A Letter from the Dean

As I look back on last year — exceptional in terms of loss and hardship — I strive to seek out the glints of good that peek through the dark. As a dean, my job is to lead a large and hugely-talented team that instructs and inspires future business leaders, works in the community to help those who need it most, informs decision-makers and employers, and conducts impactful and transformative research that adds to our understandings of the world around us.

And despite an ongoing pandemic that has radically reshaped how we live and work, that team has persevered. There will be no quick recovery from that annus horriblis — aspects of our society and economy will take years to come back and some things may never look the same. That I know from the superb work being done by our faculty, who have responded to the call for information, expertise, and fast-tracked research on coronavirus. There is an unprecedented amount to learn and discover from the events of the past year and perhaps that’s one of the bright sides. Much of this work is in progress, but we have much to share on our special website for research activity at research.culverhouse.ua.edu.

This issue of our Impact Report focuses on what we do in data and analytics, an area which is of critical importance to the world as it sorts out vast reservoirs of data to find purpose and insights. I am very proud of our work in this area and the rapid evolution of our Institute of Data and Analytics, which offers leadership and expertise not only on our campus but across the state in the use of data to engender discovery.

Here I also welcome the newest additions to our ranks of faculty, all of whom bring unique vantage points and areas of expertise to our College.

Be well and stay healthy.

Thanks and Roll Tide!

Kay M. Palan, Ph. D.
Dean of the Culverhouse College of Business
Several years ago, the Culverhouse College of Business asserted itself in the field of data science and business analytics. And for good reason: fundamental to nearly all modern business problems, research, and obtaining effective insights, is good old-fashioned number crunching.

At Culverhouse, pedigreed technical academic programs in statistics, operations management, and information systems, combined with other traditional business programs with analytic concentrations, has led to what is a robust curriculum in analytics. In order to complement these efforts and to provide The University of Alabama campus access to researchers that could provide statistical expertise in pursuit of external funding, the Statistics Research and Consulting Lab, or SRCL, was established.

Moreover, the College put together a group named the Institute of Business Analytics, or IBA, to organize an annual symposium on the topic. The symposium, which continues today, showcases analytic practices and innovations in industry and connects Culverhouse students with employers and data-related influencers.

Concurrent with the endeavors of the SRCL and the Symposium, Culverhouse, through alliances with Lockheed Martin and SAS, constructed the Marillyn A. Hewson Data Analytics Lab. This space was designed to serve as a state-of-the-art facility where students, faculty, and industry partners could collaboratively engage with data-related challenges.

Given all of these activities focused on becoming a recognized leader in the data and analytics space, the College administration moved to merge these efforts under one familiar brand: the Institute of Business Analytics.

"WE WANT TO HELP ADVANCE SCIENCE AND SOCIETY AND TACKLE BIG-IMPACT PROBLEMS."

The intent then — and now — was to act upon a vision to create an organization that could advance research through the development of new analytics methodologies and applied research problems, provide experiential learning opportunities for students, and serve as a unit that enhances the College’s research collaboration and infrastructure. The successes of the prior organizations, particularly related to external funding, carried over to the newly-formed IBA and in 2015 it was recognized as an official University of Alabama research center.

Fast forward to now.
Institute of Data and Analytics Director
Jason Parton in the Institute's Marillyn A. Hewson Data Analytics Lab
As the field of data analytics has accelerated and changed in response to and in concert with industry, the IBA found itself constrained in a way by its own brand. In the spring of 2020, the IBA became the IDA — the Institute of Data and Analytics — a name chosen because it more accurately describes the broad nature of work being done both in the way of standalone data or analytics projects such as the development of secure data environments and applied statistical modeling, to the undertakings that require a full spectrum technical solution, from data acquisition to data intelligence.

Dr. Jason Parton, director of the IDA, explained the name change and how it aligns with the enhanced mission of the Institute, “As we continued to grow and develop, we took on work with standalone data problems like building environments and cybersecurity that didn’t even include the analytics side. We felt like the name did not accurately reflect our identity, which included a heavy data piece alongside an analytics piece.”

“Furthermore, rebranding ourselves as the Institute of Data and Analytics helps potential campus partners understand that we’re not strictly limited to working within the business college.”

