ala. "I was so proud of the squad and what they were able to accomplish at JAMfest," says Nikki Goode, Director of Student Activities and the squad's advisor. "Their dedication to the squad and to the university is second to none."

**The UAH Athletic Department** had 118 student-athletes who earned a spot on either the Gulf South Conference (GSC) Academic Honor Roll or the Western Collegiate Hockey Association All-Academic Team. Charger teams also finished second in the Gulf South Overall All-Sports Trophy Standings and second in the Women's All-Sports Trophy Standings. The women's Track & Field Team won the Peach Belt Conference Championship, while the men's cross-country, women's cross-country, and baseball teams all won their respective GSC championships.

# DATA POINTS

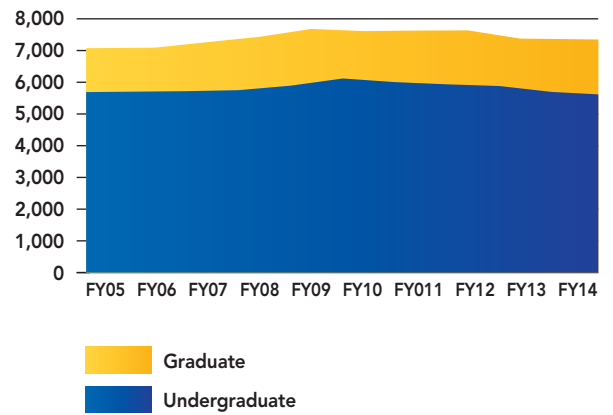
## Enrollment

### Undergraduate Student Composition FY14 (Fall 2013)

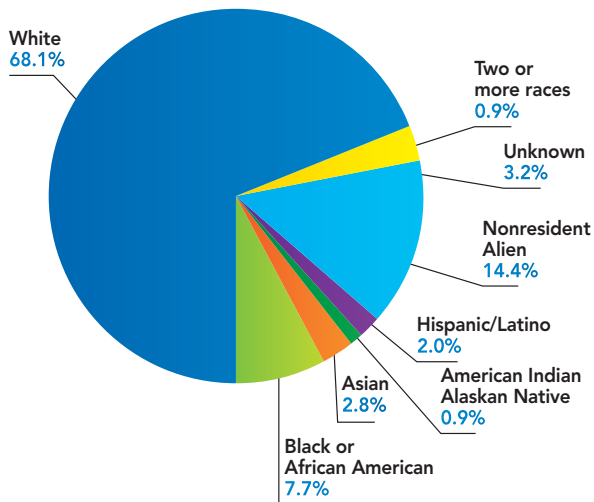


### Enrollment

FY05 (Fall 2004) to FY14 (Fall 2013)

