

**2021  
ACADEMIC  
RESEARCH  
COLLOQUIUM**  
FOR FINANCIAL  
PLANNING  
& RELATED  
DISCIPLINES

CFP BOARD  
CENTER  
FOR  
FINANCIAL  
PLANNING

**2021 ACADEMIC  
RESEARCH  
COLLOQUIUM**

# SCHEDULE AT A GLANCE

## THURSDAY, NOVEMBER 11

**12:00 PM**    **OPENING KEYNOTE**                      **Suzanne B. Shu, Ph.D.**  
Professor of Marketing, Cornell University

**1:00 PM**    **CONCURRENT SESSIONS**                      Paper Presentations

**3:00 PM**    **OPEN PAPER DISCUSSIONS**

## FRIDAY, NOVEMBER 12

**12:00 PM**    **OPENING KEYNOTE**                      **John Beshears, Ph.D.**  
Associate Professor of Business Administration,  
Harvard Business School

**1:00 PM**    **CONCURRENT SESSIONS**                      Paper Presentations

**3:00 PM**    **OPEN PAPER DISCUSSIONS**

## MONDAY, NOVEMBER 15

**12:00 PM**    **OPENING KEYNOTE**                      **Marie-Hélène Broihanne, Ph.D.**  
Professor of Finance and Researcher,  
LaRGE Research Center, University of Strasbourg

**1:00 PM**    **CONCURRENT SESSIONS**                      Paper Presentations

**3:00 PM**    **OPEN PAPER DISCUSSIONS**

## TUESDAY, NOVEMBER 16

**10:30 AM**    **DOCTORAL SEMINAR**

**12:00 PM**    **OPENING KEYNOTE**                      **Wade D. Pfau, Ph.D.**  
Professor of Retirement Income  
The American College of Financial Service

**3:00 PM**    **PRACTITIONER IMPLICATION SESSIONS**

All times are in Eastern Standard Time (EST). Poster exhibits available daily, 11:00 AM–4:00 PM.  
Poster exhibit Q&A daily, 1:00 PM–3:00 PM.

# WELCOME

The CFP Board Center for Financial Planning is proud to welcome you to the fifth annual Academic Research Colloquium for Financial Planning and Related Disciplines. We are pleased to once again host such a distinguished group of researchers, faculty members, students and practitioners who are leading contributors to the financial planning profession's academic body of knowledge. The Center is pleased to host this event in cooperation with the Canadian-based FP-Canada and Financial Planning Standards Board, the owner of the CFP® marks outside of the United States.

This year's Colloquium features expanded programming opportunities for practitioners. Two sessions led by scholar-practitioners will delve into the implications of research presented at the Colloquium for financial planning practice. The Center is also partnering with the Financial Planning Association to provide continuing education credit for these practitioner-focused sessions.

The Colloquium is an important part of the Center's Knowledge for Practice initiative, which elevates the profession by bringing best practices, research and networking opportunities—so practitioners can offer outstanding, up-to-date advice to their clients. Other elements of this initiative include:

Financial Planning Review continues to grow in its fourth full year. As the double-blind, peer reviewed research journal from the Center, FPR has a paper acceptance rate of under 10% and significant readership, with more than 125,000 downloads.

The CFP Board Center for Financial Planning will continue the three instructional partnerships in the coming year. The Center and The Wharton

School at the University of Pennsylvania will once again offer Client Psychology for financial planners. Based on Client Psychology—the second publication in the Center's financial planning book series—the program takes an interdisciplinary approach to the biases, behaviors and perceptions that impact client decision making and financial well-being. Additionally, we will be offering online sessions of the Financial Planning Teaching Seminar, offered in conjunction with Columbia University School of Professional Studies. In addition, our partnership with the University of Illinois continues in offering the MOOC—Financial Planning for Young Adults—with over 110,000 students enrolled. That course can be found via the Coursera platform.

We want to acknowledge the Center's Founding Sponsors—Northwestern Mutual, Envestnet and Charles Schwab Foundation, in partnership with Schwab Advisor Services—for their ongoing support of the Center's Knowledge for Practice initiatives. We are also grateful to Ballentine Partners, Capital Group, Lincoln Financial Group and Morgan Stanley for sponsoring four of the Best Paper Awards that will be presented during the Colloquium.

We thank you for your commitment to furthering financial planning as a profession and an academic discipline and look forward to our continued collaboration.

Sincerely,

**KEVIN R. KELLER, CAE**

Chief Executive Officer  
CFP Board

**D.A. ABRAMS, CAE**

Managing Director  
CFP Board Center for Financial Planning

**CHARLES R. CHAFFIN, Ed.D.**

Director of Academic Initiatives,  
CFP Board Center for Financial Planning

# MESSAGE FROM THE STEERING COMMITTEE

Welcome to the fourth annual Academic Research Colloquium for Financial Planning and Related Disciplines. We are certain that everyone here this week in Arlington is part of something significant for the field of financial planning.

In its first few years, the Colloquium has demonstrated the value of bringing together leading academic researchers with financial planning practitioners to tackle the most pressing issues in consumer financial decision-making, personal investing, saving, risk management, taxation, retirement, and estate planning. From a policy perspective, both a growing concern about financial security in retirement and advances in financial technology are fueling a push for democratization of financial advice and planning. In terms of swelling market demand, the financial planning profession has never had greater potential than right now to be more relevant to more people. Delivery on that opportunity is the challenge for the next decade.

There will once again be five keynote addresses from leading national researchers, including a panel discussion on FinTech as well as a discussion with the editors of Financial Planning Review regarding future research opportunities in financial planning. The ARC and Financial Planning Review are closely aligned partners who both are growing and evolving into respected platforms for research from a variety of academic disciplines.

As always, the 2020 ARC will consist of quality paper presentations from a variety of academic disciplines. Our paper acceptance rate this year was less than 25%. A primary objective of this conference is to bring together scholars and practitioners to focus on the practical implications of the research being presented. Our Paper Presentation sessions are meant to be interactive. Discussants are listed, but their job is to offer an initial comment or ask the first question, paving the way for the rest of the session attendees to engage with the presenter and others in the audience. In this way we hope to enrich the conference discussions with the breadth of experience from our practitioners. Everyone has a role, so engage.

We are once again hosting the Doctoral Seminar program for graduate students right before the opening session on Thursday. The seminar offers practical advice to our upcoming scholars on their journey toward completion of a PhD, publications, and eventually tenure. Included will be presentation and discussion of several graduate student research projects, in early form, to provide coaching and tips for improvement that should benefit all students in the audience. All Colloquium attendees are invited to attend this unique event prior to the first general session of the Colloquium.

By the end of the conference, we hope that you will see the ARC as the event for leading thinkers and doers in the emerging field of financial planning. We deeply appreciate the CFP Board Center for Financial Planning and its willingness to support and sustain the Colloquium. Please enjoy the conference and accept our invitation to become more deeply involved in this unique opportunity to build the field of financial planning.

Sincerely,

**2021 ARC STEERING COMMITTEE**

# ARC STEERING COMMITTEE

**Vickie Bajtelsmit**

College of Business,  
Colorado State University

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College of Human Sciences,  
Iowa State University

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Driehaus College of Business,  
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College of Education and Human Ecology,  
The Ohio State University

**Auke Plantinga**

Department of Finance &  
Accounting, University of Groningen,  
(The Netherlands)

# ARC REVIEWERS

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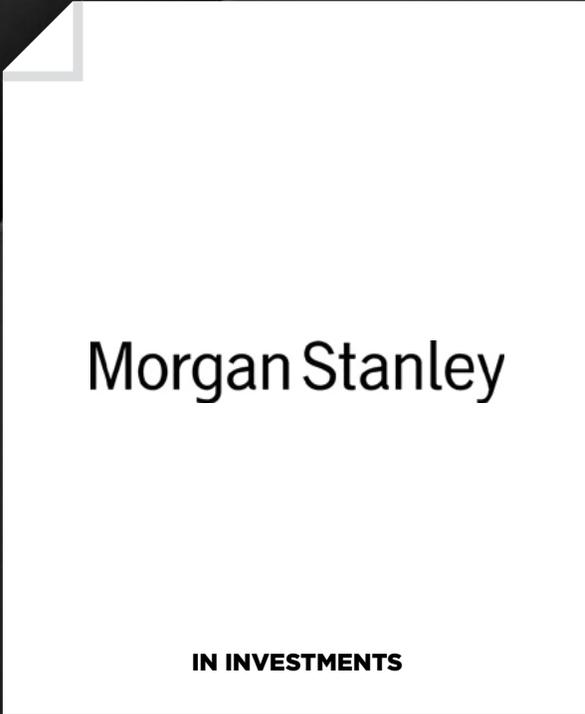
**Steffen Meyer**

Syddansk University,  
University of Southern Denmark

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# BEST PAPER AWARD SPONSORS



**Financial Planning Review** is an initiative of CFP Board Center for Financial Planning and published by Wiley, is a double-blind, peer-reviewed academic journal that features research within financial planning, as well as disciplines that directly or indirectly relate to the financial planning body of knowledge or financial planning practice.

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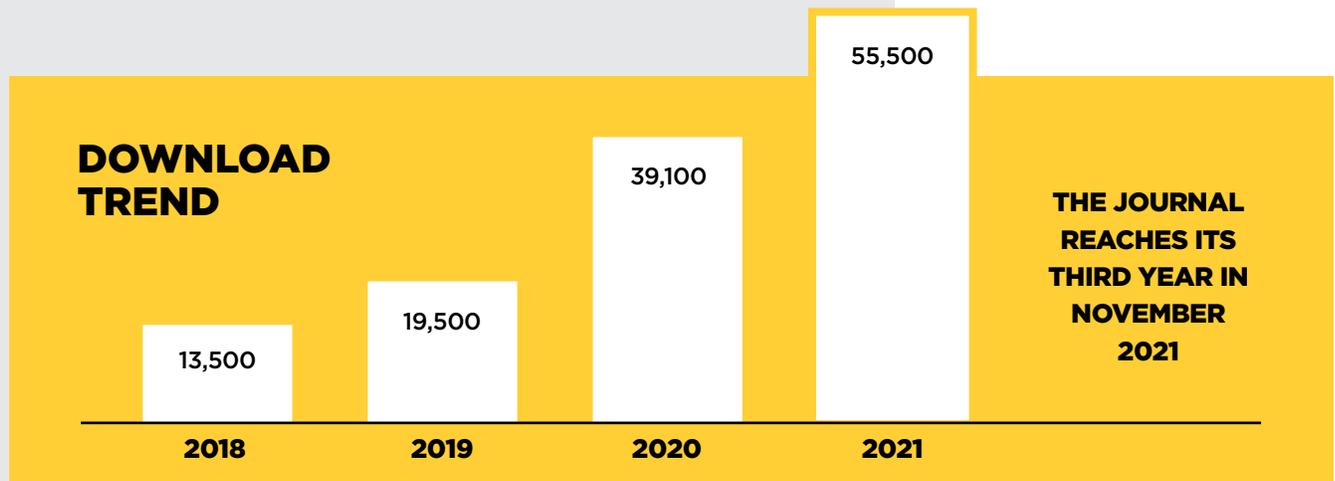
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# DETAILED AGENDA

All times are in Eastern Standard Time (EST)

Poster exhibits will be available to view throughout each day 11:00 AM – 4:00 PM



Each **CE Eligible** session is 1 credit hour. Up to 12 credit hours can be obtained. To receive CE credit, you must attend the entire session and provide your CFP ID. Continuing Education credit is offered by the College for Financial Planning.

