



# CENTER ON FINANCE, LAW & POLICY

UNIVERSITY OF MICHIGAN



19-20

*PROGRESS* **REPORT**



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**Michael S. Barr**

**Faculty Director,  
Center on Finance Law & Policy**

**Joan and Sanford Weill Dean,  
Gerald R. Ford School of Public  
Policy**



SIX YEARS AFTER ITS 2013 LAUNCH, the Center on Finance, Law, and Policy (CFLP) continues to uphold its commitment to actionable, interdisciplinary research. What started with a convening of 40 faculty members from across the University has evolved into a robust team of more than 70 faculty affiliates with expertise ranging from fintech to financial regulation to entrepreneurship to behavioral economics, along with three staff members, and a network of 26 student research assistants from seven schools across the University.

Today, the Center generates impact through three primary avenues: conducting research, facilitating dialogue between experts from across the University and across the globe, and leveraging the wide array of talents across the university's faculty and student body to aid in Detroit's renaissance.

As researchers, our faculty-student teams tackle complex issues that plague officials and regulators worldwide. An example of this forward-thinking effort is our ongoing work on the role of central banks: In partnership with the Bill & Melinda Gates Foundation, CFLP faculty and research assistants are reimagining how central banks can better promote the needs of underbanked and underrepresented populations worldwide.

We're proud of our work, but we recognize research needs a platform beyond academic papers and journals to spark progress. The Center regularly hosts conferences that convene foremost experts in their fields domestically and internationally, leading discussions concerning the most daunting challenges facing regulators and policymakers today. Since 2015, the Center has hosted an annual financial stability conference in partnership with

the U.S. Office of Financial Research, covering topics like the role of big data in finance and the risks associated with ever-changing financial technology. Last year's conference, held at the U.S. Department of the Treasury in Washington, D.C., addressed how regulators can implement more effective measures to prevent lapses in oversight that led to the Great Recession of 2008. This year, we will return to the Treasury's Cash Room to take on Global Systemic Risk.

In line with our mission, we strive to not only produce informative research but also serve as effective practitioners. The CFLP is proud to coordinate the Detroit Neighborhood Entrepreneurs Project (DNEP), an accelerator that pairs Detroit small business owners with students from the Law School, Ross School of Business, Ford School of Public Policy, and Stamps School of Art & Design, in a first-in-the-nation model to help businesses address their legal, business, and design challenges.

At the Center on Finance, Law & Policy, our goal is to produce transformative and practical work in pursuit of the public good. We reshape our local communities, inform national policy, and tackle global issues through the extraordinary efforts of world-class students and faculty housed at the University of Michigan.

I encourage you to explore our trailblazing projects described in greater detail within this progress report, and I hope you'll continue engaging with the Center as we move into 2020.

A handwritten signature in black ink that reads "Michael S. Barr". The signature is fluid and cursive.


Michael S. Barr.

**SIX** *years*  


**120** **SMALL  
BUSINESSES**  
SERVED 

**40** **+PLUS**  
BLUE BAG LUNCH  
**TALKS** 

**76** **FACULTY**  
AFFILIATES 

**26** **RESEARCH  
ASSISTANTS**  
*— per semester —*  
FROM **SEVEN**  
SCHOOLS 

**12** **INTERDISCIPLINARY  
RESEARCH COLLABORATIONS**

**TWO** *senior*  
RESEARCH FELLOWS 



CENTER ON FINANCE  
LAW & POLICY  
UNIVERSITY OF MICHIGAN

# TIMELINE 2013-2020



**Former Treasury Secretary Timothy F. Geithner Visited Michigan Law School**

For a round table conversation on the necessity of advancing academic research on the causes of financial crises, crisis prevention, and crisis response. This laid the foundation to create a new **Center on Finance, Law & Policy**.

April 18



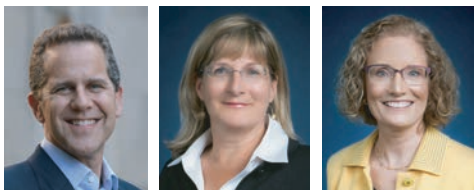
October 14

**Monthly "Blue Bag" Faculty Lunch Talks**

**Dana Muir**, Professor at the **Ross School of Business**, delivered the inaugural **Blue Bag Lunch Series** talk: **The Future of Insurance and Asset Management**.

2013

May 14



**Convening Conference: Center on Finance, Law & Policy**

This Convening Conference laid the foundation for a new interdisciplinary and holistic approach to financial regulation in light of the recent financial crisis. Professors **Michael Barr**, **Dana Muir** and **Gretchen Spritzer** convened more than 40 faculty members from across campus to discuss how a new **Center on Finance, Law & Policy** might provide an interdisciplinary approach and holistic approach to financial regulation in light of the recent financial crisis.



