

# MINERVANOMICS

Department of Economics



UNC  
**GREENSBORO**  
Bryan School of  
Business and Economics



**JEREMY W. BRAY,**  
*Interim Department Head and  
Jefferson-Pilot Distinguished  
Professor of Economics*

## GREETINGS FRIENDS,

As I am sure many are aware, it seems as if the whole world has turned upside down in 2020, as the COVID-19 pandemic has swept over the us. After a very promising start in the fall of 2019, the 2019-2020 academic year ended strangely and abruptly. I was in Ireland and Scotland over our spring break, which was the first week in March. When I left the US, northern Italy had just been recognized as the new world hotspot. When I returned home a week later, it felt like I was fleeing an oncoming storm in Europe. I wasn't home even a full week when UNCG started the process of closing the campus and moving to online instruction for the rest of the semester.

While I count my blessings that I made it home safely, I also recognize that our graduating seniors paid a heavy price last year. They lost out on many of the events that make your last semester in college such a glorious time, and in particular, they had to forego their commencement ceremony. While the ceremony may have been cancelled, this does not undermine the great achievement that it was meant to celebrate, and we are proud of our 2020 graduating class. Like all of us, many of them have been adversely affected by, or lost loved ones to, COVID-19. We continue to keep them in our thoughts and prayers as they navigate this new world, and I ask all our alumni out there to help them as much as possible – if you can, consider hiring a 2020 Econ grad!

Of course, life isn't easy for our returning students either. They're coming back to a campus that, in many ways, is only half open. Classrooms will feel empty as we practice social distancing, everybody will have multiple online classes that they had hoped

would be face to face, and the social life of the University will be built around small groups and "bubbles" of friends and roommates. Our incoming first year students and transfers will not get the traditional Spartan experience as social events and orientation sessions go online or require appointments to attend. Nonetheless, we are committed to giving all our students a big Spartan welcome in whatever ways we can this fall, and to take care of each other.

This time has been particularly transformative, as in addition to the pandemic, our nation may finally be starting the process of dealing with the systemic racism that has permeated our history since our nation's founding. Although I am proud that UNCG is a minority serving institution, I know that we still have much to do. However, I am hopeful that we will finally be positioned to create real, meaningful change. A century from now, 2020 will have an outsized place in history books. Let us be sure that it is remembered as the year that America truly began to heal the wounds of systemic racism, and not just as the year of the COVID pandemic.

Though current events have been turbulent in many ways, it is imperative that we not lose hope, and that we look for the good and the light amongst the gray. Here at the Department, we are proud to announce that we have launched our new online MA and post baccalaureate certificate programs this fall. These programs are designed for returning professionals from all backgrounds, not just economics majors. We have launched with two certificate programs; one in quantitative business economics and one in the economics of health analytics. These certificates focus on providing students with applied, quantitative skills in areas that will advance their careers,

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and can be “stacked” toward completing a full MA. Our online MA program allows students to apply their economics certificate coursework toward their MA degree, and students starting in our MA can earn certificates along the way if they so choose. Of course, we still have our doctoral track MA and PhD programs for those students wanting a PhD in economics.

In addition to new programs, this year has brought with it some faculty changes, as well: Martijn van Hasselt and Berrak Bahadir were both promoted to Associate Professor this past year. Martijn’s work in Bayesian econometrics is having an impact in a diverse range of areas, from health and healthcare to technology and innovation. We’re excited to see where Martijn’s work goes in the future. Berrak Bahadir was also promoted to Associate Professor, though sadly she will be leaving us for Florida International University. As an international macroeconomist who focuses on business cycles, financial frictions, and credit dynamics, Berrak was key to our efforts to reinvigorate our macroeconomics presence following some key retirements. In addition to being a great economist and teacher, Berrak was a wonderful colleague to have in the department, and she will be missed. Finally, we have hired Eric Howard as a lecturer. Eric had previously taught some courses for us as an adjunct, as well as teaching courses at GTCC and High Point University. We are very glad to have him join us full time to help us with our undergraduate course load.

As we embark on a new journey this academic year, we take a moment to pause and reflect. It is possible that things may never return to the “normal” that we once knew. However, I can assure you that those of us here at UNCG will continue to support our students, alumni, and our community in whatever ways we can. In the face of adversity, we are strongest when we move together.

**JEREMY W. BRAY,**  
Interim Department Head and  
Jefferson-Pilot Distinguished Professor of Economics

# TRACKING COVID-19

Dr. Martin Andersen

In this new world of COVID-19, we’re all in uncharted territory, according to Dr. Martin Andersen, assistant professor of economics at the Bryan School of Business and Economics. “Our behavior (social distancing and other preventative precautions); our health and the health of those most vulnerable in society, the economy – our incomes and savings accounts; our children’s education, and so much more, are unusually uncertain now as we navigate the pandemic world.”