## THURSDAY, NOVEMBER 11

**11:00 AM – 4:00 PM** Poster Exhibits available to view throughout day

**11:00 AM – 12:00 PM** Recorded Presentations available to view

**12:00 PM – 12:10 PM**

### OPENING REMARKS

**Dr. Charles Chaffin, CFP Board Center for Financial Planning**



**CFP Board Best Paper Award in Diversity**



**Lincoln Financial Best Paper Award**

**12:10 PM**

### KEYNOTE SESSION **CE Eligible**

***Applying Behavioral Science to Decumulation Decision-Making***

**Suzanne B. Shu, Ph.D.**

Professor of Marketing, Cornell University

Presider: Jonathan Fox, Iowa State University

Session sponsored by:

**Vanguard**

**1:00 PM – 3:00 PM** Poster Exhibits Q&A

**1:00 PM – 3:00 PM** **CONCURRENT SESSIONS—SEE FOLLOWING PAGES**

Paper Presentations

## CONCURRENT SESSIONS

### ROOM A

1:00 PM

**CE Eligible**

***Everyone else is making a mistake: Effects of peer error on saving decisions***

Elizabeth Perry, Harvard University, Cambridge, MA, USA

**Discussant:** Harry Turtle, Colorado State University, Fort Collins, CO, USA

Presider: Mark Fedenia, University of Wisconsin

1:30 PM

**CE Eligible**

***The negativity bias and perceived return distributions: Evidence from a pandemic***

Harry Turtle, Colorado State University, Fort Collins, CO, USA

**Discussant:** Elizabeth Perry, Harvard Business School, Harvard University, Cambridge, MA, USA

Presider: Mark Fedenia, University of Wisconsin

2:00 PM

**CE Eligible**

***Do saving nudges cause borrowing? Evidence from a megastudy***

Michaela Pagel, Columbia Business School  
Columbia University, New York, NY, USA

**Discussant:** Lynnette Purda, Queen's University, Kingston, ON, CA

Presider: Caezilia Loibl, The Ohio State University

2:30 PM

**CE Eligible**

***How do I ask for Help? Psychological barriers to improving wellness through financial professional use***

Lynnette Purda, Queen's University, Kingston, ON, CA

**Discussant:** Michaela Pagel, Columbia Business School  
Columbia University, New York, NY, USA

Presider: Caezilia Loibl, The Ohio State University

## CONCURRENT SESSIONS

### ROOM B

1:00 PM

**CE Eligible**

***Exploring the moderating role of self-esteem: How does the interplay between internal and external support factors impact young adults' financial resiliency?***

Josh Harris, Kansas State University, Manhattan, KS, USA

**Discussant:** Will Cong, SC Johnson College of Business  
Cornell University, Ithaca, NY, USA

Presider: Werner DeBondt, DePaul University

1:30 PM

**CE Eligible**

***AlphaPortfolio: Direct construction through Deep reinforcement learning and interpretable AI***

Will Cong, SC Johnson College of Business  
Cornell University, Ithaca, NY, USA

**Discussant:** Josh Harris, Kansas State University,  
Manhattan, KS, USA

Presider: Werner DeBondt, DePaul University

2:00 PM

**CE Eligible**

***Why do people underpredict their future expenses?***

Chuck Howard, Texas A&M University, College Station, TX, USA

**Discussant:** Philippe D'Astous, HEC Montreal,  
Montreal, QC, CA

Presider: Jonathan Fox, Iowa State University

2:30 PM

**CE Eligible**

***Human capital risk and portfolio choices: Evidence from university admission discontinuities***

Philippe D'Astous, HEC Montreal, Montreal, QC, CA

**Discussant:** Chuck Howard, Texas A&M University,  
College Station, TX, USA

Presider: Jonathan Fox, Iowa State University

3:00 PM - 4:00 PM

**Paper Discussion Breakout Sessions**

## FRIDAY, NOVEMBER 12

**11:00 AM – 4:00 PM** Poster Exhibits available to view throughout day

**11:00 AM – 12:00 PM** Recorded Presentations available to view

**12:00 PM – 12:10 PM**

### OPENING REMARKS

**D.A. Abrams, CAE, Managing Director,  
CFP Board Center for Financial Planning**

Morgan Stanley

**Morgan Stanley Best Paper Award in Investments**



**Capital Group Best Paper Award**

**12:10 PM**

### KEYNOTE SESSION **CE Eligible**

***The Modest Long-Run Effects of Automatic Savings Policies***

**John Beshears, Ph.D.**

Associate Professor of Business Administration in the  
Negotiation, Organizations, & Markets Unit  
Harvard Business School

Presider: Lance Palmer, CFP®, University of Georgia

Session sponsored by:



**1:00 PM – 3:00 PM** Poster Exhibits Q&A

**1:00 PM – 3:00 PM**

### CONCURRENT SESSIONS—SEE FOLLOWING PAGES

Paper Presentations

## CONCURRENT SESSIONS

### ROOM A

1:00 PM

**CE Eligible**

***Consumer budget management in the age of information access***

Anastasiya Ghosh, University of Arizona, Tucson, AZ, US

**Discussant:** Stefan Zeisberger, Radboud University / University of Zurich, Zürich, Switzerland

Presider: Lance Palmer, CFP®, University of Georgia

1:30 PM

**CE Eligible**

***What is risk? How investors perceive risk in return distributions***

Stefan Zeisberger, Radboud University / University of Zurich, Zürich, Switzerland

**Discussant:** Anastasiya Ghosh, University of Arizona, Tucson, AZ, US

Presider: Lance Palmer, CFP®, University of Georgia

2:00 PM

**CE Eligible**

***The effects of stock ownership on individual spending and loyalty***

Vrinda Mittal, Columbia Business School, Columbia University, New York, NY, USA

**Discussant:** Zhujun Cheng, Ohio State University, Columbus, OH, USA

Presider: Mark Fedenia, University of Wisconsin

2:30 PM

**CE Eligible**

***Are millennials wary of the stock market? A cohort analysis of stock holdings***

Zhujun Cheng, Ohio State University, Columbus, OH, USA

**Discussant:** Michaela Pagel, Columbia Business School, Columbia University, New York, NY, USA

Presider: Mark Fedenia, University of Wisconsin

## CONCURRENT SESSIONS

### ROOM B

1:00 PM

**CE Eligible**

***Roth Conversion Strategies for Different Generations***

Jenny Gu, University of Dallas, Dallas, TX, USA

**Discussant:** Julie Agnew, The College of William and Mary, Williamsburg, VA, USA

Presider: : Auke Plantinga, The University of Groningen

1:30 PM

**CE Eligible**

***Paying the price for bad advice: The role of financial vulnerability, learning and confirmation bias***

Julie Agnew, The College of William and Mary, Williamsburg, VA, USA

**Discussant:** Jenny Gu, University of Dallas, Dallas, TX, USA

Presider: Auke Plantinga, The University of Groningen

2:00 PM

**CE Eligible**

***What do the portfolios of individual investors reveal about the cross-section of equity returns?***

Sebastien Betermier, McGill University, Montreal, QC, CA

**Discussant:** David Brown, University of Arizona, Tucson, AZ, USA

Presider: Werner DeBondt, DePaul University

2:30 PM

**CE Eligible**

***Off target: On the underperformance of target-date funds***

David Brown, University of Arizona, Tucson, AZ, USA

**Discussant:** Sebastien Betermier, McGill University, Montreal, QC, CA

Presider: Werner DeBondt, DePaul University

3:00 PM - 4:00 PM

**Paper Discussion Breakout Sessions**

## MONDAY, NOVEMBER 15

**11:00 AM – 4:00 PM** Poster Exhibits available to view throughout day

**11:00 AM – 12:00 PM** Recorded Presentations available to view

**12:00 PM – 12:10 PM** **OPENING REMARKS**



**CFP Board Best Paper Award**



**CFP Board Best Paper Award**

**12:10 PM**

**KEYNOTE SESSION CE Eligible**

***Banks retail clients' profiles and the gender gap in subjective financial literacy of spouses***

**Marie-Hélène Broihanne, Ph.D.**

Professor of Finance and Researcher

LaRGE Research Center of University of Strasbourg

Presider: Suzanne Shu, Cornell University

Session sponsored by:



**1:00 PM**

**FPSB Remarks**

Paul Grimes, Chief Professionalism Officer, FPSB



**1:00 PM – 3:00 PM** Poster Exhibits Q&A

**1:00 PM – 3:00 PM** **CONCURRENT SESSIONS—SEE FOLLOWING PAGES**

Paper Presentations

## CONCURRENT SESSIONS

### ROOM A

1:00 PM

**CE Eligible**

***Predictable price pressure***

Samuel Hartzmark, Booth School of Business University of Chicago, Chicago, IL, USA

**Discussant:** John Thompson, Wilfrid Laurier University, Waterloo, ON, CA

Presider: Vickie Bajtelsmit, Colorado State University

1:30 PM

**CE Eligible**

***Measuring financial advice: Aligning client elicited and revealed risk***

John Thompson, Wilfrid Laurier University, Waterloo, ON, CA

**Discussant:** Samuel Hartzmark, Booth School of Business University of Chicago, Chicago, IL, USA

Presider: Vickie Bajtelsmit, Colorado State University

2:00 PM

**CE Eligible**

***Eponymous hedge funds***

Tri Trinh, NEOMA Business School, Paris, France

**Discussant:** Derek Tharp, University of Southern Maine, Lewiston, ME, USA

Presider: Mark Fedenia, University of Wisconsin

2:30 PM

***Racial animosity and black financial advisor underrepresentation***

Derek Tharp, University of Southern Maine, Lewiston, ME, USA

**Discussant:** Tri Trinh, NEOMA Business School, Paris, France

Presider: Mark Fedenia, University of Wisconsin

## CONCURRENT SESSIONS

### ROOM B

1:00 PM

**CE Eligible**

***Goal setting and saving in the FinTech era***

Antonio Gargano, University of Houston, Houston, TX, USA

**Discussant:** Miranda Reiter, CFP®, Texas Tech University, Lubbock, TX, USA

Presider: Mark Fedenia, University of Wisconsin

1:30 PM

**CE Eligible**

***Race, gender, and the likelihood to take financial advice***

Miranda Reiter, CFP®, Texas Tech University, Lubbock, TX, USA

**Discussant:** Antonio Gargano, University of Houston, Houston, TX, USA

Presider: Mark Fedenia, University of Wisconsin

2:00 PM

**CE Eligible**

***Revisiting covered calls and protective puts:***

***A tale of two strategies***

Bryan Foltice, Butler University, Indianapolis, IN, USA

**Discussant:** Ben Charoenwong, National University of Singapore, Singapore

Presider: Lance Palmer, CFP®, University of Georgia

2:30 PM

**CE Eligible**

***Foregone consumption and return-chasing investments***

Ben Charoenwong, National University of Singapore, Singapore

**Discussant:** Bryan Foltice, Butler University, Indianapolis, IN, USA

Presider: Lance Palmer, CFP®, University of Georgia

3:00 PM – 4:00 PM

**Paper Discussion Breakout Sessions**

## TUESDAY, NOVEMBER 16

### DOCTORAL SEMINAR

10:45 AM - 11:15 AM

#### ***Life Insurance and Retirement Planning***

Sabina Pandey, CFP®  
Michael Guillemette, Ph.D., CFP®  
Texas Tech University

11:15 AM - 11:45 AM

#### ***The Role of Personality Traits in Explaining the Financial Well-being Gap***

Olamide (Lami) Olajide  
Sarah Asebedo, Ph.D., CFP®  
Texas Tech University

#### **Discussants:**

Vickie Bajtelsmit, Colorado State University  
Werner F.M. DeBondt, DePaul University  
Caezilia Loibl, Ohio State University

