

# uncg research

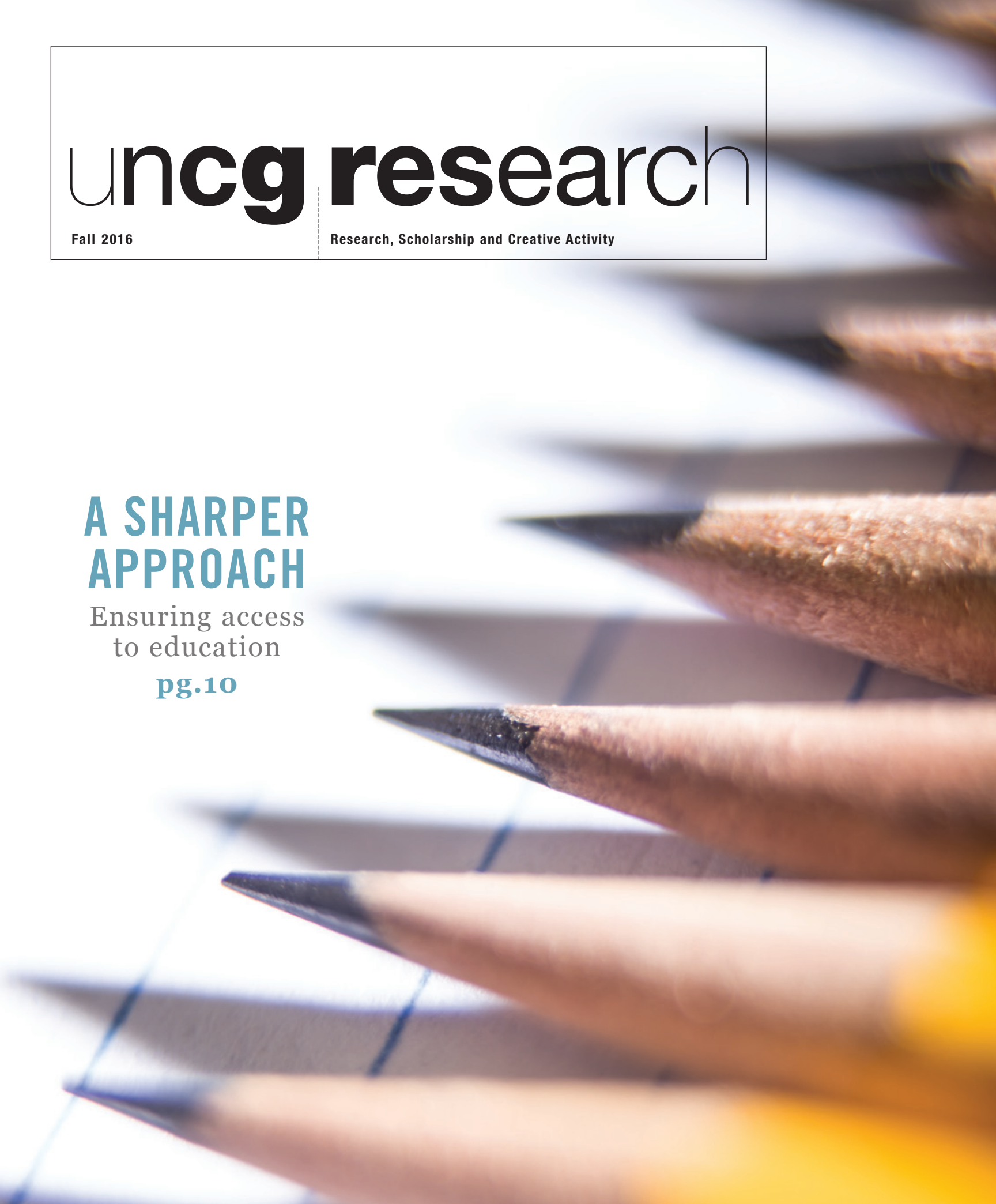
Fall 2016

Research, Scholarship and Creative Activity

## A SHARPER APPROACH

Ensuring access  
to education

pg.10



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The State Normal and Industrial School opened its doors on October 5, 1892, to educate the women of North Carolina. The institution that eventually became known as UNC Greensboro gave women access to higher education at a time when relatively few public options existed. But it wasn't just access that UNCG provided. It was an expectation that, with this education, these pioneering women would excel.

This commitment to "accessible excellence" is not just a part of UNCG's past. 124 years later, creating access and setting a bar for excellence are integral parts of our university's mission, vision, and research.

In our fall 2016 issue, we read about Junior Research Excellence Award winner Rebecca McLeod and her collaborations with a local Title I school to increase diversity among violin students and teachers. We also see how the application of best practices, the Universal Design for Learning framework, and partnership with advocates and state and federal agencies have led to the creation of Beyond Academics, North Carolina's first and only four-year post-secondary education option for individuals with intellectual and/or developmental disabilities.

In a cross-campus thrust, UNCG faculty and students work with community partners and families to break down barriers between Latino immigrant students and academic success. By coupling evidence-based practices with practice-based evidence, these community-engaged scholars are identifying tools parents need to support their children through a lifetime of learning.

Some barriers to education tackled by our researchers are less obvious than others. School of Education Dean Randy Penfield looks at one of the fundamental gatekeepers to access – standardized testing. His insightful work addresses implicit bias and helps ensure that the bar is set in an equitable way.

Another less visible barrier? When students leave school each day not knowing where they will do their homework or lay their heads. UNCG researchers help educators and families across the nation access the information and resources they need to help these homeless students succeed.

Accessible excellence is fundamental to who we are at UNCG. And, thanks to the efforts of our dedicated faculty, staff, and students, it's who we will continue to be.

TERRI L. SHELTON, PHD

Vice Chancellor for Research and Economic Development

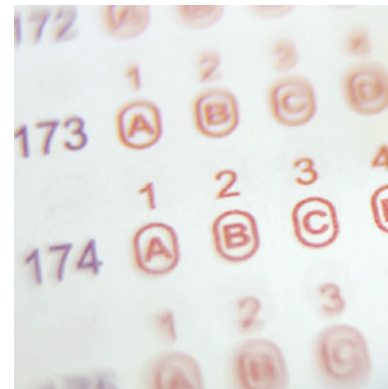
For more information about research at UNCG and the Office of Research and Economic Development, go to research.uncg.edu.

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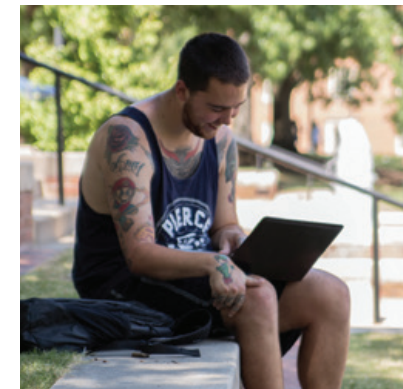
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# STAYING ALIVE

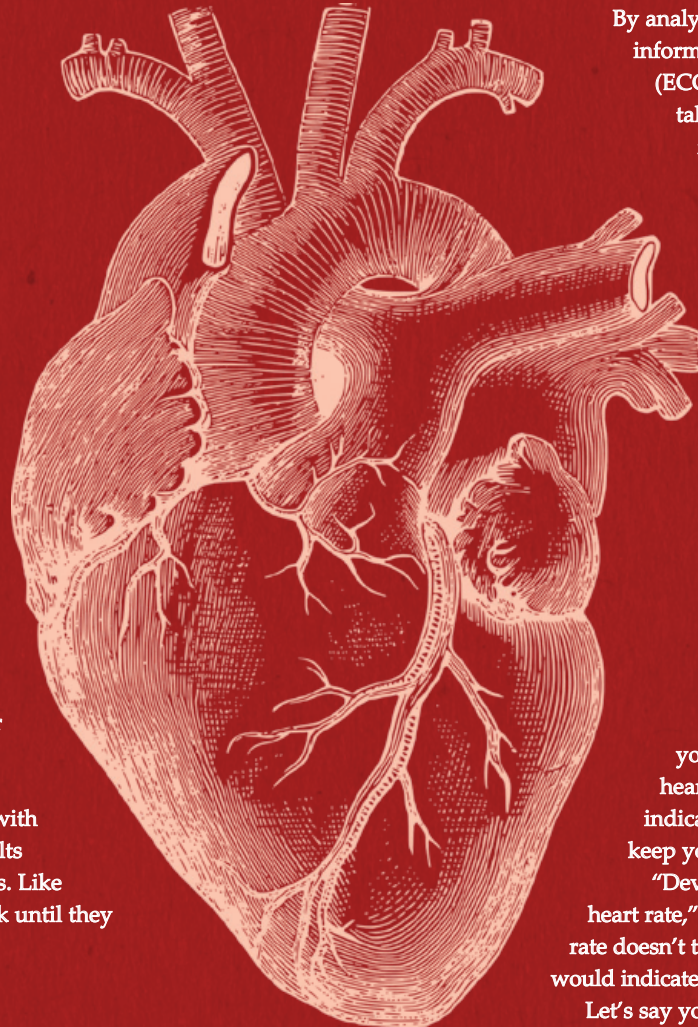
When Donna Tuttle experienced the telltale signs of a heart attack — shortness of breath, tightening in her chest, extreme fatigue — she chewed two baby aspirins and took a nap. As a 48-year-old mother of four who had always prioritized exercise and nutrition, Tuttle never guessed heart disease. “I don’t smoke, I see my doctor once a year, my parents are living and in great health,” she says.