Today, the IDA is one of The University of Alabama's most successful research organizations in terms of sponsored research and scientific publication. It has established a reputation for collaboration by building working relationships with UA's institutes for transportation, life research, water, and cyber research. Partnerships also come through the form of working with other UA

THE INSTITUTE OF DATA AND ANALYTICS
TEAM INCLUDES THE FOLLOWING:

Dr. Jim Cochran
Associate Dean for Research at Culverhouse
Expertise Areas: Applied statistics, visioning

Dr. Jason Parton
IDA Director and Assistant Professor of Statistics at Culverhouse
Expertise Areas: Applied statistics, data strategy, industry outreach

Dr. Matthew Hudnall
IDA Deputy Director and Assistant Professor of MIS
Expertise Areas: Large-scale government decision support and cyber security systems

Dr. Dwight Lewis
IDA Associate Director and Assistant Professor of Management
Expertise Areas: Medical/health data and GIS/spatial analytics

Dr. Irem Sengul Orgut
IDA Assistant Director and Assistant Professor of Operations Management
UPWARD Initiative – Lead

Dr. Jef Naidoo
IDA Assistant Director and Associate Professor of Management
Business Intelligence Academy – Lead

Dr. Nickolas Freeman
IDA Assistant Director and Associate Professor of Operations Management
Human Trafficking Initiative – Lead

Dr. Thomas English
IDA Assistant Director and Associate Professor of Management
Health Informatics Initiative – Lead

Dr. Greggory Bott
IDA Assistant Director and Assistant Professor of MIS
Cyber Analytics/Cyber Clinic – Lead
colleges and units, including the University’s School of Social Work, Psychology Department, and College of Engineering, on grant proposals and manuscripts.

Among IDA-led endeavors, its longest-running funded project is with the Alabama Medicaid Agency, now in its seventh year. “That relationship started when the Agency reached out to us to help them substantiate some analytics procedures and techniques. As the relationship grew, the Agency further engaged with us to provide analytics that help drive policy for the Agency through investigative queries and the establishment and validation of quality metrics,” Parton explained.

That partnership also pays off for the IDA and UA as a whole. Dr. Parton said, “We are all academicians and researchers and there is freedom as part of that relationship for us to pursue our interests. We’ve brought on faculty affiliates from around campus as part of the partnership. It’s a rare opportunity to have access to data like that.”

Furthermore, according to Dr. Dwight Lewis, associate director at IDA, the relationship has allowed “us to become immersed in projects aimed at either improving the efficiencies of health operations or policies and quality of life of millions of people.”

The work that the IDA undertakes also extends to other critical state needs. “One of our focus areas is using data-driven methodologies to develop tools that law enforcement and the general public can use to evaluate crime in Alabama,” said Dr. Matthew Hudnall, deputy director at the IDA and an expert in law enforcement. “We’ve helped Alabama state agencies combat the opioid crisis as part of a grant-funded project and we hope to build upon that success with additional projects related to human trafficking and other major issues.”

Relationships with corporate partners are also important elements of IDA’s work. Parton explained:

Leveraging our skills in data and analytics to solve challenges gets us into so many sectors and allows us to touch so many areas. Building
and maintaining relationships with companies such as Lockheed Martin, Walmart, and Mercedes-Benz are critical to us staying current with industry experiences. But one thing that I want to emphasize is that all of our projects involve students, both at the graduate and undergraduate levels from nearly all programs in Culverhouse and some from across campus. I strongly believe that the experiences these students gain from working with the IDA greatly enhances their ability as problem solvers and better prepares them for the next phase of their career.

What’s next?

“I view IDA as in a constant state of evolution and moving into a true definition of an institute that launches initiatives and centers aligned to a specific area, built around where we can make a difference,” said Parton.

“We want to help advance science and society and tackle big-impact problems.”
The Institute of Data and Analytics features several initiatives that approach distinct problems using teams composed of experts from across The University of Alabama campus. Those include:

**Business Intelligence Academy**
Complements the IDA’s suite of competencies by focusing on the visualization component of the business intelligence life cycle in order to accelerate insight.

**UPWARD Initiative**
Aims to use analytics methods and technologies to address problems faced by humanitarian operations and nonprofits that service underserved populations by using analytics-based approaches.

**Health Informatics Lab**
Structured to optimize systems to improve health outcomes with a focus on patient health, financial success, and health equity via smart deployment of data.

**Cybersecurity Analytics Initiative**
Seeks to leverage the capabilities of the IDA to help partners develop methods to identify and respond to cyber threats before they are fully formed through the collection, management, and analysis of a broad range of data.

