In this global economy, some fundamental facts are clear. A person’s ability to enter and succeed in the workforce requires advanced skills, greater knowledge and more rigorous academic preparation. The FEF’s goal is to provide both graduate and pre-college students with chances to hone skills, increase knowledge and prepare to earn degrees and achieve their academic and professional goals. Indeed, at the doctoral level, we anticipate that the financial and educational support we offer our Fellows will continue to enable them to become not only successful university professors, but also academic administrators, inventors, innovators, and leading research scientists.

As you will read in this edition of the Focus, that support has recently helped propel Dr. Tonju Williams, a McKnight graduate, to the presidency of St. Petersburg College, where she already has developed and set new policies and initiated programs to ensure faculty growth and student success. You also will read how McKnight supports current Fellow Emma Lopez-Ponnada’s dissertation research that not only contributes to Hillsborough County’s efforts to improve the quality and availability of wholesome drinking water, but also will help ensure families are protected from the detriments of unhealthy storm water runoff.

In turn, our Fellows and graduates continue to join in our efforts to bring new and innovative education programs to our pre-college students. You will learn in this edition of the Focus how McKnight Junior Faculty Fellow alumna Dr. Sylvia Thomas, an Engineering Associate Professor at the University of South Florida, has been working with our pre-college students to expose them to career opportunities in STEM fields generally, and engineering in particular. Her research lab at the University of South Florida has served as a conduit for helping students learn the significance of scientific discovery and innovation.

As we continue to pursue new funding sources and partnerships with state and local governments, we are able to expand the types of programming we offer our pre-college students as well as enhance the quality of their educational experiences. As this edition of the Focus reveals, through a new relationship with the Children’s Board of Hillsborough County, we recently expanded our reach to the area of Wimauma, where students have little opportunity for summer academic enrichment, to develop and implement a multifaceted program to teach students to code and enhance their reading, critical thinking, and financial literacy skills.

You also will read about new five-year funding we’ve received in Miami-Dade that will empower us to lay a more solid foundation for elementary students. We will reinforce reading skills and social and emotional learning and help them understand the importance of physical activity and healthy eating. And, beyond simply how to use the computer, we will teach them skills with which they can one day create the software that helps entertain, heal, teach and meet other critical needs.

In short, this edition of the Focus succinctly illustrates the significance of investing in human capital. Through our graduate students, we not only help address community needs, but also provide invaluable innovative and leadership skills for our entire educational system. We maximize return on our investment by collaborating and networking with community stakeholders. Rather than waiting on others, we aggressively seek and find solutions to our most pressing problems. We choose to be the captain of our destiny, for we understand that our success is our responsibility.
McKnight Alumna Dr. Tonjua Williams Takes the Helm at St. Petersburg College

In 1986, while pursuing her second bachelor’s degree in business, McKnight alumna Tonjua Williams became a Senior Accounting Clerk at St. Petersburg College (SPC). Thirty-one years later, after having worked in most key administrative departments at SPC, Dr. Williams began her tenure as its President. Recently, FEF Focus spoke with Dr. Williams about her journey.

Could you tell us more about the family members, teachers, and neighbors who shaped your early life?

There were two women in my family who expected me to succeed, and they were my grandmother, Fanny Mae Jones, and my mother, Willie Lee Harris. Failure to them was just a stepping stone to success. I watched them struggle, yet never complain. I learned how to find a rainbow in every circumstance and to do the best I can with what I have. So many family members rallied around me throughout my life. My father has been my biggest fan and cheerleader throughout my career.

I grew up during a time when the neighborhood served as surrogate parents. Several people invested in my well-being throughout my childhood. This includes Mrs. Flossy who transported kids to and from school, Mrs. Thelma Nolan and Mrs. Mildred Kennedy who were school teachers who lived on my street. Mrs. Betty Waller lived across the street from us and constantly kept me straight and encouraged me to do my best. My church family at Southside Tabernacle Baptist Church was very instrumental in my growth and discovery of my potential. My husband of 28 years has been my rock and support. He has helped me stay grounded throughout my career climb.

You were the oldest sibling and the first in your family to attend college and earn a degree. How did that impact other family members?

I believe it had a huge impact on not just my immediate family, but cousins and other family members as well. All three of my mother’s kids have college degrees. Attending college or the military were our options growing up. While we had little, my mother would say “when” you go to college or the military, not “if” you go.

Who outside your family played key roles in your early development?