12:00 PM

### OPENING REMARKS

**Kevin Keller**, CAE, CEO, CFP Board  
**Doug King**, CFP®, 2021 Board Chair, CFP Board

**BALLENTINE  
PARTNERS**

### **Ballentine Best Paper Award**

12:10 PM

### KEYNOTE SESSION **CE Eligible**

#### ***Determining Your Retirement Income Style***

#### **Wade D. Pfau, Ph.D.**

Professor of Retirement Income  
The American College of Financial Service

Presider: John Grable, CFP®, University of Georgia

Session sponsored by:

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**1:00 PM – 3:00 PM**

**PRACTITIONER IMPLICATIONS SESSIONS**

Session sponsored by:



**1:00 PM**

**CE Eligible**

***A competency modeling approach to assessing risk tolerance***

Sarah Fallaw, DataPoints

John Grable, CFP®, University of Georgia, Athens, GA, USA

Presider: Suzanne Shu, Cornell University

**1:30 PM**

**CE Eligible**

***Saving more with less: Optimal plan design with automatic enrollment and employer match contributions***

Zhikun Liu, CFP®, Empower Retirement

Greenwood Village, CO, USA

Presider: Suzanne Shu, Cornell University

**2:00 PM**

**CE Eligible**

***Insurance alchemy: The fixed rate annuity anomaly***

David Blanchett, CFP®, QMA, Newark, NJ, USA

Presider: Suzanne Shu, Cornell University

**2:30 PM**

**CE Eligible**

***Retirement income beliefs and financial advice seeking behaviors***

Alex Murguia, McLean Asset Management Corporation, McLean, VA

Wade Pfau, The American College for Financial Services, King of Prussia, PA, USA

Presider: Suzanne Shu, Cornell University

**3:00 PM – 4:00 PM**

**Paper Discussion Breakout Sessions**

**4:00 PM**

**ARC concludes**

# KEYNOTE SPEAKERS



## **John Beshears, Ph.D.**

**Associate Professor of Business Administration in the  
Negotiation, Organizations & Markets Unit,  
Harvard Business School**

John Beshears is the Terrie F. and Bradley M. Bloom Associate Professor of Business Administration in the Negotiation, Organizations & Markets Unit at Harvard Business School, teaching the second-year MBA course "Motivation & Incentives." He is also a faculty research fellow at the National Bureau of Economic Research. Before joining HBS, he was an assistant professor of finance at the Stanford Graduate School of Business.

Professor Beshears's primary research area is behavioral economics, the field that combines insights from psychology and economics to explore individual decision making and market outcomes. He focuses on understanding how the financial decisions of households and firms are influenced by the institutional environment in which choices are made. In recent work, he has studied participation in retirement savings plans, household investment decisions, and health-care choices.

The National Institutes of Health, Social Security Administration, FINRA Investor Education Foundation, Russell Sage Foundation, TIAA Institute, and National Science Foundation have supported Professor Beshears's research. His work has been published in journals including the *Journal of Finance*, *Journal of Financial Economics*, *Review of Financial Studies*, *Journal of Public Economics*, *Journal of Economic Behavior & Organization*, and *Proceedings of the National Academy of Sciences of the United States of America*; it has also been featured in *The Economist*, *The Wall Street Journal*, *The New York Times*, *BusinessWeek*, and *Time*.

After earning his Ph.D. in business economics at HBS, Professor Beshears was a postdoctoral fellow at the National Bureau of Economic Research. He received an AB in economics from Harvard University.



### **Suzanne B. Shu, Ph.D.**

#### **Professor of Marketing, Cornell University's Dyson School of Applied Economics and Management**

Suzanne B. Shu is the John S. Dyson Professor of Marketing at Cornell University's Dyson School of Applied Economics and Management within the SC Johnson College of Business. The types of decisions analyzed in her research include consumer self-control problems and consumption timing issues, with important implications for both negative behaviors (such as procrastination) and positive behaviors (such as saving). Her work on financial decisions has focused specifically on decumulation during retirement (annuities, Social Security claiming) as well as on perceived fairness for financial products. In the health domain, she has worked on grant-funded projects using behavioral economics to encourage hypertension medication adherence, reduce procrastination in mammogram screenings, increase adherence to weight loss programs, and promote colon cancer screenings. Professor Shu received a Ph.D. from the University of Chicago; she also holds a B.S. in Electrical Engineering and Masters in Electrical Engineering from Cornell University. Professor Shu has taught marketing and decision making courses to MBA students at the University of Chicago, Southern Methodist University, INSEAD, and UCLA. She is also currently an NBER Faculty Research Fellow, holds a joint faculty appointment at the UCLA Medical School, and has been a visiting scholar for several years at the Consumer Financial Protection Bureau.



### **Marie-Hélène Broihane, Ph.D.**

#### **Professor of Finance and researcher, LaRGE Research Center of University of Strasbourg**

Marie-Hélène Broihane is full Professor of Finance and researcher at LaRGE Research Center of University of Strasbourg. Her research covers behavioral finance, with a particular focus on the behavior of individual investors and on the biological bases of risk decision-making. She has been a member of the Scientific Advisory Board of the Financial Markets French Regulator since 2014. Her recent work focuses on MiFID questionnaires for bank customers in Europe. She has published around thirty articles in journals such as Cognition, Finance, The Journal of Risk and Uncertainty, Philosophical Transactions B, Theory and Decision, and various book/books chapters. She has been Associate Dean for the Master & Executive Education Programs since 2015 and head of the master's in finance of EM Strasbourg Business School since 2010.



## Wade D. Pfau, Ph.D., CFA, RICP

**Professor of Retirement Income  
The American College of Financial Services**

Wade D. Pfau, Ph.D., CFA, RICP, is the program director of the Retirement Income Certified Professional designation and a Professor of Retirement Income at The American College of Financial Services in King of Prussia, PA. As well, he is a Principal and Director for McLean Asset Management. He holds a doctorate in economics from Princeton University and has published more than sixty peer-reviewed research articles in a wide variety of academic and practitioner journals. He hosts the Retirement Researcher website, and is a contributor to Forbes, Advisor Perspectives, Journal of Financial Planning, and an Expert Panelist for the Wall Street Journal. He is the author of the books, *Safety-First Retirement Planning: An Integrated Approach for a Worry-Free Retirement*, *How Much Can I Spend in Retirement? A Guide to Investment-Based Retirement Income Strategies*, and *Reverse Mortgages: How to Use Reverse Mortgages to Secure Your Retirement*.

# DOCTORAL SEMINAR

**TUESDAY  
NOVEMBER 16  
10:45 A.M.  
TO 11:45 A.M.**

*Life Insurance and Retirement Planning*

**Sabina Pandey, CFP®**  
**Michael Guillemette, Ph.D., CFP®**  
Texas Tech University

*The Role of Personality Traits in  
Explaining the Financial Well-being Gap*

**Olamide (Lami) Olajide**  
**Sarah Asebedo, Ph.D., CFP®**  
Texas Tech University

DISCUSSANTS: **Vickie Bajtelsmit** Colorado State University      **Werner F.M. DeBondt** DePaul University      **Caezilia Loibl** Ohio State University

2021 ACADEMIC  
RESEARCH COLLOQUIUM  
FOR FINANCIAL PLANNING  
AND RELATED DISCIPLINES

## ACCEPTED PAPERS

***Everyone else is making a mistake: Effects of peer error on saving decisions***

-

**Elizabeth Perry, Harvard Business School, Harvard University, Cambridge, MA, USA**

The power of social influence to affect our choices is well-documented in the behavioral science literature. However, social influence has been less reliable in financial contexts, where multiple studies have found that it either makes no difference or even backfires. This paper describes three interventions to increase retirement saving among nearly 10,000 federal employees. We explore whether letting people know about the mistakes of others can be effective in financial contexts. All three interventions led to significantly more people adjusting their savings rates compared to the baseline, raising new questions about the nuances of social influence.

***The negativity bias and perceived return distributions: Evidence from a pandemic***

-

**Harry Turtle, Colorado State University, Fort Collins, CO, USA**

**Richard Sias, University of Arizona, Tucson, AZ USA**

**Laura Starks, University of Texas, Austin, TX USA**

We hypothesize that the negativity bias—the thesis that negative aspects have a more powerful impact than positive aspects on attention, learning, decision-making, and perceived risks—can help explain why most individuals hold strongly bearish views of short- and long-term expected equity return distributions, why individuals exhibit heterogeneous beliefs, and stock market under-participation. Using variation in the perceived risk of mortality from the 2009 H1N1 swine flu pandemic as a measure of the negativity bias, we find strong support for our hypothesis.

### ***Do saving nudges cause borrowing? Evidence from a megastudy***

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**Michaela Pagel, Columbia Business School, Columbia University, New York, NY, USA**

**Paolina Medina, Texas A&M University, College Station, TX USA**

We study whether savings nudges have the unintended consequence of additional borrowing in high-interest credit. We use data from a pre-registered experiment that encouraged 3.1 million bank customers to save via SMS messages and train a machine learning algorithm to predict individual-level treatment effects. We then focus on individuals who are predicted to save most in response to the intervention and hold credit card debt. We find that these individuals save 5.7% more (61.84 USD per month) but do not change their borrowing: for every additional dollar saved, we can rule out increases of more than two cents in interest expenses.

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### ***How do I ask for Help? Psychological Barriers to Improving Wellness through Financial Professional Use***

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**Lynnette Purda, Smith School of Business, Queen's University, Kingston, ON, CA**

**Laurence Ashworth, Smith School of Business, Queen's University, Kingston, ON, CA**

Working with a financial professional has been documented to provide psychological and financial wellness benefits yet many individuals are reluctant to engage professional help. We explore potential barriers to working with a financial advisor, focusing on previously mixed findings on the role of self-efficacy in this context. We unpack self-efficacy into two unique components: a belief in one's ability to independently manage their own financial affairs (financial self-efficacy or FSE for short) and a separate level of confidence in the ability to successfully engage with a financial professional who can advise or undertake these tasks (Financial Advice Seeking Self-Efficacy or FASSE). We are motivated by evidence that consumers struggle to comprehend various aspects of the financial services industry and hypothesize that this struggle acts as a barrier to advice-seeking behavior. We find that the two aspects of self-efficacy play different roles in encouraging the use of a financial advisor and that advisor adoption is highest among those individuals who hold both a favorable attitude towards financial professionals and those with higher levels of FASSE. Moreover, our experiments show that FASSE can be improved with relatively small changes to the presentation of financial professional's qualifications and the services they offer. Given suggestions that financial advice can help overcome low levels of financial literacy, our findings have significant implications for financial professionals and financial inclusion which plays prominently in the United Nations sustainability goals.

***Exploring the moderating role of self-esteem: How does the interplay between internal and external support factors impact young adults' financial resiliency?***

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**Josh Harris, Kansas State University, Manhattan, KS, USA**

**HanNa Lim, Kansas State University, Manhattan, KS, USA**

A growing number of households face financial hardships ranging from the loss of utility coverage, inability to pay medical bills, and eviction. Various studies have pursued the efficacy of increasing financial knowledge, financial capability, or self-efficacy to improve financial outcomes. The current study explores self-esteem as an internal factor supporting financial resiliency in young adults as measured across multiple time points from the public-use data set of the National Study of Adolescent to Adult Health (Add Health). Add Health is a longitudinal survey conducted across five waves, with the first wave taking place between September 1994 and December 1995 when the population was in grades 7 through 12. The current study utilizes data from waves I, III, and IV. Wave III data was collected from August 2001 to April 2002, when the respondents were 18 to 26 years old. The latest wave used in this study, IV, was conducted in 2008 and 2009 when the original population was 24 to 32 years old. The population of interest is young adults who experienced a financial hardship (e.g., utility service being shut off due to inability to pay) during the Wave III time period. Beyond the moderating effect of self-esteem on young adults' financial resiliency, the study explores the interaction between self-esteem and external sources of support—parents, peer, and school—finding positive relationships between these perceived sources of external support and positive financial outcomes. Early results find no conclusive support for improving self-esteem as a means to improving financial outcomes, but positive support is found for self-esteem for those young adults who experienced some level of public assistance.