**Human Trafficking Initiative**
Devising analytic frameworks that provide actionable insights for law enforcement agencies to combat individuals and organizations involved in illicit sexual activities.
The sexual exploitation of humans for monetary gain or benefit is a widespread humanitarian issue. Every year, millions of men, women, and children are trafficked worldwide with victims spanning all ages, races, genders, and nationalities. Much of this illicit industry is now conducted on the internet; sex traffickers commonly use online classified advertisements to advertise the sexual services they offer.

Traffickers tend to prey on individuals who are susceptible due to psychological or emotional vulnerability, poverty, natural disasters, or political instability, and they often use violence, manipulation, or false promises of well-paying jobs or romantic relationships to lure vulnerable victims into situations in which they inevitably work against their will. Trafficked individuals experience degrees of trauma and emotional distress so great that many may not identify themselves as victims or ask for help. This is a serious societal issue with dire consequences.

Although sex traffickers’ advertisements are visible to the general public and law enforcement, sex traffickers have developed and use sophisticated tactics that make it difficult for law enforcement agencies to react in a timely manner. Law enforcement efforts to identify these ads currently focus on identifying, tracking, and correlating individual activity by performing deep searches for specific information against a database of historical posts. While this deep search capability is useful for investigating specific cases, it overlooks higher-level patterns that exist in ads.

“THIS IS A SERIOUS SOCIETAL ISSUE WITH DIRE CONSEQUENCES.”

Drs. Burcu B. Keskin, Gregory J. Bott, and Nickolas K. Freeman — all faculty affiliates of Culverhouse’s Institute of Data and Analytics — have developed a framework for harvesting, linking, and detecting these patterns. In their forthcoming article “Cracking Sex Trafficking: Data Analysis, Pattern Recognition, and Path Prediction” to be published in the journal *Production and Operations Management*, these three Culverhouse faculty members demonstrate their framework on a dataset comprised of more than 10 million advertisements targeting U.S. cities. Their framework effectively combines concepts from information systems and operations research to identify groups of posts based on text, phone numbers, and pictures; determine circuits associated with post groups; and predict future movements using four different methods.

This research is the first step in a broader research program that aims to improve understanding of the
advertisement techniques, networks, and movement patterns used by organizations involved in the illicit sex industry. The research is informed by consultation with law enforcement agents working at the local, state, and national levels. In particular, the guidance of Lt. Darren Beams and Sgt. Trent Kempster, members of the West Alabama Human Trafficking Task Force, has been particularly valuable in helping the research team identify viable data sources and providing context on the problem.

The team continues to expand its efforts and its network of collaborators, both in the law enforcement and academic communities, with the goal of devising analytic frameworks that provide actionable insights that law enforcement agencies can use to combat individuals and organizations involved in illicit sexual activities, including sex trafficking, proactively.
Dr. Vishal K. Gupta, associate professor and the Fred & Martha Bostick Faculty Fellow in the Department of Management at Culverhouse.
Dr. Vishal K. Gupta, associate professor and the Fred & Martha Bostick Faculty Fellow in Culverhouse's Department of Management, has recently had his book “Great Minds in Entrepreneurship Research: Research Contributions, Critiques, and Conversations” published by Palgrave Macmillan. The book examines the work of 27 recipients of the Global Award for Entrepreneurship Research, or GAER, colloquially known as the “Entrepreneurship Nobel” over its 25-year history from 1996 to 2020. Since that first year when David Birch was recognized with the award, the GAER has gradually become the foremost recognition for academic research in entrepreneurship studies.

Gupta’s book classifies awardees into seven distinct categories based on the GAER citation that accompanied each respective awardee’s announcement. For example, the 2001 winners, Zoltan J. Acs of George Mason University and David B. Audretsch of Indiana University, are examined within the topic of “Small Firms” for their work on the role of small firms in innovation.

The importance of this collective analysis is hard to overstate.

In the book, Gupta states “Given the extensive growth in entrepreneurship research over time, for any one researcher (or a team of researchers) to become familiar with all the intricacies and debates in contemporary entrepreneurship research is now virtually impossible.” As a result, this book offers not only a starting point — but a landmark, too.

