

# RICE AT LARGE

Engaging with Houston communities.

Quianta Moore recommends that the country create policies that promote high-quality early childhood programs.



## AN EARLY INVESTMENT GOES A LONG WAY

**Quianta Moore knows firsthand the value of early childhood education.** She grew up in Longview, Texas, in a home where education was of paramount importance. Though her working-class parents didn't have much money, they put Moore in an early childhood Montessori program and watched their child blossom into a gifted and talented student. The early investment in their daughter paid off.

Moore went on to receive three college degrees — a B.A. in sociology from Cornell University, a law degree from the University of Houston Law Center and a medical degree from Baylor College of Medicine. In 2012, she was the first student to complete a joint program between the latter two schools.

"My mother was a school teacher, my father

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## RICE STUDENTS LEARN FROM TOP COMMUNITY LEADERS

**The Doerr Institute for New Leaders at Rice University provides undergraduate and graduate students with the opportunity to step beyond campus and into the Houston community to learn from leaders who are shaping the city.**

The institute has created a leadership excursion program in which students are given exclusive access to meet and listen to community leaders talk about their successes and failures and insights into ethical dilemmas. The program is limited to 10 students per excursion.

"Our leader excursions are more than an entertaining field trip," said Stephanie Taylor, Doerr Institute assistant director for leader development. "Excursions are half-day learning experiences in which students take leadership stories from Houston's top leaders and debrief them, using a framework that leads to plans for students moving forward."

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# QUIANTA MOORE

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a truck driver, but education was always a very strong component of my home,” said Moore. “They made a lot of sacrifices to make sure we got a good education.” Moore has a sister and a brother, who also attended college.

Five years ago, Moore became a fellow in child health policy at Rice University’s Baker Institute for Public Policy. As a fellow, she does research on the intersection of health and education and how society can play a factor in determining who is healthy and who is not. She hopes her research will shape public policies to advance the health of children, thereby increasing their capacity to do well in school. She also helps nonprofit educational institutions develop strategies to support “an equitable future for children and their communities.”

Given her background, it’s not surprising that Moore has done extensive research on early childhood development. According

to her research, there are about 74 million children in the United States, of whom about 21% live in poverty. This means, she asserts, that kids who live in poverty run the risk of poor health and achieving little education.

“Poor health and educational outcomes could be related to inadequate brain development during childhood,” she said. “A child’s health and ability to learn is determined by how well the brain develops during the first years of life.”

A child’s brain, she continued, develops quickly between birth and age 4. “Children who grow up in healthy and supportive environments tend to develop more neural connections and demonstrate higher cognitive and socio-emotional intelligence later in life than those who grow up lacking a supportive environment.”

Therefore, she said, it’s vitally important that the country create policies that promote high-quality early childhood programs. She specifically recommends the expansion of the Early Head Start Program, adding more training and increased wages for child care providers and increasing federal funds for parenting classes for those enrolled in Women, Infants, Children (WIC) and Supplemental Nutrition Assistance Program (SNAP).

In partnership with the city of Houston and Harris County, Moore developed a curriculum for WIC clinics that teaches mothers the importance of early brain development and how they can become brain builders for their children. The courses discuss the role that caregivers play in fostering brain development.

“The curriculum acknowledges the challenges that many low-income families face with engaging in and spending time with their young children because of work obligations and external stress factors, so we talk about coping mechanisms for stress,” Moore says.

When Moore was in her last

year at Cornell University, she participated in an internship program at a charter school in Brooklyn, N.Y. The experience, she said, was transformative because it opened her eyes to the fact that health and education were closely linked.

“The experience expanded my viewpoint that health encompassed and embodied a lot more than just seeing a doctor,” she said. She realized that health could affect a student’s educational achievement.

With that in mind, Moore partnered with the Houston Independent School District (HISD) in 2016 and created a survey that would identify factors outside the school that influenced academic outcomes. The survey examined such factors as mental and physical health, neighborhood conditions, housing stability, emotional support and exposure to violence. HISD administered the survey to more than 100 at-risk schools, from elementary to high schools.

The survey found that a high percentage of the students at the schools that were most at risk suffered from depression, had witnessed a murder or a shooting, and did not have access to regular sources of food.

“All of these factors negatively impact attendance and academic performance,” she said.

Her research gave HISD tailored data to tackle the problem. HISD hired wraparound specialists who used the information to make important decisions on how to intervene at the schools. A wraparound service is a case management system comprised of a team that includes family, community members and providers to work together to help families meet their needs.