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***AlphaPortfolio: Direct Construction Through Deep Reinforcement Learning and Interpretable AI***

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**Will Cong, SC Johnson College of Business, Cornell University, Ithaca, NY, USA**

**Ke Tang, Tsinghua University, Beijing, China**

**Jingyuan Wang, Beihang University, Beijing, China**

**Yang Zhang, Beihang University, Beijing, China**

To best facilitate financing planning practice, we directly optimize the objectives of portfolio management via reinforcement learning—an alternative to conventional supervised-learning-based paradigms that entail first-step estimations of return distributions, pricing kernels, or risk premia. Building upon breakthroughs in AI, we develop multi-sequence neural network models tailored to distinguishing features of economic and financial data, while allowing training without labels and potential market interactions. The resulting AlphaPortfolio yields stellar out-of-sample performances (e.g., Sharpe ratio above two and over 13% risk-adjusted alpha with monthly re-balancing) that are robust under various economic restrictions and market conditions (e.g., exclusion of small stocks and short-selling). Moreover, we project AlphaPortfolio onto simpler modeling spaces (e.g., using polynomial-feature-sensitivity) to uncover key drivers of investment performance, including their rotation and nonlinearity. More generally, we highlight the utility of deep reinforcement learning in finance and invent “economic distillation” tools for interpreting AI and big data models.

***Why do people underpredict their future expenses?***

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**Chuck Howard, Texas A&M University, College Station, TX, USA**

Consumers display an expense prediction bias in which they underpredict their future spending. We propose that this bias occurs in large part because: 1) consumers base their predictions on typical expenses which come to mind most easily during prediction, 2) typical expenses approximate the mode of a consumer's expense distribution rather than the mean, and 3) expenses display strong positive skew with mode < mean. Accordingly, we also propose that prompting consumers to consider reasons why their expenses might be different than usual increases predictions—and therefore prediction accuracy—by bringing atypical expenses in the right tail of the distribution to mind. 9 studies (N = 5,644) provide support for this account of the bias and the “atypical intervention” we develop to neutralize it.

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***Human Capital Risk and Portfolio Choices: Evidence from University Admission Discontinuities***

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**Philippe D'Astous, HEC Montreal, Montreal, QC, CA  
Stephen Shore, Georgia State University, Atlanta, GA**

Theory suggests that increasing idiosyncratic, uninsurable labor income risk causes individuals to reduce the risk in their financial assets. Ceteris paribus, this would lead to a negative association between the levels of labor income and financial risks. This relationship is difficult to measure empirically because labor income and financial risks are jointly determined, and both driven by unobservable preferences. Risk tolerant individuals tend to choose a riskier career and hold riskier portfolios, leading to an upward-biased estimate of the effect of earnings risk on risky assets holdings. We overcome this identification problem by exploiting a discontinuity built into the Danish national university admissions system which provides quasi-random assignment of similar applicants to programs with different earnings risk profiles. We exploit the fact that university programs have a causal impact on students' subsequent earnings processes, and use earnings volatility as one feature of the earnings process that proxies for income risk. We show that such increase in income risk reduces risky asset holding and stock market participation. Entering a program whose enrollees subsequently experience volatile earnings causes students to have more volatile earnings and, ceteris paribus, to hold fewer risky assets and be less likely to participate in the stock market.

## ***Consumer Budget Management in the Age of Information Access***

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**Anastasiya Ghosh, University of Arizona, Tucson, AZ, USA**

**Liang Huang, University of Arizona, Tucson, AZ, USA**

Budgeting is often suggested as a solution for consumer financial struggles. We study a context (budgeting apps) where monitoring budget progress against the budgeted amount can backfire. Using data from several lab experiments, a field study, and a budget tracking application, we demonstrate that setting a budget and having access to spending information can increase consumer spending within the budgeted amount. We argue this happens because consumers use budget as a reference point for spending and access to spending information enhances consumers' certainty in budget standing relative to the reference point. We further show that this effect is dynamic, spending information affecting spending at the end (but not the beginning) of the budget period. We demonstrate two interventions (providing less precise spending information and rolling over available money in the budget to the next period) that attenuate the increase in spending. This research provides insights for consumers on managing their finances better and for financial institutions on how to develop better budgeting tools for consumers.

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## ***What is risk? How investors perceive risk in return distributions***

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**Stefan Zeisberger, Radboud University / University of Zurich, Zürich, Switzerland**

Most textbook finance literature assumes risk to be defined as the standard deviation of returns (volatility). Academics, financial advisors and regulators use this definition alike and build models and policy around it. However, whether this is consistent with how investors actually perceive risk, has hardly been tested. In a comprehensive series of studies, we present investors with return distributions that have different risk characteristics. Investors have to state their perceived risk for these and make investment decisions. Our method allows us to detect which risk measures they implicitly use. The results hint at the probability of losing being the main driver of risk perception and investment propensity. Volatility plays a less important role. Our findings are robust with regard to color-coding of return distributions, different investor types, personal characteristics including investment experience, the use of monetary incentives, and the presentation format of the return distribution.

### ***The Effects of Stock Ownership on Individual Spending and Loyalty***

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**Vrinda Mittal, Columbia Business School, Columbia University, New York, NY, USA**

**Michaela Pagel, Columbia Business School, Columbia University, New York, NY, USA**

**Paolina Medina, Texas A&M University, College Station, TX USA**

We show that when individuals own stock from a certain company, they increase their spending in that company's stores. We use data from a FinTech app that opens brokerage accounts for users and rewards them with stock when they shop at pre-selected stores. For identification, we use the staggered distribution of brokerage accounts over time and quasirandomly distributed stock grants. We also show that loyalty is the dominant psychological mechanism behind our findings, that weekly spending in specific stores is strongly correlated with retail stock holdings of that company, and that stock rewards increase overall investment activity.

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### ***Are Millennials Wary of the Stock Market? A Cohort Analysis of Stock Holdings***

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**Zhujun Cheng, The Ohio State University, Columbus, OH, USA**

**Tansel Yilmazer, The Ohio State University, Columbus, OH, USA**

Participation in the stock market dramatically dropped during the Great Recession. There have been concerns that certain demographic groups, especially Millennials, have not since been back to the stock market. Using the Survey of Consumer Finances (SCF), we create seven cohorts based on birth years and distinguish age and cohort effects on stock holdings outside and in retirement accounts. Our results provide evidence for strong cohort effects for stocks outside of retirement accounts. Controlling for age, not only Millennials but all cohorts had lower stock holdings outside retirement accounts in 2016 compared to 2007. We did not detect any cohort effects for stocks in retirement accounts.

## ***Roth Conversion Strategies for Different Generations***

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**Jenny Gu, University of Dallas, Dallas, TX, USA**

This paper studies Roth conversion strategies for different generations under the impact of recent tax reforms. Conventional wisdom to choose between Traditional IRA and Roth IRA is that Roth IRA is preferred when higher tax bracket is expected in retirement. However, the challenge is to predict the tax rates in decades, and market risk and inflation risk add more uncertainties. Each generation has disparate priorities on retirement planning and different early withdrawal potentials. When future tax policy is uncertain, it is prudent to hedge the risk by allocating assets into accounts with different tax treatment. Previous studies have mixed arguments on the relative advantages of Roth conversions, and financial planning scholars have suggested it would be advantageous to have both types of IRA accounts. In this paper, we specifically examine whether the “back-door” Roth IRA conversion is advantageous for each generation and how to reach the optimal tax diversification at different ages. Tax diversification, one of the major retirement planning strategies, refers to the strategic allocation of investment assets among multiple investment accounts with varying taxation. (Silver, 2013, Wendling and Tacchino, 2018). A taxdiversified retirement portfolio reduces a retiree’s tax burden during retirement years. Finally, recent tax reforms have profound impacts on retirement planning strategies. The 2017 Tax Cuts and Jobs Act (TCJA) and 2019 Secure Act added new dimensions to consider when tax-diversifying the retirement portfolio. We incorporate all these factors into our study and explore why a proactive Roth conversion strategy is important at current time.

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## ***Paying the price for bad advice: The role of financial vulnerability, learning and confirmation bias***

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**Julie Agnew, The College of William and Mary, Williamsburg, VA, USA**

**Hazel Bateman, UNSW Business School, Sydney, Australia**

**Christine Eckert, UTS Business School, Sydney, Australia**

**Fedor Iskhakov, Australian National University, Canberra, Australia**

**Jordan Louviere, University of South Australia, Adelaide, Australia**

**Susan Thorp, The University of Sydney, Sydney, Australia**

What kinds of people will pay bad financial advisers? We show that experimental participants (n=2003) with a proclivity toward confirmation bias are more susceptible to bad advisers. We give participants a sequence of signals of adviser quality that can be clear or ambiguous, depending on each participant’s ability to discern bad advice. Rational participants set aside ambiguous signals and do not use them to update beliefs about advisers. Biased participants treat ambiguous signals as favoring their priors, and update accordingly. Younger, more trusting, more impulsive, less financially literate and less numerate participants are most vulnerable to paying a poor-quality adviser.

## ***What Do the Portfolios of Individual Investors Reveal About the Cross-Section of Equity Returns?***

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**Sebastien Betermier, McGill University, Montreal, QC, CA**

**Laurent Calvet, DHEC Business School, London, England**

**Samuli Knupfer, BI Business School, Oslo, Norway**

**Jens Kvaerner, Tilburg University, Tilburg, Netherlands**

We construct a parsimonious set of equity factors by sorting stocks according to the socio-demographic characteristics of the individual investors who own them. The analysis uses administrative data on the stockholdings of Norwegian investors in 1997-2018. Consistent with financial theory, a mature-minus-young factor, a high wealth-minus-low wealth factor, and the market factor price stock returns. Our three factors span size, value, investment, profitability, and momentum, and perform well in out-of-sample bootstrap tests. The tilts of investor portfolios toward the new factors are driven by wealth, indebtedness, macroeconomic exposure, age, gender, education, and investment experience. Our results are consistent with hedging and sentiment jointly driving portfolio decisions and equity premia.

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## ***Off Target: On the Underperformance of Target-Date Funds***

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**David Brown, University of Arizona, Tucson, AZ, USA**

**Shaun Davies, University of Colorado Boulder, Boulder, CO, USA**

Target-date funds (TDFs) are popular vehicles that provide investors with an evolving asset allocation to meet their needs at some future date (e.g., retirement). While TDFs provide investors with extensive diversification and active rebalancing, TDFs are also a type of fund-of-funds. As such, investors pay multiple layers of fees as most TDFs charge fund-of-funds' fees and also hold funds that collect additional fees. We show that TDFs are easy to emulate with a portfolio of cost-efficient exchange-traded funds (ETFs) and we coin these portfolios Replicating Funds (RFs). RFs substantially outperform TDFs, exhibit low tracking error, do not suffer from cash drag, and require infrequent rebalancing. Our analysis shows that TDF sponsors collectively charged nearly \$2.5 billion in excess fees in 2017 alone. We provide a normative rule-of-thumb for investors to construct their own RFs using low-cost ETFs.