Susan Marlow, one of the world’s foremost entrepreneurship scholars, notes that the book is a “timely evaluation of the development of critical ideas, theoretical advances, and also the contribution of entrepreneurship research to global development.”
HOW CRITICAL EVENTS AFFECT LEADERSHIP

When the coronavirus pandemic hit the United States in March, business leaders didn’t have much time to respond. They were immediately tasked with pivoting operations and reinventing processes to stay afloat or provide support for others. Some could step up to the challenge, whereas others struggled for their very existence.

In many cases, leadership — and the decisions that leaders make in the face of an event like this pandemic — can be the determining factor between business success or failure.

Critical events don’t necessarily have to be large-scale crises. They could be adjusting to the loss of a core team member, strategizing about how to respond to a competitor’s new product, or dealing with the loss of a client.

A collaboration between Dr. Daniel Bachrach, professor of management and Morrow Fellow at The University of Alabama’s Culverhouse College of Business, and Dr. Frederick Morgeson, Eli Broad Professor of Management at the Broad College of Business at Michigan State University, is a groundbreaking foray into the implications of the fragmented, event-heavy reality of leaders.

This new research, funded by the U.S. Army Research Institute and led by Michigan State, will be the first to explore the implications of this “leadership as event management” concept. The two-person team was awarded a three-year, $885,000 grant from the institute, with two options periods that could extend grant funding to seven years.

Under the grant, the researchers will develop and test the leadership theory with experienced, practicing managers and leaders across a wide range of industries, settings and levels, which could fundamentally change the way we understand leadership.

The intent is to produce a comprehensive statement on the nature of leadership, showcasing how leaders can implement event-based management in proactive ways and become strategic creators of events — in addition to being more effective anticipators and reactors to events.

This story was adapted from a piece authored by Chelsea Stein of MSU’s Broad College of Business.
EXAMINING STRESS OF PANDEMIC ON DECISION-MAKING

Researchers at Culverhouse were awarded a grant to see if the long-term effects of the coronavirus pandemic may include poor decision-making by those who experienced increased stress levels.

Dr. Laura Razzolini and Dr. Michael Price, professors of economics in the College’s Department of Economics, Finance, and Legal Studies, were awarded more than $82,000 under the National Science Foundation’s Rapid Response Research funding program, set up to review and fund projects with an urgent need to gather data during or right after emergency events and natural disasters.

This research at UA is part of the NSF’s effort to quickly start non-medical, non-clinical-care research that can be used immediately to explore how to model and understand the spread of COVID-19, inform and educate about the consequences of virus transmission and prevention, and encourage the development of processes and actions to address this global challenge.

Through results of national surveys given throughout the pandemic, the researchers will infer how the coronavirus changed perceived stress levels, mental well-being, and economic decisions. The study builds off similar work started to investigate non-monetary costs during a recently completed construction project to replace an interstate bridge through downtown Birmingham, Alabama.

“We were going to go back and see what has changed among the population we surveyed during construction, but the pandemic changed things even more,” said Razzolini, who is also department chair.

“In that area, we can now compare stress induced by something normal such as traffic congestion and construction to stress induced by the pandemic, something that is not normal.”

The research will also help understand compliance with stay-at-home measures and trust placed in government and institutions, such as the media and public health organizations, as well as quantify a person’s willingness to sacrifice both money and life span to avoid contracting COVID-19.

After completing a survey about the pandemic and self-reported stress levels, the study will ask participants to simulate economic tasks that lead to different amounts of real money paid out — up to $75 per participant. The tasks are designed to measure risk attitudes, preferences over different points in time, altruism and honesty.

“When we think about health shocks or things such as a highway closure, there are costs and benefits we examine,” Price said.
“What we are less likely to quantify is the impact on mental well-being and risks taken by individuals over time. We need to be prepared for future pandemics and other stressful events, so that policymakers can consider alternative steps that take into account impact on people and how they respond to stress.”
ADDRESSING WORKER SHORTAGES USING BLUE OCEAN STRATEGY

As consumers increasingly choose to make their purchases from the comfort of their own homes rather than to visit brick-and-mortar stores, the need for fast-moving fulfillment and distribution centers is proliferating. This boom has led to shortages in the workers needed to operate those centers.

Culverhouse faculty members Alex Ellinger and Jef Naidoo are among the authors on a paper in Business Horizons that looks at how online retailers may address those shortages by utilizing a “blue ocean strategy” to hire and assimilate workers with disabilities. The authors show how other firms have implemented BOS in their own hiring practices and identify best practices for hiring to ensure that proactively hiring warehouse workers with disabilities creates mutual value and improves productivity. The authors also discuss how such strategies may positively impact a company’s outlook in terms of social responsibility.