Two days later, Tuttle and her husband went for a leisurely walk through their neighborhood. She could barely make it home. This time, Tuttle went to the ER, where a CT scan revealed that one of her left coronary arteries was 99 percent blocked. “Even the cardiologist was shocked,” she says. “He told me I was a ticking time bomb. If I hadn’t come in, this would have caused a massive heart attack or instant death.”

According to the CDC, about 12 percent of Americans are diagnosed with heart disease. Still, the condition results in nearly one in four American deaths. Like Tuttle, most don’t know they’re at risk until they experience a heart attack.

## PROGNOSTICATING

But what if you could see into the future? What if a crystal ball could give you the intel you needed to stop heart disease in its tracks? Dr. Joseph Starobin, associate professor of nanoscience, has developed an algorithm that brings the hidden indicators of heart disease to light.



By analyzing a heart’s electrical activity — the information you get from an electrocardiogram (ECG) — and looking specifically at how long it takes for the heart to contract and then recover from contracting, Starobin’s algorithm can pinpoint a person’s “optimum heart stability.” As long as their heart is performing in that range, they’re not at risk for heart disease.

“It is possible that many people could avoid heart disease entirely if they could recognize the warning signs,” says Starobin. Now, he and his research team are working to develop a wearable crystal ball, one that predicts heart disease long before a heart attack.

Picture any one of the many bracelet-type activity trackers currently on the market that provide personal stats ranging from daily steps to nightly sleep quality, says Dr. Jarrett Lancaster, a postdoctoral researcher in Starobin’s lab.

Now imagine if this tracker could know your optimum heart stability — when your heart is performing at its best — and could indicate when you should change your behavior to keep your heart healthy.

“Devices on the market can already show your heart rate,” Lancaster explains. “But alone, your heart rate doesn’t tell you when you’ve reached thresholds that would indicate you’re at risk for heart disease.”

Let’s say your optimum heart stability is 100 percent, he continues. “Most healthy people going about their business are anywhere from 85 to 100 percent.” But when an individual’s heart stability drops down to 70 percent, they have no way of knowing it.

“There aren’t any apparent physiological changes, but that is really the critical time where you could make changes in your fitness, nutrition, or stress to bounce back to the healthy zone,” he says.



**OUT OF THE LAB** Starobin and Lancaster (l-r) spoke with a range of potential end users and brought invaluable insights back to the lab. “For example, for a pro athlete trying to maximize her body’s performance, to see how her cardiovascular system is working she has to stick herself with a needle, take a blood sample, and then analyze it,” says Lancaster. It’s far from ideal. “Our technology could provide the same information in real time — without the invasive procedure.”

## TO MARKET, TO MARKET

It took years for Starobin to develop a groundbreaking algorithm with the potential to save lives. But connecting with a company that shares a scientist’s vision — and knows how to bring new technologies to market — takes more than time. In the case of Starobin and Lancaster, the National Science Foundation’s I-Corps program provided that bridge between idea and product.

“I-Corps is designed to get researchers out of the lab and into the market,” says UNCG Office of Innovation Commercialization director Staton Noel. “The focus is on customer discovery.”

As their I-Corps mentor, Noel helped schedule interviews between Starobin’s team and more than 100 customers and businesses in seven weeks. “They started by talking to customers who use things like Fitbits to monitor their health,” he says. “Then they moved on to talking to the providers of that technology. Every week, they increased their understanding of how their technology could be used in the real world.” They identified their customer base: medical professionals concerned about heart disease prevention, the fitness community, and people in high-risk professions, like firefighters.

Starobin and Lancaster then discovered partners willing to work toward the same objective. They connected with Monebo, a software company whose technology can intercept the heart’s raw electronic signal and turn it into a clean, readable format. “Picking up a heart’s signal is like listening to a radio station full of static,” Lancaster says. “Monebo helps you tune in to the right station.”

*Heart attacks are a leading cause of death among firefighters, often occurring 12 to 24 hours after a blaze, says Lancaster. “Real-time information from our proposed tech could identify individuals in need of rest or monitoring.”*

They also partnered with Rhythm Diagnostic Systems, a company with the potential to take Monebo’s data, run it through Starobin and Lancaster’s algorithm, and display it on the wearable device.

For Tuttle, this technology can’t come fast enough. “Since I can’t see how my heart is performing, I live with this nagging doubt. Every time the doctor checks my cholesterol and weight and BMI, and my numbers come down, that’s huge for me,” she says. “Any tool I have to give me an indication of how things are going is helpful.”

With his new partners, Starobin believes his dreams for the algorithm will become a reality. “I’ve worked years to develop this algorithm. But before, there was no way to marry all this knowledge with any particular device. Now, it’s all possible.”

*By Robin Sutton Anders • Photography by Mike Dickens • Learn more at <https://innovate.uncg.edu> & <http://jsm.ncat.uncg.edu>*

# Z E N

## AND THE ART OF AVATAR MAINTENANCE

The web is changing the way people around the world experience religion. Dr. Gregory Grieve examines this realm with both thousand-mile journeys and the use of his smartphone.

In 2014, the professor of religious studies attended a Buddhist festival at the foot of the Himalayas. Organizers were busily streaming the full two weeks of ceremonies to Buddhists far and wide. A sick research associate took in the festival from various angles via the web. Visitors snapped shots of their spiritual journey to share across the world on their Instagram accounts.

Welcome to religion in the cyber age.

This intersection of the web, social media, and religion — particularly Buddhism — is Grieve's research nexus.

He also focuses on how religion plays out in gaming, a booming industry in America and across the world.

In 2014, he co-edited the book "Religion in Play: Finding Religion in Digital Gaming," published by Indiana University Press.

There *is* religion in video games, he stresses. Studying religion in gaming, he says, is essential to examining perceptions of religion in popular culture.

He probes deeper in his most recent book, "Cyber Zen," ethnographically exploring Buddhist practices in the online virtual world of Second Life. Among the questions his book poses: Does typing at a keyboard and moving your avatar around the screen count as real Buddhism?

"Online Buddhist practices have at best only a family resemblance to canonical Asian traditions," he explains. "If, however, they are judged existentially — by how they enable users to respond to the suffering generated by living in a highly mediated consumer society — then Second Life Buddhism consists of authentic spiritual practices."

In his recent co-edited monograph "Buddhism, the Internet, and Digital Media:

The Pixel in the Lotus," he more broadly explores Buddhist practices and teachings in our digital era. The internet is essential for many religious individuals; according to a Pew survey, 25 percent of Americans have searched the internet for religious purposes.

Grieve's next project will focus on online Buddhist rituals. At the center of his study is the current Dalai Lama. Many people know him and his teachings primarily through their smartphone or laptop.

"His widespread popularity has no doubt been enabled by the processes of global digital communication — which have accelerated the international spread of Tibetan Buddhism," Grieve says.

What happened to going to a place of worship? Of standing shoulder to shoulder with other believers?

"People are looking in different places."

They're looking for community, for a deeper meaning, for identity formation, he explains. But what earlier generations found through their jobs, their houses of worship, their civic clubs, and close proximity to extended family, they're now searching for through their video screens.

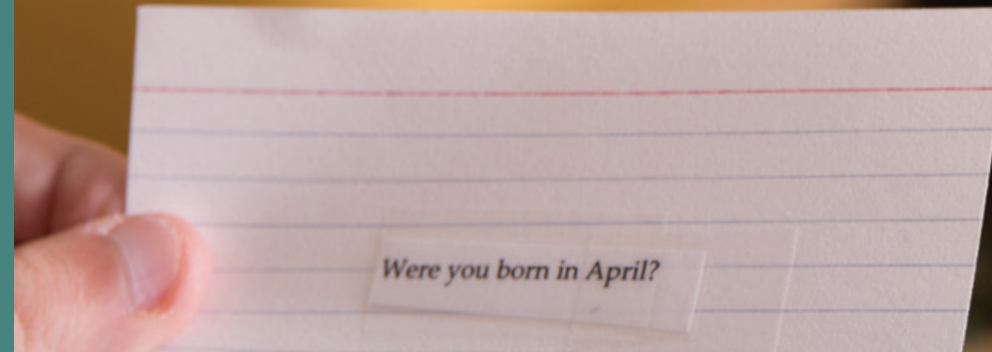
For Grieve, it's a rich, ever-evolving realm of research.

*By Mike Harris • Photography by Mike Dickens, inset photo by Gregory Grieve • Learn more at <http://rel.uncg.edu>*



**CYBER ZEN** Grieve (left photo) is interested in how religion intersects with the modern world. In 2014, the head of the Department of Religious Studies traveled to Ladakh at the foot of the Himalayas (above), to observe the Dalai Lama address the masses — those physically present and those livestreaming the event.

# SURVEY SAYS...



**PUBLIC HEALTH IMPACT** Gupta (right) and his colleagues have used Optional RRT to estimate rates of stimulant medication misuse, familial sexual abuse, and risky sexual behaviors among college students. The prolific researcher has more than 120 journal publications, maintains a robust statistical consulting portfolio, is the founding and current editor of the *Journal of Statistical Theory and Practice*, and serves as associate head in the Department of Mathematics and Statistics.