We spent a lot of our free time at church. Church gave me purpose and was a strong foundation growing up. It was very supportive and helped us when in need. Margaret and Johnnie Williams held youth group Bible studies at their home; I later married their son. Mr. and Mrs. George Cooney paid the first $100 towards my first car. Mr. and Mrs. George Callier gave me my first job at a swimming pool company and helped pay my college tuition. Mr. Peter Traversa, my college instructor, refused to let me quit when I thought things were hopeless. Dr. John Cromer, SPC Provost, encouraged me to get my master’s degree. Dr. Willie Felton and Dean Myrtle Williams straightened me out when I first started at SPC. The list goes on and on.

Please tell us about some pivotal events that made a difference in your life.

My first pivotal moment was listening to my grandmother’s dreams for me and understanding the sacrifices she made to help her family succeed. She taught me a lesson I will never forget. I believe I was in the 2nd or 3rd grade. I was getting off the bus, and the bus driver, Mrs. Flossy, told my grandmother I was rude to her. My grandmother scolded me and reminded me why it was important to be respectful and go to school to learn. I told her she was “just a maid.” Much to my surprise, she did not respond, so I thought I got away with mouthing off to her. The next morning, she woke me up extremely early and told me I was going with her. We rode on a bus for what I thought was hours. We got off the bus and walked to a big house. Inside, everyone said good morning and she introduced me and told them I would be working there for the day. I was totally shocked and started crying. I cleaned all day, without breaks. We ate at the end of the day and got back on the bus and came home. She said to me, “this is what ‘this maid’ does for you and your mother every day. If you don’t want to do this for the rest of your life, I suggest you get on that bus, shut your mouth, get your lesson and go to college.” That was my first pivotal point.

I finished high school and went to college. Mr. and Mrs. Callier, owners of George’s Pools, Inc., hired me each summer to handle the front desk and manage the books. They also contributed to the completion of my bachelor’s degree. After graduating from college, Helen Callier told me I needed to get a “regular” job with benefits and opportunities to grow. She suggested I apply to what was then St. Petersburg Junior College (SPJC). So I applied and got a job as an accounting clerk. That was pivotal.

At SPJC, I needed help fitting in. That’s where three educators—Willie Felton, Myrtle Williams and John Cromer—came into play. I owe a great deal to them for investing in my life. Had they not done so, I would not be where I am today.

Marrying Derrick Williams in 1990 was the best decision I’ve ever made. He has been my rock, my shield, my cheerleader, my critic, my strategist, and husband…. all in one with a bow around it. Little did we know that two people from small beginnings would blossom into such a wonderful couple. He assured me that we could be and do whatever we wanted. He believes in me and has strong faith in God. What a blessing! My life was forever changed!

continues on page 5
As an expert in forensic phonetics, Bahr has been called upon to validate recordings, identify speakers, analyze gunshots, and testify at trials.

She has written about second language learners, African American dialect, and how children learn to spell. Three years ago, she co-edited the *Routledge Handbook of Communication Disorders*, a reference book for the clinical application of research in the speech, language, and hearing sciences.

Bahr urged new McKnight Fellows to establish a research program and make themselves marketable by honing their skills while remaining open to possibility. Bahr’s research interests are fluid because she accepts new challenges as they are presented to her, and she encouraged the students to always try new skills, methods, and topics, find new colleagues, and expand their base. “Find those common areas,” she said, and engage in interdisciplinary research. As an example, Bahr cited the work of mathematicians who collaborate with medical experts to write grants, providing statistics on cancer cells. Bahr’s own research on dialects and the achievement gap was possible through her collaboration with scholars who represented other disciplines.

Bahr stressed the importance of observation, reflection, and patience. In office politics and in situations of potential conflict, “learn to be quiet at some times,” and figure out who is in control. “Avoid overconfidence,” she said, “it’s good to ask questions, but don’t ask too many,” because as a graduate student, you are expected to figure out some answers on your own. Learn and focus on your mentor’s strengths and realize that you may not understand some advice until well in the future.

Bahr also pressed the audience to be role models and consider academia as a career, adding that the rewards are well worth the hard work. Again quoting Twain, she advised them that “twenty years from now you will be more disappointed by the things you didn’t do than by the ones you did. You were hand-picked,” she said, “we believe in you. You have a support system” in McKnight.

At the Orientation Luncheon, Dr. Frank B. Ashley III, Senior Associate Dean for Academic Affairs and Senior Professor at the Bush School of Government and Public Service at Texas A&M University, echoed Bahr’s sentiments about the value of McKnight. “Realize how blessed you are,” he said, comparing FEF’s 86% retention rate to only 19% for doctoral students in his era. “You are going to be successful,” he said, because of the resources McKnight offers.