## ***Predictable Price Pressure***

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**Samuel Hartzmark, Booth School of Business, University of Chicago, Chicago, IL, USA**

**David Solomon, Boston College, Boston, MA USA**

We present evidence that stock returns, at the market and individual stock level, can be predicted by the timing of uninformed investor cashflows that are known in advance. Standard asset pricing models and the efficient market hypothesis suggest such flows should not significantly influence prices. Aggregate dividend payments (whose timing and amount are announced weeks prior to payment) predict higher daily value-weighted market returns, by 13 b.p. for the top five days per year, and 5 b.p. for the top fifty days. This effect holds internationally, is weaker when asset managers are less likely to reinvest dividends, and is stronger when liquidity is low (i.e. VIX is high). Industries with greater past exposure to dividend price pressure underperform those with less exposure, consistent with a long-term partial reversal. Predictable selling pressure leads to lower returns after blackout periods for firms with higher stock compensation. Back of the envelope calculations suggest price multipliers of each dollar invested in the aggregate market ranging from 1.5 to 2.3. These results suggest that predictable price pressure is a widespread result of money flows, rather than an anomaly.

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## ***Measuring Financial Advice: Aligning client elicited and revealed risk***

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**John Thompson, Wilfrid Laurier University, Waterloo, ON, CA**

**Longlong Feng, Wilfrid Laurier University, Waterloo, ON, CA**

**R. Mark Reesor, Wilfrid Laurier University, Waterloo, ON, CA**

**Chuck Grace, Calvey Business School, London, ON, CA**

**Adam Metzler, Wilfrid Laurier University, Waterloo, ON, CA**

Financial advisors use questionnaires and discussions with clients to determine a suitable portfolio of assets that will allow clients to reach their investment objectives. Financial institutions assign risk ratings to each security they offer, and those ratings are used to guide clients and advisors to choose an investment portfolio risk that suits their stated risk tolerance. This paper compares client Know Your Client (KYC) profile risk allocations to their investment portfolio risk selections using a value-at-risk discrepancy methodology. Value-at-risk is used to measure elicited and revealed risk to show whether clients are over-risked or under-risked, changes in KYC risk lead to changes in portfolio configuration, and cash flow affects a client's portfolio risk. We demonstrate the effectiveness of value-at-risk at measuring clients' elicited and revealed risk on a dataset provided by a private Canadian financial dealership of over 50,000 accounts for over 27,000 clients and 300 advisors. By measuring both elicited and revealed risk using the same measure, we can determine how well a client's portfolio aligns with their stated goals. We believe that using value-at-risk to measure client risk provides valuable insight to advisors to ensure that their practice is KYC compliant, to better tailor their client portfolios to stated goals, communicate advice to clients to either align their portfolios to stated goals or refresh their goals, and to monitor changes to the clients' risk positions across their practice.

### ***Eponymous Hedge Funds***

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**Tri Trinh, NEOMA Business School, Paris, France**

**Yakup Arisoy, NEOMA Business School, Paris, France**

**Vikas Agarwal, Georgia State University, Atlanta, GA**

Using a relatively common phenomenon of eponymy in the hedge fund industry where funds are named after their founder-managers, we examine if eponymy is associated with skilled managers signaling their ability. Our results suggest that eponymous fund managers are neither necessarily skilled nor outperform their non-eponymous peers. In contrast, eponymous funds take higher risk which lead them to have lower Sharpe ratios and information ratios, hence worse risk-adjusted performance. Moreover, we do not find any evidence of an increase in reputational costs and benefits associated with eponymy. Fund investors neither reward nor punish eponymous managers for good and bad performance, respectively, relative to their non-eponymous peers. Overall, these results fail to support a signaling-based explanation of eponymy and highlight the need for exploring other rationales behind the eponymy decision of hedge fund managers.

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### ***Racial Animosity and Black Financial Advisor Underrepresentation***

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**Derek Tharp, University of Southern Maine, Lewiston, ME, USA**

This study investigates whether racial animosity across metropolitan markets is associated with Black financial advisor underrepresentation. Using a dataset of all U.S. securities-licensed individuals (N = 642,543), we first estimate the racial and ethnic composition of the industry using an algorithm that accounts for name, gender, and location. Second, we use a dataset enhanced by a commercial vendor to restrict the analysis to only those identified as working as financial advisors (n = 237,435). Using racially charged Google search queries as a proxy for racial animosity, we find that greater racial animosity is associated with greater Black advisor underrepresentation. We estimate lower underrepresentation of 0.9 percentage points when comparing markets with the highest and lowest levels of animosity. For the average market with an estimated 11.4% Black advisor representation, an increase of 0.9 percentage points would represent a 7.9% increase in Black advisor representation.

### ***Goal Setting and Saving in the FinTech Era***

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**Antonio Gargano, University of Houston, Houston, TX, USA**

**Alberto Rossi, Georgetown University, Washington, DC, USA**

We study the effectiveness of soft, self-designed commitment devices, i.e. saving goals, in increasing individuals' savings using data from a FinTech App. We establish that setting goals increases individuals' saving rate and show that the effect is causal using a difference-in-differences identification strategy that exploits the random assignment of users into a group of beta-testers that can set goals and a group of users that cannot. We also show that the increased savings within the App do not come at the expense of reduced savings outside the App. We explore the economic channels of our results by matching App user survey responses to their behavior and highlight the importance of a monitoring channel, consistent with models where agents experience disutility from falling short of their goal.

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### ***Race, Gender, and the Likelihood to Take Financial Advice***

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**Miranda Reiter, CFP®, Texas Tech University, Lubbock, TX, USA**

This study examined the likelihood of consumers to take a financial planner's advice based on race and gender using an experimental design with a sample of Black and White respondents. Findings suggest that financial planners' racial or gender backgrounds do not affect whether a client will follow a planner's advice. However, women respondents were more likely than men respondents to report that they would follow the advice given by a financial planner.

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### ***Revisiting Covered Calls and Protective Puts: A Tale of Two Strategies***

-

**Bryan Foltice, Butler University, Indianapolis, IN, USA**

This paper examines the historical risk-adjusted returns of two hedging strategies designed to minimize downside market risk: Protective-puts and covered-calls, using US market data from 1993 to 2020. Here, we find that covered-call strategies significantly outperform the buy-and-hold strategy on a raw and risk-adjusted basis over the entire sample and these excess returns appear to remain persistent over time. We also find the opposite results hold for the protective put strategy: This strategy not only significantly underperforms the buy-and-hold strategy from a raw and risk-adjusted return standpoint, it actually significantly increases the probability of incurring losses each month. Finally, we evaluate the overall utility of various covered call strategies for loss averse investors, using the standard prospect theory utility function. Here, we find that out-of-the-money covered-call options yield the highest utilities for investors with less than average loss aversion, while in-the-money covered call options become more favorable as loss aversion increases.

## ***Foregone Consumption and Return-Chasing Investments***

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**Ben Charoenwong, National University of Singapore, Singapore**

**Sumit Agarwal, National University of Singapore, Singapore**

**Pulak Ghosh, Indian Institute of Management, Bangalore, India**

Existing behavioral economics and finance research has documented that individuals make mistakes in various contexts such as under diversification in investment allocations, time inconsistent savings behavior, and consumption errors; and, that biases seem exacerbated among those with less cognitive abilities (D'Acunto et al. 2019). However, most of the existing research focuses on a small number of decisions, such as how investors trade within their brokerage account or whether mortgage refinancing responds to changes in mortgage rates. A question remains how different individual decisions interact at the household portfolio level. As stated in Campbell (2006), “the study of household finance is challenging because household behavior is difficult to measure, and households face constraints not captured by textbook models.” Further, the process by which individuals form expectations and how the expectations map to real economic outcomes like consumption, savings, and risk-taking are relevant to policy makers considering different fiscal and monetary policy tools. Such analysis has typically not possible due to the lack of comprehensive data.

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## ***A competency modeling approach to assessing risk tolerance***

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**Sarah Fallaw, DataPoints**

**John Grable, CFP®, University of Georgia, Athens, GA, USA**

A client's psychological risk tolerance, or the client's enduring personality characteristics related to the ability to withstand the ongoing losses and gains, is a complex and multidimensional set of constructs. In a series of studies, we demonstrate the reliability and validity of the Investor Profile, a measure of psychological risk tolerance that includes a combination of various psychological predictors, including self-esteem, self-efficacy, knowledge, emotional stability, risk personality, and risk preference in the prediction of clients' behavior related to market downturns. This competency modeling approach to measuring psychological risk tolerance provides the client with a better understanding of how the client might react to market downturns in the future while also providing the financial professional with specific areas that can be the focus of ongoing coaching and guidance to improve an investor's decision-making related to selling equities during a downturn in the market.

## ***Saving More With Less: Optimal Plan Design with Automatic Enrollment and Employer Match Contributions***

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**Zhikun Liu, CFP<sup>®</sup>, Empower Retirement, Greenwood Village, CO, USA**

**David Blanchett, CFP<sup>®</sup>, QMA, Newark, NJ, USA**

Encouraging DC participants to save more for retirement is a common goal among financial advisors and retirement plan sponsors. In this study, we explore how various factors affected participant saving decisions. Using an administrative data set of approximately 157,000 participants who recently enrolled in an employer-matched 401(k) plan, we find that increasing the default deferral rate (as part of an automatic enrollment scheme) can significantly improve retirement savings. In other words, for plan sponsors interested in increasing participant deferral rates without changing the existing employer contribution structure, simply increase the default savings rate seems like a relatively powerful and straightforward way to accomplish this objective. This study disentangles the impacts of two most commonly discussed factors that can potentially increase participant's retirement savings rate: Automatic deferral rate and employer contributions. Other factors that are significantly associated with participant's saving decisions include age, salary, equity percentage, maximum employer match rate, etc.

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## ***Insurance Alchemy: The Fixed Rate Annuity Anomaly***

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**David Blanchett, CFP<sup>®</sup>, QMA, Newark, NJ, USA**

**Michael Finke, The American College**

Fixed rate annuities, also called multi-year guaranteed annuities, or MYGAs, offer expected returns protected by state guaranty associations similar to other safe investments such as CDs, money market accounts, or Treasury bonds. Yields on MYGAs have risen considerably, in relative terms, in recent years compared to historical levels. MYGAs offered by highly rated insurers had a 100 bps yield premium above Treasury bonds as of December 2020, with premiums exceeding 200 bps from lower rated insurers. Expected MYGA returns were approximately 100 bps higher than yields on similarly rated corporate bonds and have significantly lower default risk. We explore this apparent anomaly and discuss opportunities for sophisticated investors.

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## ***Retirement Income Beliefs and Financial Advice Seeking Behaviors***

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**Alex Murguia, McLean Asset Management Corporation, McLean, VA**

**Wade Pfau, The American College for Financial Services, King of Prussia, PA, USA**

This investigation identifies and validates a series of salient behavioral finance and psychological constructs that influence retirement income planning. We show how these scales are related to each other as well as retirement income concerns and investment behaviors. We also describe how four investment personas can be linked with the Advisor Usefulness and Retirement Income Self-Efficacy scales to successfully identify preferred financial implementation methods. This can assist individuals in more readily recognizing their relative strengths and weaknesses when implementing a retirement income strategy, and financial professionals can present advice in a manner that addresses a client's concerns and preferred implementation.