“HISD is taking the initiative to try to address these outside factors even though it extends beyond what is traditionally expected of school districts to do, which is providing education to kids,” she explained. “Now, in addition to education, they have to deal with

food insecurity, depression and other negative factors.”

Juliet Stipeche, director of education for the mayor’s office, worked closely with Moore in the HISD project. “I was deeply impressed by Moore’s policy recommendations to improve early childhood development,” she said.

“Her research and approach provided me with a deeper understanding of the intersection of education and health, the importance of wraparound services and building a community schools approach.”

By studying law and medicine, Moore has acquired the knowledge and experience to shape policies that help families live better lives. “I decided to go to law school and medical school to help me better understand how the legal system and health care system interface and what were the opportunities for me to contribute to making a change, to make it a fair and just system for everybody.”

Though her research has now extended beyond the health care system, her educational and professional background allow her to conduct meaningful work that benefits Houston and beyond. ■

— DAVID D. MEDINA

DIRECTOR  
MULTICULTURAL COMMUNITY  
RELATIONS  
PUBLIC AFFAIRS





## NEW LEADERS

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In fall 2019, students visited the Houston Police Department, where they talked to Police Chief Art Acevedo.

"Leadership is putting yourself at risk," said Acevedo.

Acevedo told the students he strategically "leads from the front" more than 5,200 law enforcement officers and 1,200 civilian support personnel. He emphasized the importance of building trust and engaging with the people you lead.

Before students take part in an excursion, they attend a training session that fosters continuous reflection and evaluation. Participants are taught ORCA (Observe, Reflect, Commit, Act), a

four-step reflection model created by the Doerr Institute, to guide them on their excursion journey.

Last fall, students also had the opportunity to meet with Dr. Welela Tereffe, chief medical officer at MD Anderson Cancer Center.

"If you're not leading into conflict, you are avoiding the job of being a leader," said Tereffe.

Tereffe gave students tips on how she develops her leadership skills, focusing on leadership competencies, such as managing conflict and delivering feedback.

Iris Shi, a Rice business student from China, said her visit with Tereffe revealed the power of delegation and ways she can strengthen her ability to lead a team. "After observing and learning from Dr. Tereffe, I feel more confident about how to delegate tasks and deal with

conflicts," said Shi.

The program was created in 2018 after a Student Association representative asked the institute for help in achieving the community engagement priority of the university's mission. "Engage Houston and Empower Its Success" is a tenet of Rice's Vision for the Second Century, Second Decade (V2C2).

Taylor said the aim of the excursions program is for students to take their inspirations and turn them into actions. "So many times you leave an encounter with a leader feeling inspired," she said, "but never actually change the way you operate."

"Our approach to the excursion experience provides students with an opportunity to develop a personal plan of action that will last

long after the excursion."

Some past excursion leaders include Gary Tinterow, director of The Museum of Fine Arts, Houston; Jim Nelson, executive director at the Houston Ballet; and Mark DiBella, CEO of YES Prep Public Schools.

During 2020, students will have the opportunity to learn from leaders such as Elisa Villanueva Beard, CEO of Teach for America, and Lisa Falkenberg, vice president and editor of the Houston Chronicle's opinion section. ■

— BROOKLYN HOLT

DIGITAL COMMUNICATIONS AND  
MARKETING SPECIALIST

DOERR INSTITUTE FOR NEW LEADERS

## BRINGING SOCIAL AND EMOTIONAL SKILLS RESEARCH TO SCHOOL LEADERS

**Social and emotional skills, such as exhibiting empathy and managing emotions, are just as crucial to student development as literacy and math proficiency, according to the National Academy of Sciences.**

Understanding the importance of these factors, school leaders around the globe are looking for ways to assess and foster social-emotional learning within classrooms to improve students' educational performance and later-life outcomes.

However, data in this area are limited, making decisionmaking difficult for school leaders when implementing policies and programs to support and develop social and emotional skills in students, despite how important and connected they are for long-term academic and nonacademic outcomes.

To address insufficient research in this area, the Organization for Economic Cooperation and Development (OECD) designed an international study of 10- and 15-year-old students from cities in nine different countries. In addition to surveying students, the study also collects information from students' parents, teachers and principals to identify social and emotional development factors in students' home, school and peer environments. All participants answer questions directly related to emotional regulation, task performance, open-mindedness, collaboration and engagement with others, as well as traits related

to self-efficacy, achievement and motivation.