Andersen is among a handful of health policy researchers sifting through a myriad of data and working to understand what is happening, why it’s happening, and what we can learn from predictable and unpredictable human behaviors. He’s looking at the consequences of these behaviors, as well as the ever-changing behavior of the spread of the coronavirus to assess, and possibly predict numerous possible outcomes.

“We’re in an unfamiliar world right now, doing our best to use traditional research methods – as well as finding innovative ways of collecting and analyzing data -- in order to make sense of what’s going on now, in the recent past, and as we project into the future,” Andersen said.

### Three recently posted pre-prints illustrate some of his work:

1. **Early Evidence on Social Distancing in Response to COVID-19 in the US** investigates the importance of communicating the threat posed by COVID-19 since most changes in social distancing appear to be voluntary, possibly reflecting beliefs about disease risk. (April 5; revised June 25)
2. **The Effect of Federal Paid Sick Leave Mandate on Working and Staying at Home: Evidence from Cellular Device Data**, suggests that the paid sick leave mandate decreased full-time work and increased at-home work. Given that up to 47% of employees are covered by the federal mandate, the effect sizes are significant. (May 2020)
3. **Impacts of State Reopening Policy on Human Mobility** harnesses cellular device signal data to examine the effects of the timing and pace of reopening plans in different states. It evaluates observations to come to understand the extent to which people are resuming movement and physical proximity as the COVID-19 pandemic continues. (May 2020)

With numerous articles in the hopper, Andersen says this is an incredibly exciting time for his research because he was among the first to study utterly new phenomena early on; there are many researchers in this space now. His work is being cited in papers far more than ever expected because he’s one of the early health economists researching these topics.

“Being an early adopter of studying social distancing comes with a great deal of responsibility. We’ve got to get it right, to lay out the basic facts upon which further research can be built in looking at human behavior, health, and the economy – and how they are intertwined.”

### HUMANS AND HEALTH

Andersen enjoys working with a huge variety of data vendors to figure out what’s being measured: people staying home, distances traveled, mask use, and more.

“What we are seeing in the data now is the breaking apart of the relationships that existed early in the pandemic. There’s a correlation between increased social distancing and the case counts getting weaker. This is a good thing. With this model in mind, the measurements I use are good proxies for social distancing. This means people are doing things to reduce the risk of transmission. Or not. Either way, there are consequences.”

Take Texas for example, which opened prematurely with hopes of activating the economy. Not long after opening, the state experienced seven weeks of skyrocketing coronavirus cases. “Our data shows what we would expect to see when states don’t stay shut down long enough. We can see that it’s dangerous to ignore the precautions. Now Texas has reversed itself and is having cities mandate the mask use. This is a big deal.”

Using the data to look ahead, Andersen sees more coronavirus cases a few weeks out where people aren’t staying home and fewer cases in places where people are responding cautiously.

His research explores another dimension of social distancing: the correlation between how well-connected different (geographic) areas are to one another and the spread of the coronavirus. The degree to which counties are connected (through human mobility) corresponds with coronavirus case growth. This is a new way of looking at distancing data, and part of a broader Indiana University study of the network of connections affecting disease spread.

“What makes the coronavirus so tricky is that many infected people don’t feel bad.

They have no idea that they are sick, and so they interact with people in the population, many of whom may be more susceptible. Then, it can take five days before an infected person shows symptoms. If infected people felt sick right away, we could eliminate this five-day window. We are trying to find a way to catch the virus before it is transmitted by mitigating or containing it once we know where it is.

New research methods include the use of cell phone data, credit card transactions, payroll records and Google search trends. “We know there are lots of ways to look at things, and we are learning every day. With the data that’s accessible, we can track trends in mobility and see spikes in Google searches for things like ‘Coronavirus Symptoms’. Looking at credit card transactions reveals that in places pushing to open the economy quickly, such as Texas, California, and Florida, there is an increase in mobility, which correlates to an increase in disease transmission. Andersen’s challenge is to find the best and most useful applications for so much data.

### ECONOMICS

“We can use Sweden as a cautionary tale,” Andersen said, “Sweden and Denmark share borders but have vastly different policies resulting in vastly divergent health and economic outcomes; Sweden didn’t impose lockdowns at all and is now paying a heavy price as thousands more people have died from the coronavirus than in its neighboring countries. The Swedish economy has not experienced any economic gains from staying open. Denmark did impose a lockdown, has curbed coronavirus deaths, and now is slowly opening schools and businesses.