Fifteen years ago, Professor Sat Gupta brought up his favorite subject, RRT survey sampling, in his introductory statistics class. RRT, or Randomized Response Technique, is a practical approach to a common dilemma in survey sampling — the possibility that a respondent might lie.

"A face-to-face survey may lead to serious social desirability response bias," explained Gupta. "It's the tendency in respondents to give socially acceptable responses rather than true responses."

RRT reduces that tendency in survey participants by allowing them to scramble their responses and maintain their privacy. This is particularly helpful, Gupta told the class, with embarrassing survey questions, like "Have you ever had an abortion?"

Suddenly, a student stood up and asked, "What makes you think that a woman would be ashamed of having an abortion?" Gupta was taken aback — and then inspired.

He realized that researchers had been limiting themselves with RRT by making assumptions about what participants would and would not find sensitive. What researchers needed was an optional RRT model.

### A NEW MODEL

In a commonly used RRT model, a researcher might have a participant draw a card from a deck. Some of the cards display the number

0, some display 1, some -1, and so on. The participant is instructed to add the number on the card to their answer to a question — for example "How many sexual partners have you had?" The participant is able to respond without fear of judgment because the researcher doesn't know what is on the card they have drawn and has no way to unscramble their individual answer.

However, the researcher does know what cards are in the deck — both the type of cards and how many. So he knows the probability that a participant is adding 1 to their answer, or -1, etc. Using that probability information, the aggregate answers provided by the survey participants, and sophisticated statistical modeling, the researcher can estimate the surveyed group's average answer to the question of interest.

In Gupta's Optional RRT model, the participant has an additional choice if they don't find the research question embarrassing. They can draw the card, ignore its contents, and provide a straightforward answer to the researcher's question. The researcher will not know that particular participant provided an unscrambled response. However, the pool of survey answers now contains unscrambled responses as well as scrambled responses, which, with the correct modeling, allows the researcher to estimate the average response to the research question with greater accuracy.

### SEMINAL WORK

Gupta's 2002 publication on Optional RRT became a landmark paper in the field.

"We proved that optional models are more efficient than their non-optional counterparts," explains Gupta. "This idea has become very popular and a lot of papers have been written based on this idea." In fact, the paper has been cited more than 100 times.

With more than 25 papers on this topic, Gupta has continued to refine the Optional RRT model. His recent work centers on unifying Optional RRT with the use of auxiliary variables. In the latest model, researchers collect sensitive information from participants using Optional RRT, but they also gather secondary, non-sensitive information. The trick? The secondary information — for example, responses to "How many relationships have you had?" — is statistically correlated with the primary, sensitive question.

Each evolution of the model brings researchers greater accuracy. Gupta's impact is felt not just in his field but in every field using survey sampling as a tool.

*By Anna Warner & Sangeetha Shivaji  
Photography by Mike Dickens • Learn more at <http://math.uncg.edu>*



**SAVED** Cyrus, pictured here (center) working with recent UNCG BFA grad Devonte Wells, emphasizes collaboration in his “Theatre of Movement” production method. Inset photos are of the USS Dorchester (left), the Comanche (top right), and Charles W. David Jr. (bottom right).



## A HERO IN DANCE

Can researching the past help shape the future? Duane Cyrus thinks so.

Cyrus, an associate professor of dance, is exploring his uncle’s life-saving heroism in World War II as the basis for a short film and a dance production to be performed at UNCG in September 2017. “Comanche” examines the theme of rescue and, at the same time, showcases a new theory of artistic production.

The dance is inspired by the sacrifice of Charles W. David Jr., who helped save nearly 100 drowning U.S. servicemen in the icy waters off Greenland in 1943. The servicemen were cast

overboard when a German U-boat torpedoed their Army transport ship, the USS Dorchester. David was working as a steward’s mate in the kitchen of the nearby ship, the Comanche, a Coast Guard cutter that responded on the rescue mission.

At the time, the military was segregated, so David, who was African-American, did not have to participate in the rescue, Cyrus says. But he volunteered. He was one of 12 service members who jumped in. They saved 93 men from the dark and frigid sea.

As the operation came to a close, David spotted one last man floundering in the frigid water. He dove in and saved the Comanche’s executive officer, Ensign Robert W. Anderson. Anderson had also been rescuing survivors, but he became overwhelmed by hypothermia and could not pull himself to safety. A few days later, David contracted pneumonia from the prolonged exposure and died.

The Coast Guard later commissioned a cutter in Key West, Fla., in David’s name. During the ceremony, Cyrus met Ensign Anderson’s family and was struck by the thought that many of them would not be alive

without his uncle’s sacrifice.

“It hits very close to home for me,” Cyrus says. “I realize that, in my own family, there’s someone who made a personal sacrifice to define freedom. That freedom means that I can be a scholar and creative artist and work and travel and share that story with people. In some ways my uncle indirectly rescued me. I see his sacrifice as a symbolic rescue for all of us.”

This theme of rescue as well as the importance of acknowledging contributions made by African Americans is especially relevant today, given increasing episodes of violence between police and African-American men, Cyrus says. “How do we heal and understand what rescue and protection really mean?” Cyrus asks. “Somewhere there’s been a wrong turn. This work is a creative exploration not just about men and people of color, but about the entire community.”

Through this artistic exploration of the past, Cyrus, who has nearly 35 years of dance experience, is also contributing to the future of his art form. A new production method he has developed called “Theatre of Movement” encourages collaboration among a group of

contributing artists, rather than a more traditional division of labor among the choreographer, film director, dancers, and designers. Through this method, Cyrus and a team including students Jonathan Garris and Emmanuel Malette have also created a three-minute film on “Comanche.”

Cyrus’ quest has taken him to Cape Charles, Va., New York, and Washington, D.C. Over the course of his research, he has met with a Coast Guard historian and reviewed documents related to his uncle’s service. He has read about African Americans in the military, and he’s conducted interviews with family members and subject matter experts.

In one of those interviews, Cyrus spoke with dance historian John Perpener about the importance of sharing African-American histories. “As John said, ‘If it’s not told, then it doesn’t exist.’”

*By Dawn Martin • Photography by Mike Dickens, inset photos provided by the U.S. Coast Guard Historian’s Office • Learn more at <https://opa.uncg.edu/dance>*

## The Capitol & the quill

There’s a hidden gem nestled in the heart of Washington, D.C., within two blocks of the Capitol Building, the Supreme Court, and the Library of Congress.

It’s the Folger Shakespeare Library, and for the last five years, it’s the place where UNCG faculty and graduate students have examined everything from British literature to stage combat to religious mysticism as members of the Folger Institute Consortium.

The library is home to the world’s largest Shakespeare collection and half a million rare Renaissance books, manuscripts, artifacts, and works of art. It also houses a Renaissance-style theater reminiscent of Shakespeare’s Globe.

“Our faculty and graduate students participate as members of an international community of scholars at the highest level of achievement,” explains Dr. Christopher Hodgkins, UNCG professor of Renaissance literature.

UNCG is one of only 44 Folger Institute Consortium member universities, which also include Harvard, Yale, and Duke.

Since UNCG was invited to join five years ago, 12 program applications have been accepted — an acceptance rate consistently higher than the consortium average. Eight

have been from graduate students.

“One of the marvelous things about almost all the Folger programs is that admissions are made without regard to faculty or student rank,” Hodgkins says. “What’s of interest are the ideas and expertise that you can bring to the table.”

The Folger collections and Institute offer access to a unique range of interdisciplinary research spanning the humanities and fine arts, with programing varying from weekend symposia to year-long seminars.

Students are equal partners in projects with many of the world’s greatest humanities scholars, providing an incomparable career launching pad.

“It’s a delightful experience,” Hodgkins says, adding that the work has allowed him and other participants to widen their scholarly associations.

“It makes the humanities fully human. At the end of the day, everyone leaves the Folger as colleagues and often as friends.”

*By Jeanie McDowell • Photo by Julie Ainsworth, provided by Folger Shakespeare Library • Learn more at <http://folger.edu/folger-institute>*



**BARD & BONUS** The Folger houses an unparalleled Shakespearean archive and a wealth of other resources for humanities scholars.

# String Scholar

*Dr. Rebecca MacLeod conducts UNCG's Sinfonia orchestra as well as All-State orchestras throughout the country. She's an associate professor of music and director of the UNCG string education program. She leads two university-community partnerships bringing free string lessons to local youth. And she's one of the top researchers in string music education in the United States. No matter which of those hats she's wearing, MacLeod is known for her revolutionary approach. Whether she's working to expand access to a traditionally rarefied discipline, rethinking how we train and evaluate orchestra teachers, or upending assumptions on how violinists produce sound, she is no friend of the status quo.*

## READY TO MAKE WAVES

Last summer, I got a commission from *The Strad*, a well-known string performer and practitioner journal that covers big name artists like Joshua Bell. I'll be translating my recent research into a six-step process for teaching vibrato. I've already published this work in several major research journals in my field, but when *The Strad* piece comes out, everybody who's a string player will see it. And they're probably going to be upset.

## SHAKING UP VIBRATO

Vibrato is a variation in pitch and/or intensity when you sing or play a note. It's an expressive technique that makes music sound rich and mature. In violin performance, if you can't vibrate, you're a beginner. By the time a violinist reaches professional levels, they have a lot of control over their vibrato. People have written entire books on teaching vibrato, and it's mostly based on Ivan Galamian, an iconic figure in our field from the mid-1900s.