In 2018, Houston and the Houston Independent School District (HISD) were selected as the study's site representative for the United States with local data collection and analysis managed by the Houston Education Research Consortium (HERC) at Rice University, a research-practice partnership collaborating with HISD and 10 other area school districts.

The U.S. portion of the study is generously supported by the Chan Zuckerberg Initiative; Bill and Melinda Gates Foundation; William and Flora Hewlett Foundation; Houston Endowment, Inc.; Spencer Foundation; and Wallace Foundation. Other global locations for the study are Ottawa, Canada; Manizales, Colombia; Bogotá, Colombia; Sintra, Portugal; Istanbul, Turkey; Helsinki, Finland; Moscow, Russia; Daegu, South Korea; and Suzhou, China.

"Houston is the most diverse city in the country and is representative of where the nation will be in 20 to 30 years, so conducting the study here is a great match," said Holly Heard, a HERC senior research scientist and the Houston program manager for the study.

"Through our city's diversity, the study will benefit from a core number of student respondents who come from different contexts and how their situations inform their social and emotional skills."

In fall 2018, HERC staff coordinated with 32

HISD schools to survey approximately 1,300 students, 300 parents, 300 teachers and 20 principals as part of the pilot study. In fall 2019, the main study was scaled up to include 119 schools and HERC researchers surveyed nearly 6,500 students, 1,100 parents, 1,400 teachers and 111 principals.

The OECD will release an international report using data collected across all study sites in December 2020. Meanwhile, HERC will produce a series of research reports with locally collected data linking HISD students' social and emotional skills to their academic outcomes. These reports will help HISD decisionmakers, particularly in the district's social and emotional learning and wraparound services departments, evaluate and implement policies and practices that support their goals, and deploy resources to campuses with the greatest needs.

For more information, visit <https://www.houstonisd.org/oecdsses> and <http://www.oecd.org/education/ceri/social-emotional-skills-study/>. ■

— NEHEMIAH ANKOOR

PROGRAM AND COMMUNITY ENGAGEMENT  
MANAGER

— MEGAN DILLINGHAM

COMMUNICATIONS AND DEVELOPMENT  
MANAGER  
HERC

# RICE STUDENTS ENGAGE WITH HOUSTON THROUGH CAREER CRAWLS

**Rice University's Center for Career Development (CCD) helps students make their place in the world by educating them about self-knowledge, connecting them with opportunities and empowering them with the skills for lifelong career fulfillment.**

To achieve lifelong career fulfillment, however, students often have to start small. When students

communities that they are a part of — Houston.

Houston is the energy city, the hub for medical innovation, an emerging hot spot for corporate banking, that includes a thriving art scene. It is booming with diverse industries and opportunities, and these industries are very interested in Rice graduates.

However, since 70% of all jobs are gained through networking, Houston's absence from students'

career interests and, therefore, may never consider it a professional possibility.

In response, the CCD created Career Crawl, a program that offers students one-day visits to different companies or organizations around Houston with the goal of educating students on industries that don't typically recruit on campus. The program also serves to help students grow their network through strategic

an internship with them."

Since Career Crawl started in 2017, students have visited more than 20 Houston organizations, including the Alley Theatre, the Houston Forensic Science Center, Johnson Space Center, EDP Renewables and The Ion.

The CCD appreciates all the hosts who create meaningful experiences for Rice students through the crawl. Through companies' contributions,



**CONNECTIVE CRAWLING:** Rice students learn about industries by visiting companies around Houston and also grow their network through strategic connections.

begin their professional development journey, the CCD asks them to make a list of people who can support them in their future career development (the building blocks of their professional network).

Typically, this list starts off rather short, full of family, friends and connections at home. Although students are always encouraged to think outside the box and build a global network, many students neglect to include one of the most important com-

professional networks illustrated a gap between what Houston employers were looking for and who our students turned to for support.

Many Rice students could not truly engage with Houston until they could picture a future in the city. The CCD loves to see students pursue careers around the world, but, with 60% of the fall 2019 class identifying as out-of-state, some students may never gain a foothold in Houston that matches their

connections.

Organizations interested in participating in Career Crawl must meet two stipulations: They must fit the theme of the event, and they must be based in Houston.