Growing up poor in a small town in Louisiana, Ashley didn’t plan to enter academia. He says he didn’t think he was smart enough for college, but became a first generation college student with the guidance and support of a high school teacher, his mother and church. After earning his bachelor’s, he attended graduate school at the University of Alabama, where he became the only African American in his sports management doctorate program.

As an accomplished professional who “should not have been successful,” Ashley is dedicated to making sure young people don’t slip through the cracks. “I owe everything to teachers, administrators, and professors.” Initially, Ashley was a science teacher and coach. He later held several positions at Texas A&M University, one of six university systems in Texas and one of the largest in the nation, as College of Education dean, vice chancellor, interim provost, and director of admissions. He also served the College Board as senior vice president and trustee before returning to the Texas A&M University system.

Ashley emphasized the importance of networking throughout his career. Through his contacts, he found positions as a new doctoral graduate during a 1986 hiring freeze as well as after leaving the College Board in 2016.

Consider research that benefits people, Ashley advised, and value McKnight’s writing support, because “great writers become prolific scholars.” This process teaches you to solve problems, he said. “You don’t have to cure cancer, but when you finish, you’ll know how to pursue that.”

Explaining the difference between making an impression and impacting someone’s life, Ashley told the audience that anyone can make a good impression, which is temporary. “You want to make an impact. Pass it on to the next generation. Once you have achieved, remember the McKnight Doctoral Fellowship program. McKnight will need to hear from you 7 to 10 years from now.”

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**MCKNIGHT DOCTORAL FELLOWSHIP CLASS OF 2018-2019 (Five-Year Fellows)**

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*Discipline Breakdown*
Lopez-Ponnada revisited her high school books and discovered a newfound interest in the environment. Two trends had emerged—Lopez-Ponnada’s academic accolades and a growing desire to work in the field of environmental engineering. That resonated more than any other sentiment, and she decided to pursue a career in environmental engineering. This change of direction not only led to her becoming an environmentalist but also paid more—a career she could live with, she says.

In search of economic security, Lopez-Ponnada’s parents had left Guatemala, and they emphasized the importance of education. Their diligence began to pay off; by the seventh grade, Lopez-Ponnada had been selected for a program designed to steer students toward math, science, and technology. That same year, after a classroom assignment to write a report on engineers, Lopez-Ponnada decided to become an environmentalist. Two trends had emerged—Lopez-Ponnada’s academic accolades and interest in the environment.

Years later, starting college at Florida International University, Lopez-Ponnada revisited her high school books and discovered the field of environmental engineering. That resonated more than “environmentalist,” and it paid more—a career she could live with, perhaps in some measure because her dad is an electrical engineer. As a child, she had enjoyed building, learning to use the tools that were always around. Lopez-Ponnada also always wanted to help people; helping them have clean drinking water appealed to her. “Engineers are problem solvers,” she would say.

Her senior year in college, Lopez-Ponnada spent the summer in the Peruvian Amazon, supervising six students and a stakeholder as they designed and constructed three rainwater-harvesting systems, which eventually provided access to clean drinking water for 120 school children. While in Peru, the primary reference for her work was a book by Dr. James Mihelcic, who would later become one of her major professors at USF.

After that summer, Lopez-Ponnada returned to FIU, earned her master’s degree, and in the process of working with other professionals, learned a Ph.D. would be needed for her pursuits. She subsequently won, among other awards, a Congressional Hispanic Caucus graduate fellowship and later, a two-year NSF Bridge to the Doctorate fellowship at USF. As a Legislative Fellow, Lopez-Ponnada conducted research on lead contamination in low-income communities in West Dallas. In 2017, she became a McKnight Dissertation Fellow, and in 2018, an NSF ACADEME (Advancing Careers in Academics with Diversity Education and Mentorship in Engineering) Fellow.

Lopez-Ponnada’s doctoral research is based on a five-year, grant-funded study that involved building and measuring the effectiveness of a water retention system constructed to reduce nitrogen levels from storm water runoff in East Tampa. Through the University’s partnership with the Corporation to Develop Communities (CDC) of Tampa, Lopez-Ponnada has worked with East Tampa residents from middle school age to adults to build rain gardens and learn about the hydrologic cycle, low impact development technologies, green infrastructure, and nutrient management of water.

The project has benefited both Lopez-Ponnada and the community. To prepare, she took courses in anthropology and research methods. She learned about Florida native landscapes, why they are important for the neighborhood, what would attract local pollinators, and what invasive species to avoid. She learned how to engage properly and ethically with members of the community, and how to motivate, teach, and solve problems with them. “You can’t impose research on people,” she said.

In turn, Lopez-Ponnada was able to offer a vocational program leading to a certificate in construction for the adults, many of whom didn’t have high school diplomas or had been jailed. Residents were able to learn about the environment, how to landscape or cultivate vegetable and rain gardens, and how to clean and use storm water as a resource.