Galamian said that, in vibrato, a violinist oscillates downward from the pitch of the note. So if you go through materials designed to teach vibrato, there are all these exercises written with the note and a note a half step lower for students to practice. But it turns out that's wrong.

We recorded experienced players playing a note with no vibrato, and then the same note with vibrato. When we analyzed the frequencies, we found that the vibrato oscillated around the pitch of the note, not just below.

People got very angry. They said the players we studied were no good. That our methodology was flawed. So we got a former concertmaster from the New York Philharmonic to do the test with us. That's one of the best violin players in the world — and his vibrato went around the pitch. We completed eight studies, with musicians doing

everything from playing their own instruments to turning a dial that controlled an electronic tone. Everybody's vibrato went around the pitch.

When I first started presenting this at conferences, practitioners would actually get up and walk out. But the ones who stayed and looked at the data? They were convinced.

## A PASSION FOR ACCESS

We badly lack diversity in music education — especially string education. String players, and thus string teachers, are typically white females from affluent, suburban schools. According to the research, after teachers are trained, they tend to go back to the areas to which they are accustomed. So string education stays in the suburbs. I wanted to break that cycle, so I was looking for a way to train preservice teachers to work in different environments.

In 2008, the Greensboro Symphony reached out to me, looking for a new teacher. I said, "What if we piloted a new program and had a partnership instead?" We founded the Lillian Rauch Beginning Strings Program. It provides free violin and cello instruction to students at Peck Elementary, a Title I school with 97 percent of its students on free or reduced lunch. And it provides my UNCG music education students with training in a very different environment. I call it my lab school. We currently have about 150 kids participating in the program.

Recently, we also established the Peck Alumni Leadership Program, which is inspired by Venezuela's national string program *El Sistema*. We help the most dedicated students graduating from our Beginning Strings Program continue their music education through high school — and, in exchange, those students help teach the younger kids in the Beginning Strings Program.

The idea is that, one day, one of these kids is going to want to teach. That's my ultimate goal. I want to change the workforce.

*Interview by S. Grace Hutko & Sangeetha Shivaaji  
Photography by Mike Dickens • Learn more at  
<http://music.uncg.edu>*

Check back in our spring issue for a profile on  
2015-16 Senior Research Excellence Award winner  
Dr. Michael Zimmerman.



# Breaking *down* Barriers

## To help Latino immigrant students thrive

COLLEGE BOUND. When it comes to bragging on our kids, few phrases make parents more proud. For many of us, planning for our children's higher education commences before they enter high school. We pressure our kids to excel, and we strive to give them every advantage we can.

But some families face more barriers than others in fulfilling these aspirations.

Among the biggest hurdles facing our nation's Latino immigrant families? Researchers at UNCG have found that parents who experience language barriers – or don't understand how U.S. schools work – don't know how to best participate in their children's education, even if they have big dreams for them.

These researchers say that, for Latino immigrant families, an important way to help students succeed is to work with their parents.

UNCG is at the forefront nationally in addressing what Dr. Laura Gonzalez in the Department of Counseling and Educational Development calls "this big gap between home and school" for Latino immigrant families. Hundreds of faculty, staff, students, and volunteers affiliated with the university are working with families locally and experts nationally to bridge that gap.

The importance of their work reaches beyond local neighborhoods and schools. "Stepping forward to help these communities is in America's best interests," says Dr. Micheline Chalhoub-Deville, director of UNCG's Coalition for Diverse Language Communities and an immigrant to the U.S. from Lebanon, 30 years ago.

"Immigrant families are eager to participate in the community, to be good Americans, if you will," Chalhoub-Deville says. "When we ignore our diverse language populations, when we fail to provide them with education, we are not only leaving them at risk, but we are also losing an opportunity to utilize their unique skills in the workforce."



**PREPARED** This August, Gonzalez (right) kicked off the third year of Padres Promoviendo Preparación with a community picnic for program participants, their families, and friends. Local universities sent representatives to the event to share information about higher ed opportunities.

UNCG's efforts to help Latino immigrant families are proving successful and creating models for other communities. The work starts with a UNCG hallmark – community-engaged scholarship – that reaches into communities to both identify and address problems together with the people there. Decisions on how and where services are delivered, and assessments of and improvements to those services are all efforts done in partnership with parents.

"Everything we do is organic in nature," says Dr. Holly Sienkiewicz, director of the UNCG Center for New North Carolinians. "We don't force our programs on people. We see what their needs are and we provide options around that."

### ADAPTIVE INTERVENTIONS

When Dr. Laura Gonzalez began teaching Latino parents in Asheboro, N.C., about the college admissions process for their children, she recreated a typical classroom setting. She stood in the front of the room while her 30 adult students sat and listened attentively.

Then as Gonzalez learned more about her students – one was a seamstress with a sixth grade education – she realized they needed to

shake up the format. "We were approaching the program too formally – we needed to meet them where they were."

Since her arrival at UNCG in 2009, Gonzalez has focused on understanding the Latino immigrant community and using what she learns to help parents and their children. The associate professor in the Department of Counseling and Educational Development began collaborating with Dr. Gabriella Stein, associate professor of clinical psychology. Their interviews with Latino adolescents about their experiences in schools and at home informed Gonzalez's current outreach program.

Talking with more than 100 students individually and conducting focus groups with about 20 parents produced a consistent storyline – parents want to be more involved with their children's education, but are not familiar with the U.S. educational system; and children wish for more assistance from their parents, but understand their limitations.

"Latino parents are in this unusual bind where maybe they moved to this country hoping for better futures for themselves and their kids, so emotionally they're very supportive, but as far as understanding how to help their kids get there, they don't know the steps," says Gonzalez. Her findings inspired her to create an outreach program with several

*"For children of Latino immigrants, deciding whether to attend college is often a family decision based on collective needs," says Gonzalez.*

department colleagues to help parents understand educational access.

Starting in 2012, the first phase of the program consisted of a two-year pilot for parents in several locations, including Asheboro City Schools and the High Point Latino Family Center. It was funded by the College Access Challenge Grant Program and UNCG's Coalition for Diverse Language Communities. Gonzalez, fluent in Spanish with help from her husband, a native speaker, shared teaching duties with Donna Weaver, Spanish language coordinator for the College Foundation of North Carolina.

When they realized they were "too wordy," as Gonzalez describes their teaching style, their approach changed. "It became more interactive and more personal, with less focus on passing along information and more on community building and getting comfortable with one another," she says.



**COMMUNITY COLLABORATION** Participants in the Real World English program (above) work with a host of university and community volunteers. The program launched with CDLC funding.

Gonzalez continues to refine that approach in Winston-Salem, N.C., where the Kate B. Reynolds Trust has provided three years of funding for her project, Padres Promoviendo Preparación. Groups have shrunk to 10 to 12 parents, making it what she calls "a more personal model of psychoeducation."

In its first two years, Padres Promoviendo Preparación has reached more than 100 families in Forsyth County. It has expanded to two high schools, two churches, and a community services center. Group facilitation is provided by teachers, pastors, and others affiliated with the organizations, as part of efforts to prepare community partners to continue the program after UNCG's involvement ends.

"Embedding the program in these community locations creates a



### A multidisciplinary approach

UNCG's Coalition for Diverse Language Communities (CDLC) started in 2009 with three professors, Dr. Micheline Chalhoub-Deville, Dr. Barbara Levin, and Dr. Colleen Fairbanks. They were just completing a large project that provided professional development to English as a Second Language teachers, and they wanted to extend their work and bring in all UNCG staff and faculty involved with communities with nonnative speakers of English.

"The word 'coalition' is critical because it denotes that we are coming together as partners — the faculty, the staff, and the students inside of UNCG but also the families and local school personnel and policy makers," explains Chalhoub-Deville.

The CDLC typically gives fellowships of \$3,000 to three or four startup projects a year that involve collaborations between faculty and communities with non-native speakers of English.

One such program, organized by Dr. Rebecca MacLeod, associate professor of music education at UNCG, provides free private string instruction to underserved middle and high school students. Half of them speak English as a second language. (Learn more on page 8.)

The CDLC has emerged as a valuable resource for UNCG faculty and staff seeking to collaborate on community-based projects, especially ones posing complex challenges that require multiple disciplines and partners. It also fosters support and sharing of best practices among faculty.

"Many of us do this kind of work as an extension of our scholarship," says Chalhoub-Deville, who is a professor in educational research methodology. "It is doing what matters in the community where we live."

bigger ripple effect and greater longevity," Gonzalez says.

"There are few programs out there focusing on Latino parents currently," she says. But that's changing. "We've had inquiries from people in other states, interested in replicating what we are doing."

*Gonzalez found that Latino immigrant parents are often reluctant to ask teachers about their children because they see it as questioning authority. They don't want to be disrespectful.*



**GREENSBORO IS NORTH CAROLINA'S THIRD LARGEST CITY AND A POPULAR RELOCATION AREA FOR LATINOS AND OTHERS NEW TO THE UNITED STATES. AMONG THE ROUGHLY 75,000 STUDENTS IN GUILFORD COUNTY SCHOOLS, 11,000 LIVE IN HOMES WHERE LANGUAGES OTHER THAN ENGLISH ARE SPOKEN. SPANISH IS SPOKEN BY ABOUT 13.5 PERCENT OF GUILFORD COUNTY SCHOOL FAMILIES.**





## Thriving at Three

Thriving at Three, part of UNCG's Center for New North Carolinians, provides programming for at-risk Latino immigrant children from birth to three years and their parents. It's one way UNCG is working to address the early care and education gap experienced by Latino populations.