Other co-authors on the paper include UA student research assistants Karli Filips and Gregory Herrin along with Dr. Andrea D. Ellinger, professor of human resource development at the University of Texas at Tyler.
Hewson Hall to Support Research and Collaboration

Hewson Hall, the new addition to the Culverhouse College of Business, is expected to open for the fall 2021 semester. Named in recognition of alumni Marilyn and James Hewson, the building will include classroom space, team rooms, a student success center, conference rooms, and other resources. Students will be able to use these amenities to collaborate on hands-on, real-world projects. They'll also have the opportunity to learn in specialty designed boardroom-style classrooms to mimic the professional working environment.

Dr. Harms Honored with Mid-Career Faculty Award

Dr. Peter Harms, an associate professor of management, received a mid-career faculty award through The University of Alabama Faculty Research Day. These awards highlight and celebrate outstanding faculty researchers across UA’s colleges and schools. In his research, Dr. Harms focuses on the assessment and development of personality, leadership, and psychological well-being. He is engaged in research partnerships with the U.S. Army, the U.S. Department of Labor, and NASA.
2020-2021 FACULTY HIGHLIGHTS
“The Intersection of Service and Sales: The Increased Importance of Ambidexterity”, Journal of Service Research, Rapp, Adam; Baker, Thomas, Hartmann, Nathaniel and Ahearne, Michael


“Design of Variance Control Charts with Estimated Parameters: A Head to Head Comparison between Two Perspectives”, Journal of Quality Technology, Sarmiento, Martin; Jardim, Felipe; Chakrabori, Subhabrata and Epprecht, Eugenio

“Short-Term Rental and Its Regulations on Home-Sharing Platforms”, Information & Management, Chen, Yuanyuan; Huang, Yuxin and Tan, Chuan Hoo

“Query Batching Optimization in Database Systems”, Computers & Operations Research, Eslami, Mehrad; Mahmoodian, Vahid; Dayarian, Iman; Charkhgard, Hadi and Tu, Yicheng

“Showcasing Optimization in Omnichannel Retailing”, European Journal of Operations Research, Park, Jisoo; Dayarian, Iman and Montreuil, Benoit

“Recommendations for Reviewing Meta-Analyses in Organizational Research”, Organizational Research Methods, DeSimone, Justin; Brannick, Michael; O’Boyle, Ernest and Ryu, Ji Woon

“How Does Forced CEO Turnover Experience Affect Directors?”, Journal of Financial and Quantitative Analysis, Ellis, Jesse; Guo, Lixiong and Mobbs, Shawn

“CFO Gender and Financial Statement Irregularities”, Academy of Management Journal, Gupta, Vishal; Mortal, Sandra, Chakrabarty, Bidisha; Guo, Xiaohu and Turban, Daniel

“Avoiding or Embracing Social Relationships? A Conservation of Resources Perspective of Leader Narcissism”, LMX, Differentiation, and Follower Voice, Journal of Organizational Behavior, Huang, Lei; Krasikova, Dina and Harms, Peter

“How Does Audit Firm Emphasis on Client Relationship Quality Influence Auditors’ Inferences about and Responses to Potential Persuasion in Client Communications?”, Accounting, Organizations, and Society, Aghazedeh, Sanaz and Hoang, Kris

“A Systematic Literature Review of Negative Psychological States and Behaviors in Sales”, Journal of Business Research, Lyngdoh, Teidorlang; Chefor, Ellis; Hochstein, Bryan; Britton, Benjamin and Amyx, Douglas

“An Industry/Academic Perspective on Customer Success Management”, Journal of Service Research, Hochstein, Bryan; Rangarajan, Deva; Mehta, Nick and Kocher, David

“Can’t Leave it at Home? The Effects of Personal Stress on Burnout and Salesperson Performance”, Journal of Business Research, Peasley, Michael; Hochstein, Bryan; Britton, Benjamin; Srivastava, Rajesh and Stewart, Geoffrey

“Examining Salesperson versus Sales Manager Evaluations of Customer Opportunities: A Psychological Momentum Perspective on Optimism, Confidence, and Overconfidence”, Industrial Marketing Management, Bonney, Leff; Plouffe, Christopher; Hochstein, Bryan and Beeler, Lisa