Visiting a lab at USF, her adult students learned about unfamiliar work environments, information they can share with family. Early in the program, when Lopez-Ponnada asked the younger students about careers, almost all mentioned basketball or music. She was able to teach them about technology and other career options.

Lopez-Ponnada, now married and the mother of a 10-month old, is poised to complete her doctoral work within the next two semesters and to continue to make a substantial positive impact on communities.
Alumna Dr. Tonjua Williams Takes the Helm at St. Petersburg College

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Gaining acceptance to the doctoral program at Barry University was a pivotal moment that advanced my career, but to add icing on the cake, I was accepted as a McKnight Fellow! This was critical to my success as it provided supplemental support, guidance and resources to be successful in the doctoral program. I would not be where I am today without the McKnight Fellows program through the Florida Education Fund. I want to thank Dr. Morehouse and team for their leadership and for helping me succeed in my Ph.D. program.

Another pivotal point was the death of my mother and a promise she made me make. My mother had been struggling with breast cancer for 8 years. We had been told that the cancer had spread and she had six weeks to live. I had just been accepted to the doctoral program. I told her I was not going to do it. She said “Tonjua, I’m going to die. I’ve lived my life and have taught you all that you need to know. Finish what we started and be the first to get that doctorate. Don’t let my death be in vain. I will be there with you when you walk across the stage. You will do big things; just don’t sell your soul to get there.” I fought making the promise to her, but she wore me down and I said “yes.” I miss my mom and think about her often. Throughout my doctoral program, it was her last weeks and our conversations ... and my promise that kept me going.

A couple of years ago I was selected to be a part of the inaugural class of the Aspen Presidential Fellowship for Community College Excellence. What I learned from Aspen is more about me and my passions for economic mobility and social justice and hanging in there for the underserved populations. Being a part of Aspen helped me understand all facets of education.

Not long after I completed the Aspen program, I began pursuing a college presidency. Each application was a pivotal moment for me because I learned more and more each time about my tenacity, determination, and grit to move forward.

Lastly, a key pivotal point was being selected as SPC’s 7th President. I thank the SPC family and its leadership for their trust, honesty, hard work and laser focus on student success.

You said you want to move families from poverty to high living wages. What initiatives will accomplish this and other SPC goals?

First I started by having a transition team work with me and the Board of Trustees to learn what is going well and what should take priority. We brought faculty, staff and administrators to the table before decisions were made instead of seeking their buy-in afterwards. Then I challenged us to rediscover our purpose and develop foundational pillars; the pillars are Academic Excellence, Economic Mobility, and Community Engagement. Next, we developed a three-year strategic plan and started meeting with business and industry by community (near each campus) to learn about their needs, programs/trainings that SPC should offer or redesign and how to further our partnerships. This is going extremely well, and we have already started four new programs that have high enrollments. We still have about four more business communities to meet. Third, we are developing an educational ecosystem for Pinellas County residents. This partnership is with our K-12 partners, SPC and the University of South Florida. Our focus is to work collaboratively to develop a system where students have “on” and “off” ramps to and from each institution along their career growth/expansion. Not only will this help us identify what training/program opportunities we still need in our County, but it will also help residents continue to assess, expand, and redesign their own career paths. We are co-recruiting, connecting our curricula better, and suggesting suitable programs for all three institutions.

MDF Fellows Help Officiate FEF’s State Brain Bowl Championships

Each year, FEF gratefully relies on the expertise of McKnight Doctoral Fellows who generously volunteer to officiate at our statewide academic championships for secondary students. We conduct annual competitions in history, mathematics, coding, vocabulary, and speech writing, some of which offer 4-year scholarships as prizes. As indispensable moderators and scorers, Fellows help keep order, enforce rules and ensure the integrity of the contests. For 2018, USF Fellow Orlando Pizana served as moderator of our History meet, while UCF Fellows Afrifah Bobbie, Felix Fontan, and recent graduate Dr. Irenea Walker served as scorers for our three Math contests.

From left: Fellows Afrifah Bobbie, recent graduate Dr. Irenea Walker, and Felix Fontan score the Math competitions, while Fellow Orlando Pizana moderates the History & Culture competition.
With our first grant from the Children's Board of Hillsborough County, FEF this summer offered a multifaceted program for middle school students in the Wimauma area, south of Tampa. The 8-week program introduced students to coding and engaged them in art, financial literacy, reading, safety, and sports activities.