Andersen reflects, “We were lucky in 2003 with the first round of SARS. We were lucky with MERs. But now our luck has run out and we are scrambling to adapt. Even though

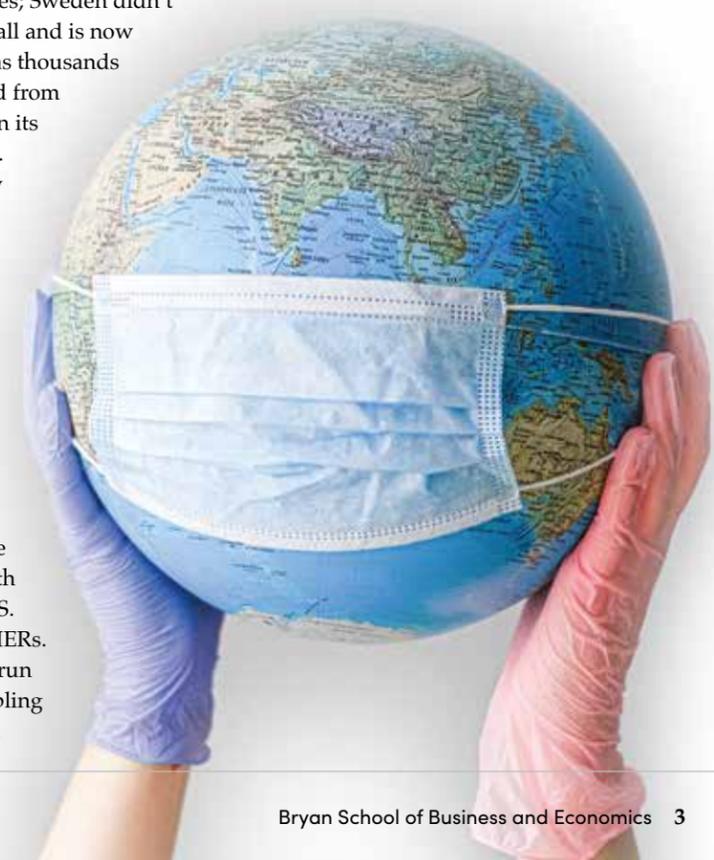
things haven’t been as good as we hoped with the first round of re-openings, we can study the data to look at what works and what doesn’t.”

“We may all need to adjust to wearing a mask at the grocery store, or to having stores limit the number of people that enter. I don’t think the social distancing precautions will be going away. We might even learn to like this new way. For stores, observing these precautions could become a selling point since social distancing measures allow for a more sedate shopping experience and (potentially) more fruitful interactions with salespeople.”

Andersen acknowledges that this is a crazy time – and this drives him to work extra hard to understand things through his research. With each new piece of awareness, a new question will arise that will lead to even more understanding.



**We are in an unknown world. Five years from now I believe we won’t recognize the world we are in right now.”**





## PhD Alumni Spotlight

# NILAY UNSAL

In her current position, Unsal has the freedom of conducting research in her interest areas, including health economics and program evaluations. She sees that health is a hot topic not only in Turkey, but also globally. “The international nature of the field provides amazing opportunities for meeting with new intellectuals. Before my Ph.D. I thought I’d like teaching more than research. But my

Ph.D. experience at UNCG helped me realize that as I pushed myself to learn more through research, I become a better teacher. I like the fact that I improve myself every single day.”

Unsal discovered the Bryan School a bit by accident, when she was searching for Ph.D. programs at the end of her master’s degree program at UNC in Chapel Hill. She was about to return to Turkey when she was struck by the topic, and demeanor, of Nazire Ozkan, a visiting guest lecturer from the Bryan School. “I approached her after the talk and shared that I was feeling discouraged about pursuing a Ph.D. She encouraged me to come to Greensboro to visit the school. I knew the moment I arrived that this was a very unique, very supportive environment. In retrospect, coming to UNCG was the best decision I could have made for my career in terms of research opportunities!”

Unsal found her career launching pad at the Bryan School. “I had never experienced professors who were open and available to my many, many questions! All the way through my program, and continuing even today, I have an incredible community of professors, mentors, colleagues, and friends who are available to share contacts, resources and research.”

When Nilay Unsal returned to Ankara, Turkey, with her Ph.D. in Economics from the Bryan School of Business and Economics at UNC Greensboro, and stepped into her current position as research fellow at Ankara University, Faculty of Political Science, Department of Economics, her sense of gratitude was overwhelming.

She had gratitude for Dr. Irvan Civcir, the department head of her undergraduate studies in economics at Ankara University who encouraged her to continue her education in the field and pursue a Ph.D. abroad. She had gratitude for the opportunities she discovered while receiving her master’s degree at UNC. And she had gratitude for the support, encouragement, inclusivity, and academic rigor she experienced at UNCG. “I can’t even express my thanks to so many mentors, teachers, guides, colleagues and friends! I especially feel grateful for the UNCG community for helping me forge my professional goals.”

A geographic world apart, Unsal maintains close contact with her colleagues at UNCG, with whom she has cultivated not only close professional ties, but also deep personal friendships. In the world of Zoom meetings, the physical distance has become irrelevant. She has found a cross institutional / cross cultural collaboration between Ankara and Greensboro.

Now on the tenure track at Ankara University, she sees herself enjoying a meaningful career in academia. “As I continue my career in Turkey participating in international collaboration from a global perspective is really important to me. I learned this perspective at UNCG and wish to continue it throughout my career.”