"The crawl helped me learn about the wider network and support system that I could use as a resource in my job search process," said junior Sree Yeluri. "I feel a sense of kinship with the alumnus at the Federal Reserve who helped me decide to apply for

Rice students connect with the Houston community as students and as young professionals. ■

— **ELSA SCHIEFFELIN**

ASSISTANT DIRECTOR, EMPLOYER  
AND ALUMNI RELATIONS  
CENTER FOR CAREER DEVELOPMENT  
RICE UNIVERSITY



# COMPUTER SCIENCE DEMYSTIFIED AT BURRUS ELEMENTARY

**The Rice University School Mathematics Project (RUSMP) facilitated an exciting Hour of Code event at Houston’s Burrus Elementary School.**

The Hour of Code is a one-hour introduction to computer science (CS) designed to demystify coding, show that anybody can learn the basics, and broaden participation in computer science.

RUSMP is a Code.org regional partner and organized the event with the help of Rene Flores, Houston ISD STEM manager for secondary curriculum and development, and Ellis Wyms, founder of Athletes for Computer Science.

RUSMP kicked off the event at Burrus with a third-grade class doing a dance called the floss. This provided students with a context for the dance party program. Wyms, Flores, and Burrus campus administrators and teachers coded with the students during

the event.

Wyms said, “It was great to see the excitement the students at Burrus had about computer science. You could see that they were engaged and really enjoying their introduction to the Code.org curriculum.” Flores added, “Our students are beginning to realize that creating technology can be fun, and educators note the vital transferrable skills of logic, creativity and problemsolving as components of CS.”

In a letter to supporters, Hadi Parvoti, founder and CEO of Code.org, wrote, “Computer science is a subject whose hour has come, and what matters most comes after the Hour of Code. The one hour is only the beginning. Most students go beyond their first hour once they are engaged.”

Those who have organized Hour of Code events found that 98% had a good or great experience, and 85% of those new to CS

said the Hour of Code increased their interest in teaching CS.

Hour of Code has become a global movement that celebrates CS and is supported by over 400 partners and 200,000 educators worldwide. The program is reaching tens of millions of students in over 180 countries. These one-hour tutorials are available in over 45 languages and include new activities each year.

The Hour of Code at Burrus was one of the many events that RUSMP supported in its family of schools across the Greater Houston area. The momentum to support and offer CS education is increasing, and RUSMP is excited and proud to be part of this global movement. ■

— CAROLYN L. WHITE  
DIRECTOR OF MATHEMATICS  
PROGRAMS  
RICE UNIVERSITY SCHOOL  
MATHEMATICS PROJECT

“Our students are beginning to realize that creating technology can be fun, and educators note the vital transferrable skills of logic, creativity, and problemsolving as components of CS.”

— RENE FLORES



**THE CODING CREW:** Students at Burrus Elementary cracked the mystery of computer science and learned that computing can be fun.

# STUDENTS CATCH A GLIMPSE OF COLLEGE LIFE

**Fifth graders from Houston ISD's Moreno Elementary had the opportunity in the fall to spend three hours on Rice's campus as college students.**

The purpose of the college day event was to reward their outstanding performance during the academic year and inspire Moreno's fifth-grade students to attend college.

The school's teacher specialist, Isla Villarreal, fifth-grade mathematics teachers, Jose Dimas and Maria Perez McKee, together with the Rice University School Mathematics Project (RUSMP)

team planned this visit to campus.

Rice graduate students, Norma Torres Mendoza and Eduardo Ibarra Garcia Padilla, gave overviews of their educational experiences from elementary school to college and on to graduate school. The fifth graders were very attentive and listened as Mendoza and Padilla told about the life issues that they faced in order to accomplish the goals that they set to graduate from college.

Anne Papakonstantinou, RUSMP director, gave a virtual tour of Rice University and

their students' faces as they completed a lesson on order of operations in mathematics. McKee said, "RUSMP provided a rich opportunity for our students to continue to develop the idea that math is everywhere and to think about their futures."

Brandon Mack, associate director of admissions at Rice, explained to students the steps of getting into college. Students were amazed at his story and asked him questions about his experiences as an undergraduate at Rice.

As the students departed, they expressed a genuine appreciation

**"RUSMP provided a rich opportunity for our students to continue to develop the idea that math is everywhere and to think about their futures."**

**— MARIA PEREZ MCKEE**



## INSPIRATIONAL

**EXPLORATION:** As a reward for their academic achievements, Moreno students became college students for a day at Rice University.

explained the rich history of the university. Carolyn L. White, RUSMP director of mathematics programs, highlighted the math that is embedded in the architectural designs of Duncan Hall, Lovett Hall and the Sallyport. The visit provided students with an opportunity to explore the mathematics on campus and to learn mathematics vocabulary that they will encounter in middle and high school.