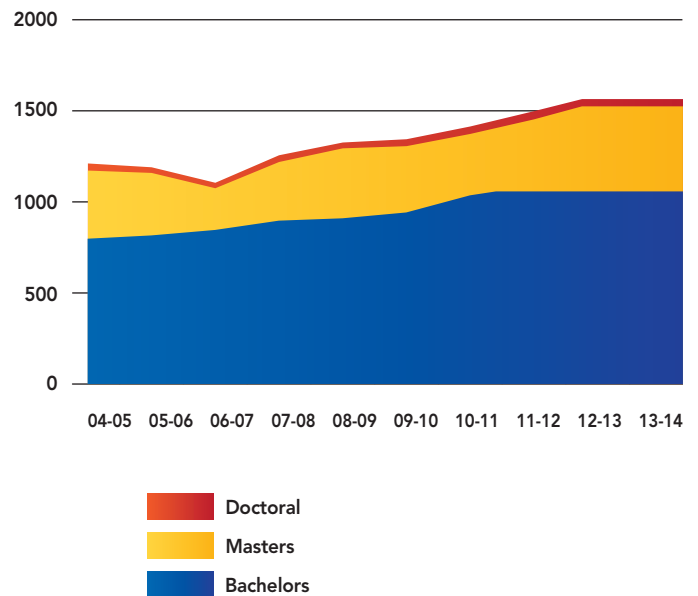


### Graduate Student Composition FY14 (Fall 2013)



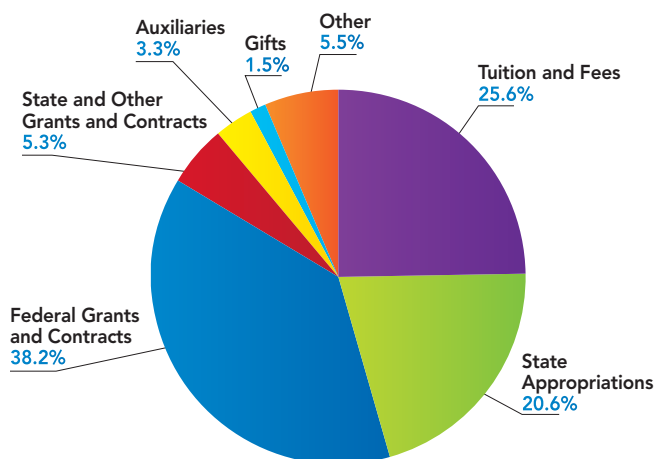
### Undergraduate & Graduate Degrees

AY04-05 to AY13-14



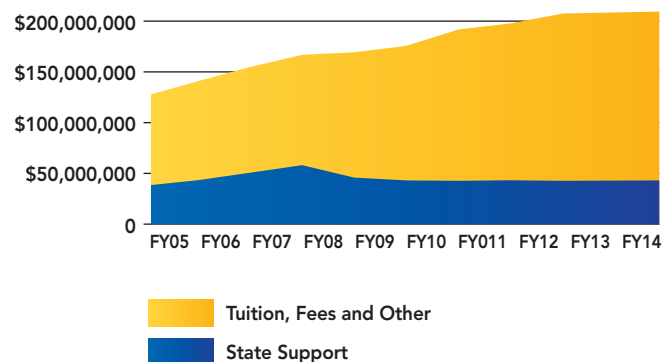


### FY14 Revenue \$208,922,729

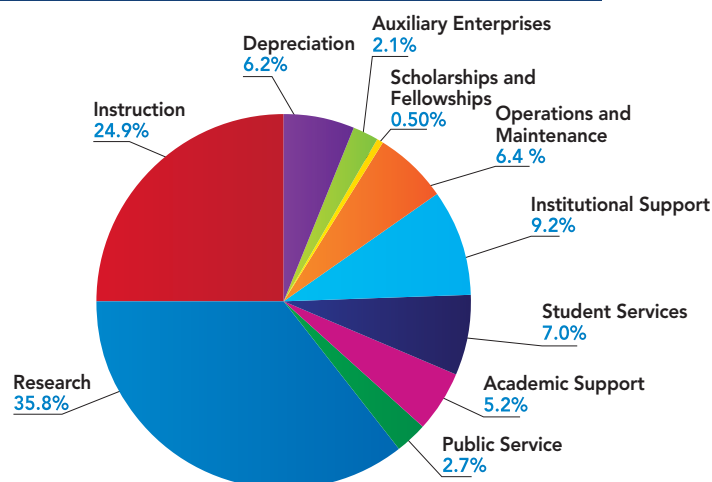


### Operating Revenue

FY05 to FY14

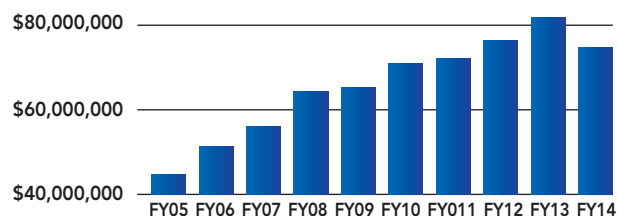


### FY14 Expenditures \$208,922,729

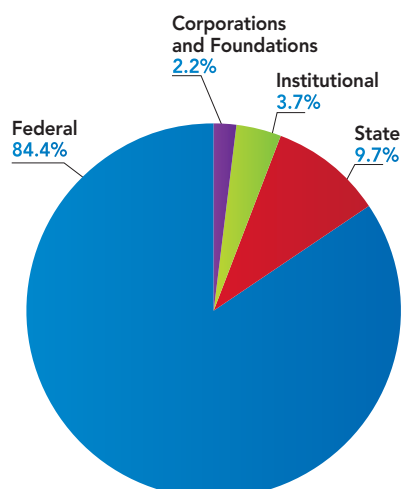


### Direct Research Expenditures

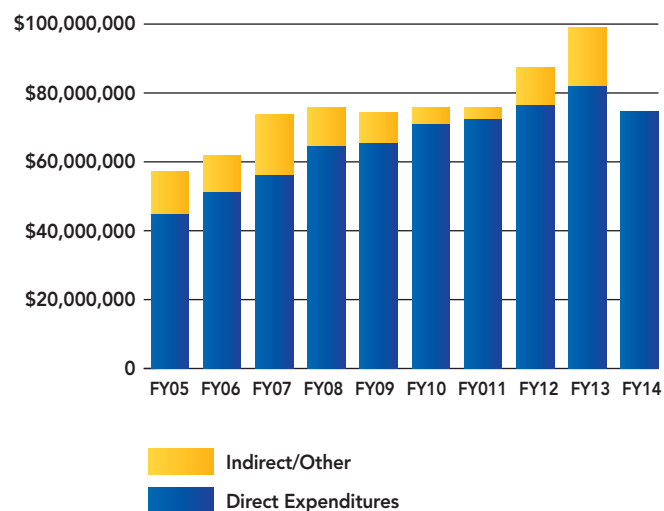
FY05 to FY14



### FY14 Direct Research Expenditures by Source \$74,757,309



### Total R&D Expenditures as Reported to NSF\* ([www.nsf.gov/statistics/](http://www.nsf.gov/statistics/))

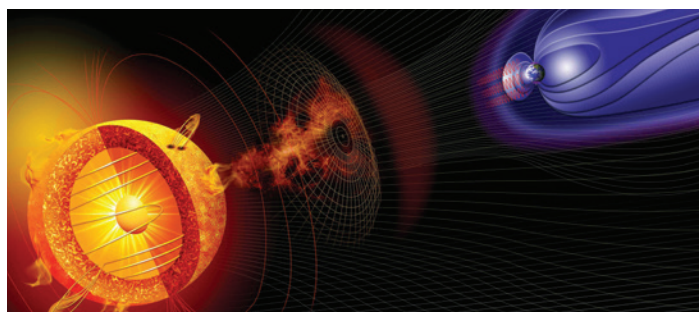


\*FY14 not yet reported to NSF

# BUILDING MOMENTUM



ACCOMPLISHMENTS: FISCAL YEAR 2014*	STRATEGIC PLAN PRIORITY
Department of Space Science	Earth, Atmospheric, and Space Science
Honors College	Recruit and retain an outstanding and diverse student body
Rise School of Huntsville (On-campus location)	Engage more fully our stakeholders: the community
Certificate in Sports Coaching and Athletics Performance	Recruit and retain an outstanding and diverse student body
Public History Minor	Recruit and retain an outstanding and diverse student body
Tuition Restructuring: Flat Charge 12 to 18 Semester Credit Hours Undergraduate; 9 to 15 Semester Credit Hours Graduate	Recruit and retain an outstanding and diverse student body
MS in Cybersecurity (Change from MS in Information Assurance and Security)	Cybersecurity and Big Data
Establish Division of Student Affairs/Vice President for Student Affairs	Recruit and retain an outstanding and diverse student body
MS Engineering (Chemical Engineering) joint with The Shanghai Institute of Technology	Recruit and retain an outstanding and diverse student body