Her committee chair was Dr. Jeremy Bray. “I feel extremely grateful having the chance to work with him. In my teaching and research I follow and will follow his teachings and advice. I am grateful to have the chance to work with Dr. Albert Link, Dr. Martin van Hasselt and Dr. Dan Bibeau during my dissertation process. Everything I learned from them will always have a place in my work.”

Unsal continues to work with members of the Bryan School faculty on research papers, including Dr. Bray, on international standardize measures for alcoholism studies. She also collaborates with Dr. GracieLee Weaver, assistant professor in the Department of Public Health Education on health research, including the development, implementation, and evaluation of health promotion interventions in workplaces.

“**My gratitude to the incredible faculty of the Bryan School is immense! They helped me realize my capabilities as an academic, worked hard to help me open doors, and continue to enrich my life in ways that are so unique to this community.**”

## PhD Alumni Spotlight

# BRANT MOREFIELD



**BRANT MOREFIELD, PH.D.**  
*Director of Health Care Research and Evaluation at Blue Cross NC*

Health Economist Brant Morefield, Ph.D. is delighted to be in his new role as Director of Health Care Research and Evaluation at Blue Cross NC, a relatively new position in which he collaborates with researchers within Blue Cross and also externally, in academia, to provide high quality research of interventions in health care policy issues throughout North Carolina.

Accustomed to a virtual office life even before COVID-19, having held the role of senior researcher for Washington, D.C.-based L&M Policy Research, for the six years, Morefield looks forward to the day he will meet his new colleagues in person. But for now, he’s busy prioritizing research agendas and governance structures, collaborating with external researchers, and establishing contracts and agreements, among his expansive responsibilities.

“This is such a wonderful place to be; I’m involved in creating opportunities for business and academia to collaborate on critical health care policy issues across our state! I am happy to be ‘home’ -- that is, working in North Carolina -- for North Carolinians on these vital policy questions that for years I had been working on with a national focus. My home is here, my family is here, my community is here, and it’s so good to be able to contribute more locally.”

Morefield is responsible for evaluating the value-based program, Blue Premier, which has its strategic cornerstone embedded in what Morefield has studied for the past eight years. “I’m extremely fortunate to be collaborating with the brightest minds – internally and externally -- on innovative strategies designed to provide high quality research for effectiveness to drive healthcare transformation for North Carolinians.” He’s now working with researchers to evaluate the success of multiple alternative payment models as well as shifts in utilization and policies as a result of the COVID-19 pandemic.

“The Bryan School and the Economics Department absolutely defined my career. Where I am and who I am as a health economist, this identity I have, was created in the MA and Ph.D. programs there. This

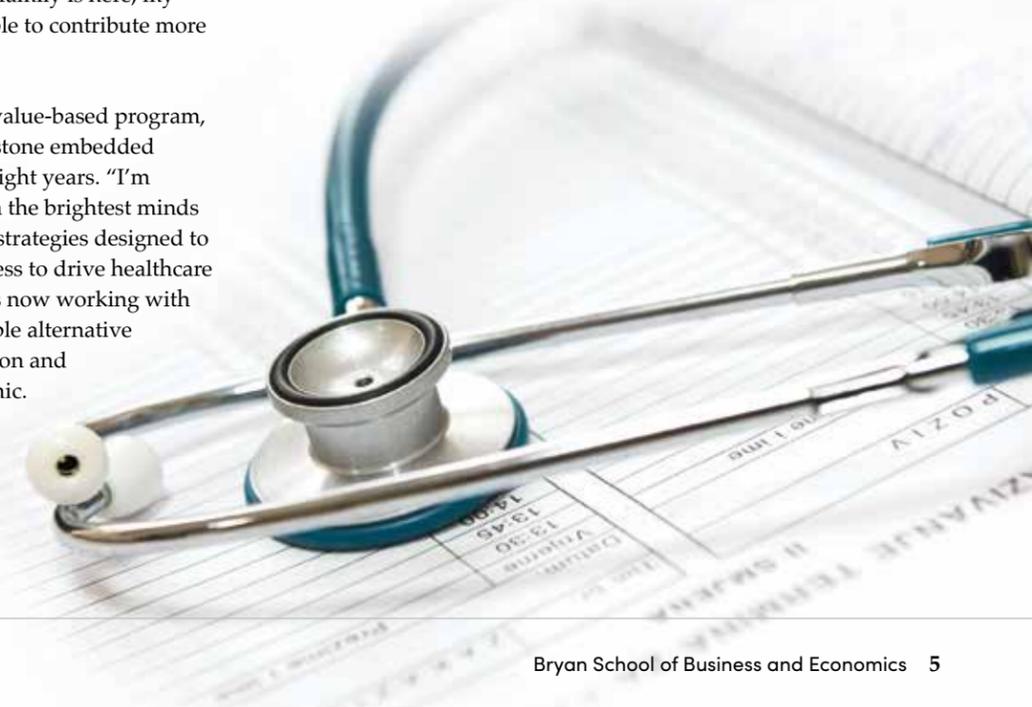
is why I am on the Bryan School Advisory Board, so that I can give back to the school because it has provided me with so many opportunities that I would not have had otherwise,” he explained. He’s been on the Board for two years.