2021 ACADEMIC  
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## ACCEPTED POSTERS

### ***A multidimensional approach to measuring risk tolerance in China***

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**Fan Liu, Xi'an Jiaotong-Liverpool University, Suzhou, China**

**Eddy Fang, Xi'an Jiaotong-Liverpool University, Suzhou, China**

**Angela Lyons, University of Illinois at Urbana-Champaign, Champaign, IL, USA**

Evidence from the U.S. and Europe suggests that current risk assessment tools, which are used by financial professionals to measure clients' risk tolerance and make appropriate portfolio recommendations, may be flawed due to "mis"perceptions of risk. Few studies have tested the extent to which these tools are reliable measures of relative risk tolerance for households in emerging economies such as China, where these perceptions of risk may be significantly influenced by cultural factors, social networks, and risk attitudes that differ from those living in developed countries. This study uses a psychometric approach to capture these additional factors. Between April and November 2019, data were collected from 1,898 households and used to construct a multidimensional index of risk tolerance for Chinese households. We tested the effectiveness of the multidimensional index in predicting financial decisions and portfolio allocations. The results were compared to traditional, unidimensional measures of risk tolerance often used by the financial industry in the U.S. and Europe. The findings show that the multidimensional index is a more consistent and significant predictor of households' investment decisions and portfolio allocations than the traditional measures. Specifically, we found that increases in risk tolerance (as captured by the psychometric index) significantly increased ownership of risky assets (i.e., stocks), as well as the amount and share of risky assets held in households' financial portfolios. We also found evidence that social networks, which are rarely accounted for in U.S. and European models, play a key role in influencing individuals' perceptions of risk in China. As expected, non-risky assets (i.e., deposit-type accounts) were not significantly affected by changes in risk tolerance. Robustness checks were conducted to account for potential endogeneity between risk tolerance and investment decisions using a two-stage instrumental variable approach. The findings from this study provide important insights to assist researchers and financial professionals in developing risk assessment tools that more accurately capture risk attitudes and perceptions in China and other developing countries.

### ***Electroencephalographic Brain Wave Patterns as Descriptors of Financial Risk-Taking Behavior***

-

**John Grable, CFP®, University of Georgia, Athens, GA, USA**

**Eun Jin Kwak, University of Georgia, Athens, GA, USA**

This study was designed to evaluate brain wave (i.e., alpha, beta, and gamma) patterns as descriptors of financial risk-taking behavior using quantitative EEG. Specifically, ten healthy adults were asked to answer a series of financial risk-tolerance, risk aversion, risk taking, and personal characteristic questions using a computerized survey and to engage in a financial risk-taking game of chance. It was determined that brain wave activation was not directly associated with the choice to engage in the financial risk-taking task. Brain wave activation in relation to financial risk taking was found to be more directly related to a participant's level of financial knowledge, financial experience, and willingness to take risk. It is possible that these factors act in a way that primes someone to take risk. The use of EEG methodologies, as a clinical and research tool, as exemplified by this study, shows great promise in providing more insights into the way individuals conceptualize and act when faced with financial choices that entail the possibility of uncertain gains and losses.

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### ***Financial Stress Amplified by COVID-19: What Are the Factors to Amplify Financial Stress during COVID-19 Pandemic?***

-

**Wookjae Heo, Purdue University, West Lafayette, IN, USA**

**Keewon Moon, Yonsei University, Seoul, South Korea**

**Jae Min Lee, Minnesota State University, Mankato, MN, USA**

This study examined the association of various factors with the psychological syndrome that responds to the recent pandemic, and the following are the primary purposes of the study: (a) to investigate whether the occurrence of COVID-19 were associated with financial stress levels and (b) to check whether covariates such as financial statements, financial risk tolerance, having insurance, health status, and demographic factors were associated with the financial stress. By using two survey samples matching through Propensity Scores (PSM), the main analysis with linear estimation (Hierarchical Linear Modeling, HLM) was used to answer for the research purposes. Two survey samples were matched by PSM and HLM results show that respondents who experienced COVID-19 were likely to have a higher level of financial stress than those who did not experience COVID-19. Three areas of covariates, such as financial characteristics, health status, and socio-demographic characteristics were shown to be associated with the level of financial stress. This study is expected to contribute to discussions in academia and the financial planning industry.

### ***Do Teams Alleviate or Exacerbate Behavioral Biases? Evidence from Extrapolation Bias in Mutual Funds***

-

**Ricardo Barahona, Erasmus University Rotterdam, Netherlands**

**Kristy Jansen, Tilburg University, Tilburg, Netherlands**

**Stefano Cassella, Tilburg University, Tilburg, Netherlands**

Whether teams attenuate or exacerbate the behavioral biases which are pervasive at the individual level is an open question. To address this question, we use the mutual fund industry as a laboratory. Our focus is on how return extrapolation, a bias in investor behavior that has received considerable attention in recent work, is transmitted from individual fund managers to the team-managed funds they join. We show that teams heavily attenuate the influence of extrapolation bias on funds' trading behavior. Further evidence shows that the elicitation of team members' inner cognitive reflection can be responsible for teams' reduction in behavioral biases. Our results highlight the attenuation of the extrapolation bias as a potential benefit of team-based asset management.

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### ***I think I can, I think I can: Financial self-efficacy and desired financial behavior***

-

**Richard Stebbins, University of Alabama, Tuscaloosa, AL, USA**

**Kyoung Tae Kim, University of Alabama, Tuscaloosa, AL, USA**

This study used the 2018 National Financial Capability Study dataset to investigate the association between financial self-efficacy and financial behavior. We constructed a comprehensive measure of financial self-efficacy based on the framework of Lown (2012). Results from the ordered logit show a positive association between financial self-efficacy and short-term, long-term, and desired financial behavior. Financial knowledge was found to play an important role in financial behavior across three behavior measures. Financial education was associated positively with only long-term and any desired behavior. We discussed implications for researchers, educators, and policymakers.

***Reference Point Formation - Does the Market Whisper in the Background?***

-

**Tianyang Wang, Colorado State University, Fort Collins, CO, USA**

Well-established studies in behavioral finance have widely confirmed that investors are highly influenced by subjective reference points when making economic decisions. While the previous literature has examined the dynamics of reference point formation for individual stocks based on observed price sequences and illustrated the behavioral effects of price patterns on reference price formation, the stocks are often treated as isolated without considering the contextual information of the market. In this research, we extend the literature by incorporating the market price information as background to the behavior experiment, and investigate how this additional information affects reference point formation. Our overarching hypothesis is that if the market background information has no impact then it should not alter the results of the previous literature; otherwise, the additional market information should be an informative explanatory factor for the reference point formation, as confirmed by our behavior experiment. We further investigate the impact of pessimism and optimism on reference prices with a model of disappointment aversion and anticipatory feelings developed by Gollier and Muermann(2010). Our study fills a void in the literature by providing new evidence on the impact of contextual market information on reference point formation in an investment setting and can be insightful for investors in practice of behavior finance.

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***Good debt, Bad debt: Family Debt Portfolios and Financial Burdens***

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**Jing Jian Xiao, University of Rhode Island, South Kington, RI, USA****Rui Yao, University of Missouri, Columbia, MO, USA**

The purpose of this study is to examine potential effects of debt portfolios on family financial wellbeing measured by three indicators of financial burdens. Analyses of the 2019 Survey of Consumer Finances data show that among families holding two or more types of debts, common debt portfolio types are mortgage-credit card-vehicle debts, mortgage-credit card debts, and mortgage-vehicle debts. Multivariate logistic regression results suggest that holding different types of debts may be associated with different financial consequences: holding three specific types of debts (i.e., mortgage, vehicle, other debts) tends to increase debt pressure; holding two specific types of debts (i.e., education and other debts) tends to increase debt delinquency; and holding four specific types of debts (i.e., mortgage, credit card, education, and other debts) tends to increase insolvency. These results can be used to identify warning debt portfolios in terms of debt burden indicators.

### ***Financial Wellbeing Among American Households during the COVID-19 Pandemic: The Role of CARES Act***

-

**Yingyi Liu, University of Georgia, Athens, GA, USA**

**Jia Qi, University of Georgia, Athens, GA, USA**

**Yu Zhang, University of Georgia, Athens, GA, USA**

This paper investigated whether the CARES Act, which permitted penalty-free withdrawal from retirement accounts during the COVID-19 pandemic, was associated with the eligible American households' subjective financial wellbeing.

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### ***Theory of Planned Behavior and Adequate Emergency Fund Savings between Fintech Users and Non-fintech Users - A Pilot Study***

-

**Ying Chen, Texas Tech University, Lubbock, TX, USA**

**Sarah Asebedo, Texas Tech University, Lubbock, TX, USA**

The current study investigates how people's attitudes, social norms, and perceived behavioral control affect their emergency fund savings. This study uses the Theory of Planned Behavior (Ajzen, 1991) to explore behavioral factors related to adequate emergency funds among fintech users and non-fintech users. Given the limitations of fintech measurement in secondary data, this study gathers primary data covering fintech use, financial knowledge, attitude towards emergency savings, perceived behavioral control, subjective norms, intention to save for emergencies, and adequate emergency fund savings. A Structural Equation Model with a Confirmatory Factor Analysis is employed.

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### ***Investigating Antecedents to Financial Satisfaction in Emerging Adults***

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**Mindy Joseph, CFP®, Kansas State University, Manhattan, KS, USA**

**Maurice MacDonald, Kansas State University, Manhattan, KS, USA**

Emerging adults represent a demographic on the cusp of financial independence and who are well-positioned to establish a solid foundation for their financial future. However, this group has struggled financially (American Psychological Association, 2018; Serido & Deenanath, 2016) for reasons ranging from limited savings levels to job losses during Covid-19 related economic conditions or the Great Recession (Kent, 2020; LeBaron & Kelley, 2020). These financial struggles can delay the transition into full independence and may ultimately impact their feelings of financial satisfaction at this life stage. The intent of the investigation is to add to the literature on antecedents to financial satisfaction, a subcomponent of well-being, for emerging adults who are developing financial skills and financial self-efficacy in preparation for financial independence.

### ***Pushing or clicking the grocery cart? Health and economic concerns during the COVID-19 pandemic***

-

Yilan Xu, University of Illinois, Champaign, IL, USA

Wookjae Heo, Purdue University, West Lafayette, IN, USA

D. Elizabeth Kiss, Kansas State University, Kansas State University, Manhattan, KS, USA

Soo Hyun Cho, California State University Long Beach, Long Beach, CA, USA

Michael Gutter, University of Florida, Gainesville, FL, USA

Online grocery shopping has grown dramatically during the novel-coronavirus (COVID-19) pandemic. It is unknown, however, whether the growth is driven by situational factors related to the pandemic or more permanent changes to preferences and behaviors. This study utilizes a unique set of survey data to examine the socio-demographic profile and motivations of consumers who used and did not use online grocery shopping during the pandemic. Our comprehensive data analyses reveal the driving forces for the adoption, the timing of adoption, and the continued use of the service as well as the health and economic considerations for the consumer decision. Our findings have implications for marketing, public health, and households' resource allocation.

### ***Using an Extended Post-Acceptance Framework to Examine Consumer Adoption of Fintech***

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Jia Qi, University of Georgia, Athens, GA, USA

Swarn Chatterjee, University of Georgia, Athens, GA, USA

Sheri Worthy, University of Georgia, Athens, GA, USA

Keith Herndon, University of Georgia, Athens, GA, USA

Bartosz Wojdowski, University of Georgia, Athens, GA, USA

Consumers are experiencing fast development of information technology in the financial services industry, but the adoption of financial technology (fintech) is still limited. This research introduces a revised extended post-acceptance model (EPAM) as the framework to examine the factors associated with adoption and use of fintech among participants. The participants in this study were U.S. residents between 18-70 years of age. This study examined how financial capability and technological proficiency, perceived safety, and perceived usefulness were associated with the use and adoption of fintech products and service. The results from the structural equation model indicate that fintech proficiency, investment risk tolerance, and perceived safety are associated with the frequency of fintech application use upon adoption. The results have practical implications for existing fintech companies, policy makers, and financial planning firms considering adoption of fintech based services for their clients.

### ***Identifying Characteristics of Successful Financial Advisors***

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**Kristin Lilly, Columbus State University, Columbus, GA, USA**

**Summra Akalework, Columbus State University, Columbus, GA, USA**

**Gina Hall, Columbus State University, Columbus, GA, USA**

Financial advisors have various backgrounds and degrees, and this can sometimes make recruiting and hiring financial advisors tricky from a human resources perspective. The purpose of this study is to identify characteristics that are associated with successful financial advisors. We will examine available data from successful financial advisors to compare academic background, years of experience, and other variables, and perform statistical analyses to see which characteristics are prevalent among these advisors. In addition, we will do a second analysis using a survey sent to several currently employed financial advisors. This paper will highlight the results from both studies and compare results, leading to insights that may help recruiting and hiring practices for financial advising firms.