Case workers visit families at home, helping children with their developmental skills and helping mothers with basic needs, from arranging transportation to making doctor appointments. Mothers attend weekly classes at the Presbyterian Church of the Covenant in Greensboro on topics ranging from nutrition to dental health, while their children go to their own classes, learning behavioral and social skills that will prepare them for school.

Thriving at Three, funded by the United Way, serves about 40 Latino families.

"I wish we had the funding to reach more people," says Holly Sienkiewicz, director of the Center for New North Carolinians. "What we really hope to do is teach families life skills so they can do them on their own and share the information with their family and neighbors."

## REAL WORLD ENGLISH

A chance encounter between Kattya Castellón, associate director of admissions at UNCG, and a Greensboro middle school parent in 2014 spawned a Latino outreach program that is rapidly growing thanks to the enthusiasm of a host of university and community partners.

UNCG's Real World English program teaches Latino parents to speak English so that they may in turn help their children plan to attend college. It's what's known as a two-generational approach to education. It addresses a common problem for immigrant parents – arranging care for their children – by offering classes for their kids while they attend classes in the same location.

Activities for children in the program focus on STEAM – science, technology, engineering, arts, and math – and, above all, exploration.

"As long as their kids are taken care of, parents enjoy having their own time to learn," says Dr. Barbara Levin, a professor in UNCG's School of Education. Parents emerge as role models because "their children, from little bitty to teenagers, see their efforts and their growth."

University faculty, staff, and undergraduate and graduate students initially worked with families at Allen Middle School and then reached out to families from Falkner Elementary School as well. They plan to continue to extend their work to families from other local schools.



**DIVERSE IMPACT** Levin, pictured above (left) at a Real World English event, is one of the leaders of the project as well as a founder of the CDLC.

Principals and teachers at the schools have embraced the program, which also relies upon faculty, staff, and students from six departments at UNCG. Other partners include the university's Coalition for Diverse Language Communities (CDLC) and the Center for New North Carolinians, as well as outside groups such as AmeriCorps and the Guilford County Schools' Parent Academy.

The CDLC provided \$3,000 in startup funding for the program after Natasha

Pace, an Allen Middle School parent and grassroots parent organizer with Guilford County Schools, attended a parents' night presentation by Castellón. When she asked Castellón for help teaching Latino parents to speak English, Castellón and her UNCG colleagues embraced the opportunity and began classes in 2015.

As with the development and staffing of the program, continued funding has been a collaborative effort. Dollar General Corp. provided a grant of \$15,000 for the program while UNCG provided \$3,000 through the University School Teacher Education Partnership. Aaron Rents in Greensboro gave \$500 to the program.

As its name implies, the program is based upon the everyday language skills parents need to talk to their children and teachers about school. "Many parents can't help their kids with homework," explains Carol Zegarra, an English teacher at Allen Middle School and a volunteer in the Real World English program.

"The enthusiastic participation debunks a stereotype about parents who are not American-born," says Dr. Jewell Cooper, professor and associate dean in UNCG's School of Education. Cooper leads the program with Levin, associate professor Ye He, and Dr. Melissa Bocci, who began work with the program as a graduate student.

"They have an earnest desire to want to understand the educational process," Cooper says, "and they want to help their children succeed."

**PLAYING WITH DATA** On the playground of UNCG's Curry Child Care Center, Mendez Smith and Crosby (l-r) discuss the importance of early care and education. Crosby is an associate professor in the Department of Human Development and Family Studies, the home of the UNCG Child Care Education Program.



*Mendez Smith and Crosby co-lead the Early Care and Education priority area of the National Research Center on Hispanic Children and Families. The center is federally funded by the Department of Health and Human Services through 2018 to conduct research and disseminate new knowledge on low-income Latino families.*

## THE EARLIER THE BETTER

"Access to higher education begins in preschool," says Dr. Mendez Smith, associate professor of psychology at UNCG.

"Early education experiences provide children with language, learning, and social skills they need for school success."

As experts working with the National Research Center on Hispanic Children and Families, UNCG's Dr. Julia Mendez Smith and Dr. Danielle Crosby are at the forefront of national research efforts examining barriers between Latino children and access to early care and education (ECE).

Latinos make up more than a quarter of all children five years and younger in the U.S., and more than two-thirds of Latino children live in or near poverty.

"Making an impact in this population makes a major impact on America's future as a whole," Mendez Smith says.

In a national study, Crosby and Mendez Smith found that only about one out of two Latino children are using ECE. Latino children from immigrant households used ECE at rates even lower than those of Latino children from U.S.-born households.

This lower use compared to whites and African Americans may reflect a lack of awareness of quality programs. Or it could reflect a lack of availability. Many of the parents studied worked at night and on weekends. For low-income Latino children using nonparental care, about

a third of care hours occur during evening, nighttime, or weekend hours – times when child care centers and preschools are not typically open.

"This issue is important to study because parents need access to high quality and affordable childcare that is available when they need it," Mendez Smith says.

Mendez Smith has conducted community-based parenting workshops over the past 15 years, most recently with McCrary Elementary School in Asheboro, N.C. Each month, she provides parents of kids in the Globe-Trotters Afterschool and Summer Enrichment Program with learning activities and strategies for building a strong home-school connection to promote academic success.

Programs for parents of young children, she says, have a major impact on the academic and social success of children from low-income Latino families.

She has found that Latino parents who immigrated to the U.S. are supportive of their children's success in education and are willing to sacrifice by working long hours to help their children excel.

"There's a real sense that if their children can acquire an education they can have a good life," Mendez Smith says.

*By Chris Burritt • Photography by Mike Dickens and Jenna Schad, additional photos provided by the Real World English program • Learn more at <https://cdlc.uncg.edu>, <https://cnmc.uncg.edu> & [www.hispanicresearchcenter.org](http://www.hispanicresearchcenter.org)*

# A light in the dark

*NCHE brings homeless students out of the shadows*

*Just 20 minutes north of UNCG's main campus is the National Center for Homeless Education, a technical assistance center that has been a part of the university for nearly 20 years.*

*The center, which is funded by the U.S. Department of Education, is driven by data.*

*And there's one number that stands out above the rest. It's the number of children and youth across the country identified as homeless ... **1.3 million.***



**DATA DRIVEN** NCHE helps schools and states comply with federal data collection requirements and ensures data are publicly available and disseminated. Bowman (far left) led the center for 15 years before retiring, but she couldn't stay away. She returned to NCHE, now helmed by Hancock (center left).

## IDENTIFYING A NEED

HOMELESSNESS IN THE UNITED STATES takes on different forms. Families might be staying in a shelter, or spending nights in a car. Or maybe they're couch hopping, relying on the kindness of friends and family and bouncing from home to home at a moment's notice.

In schools, it's not easy to identify young people in these situations at a glance. Homeless students often go unnoticed and, as a result, lack the educational resources they desperately need.

That's where the National Center for Homeless Education (NCHE) steps in. Housed in UNCG's SERVE Center – whose mission is to work with educators and policymakers to improve education – NCHE is the technical assistance and information center for the federal Education for Homeless Children and Youth (EHCY) program.

EHCY oversees the implementation of the McKinney-Vento Education of Homeless Children and Youth Assistance Act, which ensures free, appropriate, public educational opportunities for homeless children and youth.

*Under the McKinney-Vento Act, schools must allow homeless children and youth to remain in their school of origin even if families are staying outside of the school district.*

The first step in providing support? Identifying who needs it. Before NCHE was formed, virtually no data and no standards related to identification and support existed. The result was countless children with untapped potential falling further and further behind in school.

"When we stepped in, there was no central depository of information on how to serve homeless children and youth," says Diana Bowman, who served as the center's director from 2000 to 2015. "There wasn't anything that guided individuals on how to follow the law and best serve this population. And there was nowhere to go when they were running into challenges."

## BRIDGING THE GAP

Fast forward to 2016, and NCHE is publishing hundreds of different briefs, handbooks, and toolkits, holding more than 40 webinars each year, and fielding approximately 200 emails and calls each month.

Bowman retired as the center's director in 2015, yet continues at NCHE part time. It's not easy to just walk away from this work.

Now there's a new, equally passionate leader at the helm: George Hancock. Hancock started his career in education as a teacher in Wake County, North Carolina, and most recently worked for the North Carolina Department of Public Instruction.

Hancock's desire to work with homeless children and youth isn't just a professional interest – it's deeply personal.

"During my first job as a teacher, we did a lot of work with housing projects in inner-city Raleigh," Hancock says. "I was struck by how involved and engaged those parents wanted to be with their children's education, yet how difficult it was for them given the many challenges they were facing."

Homelessness is defined by federal law as lacking fixed, regular, and adequate housing. This definition includes students living in homes without working plumbing or heating, as well as those staying with a different friend or relative each week. NCHE also works with unaccompanied homeless youth – homeless children and teens who are living on their own without a parent.

The McKinney-Vento Act grants specific rights to homeless children and youth, such as immediate enrollment in school, transportation, free meals, clothing, school supplies, and tutorial services.