“My career began unfolding as a Bryan School Masters student where I realized I wanted to apply my skills in research. I understood that if I wanted to run my own research, I’d need to get my Ph.D., which I completed in 2011. While I say that I’m a health economist, I’m really an applied micro economist who applies his skills to health policy topics,” Morefield explained.

His initial post-doctorate position was at Abt Associates, a large research firm, where he fell into a space between academia and private industry. “I was able to produce high quality research, but often tasked with policy-relevant questions without clear research methods that would be attractive for publication.”

He then moved to L&M Policy Research, a small U.S. health policy research firm where he led and grew a small quantitative research group looking into national health issues. When the opportunity to work for North Carolina-based Blue Cross arrived, Morefield came on board. “The tasks I have are ambitious, but I have support and a lot of very bright people to help make them happen.”

Morefield said he’s keeping UNC Greensboro in mind for future work with researchers to collaborate on questions of interest that we can study together. “We have the data and the policy information, and we can use the bright minds of faculty and students to produce greater and more useful information.”



# The Balance of CREDIT



**H**ave you noticed the many advertisements promoting home equity lines of credit? Or the myriad of promotions for car loans? Is your mailbox filled with offers for credit cards? For the average consumer, having access to more credit, especially in the economic disruption from COVID-19, may seem like a good thing; but what if all of this credit has an impact on small business credit?

Studying how expansions in household credit affect business credit is precisely what Bryan School Assistant Professors of Economics, Drs. Berrak Bahadir and Matthew Schaffer are researching through the lens of macroeconomics – that is, analyzing decisions made by countries and governments, and the impacts of these decisions.

Unlike large corporations, small businesses rely on loans from banks, as do households. Schaffer explains that if there's a fixed stock of credit, then an increase in household credit could crowd out business credit. On the other hand, if greater household credit stimulates economic activity and increases real estate prices, this could lead to higher collateral values for businesses, which may make it easier for them to obtain additional credit. Therefore, it is not clear how household credit expansions affect lending to small businesses.

"Until the financial crisis of 2007-2009, macroeconomists didn't understand how the financial sector and the rest of the economy interacted. Economists wanted to better understand why a financial crisis brought down every other sector. One of the findings from the last decade of economic research shows that beyond a certain point, an increase in household credit can be dangerous. Our project is designed to understand the relationship between household and business credit," Schaffer said.

Credit to households isn't bad – up to a point. Most household credit is used for home improvements, a bigger home, a new car, and consumer debt. This can lead to a short-term boom, but then people can become overextended leading to a bust. Businesses use credit to increase the productive capacity of the economy – with higher long-term growth. "Not all credit is created the same; while household credit finances the demand side of the economy, business credit finances the supply side. This distinction is crucial to understand the effects of household and business credit on the real economy," Bahadir agrees.

Another important finding from the last decade is that rapid growth in household debt is a reliable predictor of a recession. "To avoid recession, limiting the supply of credit to households could help avoid the big booms that can destabilize things," Schaffer said.

In the middle stages of the project, their theory allows them to analyze models about restricting household credit. First, they build a closed economy model that allows for the study and comparison of two channels emphasized in the literature: the collateral channel and the crowding out effect. The first goal is to study the general equilibrium effects on the two channels and analyze their relative strengths. "So far, the policy implications of our research indicate support for having more restrictive measures on the supply of homeowner credit," Schaffer said. Second, they study the effect of an externally driven increase in household credit on small business credit empirically, by investigating the impact of the 1998 liberalization of home equity loans in Texas.

"In Texas, homeowners were not allowed to tap their home equity for a line of credit. With the amendment of a more than 100-year-old policy, in 1998, suddenly homeowners had access to a lot of credit. It was a natural experiment for the consequences of expanding the supply of household credit. There was a flood of home equity loans which lead to a decline in small business loan growth in Texas by roughly 10%," he explained.

Both Bahadir and Schaffer arrived at UNC Greensboro several years ago and they knew they wanted to collaborate on a project. After brainstorming, they created a study that would merge and leverage both of their skill sets and interests. "Bahadir made contributions in the realm of studying household credit and is one of the first economists to highlight the differential impact of household and business credit; she's been studying it for over a decade," Schaffer said. In their study, she brings the theoretical experience and Schaffer brings empirical evidence from the Texas example.

With COVID-19 playing havoc on every aspect of the economy, the results of this study may influence policy decisions related to household and small business credit. "If indeed household credit expansions hurt small businesses, then policy makers should add this finding to the list of negative effects of household debt." Bahadir said.

// GRADUATE FEATURE

## VINCENT LORENZ



MINERVANOMICS

What do you get when you combine a lifelong love of sports, a passion for economics, a lot of hard work at the Bryan School of Business and Economics, with a sprinkle of good fortune? Vincent Lorenz can tell you: it's the position of Business Intelligence Analyst for the National Hockey League's Carolina Hurricanes team, based in Raleigh, North Carolina.