Students participated in a mathematics lesson in a Sewall Hall classroom. The two mathematics teachers, Dimas and McKee, saw the excitement on

for mathematics around them and the importance of seeking a college education. Visiting Rice gave the fifth graders an opportunity to dream and to set goals for college. ■

**— CAROLYN L. WHITE**

DIRECTOR OF MATHEMATICS  
PROGRAMS  
RICE UNIVERSITY SCHOOL  
MATHEMATICS PROJECT



# GIRLS LEARN TO REACH FOR THE STARS AT RICE UNIVERSITY STEM FESTIVAL

**The Department of Physics and Astronomy and Rice Space Institute, along with the Ride Family Foundation and scores of sponsors and volunteers, hosted the 12th Reach for the Stars STEM Festival, especially designed for middle school girls.** The fall festival was attended by 502 girls; 132 teacher or parent chaperones; and 204 presenters, exhibitors and volunteers.

The event began with a street fair, with 28 exhibit booths covering a wide range of STEM activities. Principal sponsor Cheniere Energy had a popular booth demonstrating the liquefied natural gas (LNG) process.

Other exhibitors included NASA, Lunar and Planetary Institute, Baylor College of Medicine, Texas Space Grant, Mobile Aviation Lab, Solar System Ambassadors, Lab Rats Robotics, Houston Geological

Society, American Chemical Society, Association of Women in Science, University of Houston and UH-Downtown, Costello Engineering and Celanese. Rice groups exhibiting included R-STEM, the Tapia Center, Association of Women in Math, Discovery Dome, Solar Telescope, Rice Physics and Eclipse Club.

The participants ate their sack lunches under the trees. Water and fruit were provided by Gathering of Eagles. After lunch, the girls were captivated by a keynote speech by Ulyana Horodyskyj '07, who talked about being the founder of Science in the Wild, an adventure science expedition for people interested in remote places of the planet. She also talked about being commander of the HERA II NASA Mars simulated mission. The students asked her many interesting questions about her life and experiences and about how to apply to be an astronaut.



**MOON WALK:** Girls at the STEM festival inquired about how to apply to be an astronaut.

"I really liked how she told us how we can make a difference in our own young lives," said one of the girls attending the festival. "She was very specific and told us how she did it at such a young age, and I loved how she gave this quote: 'Dreams don't work unless you do.' That really inspired me to dream big and keep working toward my goals."

After the keynote, the girls attended two hands-on workshops led by women scientists, engineers or physicians. There were 24 choices, and the girls signed up ahead of time to choose the workshops that were of most interest. Especially popular workshops were Chemistry to Dye For and Using a Cantaloupe as a Model for Epidural Placement and two sessions of Mars Rovers.

In addition to Cheniere Energy and the Ride Family Foundation, sponsors included the Transitional Institute for Space Health, NASA Space Science Education Consortium, Gathering of Eagles,



Association for Women in Science, Omega Engineers, several Rice departments and friends, the dean of natural sciences and the Rice Space Institute. Over half of the participants were sponsored and attended free of charge.

The first Rice festival was held in 2006, at the request of Sally Ride, who was the first keynote speaker. For more information about the event, visit <http://space.rice.edu/reachforthestars/>. ■

— **PATRICIA H. REIFF**  
PROFESSOR OF PHYSICS AND  
ASTRONOMY  
RICE UNIVERSITY



**GIRL POWER:** Hundreds of middle-school girls gathered at Rice University to learn about opportunities offered in STEM fields and how to dream big.



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Rice University  
Multicultural Community Relations-MS 700  
P.O. Box 1892  
Houston, TX 77251-1892

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# RICE AT LARGE

FROM THE OFFICE OF PUBLIC AFFAIRS AT RICE UNIVERSITY  
**DAVID D. MEDINA**, DIRECTOR, MULTICULTURAL COMMUNITY  
RELATIONS

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**RICE AT LARGE** is a quarterly newsletter that showcases the university's outreach programs. Each issue of the newsletter includes a series of stories that raise the awareness of Rice's engagement with the city and beyond. Rice At Large has a circulation of 2,500 and is sent to members of the Rice and Houston communities, including alumni, educators, business and political leaders, program funders and others with whom the university would like to engage.