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### ***Financial Stress and Academic Performance of College Students***

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**Abed Rabbani, University of Missouri, Columbia, MO, USA**

**Zhaoyue Gao, University of Missouri, Columbia, MO, USA**

The academic performance of college students is of great importance to both students and colleges. However, the rising cost of higher education in the United States and the resulting increase in student financial stress has had a considerable impact on students' academic performance. This research uses the data from the University of Missouri and statistical analysis was conducted to investigate the impact of the stress caused by the financial burden of college education on student academic performance and other factors on academic performance. The results show that financial stress has a significant negative impact on the academic performance of students. Additionally, students whose parents possess professional degrees perform significantly better than students whose parents possess less than high school education level.

## ***Don't Know Responses and Financial Knowledge Measurement: Do Prompts and Response Options Matter?***

-

**Melissa Wilmart, University of Alabama, Tuscaloosa, AL, USA**

**Kyoung Tae Kim, University of Alabama, Tuscaloosa, AL, USA**

**Tae Young Pak, Sungkyunkwan University, Seoul, South Korea**

Prior research has demonstrated that understanding money management is critically important to make informed personal finance decisions and avoid costly financial mistakes (Lusardi & Mitchell, 2014). Americans know little about personal finance (Hogarth & Hilgert 2002; Lusardi & Mitchell, 2007). While we have seen a growing interest in research related to financial knowledge, little is known about the validity of survey protocols for financial knowledge. Currently, the standard procedure for financial knowledge surveys presents respondents with a series of statements or questions about personal finance topics, such as stocks, compounding interest, and inflation. The surveys then ask participants to select the correct answer; with common response formats including multiple choice or true/false items as well as a “Don’t Know” (DK) and “Refused to Answer” (RA) options. The financial knowledge score is typically defined as the count or percentage of correct answers. Both an incorrect answer choice and a DK/RA response receive a score of zero, whereas a correct answer choice gets a score of one (or some positive number). Using count or percentage implicitly assumes that all three response categories—incorrect, DK, and RA—indicate an absence of knowledge.

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## ***Social network and stock investment***

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**Shine Lei, CFP®**

**Leslie Ramos-Salazar**

Findings from previous studies has identified various factors related to stock investment decisions. However, little is known about the role of social network in stock investment decisions of individual investors. This study aims to understand the relationship between the use of social network and stock investment decisions, as reflected in the 2016 Survey of Consumer Study dataset. Our findings provide evidence of the positive contribution of the use of social network in stock investment decisions. Personal characteristics, such as household net worth, homeownership, education level and risk tolerance may play a vital role in influencing individuals' decisions regarding stock investment. In addition, this study contributes to our understanding of income's moderating role in stock investment decisions.

### ***Emergency Saving Attitude, Financial Wellbeing, and Psychological Distress: Role of Financial Behavior in COVID Context***

-

**Mousumi Singha, Mahapatra Institute of Public Enterprise, Telangana, India**

**Dr. P Murugan, University of Hyderabad, Hyderabad, India**

**Prof. Ram Kumar Mishra, Institute of Public Enterprise, Hyderabad, India**

The COVID-19 pandemic has shaken the economic foundation of most of the countries. The global financial turmoil has shaped the need for emergency savings and has magnified the importance of appropriate financial planning in terms of maximizing savings and minimizing spending. The current study explores the role of the precautionary or emergency saving attitude of Indian households during the COVID-19 pandemic on their financial behavior and also its impact on psychological distress and financial well-being. A total of 238 sample data are collected through a survey among Indian households and a structural equation model has been used to establish the hypothesized relationships among the variables. The study establishes that an individual positive attitude towards emergency savings influences their financial behavior. Perhaps, an Emergency saving attitude decreases their psychological distress and also increases their financial well-being. The findings of the study could motivate individuals to create a positive attitude towards emergency savings and can be a guiding tool for the government and other financial institutions to innovate product (s) to attract emergency saving funds of Indian households.

### ***Life Insurance, Mortality Risk, and the Role of Financial Knowledge***

-

**Youngwon Nam, Seoul National University, Seoul, South Korea**

**Caezilia Loibl, The Ohio State University, Columbus, OH, USA**

**Robert Scharff, The Ohio State University, Columbus, OH, USA**

Life insurance coverage has decreased by roughly 25 percent over the last thirty years, which suggests that more households may be financially vulnerable to mortality risk. This study (a) describes the characteristics of households who are financially inadequately-protected in the event of income earners' death and (b) examines the role financial knowledge plays in maintaining adequate protection. The analysis includes full-time working adults who live in households with at least two members (N=2,426) from the 2016 Survey of Consumer Finances. We found that financial knowledge, rather than the use of financial professionals, is associated with adequate financial assets and net worth. However, financial professionals emerge as a significant predictor of life insurance adequacy. Our study advances the understanding of households' vulnerability to mortality risk by distinguishing different indicators of wealth, and argues that in the majority of cases, interventions should emphasize financial literacy rather than wealth preservation.

***Is Financial Knowledge Related to Retirement Adequacy?***

-

**Sunwoo Lee, York University, Ontario, ON, CA****Sherman Hanna, The Ohio State University, Columbus, OH, USA**

Many U.S. households may not be adequately prepared for retirement, and one of the challenges they face is appropriately assessing their retirement needs and wealth. We examined factors related to retirement adequacy, focusing on its relation to objective and subjective financial knowledge. We conducted descriptive and logistic regression analyses with the 2016 Survey of Consumer Finances dataset. We estimated that about 50% of working households would have adequate retirement income when we excluded the value of the primary residence, and 54% would have adequacy when included 100% of the value of the home. In the multivariate analyses, subjective financial knowledge had a statistically significant positive relationship to retirement adequacy. However, the relation between objective financial knowledge and retirement adequacy was statistically significant only when the value of home equity was excluded.

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***Are financially constrained firms susceptible to a stock price crash?***

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**Guanming He, Durham University, Durham, England****Helen Ren, Durham University, Durham, England**

This study investigates whether and how financial constraints on firms affect the risk of their stock price crashing. We find strong evidence that financial constraints increase future stock price crash risk. This finding is robust to using a dynamic panel generalized method of moments (GMM) estimator and two quasi-natural experiments to control for potential endogeneity. Cross-sectional analyses reveal that the positive relation between financial constraints and future crash risk is more prominent for firms with high abnormal accruals or with weak corporate governance and less pronounced for firms that commit tax avoidance or have a high credit rating. Our study is of interest to investors as well as other stakeholders concerned about firms' creditworthiness and viability.

***Investment Knowledge, Investment Information Source, and Trading Frequency***

-

**HanNa Lim, Kansas State University, Manhattan, KS, USA****Timothy Todd, Liberty University School of Law, Lynchburg, VA, USA****JaeBeom Suh, Kansas State University, Manhattan, KS, USA**

Using the 2018 National Financial Capability Study (NFCS) State-by-State Survey combined with the 2018 Investor Survey, this study examines the associations between investment knowledge, use of different information source, and trading frequency. The results from multinomial generalized structural equation modeling (GSEM) show that investment knowledge is directly and indirectly associated with trading frequency through the use of different information sources, such as professionals, institutions, media, and personal contacts. Financial risk tolerance and optimistic expectation on own investment portfolio performance also associated with more frequent trading in non-retirement investments. The findings of this study contribute to the existing literature by identifying direct and indirect paths to investors' trading frequency.

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***Investigating the effect of credit constraint status on the financial obligations over income ratio***

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**Congrong Ouyang, Auburn University, Auburn, AL, USA****Sherman Hanna, The Ohio State University, Columbus, OH, USA**

This research investigates whether credit constraints prevent borrowing by investigating the relationship between credit constraints and the financial obligations ratio of homeowners and renters. Previous literature suggested that credit constrained consumers cannot adjust their spending as the model prescribes due to their inability to borrow. However, our results from 2016 Survey of Consumer Finances show that credit constrained households had higher financial obligations ratios than otherwise similar households without credit constraints. The positive effect of the credit constraint variable is plausibly due to households being credit constrained because their financial obligations ratio was already too high. At the 50th percentile of the financial obligations ratio, credit-constrained renter households had a ratio about 28% higher than similar renters without credit constraints, and homeowner households had a ratio 48% higher than similar homeowners without credit constraints. Being credit-constrained was not an obstacle to obtaining credit but rather, a result of past borrowing.

### ***Climate Change Exposure and Stock Return Predictability***

-

**Jiangmin Xu, Peking University, Peking, China**

This paper finds evidence that stock returns vary with the physical climate change exposure of firms in a predictable manner. We construct measures of exposures to physical climate changes at the firm level, and find that firms with high climate change exposures experience lower future profitability. We show that due to limited attention of investors, stock prices do not promptly incorporate such climate change information, and firms with high climate change exposures are subject to subsequent lower returns. A long-short trading strategy based on this effect produces significant alphas of around 0.6% per month. Moreover, we document that our return predictability strengthens under severe physical climate conditions, and it is not the result of risks associated with carbon emissions.

### ***At the Intersection of Madison Avenue and Wall Street: Advertisement of Investment Advice and Stock Market Participation***

-

**William Gerken, University of Kentucky, Lexington, KY, USA**

**Joseph Farizo, University of Richmond, Richmond, VA, USA**

**Ge Wu, University of Richmond, Richmond, VA, USA**

We examine the effects of advertisement by investment advisory firms on household stock market participation. Exploiting variation in exposure to financial advertising for households along designated market area (DMA) borders, we find evidence that increased advertising by investment advisory firms leads to higher stock market participation. Consistent with fixed cost frictions to participation, these effects are predominant among wealthier households. Moreover, the effects are concentrated in counties where the advertising firm has a physical presence. Our results highlight the complementary nature of persuasive advertising and local access to finance in the market for investment advice.

### ***Green or Brown: Which One to Short Sell***

-

**Weiming Zhang, The Chinese University of Hong Kong, Hong Kong**

We document a negative relationship between firm's ESG performance and short selling activities among overpriced stocks. This relationship is not due to traditional short-sale constraints such as less lendable shares or high lending fees. Instead, short selling overpriced stocks with high ESG scores is subject to a higher 1) synchronization risk—the shareholders of “the long side” are reluctant to sell the high ESG stocks; 2) ESG sentiment risk—high ESG stocks may experience sentiment-driven price jumps when public attention on ESG issues spikes; and 3) ESG reputation risk—short sellers who accumulate large positions on high ESG stocks may have bad ESG reputation thus potential fund outflow. We further investigate the implications of such relationship on stock returns and option prices.

### ***The Co-holding puzzle: New Evidence from Transaction Level Data***

-

**John Gathergood, University of Nottingham, Nottingham, UK**

**Arna Olafsson, Copenhagen School of Economics, Copenhagen, Denmark**

Using detailed and highly-disaggregated data on spending, income, bank account balances, and consumer credit, we examine the tendency of individuals to “co-hold”, i.e., to simultaneously hold low-interest liquid deposit balances and high-interest debt in the form of overdrafts. The disaggregated nature of the data allows us to calculate co-holding at daily frequency, while prior studies have relied on more aggregated measures. Daily measures reveal that co-holding is less common than these prior studies have documented, occurring on approximately 15% of individual  $\times$  days in our baseline calculations. Most spells of co-holding are also short, lasting less than one calendar month. The detailed data allow us to examine the empirical relevance of the competing explanations for co-holding. When brought to the data, we find that co-holding appears to be driven by behavioral rather than rational forces. More specifically, we find evidence in support of explanations for co-holding based upon mental accounting while we find rational explanations for co-holding to be empirically much less relevant.