“Internal Selling: Antecedents and the Importance of Networking Ability in Converting Internal Selling Behavior into Salesperson Performance”, Journal of Business Research, Liu, Youngmei; Hochstein, Bryan; Bolander, Willy; Bradford, Kevin and Weitz, Barton

“Individuals’ Privacy Concerns and Adoption of Contact Tracing Mobile Applications in a Pandemic: A Situational Privacy Calculus Perspective”, Journal of the American Medical Informatics Association, Hassandoust, Farkhondeh; Akhlaghpour, Saeed and Johnston, Allen

“Protecting a Whale in a Sea of Phish”, Journal of Information Technology, Pienta, Daniel; Thatcher, Jason and Johnston, Allen
SELECTED 2020 CULVERHOUSE FACULTY PUBLICATIONS

“Running Field Experiments using Facebook Split Test”, *Journal of Business Research*, Orazi, Davide and **Johnston, Allen**

“Cracking Sex Trafficking: Data Analysis, Pattern Recognition, and Path Prediction”, *Production and Operations Management*, Keskin, Burcu; Bott, Gregory and **Freeman, Nickolas**

“Semiparametric Fractional Imputation using Gaussian Mixture Models for Handling Multivariate Missing Data”, *Journal of the American Statistical Association*, Sang, Hejian; Kim, Jae Kwang and **Lee, Danhyang**

“Forecasting Short-run Exchange Rate Volatility with Monetary Fundamentals: A GARCH-MIDAS Approach”, *Journal of Banking & Finance*, You, Yu and **Liu, Xiaochun**

“Assigning Spontaneous Volunteers to Relief Efforts under Uncertainty in Task Demand and Volunteer Availability”, *Omega*, Paret, Kyle; Mayorga, Maria and **Lodree, Emmett**

“Vicarious Animosity: Taking Sides on Provocative Issues”, *Journal of Business Research*, Zdravkovic, Srdan; **Magnusson, Peter**; Miocevic, Dario and **Westjohn, Stanford**

“Changes to the Work-Family Interface during the COVID-19 Pandemic: Examining Predictors and Implications using Latent Transition Analysis”, *Journal of Applied Psychology*, Vaziri, Hoda; Casper, Wendy; Wayne, Julie; and **Matthews, Russell**

“Gaussian Mixture Modeling and Model-Based Clustering Under Measurement Inconsistency”, *Advances in Data Analysis and Classification*, Sarkar, Shuchismita; **Melnykov, Volodymyr** and Zheng, Rong

“Mixture Modeling of Loss Data with Multiple Partial Right-Censoring Levels”, *Advances in Data Analysis and Classification*, Michael, Semhar; Miljkovic, Tatjana and **Melnykov, Volodymyr**

American Psychological Association 2020 Fellow:

DANIEL G. BACHRACH

“Fellow status is an honor bestowed upon APA members who have shown evidence of unusual and outstanding contributions or performance in the field of psychology. Fellow status requires that a person’s work has had a national impact on the field of psychology beyond a local, state or regional level.”

Association for Psychological Science 2020 Fellows:

DANIEL G. BACHRACH
PETER D. HARMS

“Fellow status is awarded to APS members who have made sustained outstanding contributions to the science of psychology in the areas of research, teaching, service, and/or application. Fellow status is typically awarded for one’s scientific contributions, but may also be awarded for exceptional contributions to the field through the development of research opportunities and settings. Candidates will be considered after 10 years of postdoctoral contribution.”

Society for Industrial/Organizational Psychology 2019 & 2020 Fellows:

DANIEL G. BACHRACH (2019)
PETER D. HARMS (2020)

“SIOP is the premier professional association for the science and practice of I-O psychology. I-O psychology is a dynamic and growing field that addresses workplace issues at the individual and organizational level. I-O psychologists apply research that improves the well-being and performance of people and the organizations that employ them. This involves everything from workforce planning, employee selection, and leader development to studying job attitudes and job motivation, implementing work teams, improving diversity and inclusion, and facilitating organizational change.”