Last December Lorenz graduated with a MA in applied economics, with an emphasis in data analytics; he is still pinching himself about working for the Hurricanes. "I grew up watching sports – I'm crazy about sports! If I told my 12-year-old self about this job, he'd be ecstatic!"

Lorenz made it through several rounds of interviews for this highly competitive position before being hired on February 24th. "I 'beat the buzzer' in terms of the Corona Virus and getting this job! I moved to Raleigh and my first day was March 2nd. I had two weeks and two days working in the Hurricanes office before everything was shut down. I feel so lucky that I have such a great boss and that I am able to keep my job, working remotely."

In his role Lorenz conducts data analysis for multiple areas -- everything related to the PNC Arena, including concerts and events in addition to conducting marketing research and campaigns for the team. "There's an incredible breadth of things I can touch, especially considering I'm not in the office. I spend a lot of time coding, working in Excel spreadsheets, producing clean and reliable data, computer programming, and incorporating seamless data entry into all the platforms across the board."

Lorenz says his experience at the Bryan School, both in classes and also as a graduate assistant with Dr. Martin Andersen, prepared him for the challenges

of his new position. "Working with Dr. Andersen was a job-like experience, where he was constantly building up my skills. He saw in me something I didn't really see in myself in terms of potential. From August 2018 to December 2019 I received amazing training, education, and skills that are relevant to my work. Also, Dr. Andersen was a key reference for this job!"

He adds, "I have reached out to all my professors since I graduated to thank them for building my problem-solving capabilities. The skills that I learned with Dr. Van Hasselt – whose class was the most difficult one I've ever taken – allow me to look at unfamiliar situations and decide on the best path to take based on these skills."

"How amazing is it that the Hurricanes took a chance on me, someone new to the field. I've demonstrated a capacity to solve problems in a more efficient manner – I'm able to translate my academic experience from the Bryan School into life. This gives me an edge, a way of working through problems that is extremely valuable."

In the new world of social distancing, arenas, and team sports, Lorenz' work around arenas and team sports is multifaceted. "We are thinking about when the fans do come back to the stadium and how we will make sure they are safe. We built a seating optimization model where we take the entire arena and map it with X/Y coordinates so we can build a statistical program that lays out the most optimal combination of all seating alignment based on the number of people. We can maximize seating capacity and revenue, and also meet standards that will be set by health officials and the NHL."

Lorenz is involved in creating statistical models to analyze data from an NHL

engagement survey gauging fan sentiment of COVID-19. He's also busy conducting email

marketing for the team to keep in touch with fans. "Even though I've never taken a marketing class in my life, I'm building my skill set on the job. We are making sure the fans are engaged and kept in the loop with the team. I'm so excited about how we send emails requesting fan questions, and then we record an interview with the head coach to answer the questions. It diverges from strict economics, but everything I do is fueled by the awesome problem-solving skills I developed at UNCG."

The financial crash of 2008 fueled Lorenz' initial interest in economics. "My family was heavily impacted, and at a young age I wanted to know how this happened." He got his undergraduate degree in Economics from NC State and was driven to learn even more. He applied to several graduate schools and UNC Greensboro stood out – especially the opportunities for assistantships. "To have the opportunity to work with Dr. Andersen, who is so smart and talented... his patience amazed me! How awesome to have the rare opportunity to work under a professor and get real experience – to get skills that I knew would translate into whatever career pathway I chose. I use these skills every day."

"I believe in finding purpose wherever you go. To have a fulfilling career with a national sports team is incredible. People love sports – a team, a game, is something that everyone can come together to celebrate – it's a healthy, safe escape. It's beautiful and I'm happy to make my contribution, and so happy I have the skills to do a really good job."

# BENJAMIN THORNBURG



When Benjamin Thornburg chose UNC Greensboro for his undergraduate studies, he had no idea that even before graduating he would be well on his path as a healthcare economics researcher.

The transformative experience Thornburg had at the Bryan School began in his freshman year, thinking he wanted to study Business Administration. He took a class with Dr. Martin Andersen and that changed his life, and his career dreams, forever.

Having graduated last May, he is launching into the MA/Doctoral track at UNCG in Applied Economics, and doing an online “distance internship” with the Harvard School of Public Health (his regular internship there has been postponed by the COVID-19 pandemic), where he intends to apply for a PhD in health policy after his graduate study is complete at UNCG.