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### ***Psychology of Transition***

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**Erin Sikorski, The Wellington Group, Indianapolis, IN, USA**

It is no secret that mergers and acquisitions in the wealth management space are booming, and the financial services industry is experiencing record setting transactional volume. There is a tidal wave of founders at or near retirement age, several without viable succession plans in place. Business owners have varying aspirations with regard to exiting their firms, some preferring to sell and be out and others wanting to remain involved post-sale. A select group desire to build a firm that will live long beyond their working years, thereby creating a legacy. Unless the owner’s plan is to close the doors at the death or retirement, succession considerations exist. Succession planning should be viewed and treated as a continual process versus an event or reaction. The traditional elements of succession planning are universal; they are quantifiable and process driven. Though every strategy is unique to the organization for which it is built, models and repeatable, sequential actions run in the background. Similar inputs are used and applied formulaically. Firms look across their organization to identify and groom future leaders or determine outside talent is needed, and then future governance is agreed upon. Professional valuations are calculated and sometimes consultants are hired to polish the firm to be more attractive to potential buyers. All of these services can be delivered in a bespoke manner, focusing on the individuality of the organization. Although the boxes are being checked, succession plans are still failing. Yes, sometimes it is product of poor execution and implementation; however, there is another factor to consider, one that is difficult to articulate and monetize. It is the psychology of transition.

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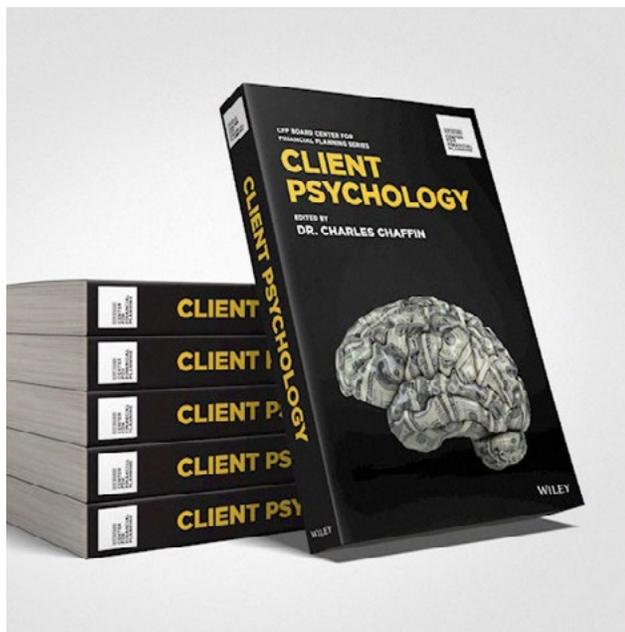
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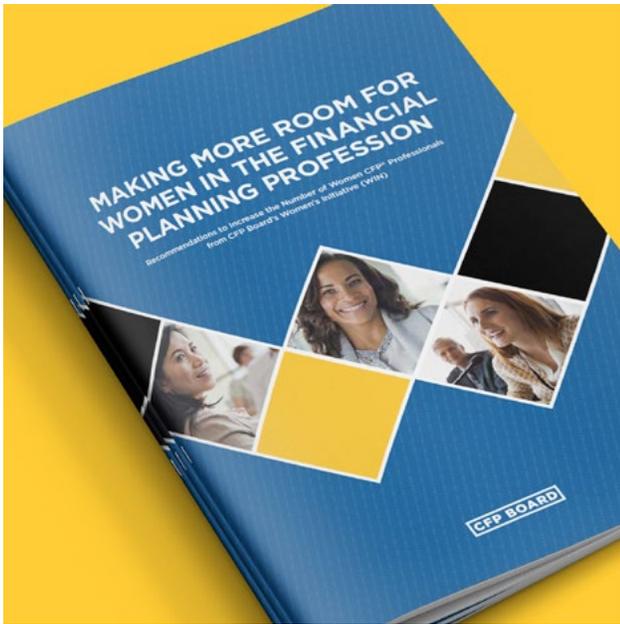


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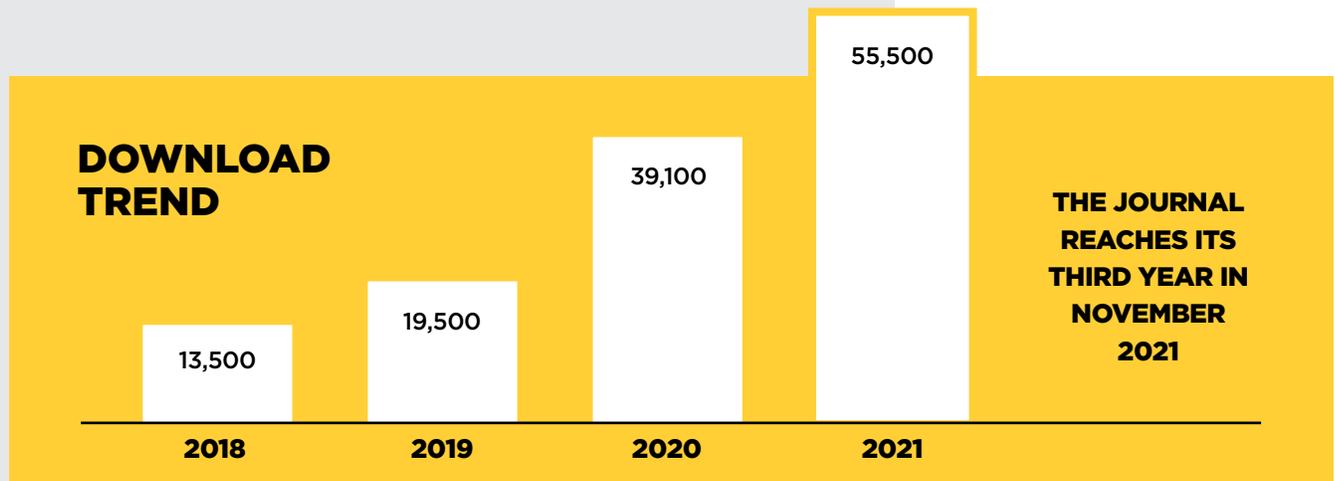
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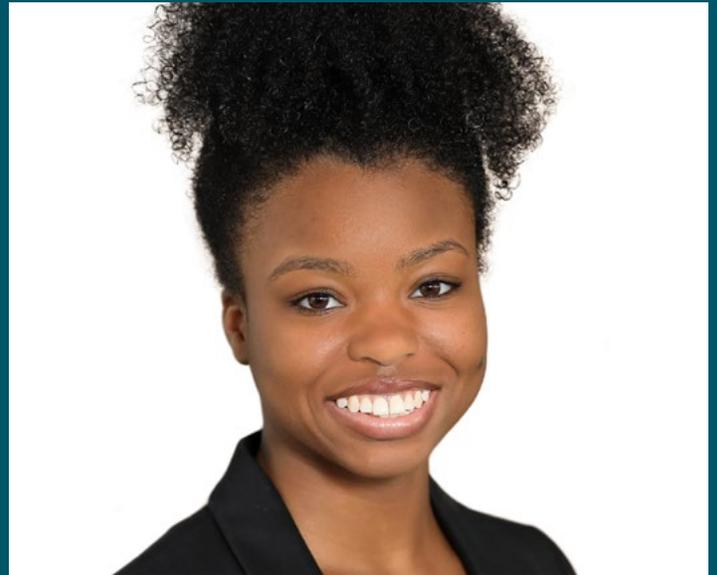
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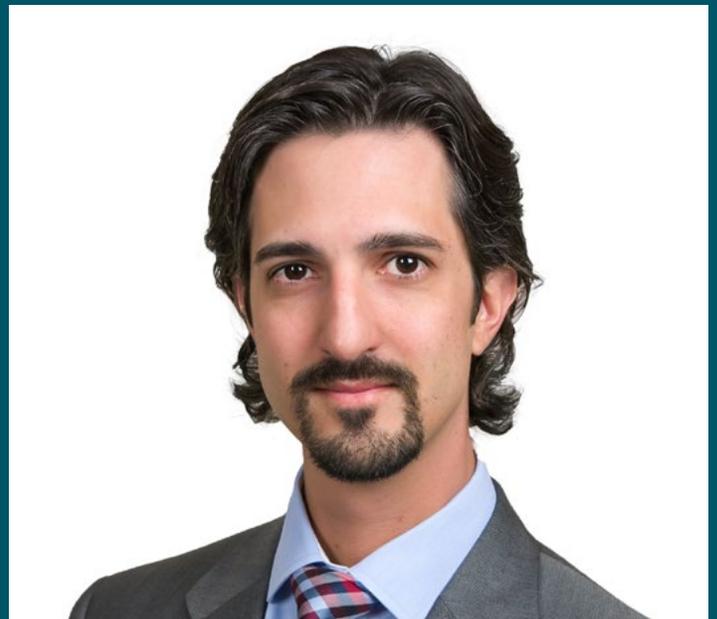
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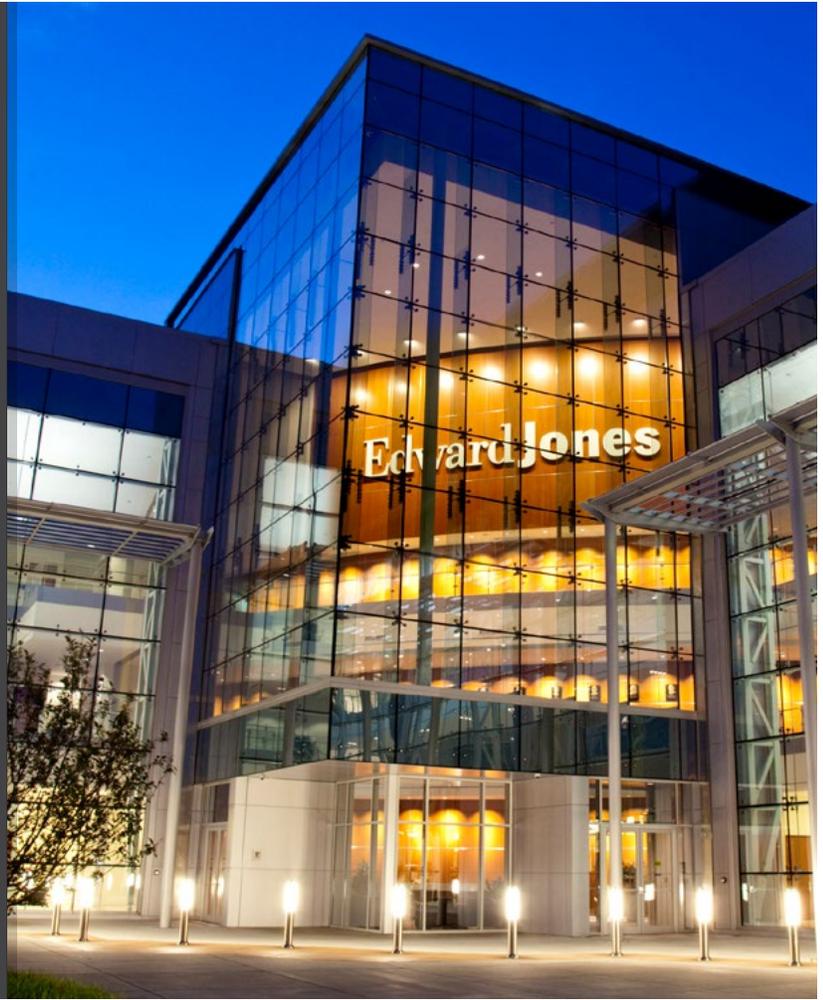
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