Graduate Certificate in Autism Spectrum Disorders	Recruit and retain an outstanding and diverse student body
Certificate in Cybersecurity Studies (Change from Information Assurance and Security)	Cybersecurity and Big Data
Construction of Student Services Building/Welcome Center	Recruit and retain an outstanding and diverse student body



AGENDA: FISCAL YEAR 2014 INITIATIVES**	STRATEGIC PLAN PRIORITY
BS Secondary Education	Recruit and retain an outstanding and diverse student body
PhD Space Science	Earth, Atmospheric, and Space Science
MS Space Science	Earth, Atmospheric, and Space Science
BS Kinesiology	Engage more fully our stakeholders: the community
MS Supply Chain and Logistics Management	Engage more fully our stakeholders: the community
MS Management Science (Business Analytics)	Cybersecurity and Big Data
MS Management (Human Resource Management)	Engage more fully our stakeholders: the community
UAH Rise School	Engage more fully our stakeholders: the community

\*Academic programs and capital construction projects approved by the Board of Trustees of the University of Alabama

\*\*Approval process initiated for future implementation



# 2014

## THE YEAR IN PHOTOS



UAH students and faculty enjoyed success in the classrooms and labs, and in athletic endeavors during the past 12 months. TVA Chairman Joe Ritch (top photo) was the honorary degree recipient and commencement speaker at the December 2014 exercise. During the past year, UAH produced more than 1,300 graduates. Country artist Lee Greenwood (bottom left) was the special guest at UAH's holiday gala.

301 Sparkman Drive  
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#1

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— National Science Foundation



**26.7**  
AVERAGE FRESHMAN  
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*among the highest in Alabama*