*“I can’t express how much reverence I have for the Bryan School Economics faculty. If it had not been for them, and the combined faculty of UNCG giving me a chance, it’s likely that I would not have pursued a research career,”* he said. *“I’ve had the unusual experience of being treated like a colleague as an undergraduate here; the faculty has been willing to let me do, try, and fail such that hands-on learning was as much a part of my education as coursework. Anyone considering an economics or policy degree should look at UNCG, I believe the faculty create an unrivaled learning environment.”*

When Thornburg was searching for schools three years ago, he sought a college with a down-to-earth feel and an ethos that aligned with his. When he explored UNCG, he knew he struck gold (and blue)! *“Chancellor Gilliam was relatively new to UNCG and I liked his messages then, and still do.”*

As a freshman, he took a class with Dr. Andersen which launched his passion for health policy and health economics. *“Dr. Andersen’s class was the first indication I got that the science of Economics was much more than dollars and demand. I learned it was possible to decode and understand human behavior through the lens of economics, and that was a power I wanted to learn and pursue.”*

Inspired by Dr. Andersen’s research, Thornburg approached him with hopes of working in the adjacent fields of public health, health policy, or health economics. *“He was extremely gracious and found work for me to do, though I was hopelessly green. I was astonished that he treated me like a colleague, while somehow, not letting me get in over my head.”* Working under Dr. Andersen instilled a confidence in Thornburg that suggested he could succeed at anything he wanted to – if he was willing to do the work.

*“The work I did then, data cleaning on a project focused on the impact that baby-friendly designated hospitals had on delivery modalities, gave me the early skills and feel to become a fledgling researcher. Dr. Andersen inspired me to move into a place where I could make a more legitimate contribution to the field, so I applied to be a research assistant on Dr. Jeremy Bray’s new grant. I was extremely lucky to be selected for this role, Dr. Bray is a world class alcohol researcher.”*

Working with Dr. Bray on a small team, including several graduate students from UNCG, a pharmaco-economist from Research Triangle Institute, and a senior research scientist from the Harvard School of Public Health, Center for Health Decision Sciences, they conducted rigorous alcohol health services research to inform practice and policy. He marvels that *“It’s hard to believe that in only three years of work I’ve begun working with the Harvard School of Public Health, and even received an internship there!”*

What’s on the horizon for Thornburg? *“I’m planning to research the use of Naloxone, a drug that reverses opioid overdoses. It’s simple and inexpensive to manufacture, but difficult to get. From a health literacy standpoint, not many people know it even exists. There’s a rising school of thought that if bystanders had access to this drug, we could reduce the number of people who die from opioid overdoses. Administering Naloxone is simple and safe, I see potential in teaching and distributing Naloxone alongside, say,*

*CPR certification as part of basic First Aid. From an economic research standpoint there’s a lot of work to do around pricing, distribution and disentangling the web of laws surrounding this drug.”* Currently, along with his work on Jeremy Bray’s grant, Thornburg has started summer work at a biotech firm in Pittsburgh, PA.

*“I can’t express the gratitude I have for UNCG! Applied Economics can get students on the fast track for a successful & impactful career. Here’s a tip for incoming freshman: Start learning to code and take math seriously, when you get excited about a topic, you don’t want to be unable to pursue it.”*

Thornburg doesn’t regret that his last semester at UNCG was derailed by COVID-19.



**I had taken online courses at the Bryan School and knew that the Applied MA was going online anyways. The UNCG professors are accessible such that online is not impersonal. Do not be scared of doing classes online – UNCG does it well!”**

## INCOMING FALL 2020 Graduate Cohort

**RIANE NARIE BARRERAI**  
Post-Baccalaureate Certificate  
Economics of Health Analytics

**TYLER JACK BISHOP**  
Masters  
Applied Economics

**SHANE MATTHEW CHOTOS**  
Post-Baccalaureate Certificate  
Quantitative Business Economics

**MICHAEL EDWIN DEWITT, JR.**  
Master’s Doctoral Track

**DRAKE MICHAEL DUFFER**  
Post-Baccalaureate Certificate  
Economics of Health Analytics

**TYLER LEE FRAME**  
Masters  
Applied Economics

**ANNA MARIE GOODALL**  
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Applied Economics

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Post-Baccalaureate Certificate  
Quantitative Business Economics

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Masters  
Applied Economics

**EMMA CHIESA HUDSON**  
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Quantitative Business Economics

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**JEANNIE ELIZABETT O’BRIEN**  
Masters  
Applied Economics