Students learned coding from certified instructors trained to teach code.org's accelerated Fundamentals curriculum. As they worked daily to program their own digital games, they developed a good understanding of foundational computer programming concepts that they can build upon if they choose to pursue computing jobs/careers. They also learned strategies for thinking critically, designing projects, and communicating ideas, a group of skills useful for all students in any fields they ultimately choose.

As part of coding and other exercises, students made several unique works of art during the program, including graffiti drawings representing their chosen careers and multimedia collages inspired by their visits from and to the Tampa Museum of Art. They also crafted three-dimensional paper sculptures of digital superheroes who use their powers to help people act responsibly online.

Led by volunteer Regions Bank employees, students also studied financial literacy lessons from the Federal Deposit Insurance Corporation (FDIC) Money Smart Financial Education curriculum. After the lessons, participants earned an average 97.5% score on Smart Money Quizzes that tested their knowledge of best strategies for budgeting and saving.

In addition, each week, students received guidance on preparing for careers from visiting experts and trips to STEM-rich venues, where speakers explained the academic skills and education required for various careers. They also observed a variety of STEM career practitioners in the field: they experimented with nanofibers in the lab of University of South Florida (USF) Engineering Professor Dr. Sylvia Thomas, and they learned about the many career opportunities in high-tech manufacturing at the Florida Advanced Technological Education Center at Hillsborough Community College (HCC).

During their visits to USF and HCC, students also learned about the importance and rewards of higher education and received detailed advice on preparing for entrance into college or advanced skills training programs.

To improve reading, including phonemic awareness, phonics, vocabulary, comprehension, and fluency skills, each student read over the course of the summer for over 700 minutes. Also, close to the end of the summer, Bess the Book Bus stopped by and let each student choose two books to keep.

For safety, students received training and preparation for American Safety and Health Institute (ASHI) First Aid certification from experienced Aguilas International Technical Institute faculty. After the training, all students earned their Basic First Aid certificates, signifying that they possess the basic knowledge, skills and confidence to deliver first aid in a safe and timely manner.

Students also participated in daily sports activities to develop skills in soccer and dodgeball, teamwork, balance and coordination.

As an incentive to participate fully, in addition to touring USF and HCC, students who met weekly goals enjoyed Thursday field trips to Ace Golf Range, Croc Encounters Reptile Park and Wildlife Center, Microsoft, the Museum of Science & Industry, and the Tampa Museum of Art. The excursions added realism to their studies and enhanced their educational experience.

The field trips and learning to code ranked highest with both parents and students as the best program components. All parents said they will recommend the program to others. Students said they’re now more likely to pursue STEM careers, feel better prepared for high school, and would return to the program next year.
In part to address the growing demand for workers in computing, England requires all children starting at the age of 5 to learn computer science. Many other countries also teach elementary kids these important skills, nations such as Australia, the Czech Republic, Denmark, Estonia, Finland, France, Poland, Singapore, Spain and others.

Although America’s schools are not quite there yet, FEF, which has taught computer programming to secondary students around Florida since 2008, this year began to fill the gap for 120 younger students at four select elementary schools in Northwest Miami-Dade.

The aim is to expose 4th and 5th graders at all achievement levels to programming, to teach them how to control devices they use every day with code, before someone tells them it’s too hard or boring or only for certain people to learn. That’s why we recruited children for the program on a first-come basis, declining to limit enrollment to “A” and “B” students, and why we’re training their regular, every day teachers to guide them through the learning process.

At the beginning of the school year, FEF’s Executive Vice President Lyra Logan, Esq., a certified programmer, began training the nine teachers. In October, they in turn began leading the students through an introductory curriculum that teaches coding through puzzles that challenge students to define problems and craft creative solutions. And for their part, the students are embracing the challenge and enjoy creating games as much as they love playing them.

Funding for the effort comes from a five-year after school and summer program grant from the Children’s Trust of Miami-Dade County and our partners at the Opa-locka Community Development Corporation. The grant requires students to attend sessions every day after school until 6:00 pm and to participate in literacy, sports, nutrition, and social and emotional learning activities in addition to daily coding.

The program moves FEF closer to our goal to serve greater numbers of students to help prepare Florida’s workforce with the critical tech skills that businesses need to operate and to grow, skills that also will equip students to earn competitive wages.

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**Upcoming FEF Events**

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<td>Feb. 22-23, 2019</td>
<td>MDF Mid-Year Research and Writing Conference, Tampa</td>
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<tr>
<td>March 22-23, 2019</td>
<td>34th Annual Brain Bowl Competitions &amp; Florida National Achievers Society Pre-College Summit</td>
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The FEF’s mission is to strengthen the larger community by creating and implementing programs and services that lead to greater educational advancement for historically underrepresented groups.