However, accessing these resources can be difficult, and many families are unaware that they are available.

"Homeless children and youth and their families don't have the time and resources to try to navigate systems across cities or states," Hancock says. "We work with coordinators and liaisons to provide a coordinated point where these families have access to the resources they need."

According to the McKinney-Vento Act, all states must have a state coordinator for homeless education, and all school districts and charter schools are required to appoint a local liaison. In addition to providing webinars and publications, NCHE offers on-site trainings for coordinators and liaisons, and often hosts workshops at national conferences. The goal is to ensure that states, districts, and schools are complying with the law and best serving the homeless children and youth in their respective areas.

## SERVING OUR STATE

For Lisa Phillips, the state coordinator for the North Carolina Homeless Education Program, these support services from NCHE have been critical. Phillips, who is also based at UNCG's SERVE Center, is one of 50

state coordinators for homeless education across the nation who rely on the support of NCHE.

"Since 2006, we've seen a 56 percent increase in identification of homeless children and youth in North Carolina," Phillips says. "We're not letting them slip through the cracks. We're doing a much better job of identifying these students and making sure they have the tools to be successful in school."

North Carolina has 115 school districts and approximately 150 charter schools. To date, approximately 28,000 children and youth in North Carolina have been identified as homeless. Phillips spends the majority of her time traveling to these districts and schools to provide technical assistance and ensure that they are complying with the federal law. When it comes to providing support to her local liaisons, Phillips relies on numbers.

"There are many layers of data that we utilize," Phillips says. "These data help us have a better understanding of the unique challenges that exist in specific regions, districts, and schools."

For example, Phillips recently conducted a state-wide survey of charter schools to gauge their knowledge of homeless education issues. The results of this survey will help her better understand the challenges that homeless children and youth face in a charter school setting.

And it's not just K-12 students that Phillips and her counterparts support. Homelessness on college campuses continues to be an issue across the state and the country – approximately 58,000 college students nationally reported that they experienced homelessness during the 2014-15 academic year.

"Navigating the system after graduating from high school can be very difficult for many of our youth facing homelessness," Phillips says. "These students really look to our liaisons and other support networks to help guide them."

## FORGING AHEAD

While NCHE's technical assistance has resulted in significant progress in the identification of homeless children and youth, there's still work to be

**STATE LEVEL** NCHE increases awareness, assists state and local education agencies, and works with homeless parents and youth facing educational barriers. At the state level is Lisa Phillips, coordinator for the N.C. Homeless Education Program. Phillips provides technical assistance to N.C. schools and school districts and helps them comply with federal law. About 28,000 young people in N.C. have been identified as homeless.



done. One critical gap that NCHE has identified is the lack of homeless education training in schools of education across the country.

"We're seeing that future teachers are not prepared to navigate issues related to homeless children and youth, especially when it comes to identifying and securing resources," Hancock says.

Hancock notes that a large portion of homeless children and youth are dealing with some type of trauma, and there are certain behaviors – such as withdrawal or emotional outbursts – that often result.

"If we can help educators make this connection, they'll start to think differently about how they manage the classroom," he says. "For example, they may have a different approach to discipline and zero-tolerance policies."

Another critical issue is students who are chronically absent – those who miss more than 10 percent of the school year. Beginning in 2017, the U.S. Department of Education will require data collection on these students. NCHE plans to provide technical assistance to states working to comply with this new requirement. The center wants to compile national data on the prevalence of chronic absenteeism among homeless students and develop and disseminate information on how to combat it.

Hancock is also developing stronger research partnerships with departments across UNCG. While being connected to a university has always been uniquely valuable to NCHE, the center is beginning to identify areas where they can work more closely with faculty, staff, and students.

## PURSUIING THEIR PASSION

Bowman, Hancock, and Phillips all agree: research and evaluation are critical to the center's mission. But it's the passion behind the percentages that define their work.

"It's never just a job," Bowman says. "People are so invested in the issue and are so passionate. This field attracts the most amazing people who work tirelessly on behalf of homeless children and youth."

"When I think about the children I've worked with, so many faces come to mind," Phillips says. "I want what's best for our children in North Carolina, which is why I'm so dedicated to this job."

For Hancock, the stories that stick with him are the ones that demonstrate the complexity of the issue.

He recalls a middle school student who had been chronically absent and was likely to repeat seventh grade due to his truancy.

As Hancock began working with the family, he realized that the young boy was currently living with his father, who struggled with mental health issues, and his grandmother, a recent stroke victim. The student's diet was poor, and he suffered from undiagnosed asthma.

"The answers to situations like this do not come easy," he says.

"They are layered and require a system of care that relies on multiple components."

Yet despite the complexities of the situation, one thing is certain: all children have extraordinary potential.

"Children are children. They want to learn and they want to be engaged," Hancock says. "If you can find a way to light that spark, it doesn't matter where they come from."

By Alyssa Bedrosian • Photography by Mike Dickens • Learn more at <http://www.serve.org/Homeless-Education.aspx>

# TESTING BIAS

Tests simply have to be as fair as humanly possible.  
Randy Penfield helps design ways to make sure they are.

“THREE THINGS ARE CERTAIN: DEATH, TAXES, AND LIFE-ALTERING TESTS.”

They determine whether you get the job. Or pass the bar.

These tests will determine whether you advance to the next grade in school. Or whether you get into the university of your choice.

When you’re a 16-year-old set to take your SAT, you know what’s on the line. You’ve been receiving college brochures. Your school counselor tells you what you need to get into the top schools for your field. Your parents do too. A lot is riding on that score.

“The better the score, the better set you are for life,” says Professor Randall Penfield. “It’s a gatekeeper.”

Will it be fair? Will you be treated equally to the other students around you — or students around the country and the world? How can you tell it’s a level playing field?

Researchers are working to ensure the tests — and every item on them — are as fair as humanly possible, using sophisticated statistical methodologies. Penfield, an innovator in the field, is dedicated to the cause.

“I’m a little bit of an inventor,” he says. “I invent better methods — and using these methods leads to increased fairness.”



## What are you really testing?

Is there bias in a question, putting some test-takers at a disadvantage?

Here are three examples of test questions that favor one group over another:

1. DECOY is to DUCK as:

- A. net:butterfly
- B. web:spider
- C. lure:fish
- D. lasso:rope
- E. detour:shortcut

In this verbal analogy item, the correct answer was intended to be (c). This ended up providing a large advantage for males over females, explains Penfield, most likely due to males' relatively higher exposure to fishing. Questions like these are "gender-loaded content."

2. The opposite of TURBULENT is:

- A. aerial
- B. compact
- C. pacific
- D. chilled
- E. sanitary

The correct answer is (c). This item was shown to give a notable advantage to Latino test-takers. In Spanish, "pacífico" means peaceful or calm.

3. Finally, consider the case of an essay question that was assessed by a computer scoring algorithm using a series of properties of the essay. One of the properties most highly related to overall essay quality was the number of words used. However, different regions have been shown to use different economies of words in written English, generating an advantage for test-takers coming from regions where people tend to be more verbose.

**BIAS BUSTER** Penfield examines bias in performance-based assessments. He came to UNCG to head the Department of Educational Research Methodology. "It's widely viewed as one of the best in the nation."

## MEASURING WHAT YOU WANT TO MEASURE

Though he now serves as dean of the School of Education, Penfield joined UNCG to lead its Department of Educational Research Methodology, one of the largest in the nation.

A major focus of the department is an area called psychometrics, which deals with how to create tests of people's knowledge and how to evaluate the quality of scores generated by those tests. Essentially, practitioners test the tests.

Penfield has authored or co-authored more than 50 articles and book chapters on psychometrics. His most recent is a chapter in the book "Fairness in Educational Assessment and Measurement," published by Taylor & Francis. The chapter is "Fairness in test scoring."

The chapter is math intensive, but math is just a starting point. "I think the numbers give you the first glimpse of whether there may be a problem in an item, but they don't tell you everything."

Statistical evaluation can reveal odd differences between groups for a test item. One state vs. another. One gender vs. another. One ethnicity vs. another.

The term is "differential item functioning" or "DIF." It's the extent to which a test item functions differently for different groups of test-takers.

It's like a warning bell going off.

"The numbers may tell you there's something funky going on — for whatever reason, it's favoring one group over another. But you don't know why exactly that is. The important step is to go back to the content to see why."

You're using high-level statistics — and more.

"It's not as easy as looking at the numbers and away you go," he concludes. "There's an art to it as well."

## A SOCIAL JUSTICE ISSUE

How did Penfield come to be a leading researcher in this field?

"My dad is a statistician. My mom studied social justice. They were both professors." He inherited both passions.

Penfield's bachelor's and master's degrees were in psychology and physiological psychology, respectively. Then he discovered how he could make a huge impact, for good. He pursued psychometrics, with a doctorate in measurement and applied statistics.

"I do enjoy math, and I like to use data. But it allows me to get at these larger issues. Testing is an area that touches everyone — a key to some of our greatest points of access in our community."

*"Individuals don't have the same background. Are you measuring and testing what you intend to — or something additional?" Penfield asks. "How do you know your test is fair?"*

A lot of people in recent decades have been working to make tests more just.

"The assessment field has come a tremendously long way in improving the fairness of assessments. A lot of technology has been invented, a lot of math used, and lot of procedures created to get tests to measure what we want them to measure," Penfield explains.