**WINIFRED UZOCHIKWA OKAFOR AJALIE**  
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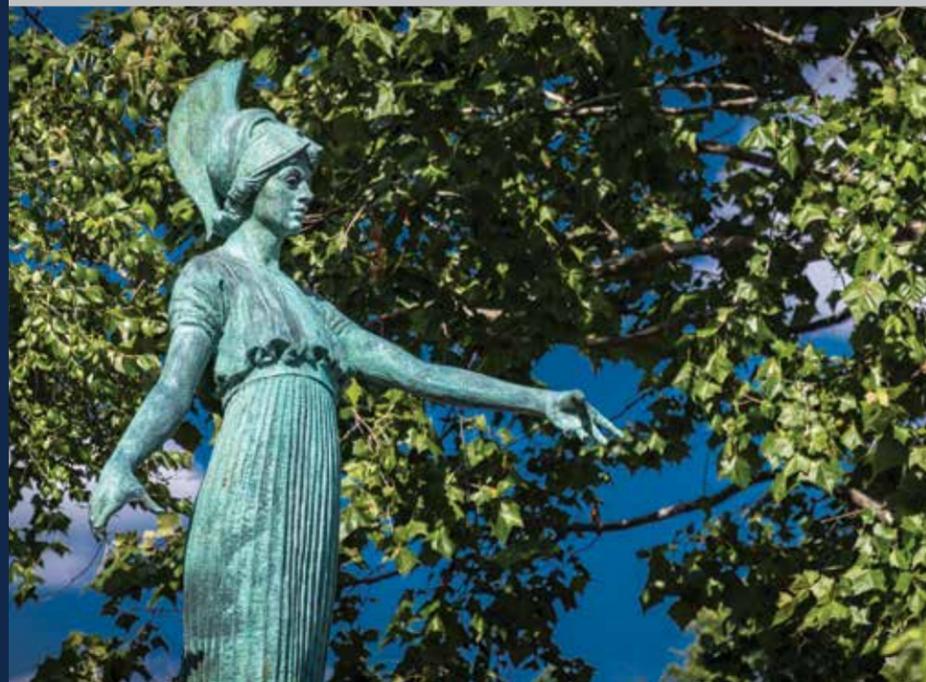
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# DEPARTMENT ACCOMPLISHMENTS

## STUDENT ACCOMPLISHMENTS

### PUBLICATIONS

Ballón, Sergio, Soraya Roman, **KATHERINE ANTONIO**, David Lopez, Michelle Hallack. Luz para las comunidades de la Chiquitania: Los beneficios de la electrificación rural con energía renovable en Bolivia (Spanish) On the benefits of providing electricity access beyond the grid: Evidence from a Randomized Control Trial in Bolivia (English version submitted to Energy Policy) *Inter-American Development Bank*. 2019

Link, Albert N., **CODY A. MORRIS**, and Martijn van Hasselt (forthcoming). "The Impact of the Third Sector of R&D on the Innovative Performance of Entrepreneurial Firms," *Small Business Economics*. forthcoming

### PRESENTATION

**AW, ASTOU**, Southern Economic Association Meetings, "An Economics Perspective of Patenting Behavior in Small Entrepreneurial Firms", Fort Lauderdale, FL, 2019

**AW, ASTOU**, Academy of Economics and Finance: Outstanding PhD Student Paper Competition, "Patenting Behavior in Small Entrepreneurial firms", Atlanta, GA, 2020

**AW, ASTOU**, The South East Exchange on Development Studies, (SEEDS), "Patenting Behavior in Small Entrepreneurial Firms", Fall 2020 (forthcoming), Atlanta GA

**HOBBS, KELSI** "Explain the Variation in Eviction Rates across US Counties". 2019 APPAM Fall Research Conference, Denver, CO.

**HOBBS, KELSI** "Unemployment Insurance the Rental Housing Market". 2020 Eastern Economic Association Meeting, Boston, MA.

**PAGÁN, LORISSA** "Of IVs and IUDs: Assessing the Effect of Long-Acting Reversible Contraception Using an Instrumental Variables Approach", Towson University, Towson, MD (2019)

**PAGÁN, LORISSA** "Of IVs and IUDs: Assessing the Effect of Long-Acting Reversible Contraception Using an Instrumental Variables Approach", Allies Social Science Annual Meeting (CSMGEP Dissertation Session), San Diego, CA (2020)

### GRANTS/ FELLOWSHIP/ DISTINCTION

**AW, ASTOU**, Institute for Research on Innovation and Science (IRIS) at the University of Michigan: Grant from the Sloan Foundation to investigate disparities in Innovation (with Lisa Cook, Jennifer Kuan, Yanyan Yang): March 2020-Present

**AW, ASTOU**, Teaching Fellowship: American Economic Association Summer Training Program at Michigan State University (Course: Advanced Econometrics with Jeff Wooldridge), May-June 2019

**AW, ASTOU**, National Bureau of Economic Research, Innovation Information Initiative (part of the technical working group), Cambridge, MA, December 2019

**AW, ASTOU**, National Bureau of Economic Research Summer Institute: Innovation Meeting (selected graduate student participant), Cambridge, MA, July 2019

**JOHN "WILL" QUEEN** (PI), **NANA ADDAI** (co-I), **DANNY TURKSON** (co-I), and **KAYLEIGH WILLIS** (co-I) "Modeling Energy Consumption" Green Fund, UNC Greensboro \$11,232.60 (Pending)

## FACULTY ACCOMPLISHMENTS

### AWARDS

**DR. JEREMY BRAY** was appointed an Honorary Professor at Teesside University in Middlesbrough, England.

### HONOURS

**AL LINK** was ranked number 1 in the world among more than 57,000 economists in the area of Project, Program; Portfolio Management (PPM) according to rankings compiled by Research Papers in Economics (repec.org), as accessed on March 31, 2020.



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