Many professional societies bestow the title of Fellow to individuals who have a record of outstanding contributions, impact, and lifetime achievement in their respective disciplines. This recognition generally indicates that the recipient's work has had a national or international impact on the field. For a full list of distinguished Culverhouse faculty fellows, please visit research.culverhouse.ua.edu/achievements/culverhouse-fellows/
# 2020-2021 NEW FACULTY

## DR. DOUGLAS BISH | Professor

Department of Information Systems, Statistics and Management Science  
Ph. D. Virginia Tech  
**Research Interests:** Healthcare operations and policy, emergency management operations and policy, logistics

## DR. EBRU BISH | Professor

Department of Information Systems, Statistics and Management Science  
Ph. D. Northwestern University  
**Research interests:** Healthcare operations management, public health policy, public health screening, infectious disease testing, healthcare operations management

## DR. ADAM FARMER | Associate Professor

Department of Marketing  
Ph. D. University of Kentucky  
**Research Interests:** Political ideology, sustainability, charitable giving

## DR. TIGRAN MELKONYAN | Professor of Economics

Department of Economics, Finance, and Legal Studies  
Ph. D. Iowa State University  
**Research Interests:** Environmental economics, decisions under risk and uncertainty, applied game theory

## DR. PRATYUSH SHARMA | Assistant Professor

Department of Information Systems, Statistics and Management Science  
Ph. D. University of Pittsburgh  
**Research Interests:** Open source software, online communities, technology use and impact, interdisciplinary research

## DR. ANNIE TIAN | Assistant Professor

Department of Information Systems, Statistics and Management Science  
Ph. D. University of Oklahoma  
**Research Interests:** Cybersecurity, IT business value, IT innovation diffusion

## DR. PARTH VENKAT | Assistant Professor of Finance

Department of Economics, Finance, and Legal Studies  
Ph. D. University of Texas at Austin  
**Research Interests:** Corporate finance, financial institutions, corporate fraud

Read more about the latest Culverhouse faculty hires at [research.culverhouse.ua.edu](http://research.culverhouse.ua.edu).
STEM and CREATE Path to the MBA

An incredibly unique program that allows high-achieving undergraduate students in engineering, science, and select creative majors to earn an MBA from the Manderson Graduate School of Business through concurrent enrollment in business courses and only one additional year of study.

Marillyn A. Hewson Data Analytics Lab

Data analysis and business applications come together at this high-tech facility, where students collaborate on finding solutions to real-world problems. Faculty and researchers from all of our departments are involved in programs in the lab.

Interactive Decision Experiment (TIDE) Lab

A behavioral research laboratory focusing on understanding various aspects of human behavior as it relates to business activities. It features a shopper insights lab and virtual reality technology.

Capstone Student Investment Conference

Speakers from firms such as Goldman Sachs, Fidelity Investments, and Vulcan Value Partners discuss investing methodologies and careers with students and other professionals.

Culverhouse Business Analytics Symposium

The science of data analysis and how it relates to the business world is at the nexus of this annual event, which has featured speakers from GM, PBS, ESPN, and NASA.
CULVERHOUSE COLLEGE OF BUSINESS | FAST FACTS

HOW WE RANK

28th
Public Business School &
44th Nationally
2020-2021, U.S. NEWS & WORLD REPORT

9th
Best Ph.D. Accounting Program
in the Nation
2019, PUBLIC ACCOUNTING REPORT

#10
Online Master’s Program
in the U.S. & #1 in the SEC
2020-2021, U.S. NEWS & WORLD REPORT

19th
MBA Program among
Public Universities & 41st Overall
2020-2021, U.S. NEWS & WORLD REPORT

#6
Best Value for Online Master’s in
Marketing in the Nation
VALUECOLLEGES.COM

#37
Culverhouse Department of Management
Overall Ranking for 2019
TEXAS A&M/UNIVERSITY OF GEORGIA RANKINGS OF
MANAGEMENT DEPARTMENT RESEARCH PRODUCTIVITY

2019-2020 ENROLLMENT DEMOGRAPHICS

38.9% In-State  58.8% Out-Of-State  2.3% International
Though examining histograms is a good start to assess the symmetrical distribution of our outcome, it is good to also formally test the symmetry of "crime" using a normality test. We will use the Shapiro-Wilk test. If this test is significant, then there is evidence that our normality assumption is violated.

Let's now test our hypothesis using a simple linear regression model on the dataset without D.C. included. We want to determine if education is correlated with crime even in the presence of other variables that are well documented to be correlated with crime. To determine if multi-collinearity exists, let's look at the Variance Inflation Factors.