"Are you ever going to get to a place where a test is going to be completely fair across all individuals? That day is probably never going to come."

But we can try to be as fair as possible, he explains. And then there's another way to make testing more fair: Let's offer tests in ways that will lead to fruitful results, he says.

"Let's not use testing assessments to make decisions that will negatively affect people's lives. Let's use tests to help us inform better instruction, to help differentiate instruction as needed, to help show when a student needs a little extra attention in a particular area."

Don't use tests to bar the door. Use them to help students open doors to a better future.

The use of tests is oftentimes tied to policy, he says. That's where tests are sometimes used in ways that don't suit the greater good of the students. That's where you have to be careful: How are these scores ultimately going to be used?

This is a multifaceted issue, one he has wrestled with since grad school. "How do we make things fair?"

## THE FUTURE OF STANDARDIZED TESTING

"The testing industry is a multibillion-dollar industry," Penfield explains. Every testing company works to ensure each test item is accurate and provides the intended results.

"A lot goes into making sure results make sense."

## TESTING BIAS

What sets Penfield's work apart is his decade-long focus on performance assessment.

Multiple choice questions are common in standardized tests, he notes. But that's shifting.

"Multiple choice has limitations. You can only go so far in digging out deeper levels of cognition and understanding."

Until recently, most of the algorithms for determining bias had been for multiple choice tests. But his research looks to the next era.

"The future of testing is 'performance assessment.'"

This could be, for example, a standardized test essay question that is scored across a range of categories. Or it could be a complex math problem, with various factors or steps receiving a score.

The answers are not true/false or wrong/right. Instead, the test-taker goes through a process, and they may get some credit for how well they perform in each step of the process.

"I am creating methods in detecting bias within those items."

He is a research leader in this realm — developing algorithms and methods to determine bias within items in performance-based assessments.

An important consideration in performance-based assessments is who's doing the grading.

"With performance-based assessments, humans are not always reliable. There are an infinite number of factors. Different graders may give different scores to the same writing sample."

"Computers are perfectly reliable. They will always give you the same score."

So computers seem to be where we're headed, from fill in the blank to short answers to essays. But just like there's unease with driverless cars — and 100 years ago there was unease with elevators not operated by humans, Penfield adds — there are lingering fears in our society with computers grading essays and similar tasks.

Computer grading is the future, like it or not, he says. Artificial intelligence is here, and it's cost-efficient. "More and more, computers will score these assessments because humans are much more expensive."

But while computers are reliable in that they will give you the same score every time, their findings are only as valid as the thinking behind the programs they run.

"With computer scoring of performance-based assessments on the horizon," says Penfield, "the issue of fairness becomes more important than ever. We have to ensure that the algorithms used to conduct the scoring are functioning in a way that does not introduce unintended biases in the scores. This will take ongoing research."

He is confident that researchers and those creating tests are up to the task.

"So much effort is going into ensuring the test is as fair as it can possibly be."

By Mike Harris • Photography by Mike Dickens • Learn more at <http://go.uncg.edu/educationresearchmethodology>

# GO BEYOND

IMAGINE YOU'VE SPENT YEARS BUILDING A HOUSE. You've invested time and labor into the project, feeling a sense of pride and accomplishment as first the frame goes up, then the walls and the roof.

But as the interior begins to take shape and you begin to truly envision the satisfaction and security that will be yours in your new home, imagine the work coming to a sudden, screeching halt. You aren't allowed to finish the job.

Until recently, for students like Simon Chase and thousands of others across the nation with intellectual and/or developmental disabilities (I/DD), that analogy could easily describe their academic experience. Once they completed high school, access to higher education became virtually non-existent. But thanks to UNC Greensboro's Beyond Academics program, which has been at the forefront of a rapidly growing movement across the country, Chase and his peers now have the opportunity to attend college.

"A lot of people don't even give us a chance," explains Chase, a junior from Charlotte, N.C. However, he says Beyond Academics offers much more than a chance. They set high expectations for their students. "They actually believe we can do something."

## SEEDS OF A MOVEMENT

For years, the notion of students with I/DD continuing their studies in a higher education setting was a foreign concept, says Joan Johnson, executive director of Beyond Academics. These students were finishing high school and then going out into a world with few opportunities for employment and independent living.

In the early 2000s, Johnson was working with CenterPoint Human Services, a Winston-Salem, N.C., organization that served individuals with I/DD and their families. While at a national conference, a parent on CenterPoint's community-wide planning committee learned about

a program for students with I/DD involving a partnership between a community organization and a university. "They brought back this idea for continued learning opportunities in a collegiate environment, and everyone got excited," recalls Johnson.

When UNCG Vice Chancellor Terri Shelton learned about the fledgling movement, she was also inspired. "I thought, 'I hope we can be that collegiate partner.' Giving folks with intellectual disabilities access to the benefits that higher education brings — it was a perfect fit with our university's mission."

## DIGNITY OF RISK

Beyond Academics was North Carolina's first post-secondary program for students with I/DD, with an inaugural class of eight in 2007. It's currently the only four-year program in the state and one of only a handful of four-year programs in the country. This fall, 62 students are enrolled.

The program blends UNCG's resources with the expertise of a non-profit service and support organization. As they pursue their Integrative Community Studies (ICS) certificate at UNCG, students select coursework that reflects their career, personal, and community interests. They also work with program personnel and the local community to learn life skills essential to being a valued employee, citizen, and neighbor.

Lalenja Harrington, program director for Beyond Academics, says it's all about providing the right structure to put students in a position to succeed. "We all need support in different ways. I can't change my oil. I need somebody to do that for me. But I still get to drive a car."

College offers students a chance to meet expectations — or learn from failure.

"If you aren't allowed to try, you can't make a mistake," says Kimberly Miller, an assistant professor in UNCG's Department of Community and Therapeutic Recreation who works with the program to measure and evaluate its effectiveness. "We learn when we make mistakes. So there's a lot of dignity in being given the opportunity to try. And if we fail, then we can learn from it and grow. That's the dignity of risk."

## EVIDENCE-BASED SUCCESS

Along the way, a comprehensive system of data collection has become a hallmark of the program. By interviewing students and families about their experiences and closely tracking graduates, Johnson and her colleagues have developed benchmarks to measure success and improve outcomes. They look at factors such as employment, independent living, community involvement, and financial independence.

The data show ICS graduates outperforming individuals with I/DD across the nation. While access to meaningful careers continues to be a challenge, ICS graduates earn nearly \$1 more per hour than their counterparts nationally. With the acquisition of new skills and confidence, ICS students require, on average, 50 percent fewer supports upon graduation. Postsecondary education for individuals with I/DD doesn't just make sense in terms of equity and access; it makes economic sense as well.

*By David Hibbard • Photography by Mike Dickens, graduation photo by Tyler Oakes provided by Beyond Academics • Learn more at <https://beyondacademics.uncg.edu> & <http://www.thinkcollege.net/publications>*



**ABOVE** Simon Chase, a junior, hails from Charlotte, N.C.

**BELOW** A 2016 Think College Insight Brief compares outcomes for Integrative Community Studies graduates to those for individuals with I/DD across the nation.

ICS GRADUATES	ACROSS THE NATION
<b>Were employed:</b>	
<b>61.5%</b>	<b>38.8%</b>
<b>Lived independently or semi-independently:</b>	
<b>54%</b>	<b>36.3%</b>
<b>Had a checking account and wrote their own checks:</b>	
<b>77%</b>	<b>29%</b>
<b>Had a credit or debit card in their own name:</b>	
<b>61.5%</b>	<b>19.4%</b>
<b>Completed volunteer or community service in the last year:</b>	
<b>92.3%</b>	<b>19%</b>
<b>Were registered to vote:</b>	
<b>100%</b>	<b>62%</b>





“The stories reveal what it means to be drunk, dumped, broke, beaten, and yet to survive with humor or grim determination.”

— Emily Edwards

## BARs, BLUES, AND BOOZE

The inspiration for Dr. Emily Edwards’ second book is rooted in her youth. She grew up in the Deep South partying with a crowd that flouted social conventions and racial divisions.

“I knew that there was an important story here about music, about liquor laws, and about race relations and the crossroads there,” she says. She laughs, “I ran with a hippie crowd in north Alabama.”

Edwards, a professor of media studies at UNCG, has finally told that story in “Bars, Blues, and Booze: Stories from the Drink House,” published by the University Press of Mississippi. In the book, she interviews musicians, bar owners, and fans about life at the music-soaked margins of American culture, emerging with tales of juke joints and unlicensed liquor houses, cockfights and magic pouches.

For years Edwards pondered the idea for the book, wrestling with whether she was the right person to tell the

story and whether it was best told as a documentary film or in print. A couple of things helped her decide: seeing great storytellers such as bluesman Ray “Sweet Daddy” Burnett die before anyone captured their tales, and working on her 1990 documentary “Deadheads: An American Subculture.” She didn’t have the funding she felt she needed to make a documentary about blues culture, and filming in dark, loud places can be problematic — especially when some of those places are selling alcohol without a license.

“If you’re going to drag a camera crew into a place where people are not doing what the law allows, it’s tough,” Edwards says.

So she settled for a decade’s worth of interviews captured on a Tascam digital audio recorder, beginning in 2006. She interviewed people in person and on the phone, in dressing rooms at bars, and outdoors at blues festivals. Social media



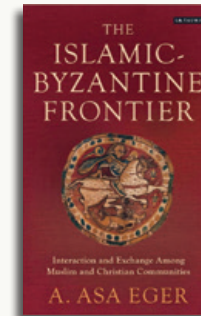
**FROM THE BOOK** At home in her music room, Edwards talks with local bluesman Roy Roberts, who has worked with artists like Stevie Wonder and Otis Redding. Roberts has played plenty of memorable venues — including a KKK bar. In the book, he recounts, “When I go in this club with those Klan pictures all around the wall of crosses burning and of this stuff, I’m looking around, I’m thinking, ‘Oh, hell, I’m in the wrong place.’”

helped her track down a lot of her subjects.

“I never would have realized how important Facebook was going to be as a research tool,” she says.

Edwards cast a wide net, talking to about 75 people altogether. She presents their stories in the book as a series of anecdotes. “Together, they tell a bigger story about our integrated Southern party — with a caution,” she explains. “As ‘Stoop Down Man’ Chick Willis says in the book, ‘We can’t rely on music, good intentions, and a good time to make us all gentle and color-blind.’”

By Eddie Huffman • Photography by Mike Dickens  
Learn more at <https://mediastudies.uncg.edu>



### An ancient borderland

Its history stretches back 1,400 years. A landscape forming the traditional border between Christianity and Islam.

Dr. Asa Eger, professor of history, has explored the region — located generally along the border between today’s Turkey and Syria — with archaeological surveys and excavations. And now he has written the book “The Islamic-Byzantine Frontier: Interaction and Exchange between Christian and Muslim Communities.”

It’s an environmental and archaeological study of the longtime borderland from the 7th century C.E. onward.

The border has been traditionally viewed as the site of a clash of civilizations — where the Islamic and Byzantine empires continually fought, Eger explains. As far back as the Middle Ages, writers have depicted it as a bare, war-torn wilderness lined with fortresses.

In reality, it was always populated and quite porous. The forts on both sides were mostly towns and waystations whose relationships with local populations were complex. Muslims and Christians lived side by side.

Both sides conducted annual raids against one another for several centuries. The warring, framed as jihad on the Islamic side, was usually about resources — water usage, grazing rights, even access to timber and mines, Eger says. Islamic summer raids were also timed to correspond to the local nomads’ desire to find forage for their livestock.

“They’d trade and raid,” Eger says. Merchants moved between both empires freely. Commerce between Byzantine and Islamic lands flourished, while raids kept nomads preoccupied; both strengthened the status of those in power.

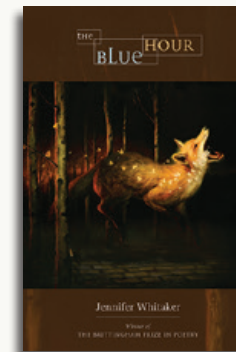
Eger’s work won the 2015 G. Ernest Wright Book Award from the American School of Oriental Research.

Eger notes that, in the past, the award has leaned toward Biblical sites and books. Bronze Age, Iron Age, and Classical strata at digs have traditionally gotten more attention than Islamic layers. But interests are changing.

“I was wonderfully surprised they gave the prize to Islamic research.”

By Mike Harris • Learn more at <https://his.uncg.edu>

### Feral fairy tales



In her first collection of poetry, “The Blue Hour,” English professor Jennifer Whitaker uses dark fairy tale imagery as a vehicle to explore complicated human experiences, such as familial abuse, incest, and remorse.

The book won the 2016 Brittingham Prize in Poetry.

Whitaker took inspiration for the volume from 17th century author Giambattista Basile, whose brand of grim fairy tales have both frightened and inspired audiences for centuries.

The beauty of fairy tales, says Whitaker, is that they use pronounced emotions that offer an emotional inroad to nearly anyone. “They appeal to something universal — ‘capital letter’ emotions.”

The central narrator meditates on terror and despair, as characters are dragged through the woods, a severed goat head speaks, and a daughter must choose what to wear to her wicked father’s funeral. The moments of violence and beauty, tension and release, mirror the girl’s struggle to reconcile the love and hate she feels for her father.

“It was my attempt to hold, at one moment, father as creator and as predator,” says Whitaker. “Fairy tales are my way of dealing with that complexity.”

By Daniel Wirtheim • Learn more at <https://english.uncg.edu>



## Off script, on track

Last January, playwright Janet Allard sat inconspicuously in the Hanesbrands Theater in Winston-Salem, N.C., quietly taking in the audience's delighted response to her rollicking comedy "Vrooommm!"

"I don't like being in the spotlight," Allard says. "I'm happy to give it away."

Creative generosity runs through all of Allard's work, whether she's helping UNCG students adapt plays for the stage and find their voices or collaborating with actors in workshops all over the country to write powerfully funny comedies, musicals, and dramatic plays that take on the challenge of unusual subject material.

Her 2009 play "Vrooommm!: A NASComedy" is a goofy high-speed story of a "suspiciously" successful female NASCAR driver and her resentful male fellow drivers — who are played by other women. It's a bizarre Saturday morning cartoon injected with feminist steroids.

After being commissioned by D.C.'s Signature Theatre and developed in Palo Alto and Minneapolis workshops, the play had its first Southern run at Triad Stage in Winston-Salem earlier this year. Triad Stage co-founder Preston Lane, Allard's colleague both from their Yale School of Drama days and now in UNCG's College of Visual and Performing Arts, had the play on his short list since Allard first wrote it.

"It's a wild play," says Allard. In between drunken karaoke numbers and sequences featuring a menacing character in a chicken suit, actors mimed crash and race scenes with rolling office chairs.

The wackiness went a bit off script on opening night, when Emma Kikue, playing Randy "Stonewall" Jackson, had trouble with her adhesive moustache. She didn't miss a beat, spluttering, "I'm so excited, my moustache is coming off!"

"What surprises me about 'Vrooommm!' is how wacky it gets," says Allard. She wasn't concerned, though; improvised lines and experimentation were how the play came to be in the first place.

It's all part of the process. "I believe that the best idea surfaces," she says.

Allard has taught everywhere from her native Hawaii to The New School. When she's not working on her upcoming musical "Into the Wild" or flying to New York City to collaborate with friends, the assistant professor can be found at her home base at UNCG, taking inspiration from her students.

"The people who are 20 now are the future of theater," she says, smiling. "Seeing someone tap into their voice, realize they have something to say ... it's a beautiful thing to watch happen."

By Joanna Rutter • "The cast of Triad Stage's production of 'VROOOMMM!'" photo by VanderVeen Photographers • Learn more at <https://opa.umcg.edu/theatre>

## A BIG SPARTAN WELCOME

One dean, three department chairs, four professors, six associate professors, 26 assistant professors, and more.

This fall, UNCG welcomes a big "class" of new faculty. These new Spartans — making up one of the largest faculty hires in recent history — bring a rich and vibrant set of skills to our campus.

The group includes senior scholars with national and international reputations as well as newly minted PhDs just beginning their professional journeys.

Some of these faculty partner with local communities, some with international collaborators. Some disseminate their work through journals. Others go down commercialization pathways. They come to campus with innovative approaches and methodologies, handling big data and complex information systems. Associate Professor Rathnayake conducts her research in the lab at a nano level. College of Arts and Sciences Dean Kiss "goes where no man has gone before" through spaceflight research.

The faculty's external funding history includes federal sources like NASA, NIEHS, NIH, NINR, NSF, and USDA; sponsors such as Cotton Inc. and NCAA; nonprofits; state entities; foundations; and more.

Together, their experiences, expertise, funding portfolios, and partnerships dramatically change UNCG's scholarly landscape.

A number of the newcomers are focused broadly on health, creating even greater depth in one of UNCG's historic areas of strength. Interests range from milk banks for improved infant nutrition, to the use of leisure in coping with serious and terminal diseases, to the neurobiology of addiction treatment.

Others expand into new arenas.

Many focus on issues related to diversity. Professor and School of Theatre Director Poole looks at early African-American theater practice. Assistant Professor Dyson examines social determinants of health among marginalized communities. Several faculty, with scholarship focused on professional development, examine how we educate and prepare a racially and ethnically diverse workforce in an ecologically and culturally respectful way.

With many having received campus and national awards for teaching and community engagement, the new hires also epitomize the UNCG ideal of the teacher-scholar.

Like our university, these faculty are up and coming. Check back in future issues of UNCG Research Magazine to see how our new Spartans move the needle.

By Terri Shelton • Photography by Mike Dickens



**NEWCOMERS** Dean John Kiss takes the helm of the College of Arts and Sciences. Here, the new dean sits with other incoming CAS faculty in front of the historic Foust Building. From left to right, Prashanti Manda and Somya Mohanty (computer science), Sherri McFarland (chemistry), John Kiss (biology), Ramji Bhandari (biology), and Chris Wahlheim (psychology).





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**WAR & PEACE** Recent grad Devonte Wells collaborates with Associate Professor Duane Cyrus on "Comanche" (page 6). The dance production is part of the 2016-17 series "War & Peace Imagined," commemorating the 100th anniversary of the United States entry into WWI. Join us as UNCG, the City of Greensboro, and our community partners host renowned artists, authors, and intellectuals in an exploration of war and peace. Learn more at <http://warandpeace.uncg.edu>