September 18

**Growing Apart: Income Inequality in America**

**Neera Tanden**, president of the **Center for American Progress**, spoke at length about the effects of growing income inequality and economic disparity on American families, workers, and communities.

2014

October 23-24



**Financial Reform: Preventing the Next Crisis**

**Richard Cordray**, then **Director of the U.S. Consumer Financial Protection Bureau**, delivered the keynote address at the center's first large-scale

conference on the issue of preventing financial crises in the future.



April 14

**Asia's Role in Global Financial Reform**

**Alexa Lam**, the former Deputy Chief Executive Officer of the **Hong Kong Securities and Futures Commission (SFC)**, provided a first-hand account of Asia's response to the financial crisis and its role in post-crisis global reforms.

May 14-15

**Workshop on International Financial Regulation**

This informal workshop brought together scholars to present and receive feedback on works in progress related to international financial regulation. This workshop on transnational law sparked great discussions about this fast-evolving area of international and administrative law.

2015

October 21



**Seminar Series Talk: Sendhil Mullainathan on Machine Learning**

MacArthur genius and Harvard Economics Professor, **Sendhil Mullainathan**, discussed his recent research on how machine learning and data mining

techniques can be used to better understand human behavior.

October 22-23

**Interdisciplinary Approaches to Financial Stability Conference**

The **U.S. Office of Financial Research** and the **Center on Finance, Law & Policy** convened their first financial stability conference to explore how methods from diverse fields, such as system analysis, agent-based modeling, and data visualization and security, could be used to better identify, measure, monitor, and mitigate risks in the financial system.



October 26-27

**2016 Big Data in Finance Conference**

The **Center on Finance, Law & Policy** and the **US Office of Financial Research (OFR)** hosted their second annual conference to explore how big data can be used to enhance financial stability and address other challenges in financial markets.



2016

November 2

**Ending Too Big to Fail**

FDIC Chairman **Martin J. Gruenberg** discussed what steps have been taken by the FDIC and other financial regulators to prevent allowing any financial institution from ever being deemed "too big to fail" and where there is still work to be done.

December 19

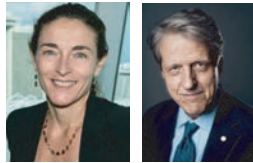
**Detroit Neighborhood Entrepreneurs Project Launched**

DNEP was launched as a collaboration between the **Ross School of Business**, the **Law School** and **Stamps School of Art and Design** to partner with and support emerging Detroit small businesses.

**Behavioral Finance Symposium**

Economics met law, finance, public policy, and psychology in this two-day symposium, co-sponsored with **ideas42**. Nobel laureate **Robert Shiller** and **JP Morgan Chase Institute's Diana Farrell** provided keynote addresses. Through keynotes, interdisciplinary panel discussions, and interactive audience experiments, participants learned how government units and the private sector are designing new financial products, re-writing investment rules, and using technology to better protect consumers and spur innovation

— and what those changes mean for small businesses and our overall economy.



September 14-15

**U-Mich FinTech Collaboratory**

As one of 11 universities receiving a gift from **Ripple's University Blockchain Research Initiative**, the **University of Michigan** launched the **FinTech Collaboratory**, a multidisciplinary approach to research and innovation around blockchain, cryptocurrency and digital payments.

The **Center on Finance, Law & Policy** coordinates faculty from the **Ross School of Business, College of Engineering, Ford School of Public Policy** to support a collaborative approach to FinTech research and innovation.



February 8



February 23

**Data Privacy and Portability in Financial Technology**

The **Center on Law, Finance & Policy** co-sponsored this conference with the **Michigan Technology Law Review** to celebrate the 25 year anniversary of the Law Review.

Speakers explored the inherent tensions between securing privacy rights and the ease at which transactions occur, facilitated by new innovative technologies, including a keynote address by **Paypal's Chief Privacy Officer Kristie Chon**



April 2-3

**6th Financial Stability Conference**

Returning to DC, the **US Office of Financial Research (OFR)** and the **Center on Finance, Law, and Policy** will cohost the sixth Financial Stability Conference, focusing on Global Systematic Risk.

August

**CFLP Moves**

The **Center on Finance, Law & Policy** moves from the **Law School** into its current home in the **Ford School of Public Policy**

2017

November 16-17



**FinTech Risks and Opportunities: An Interdisciplinary Approach Conference**

Our third financial stability conference with **US Office of Financial Research (OFR)** explored methodologies that the private sector, researchers, and policymakers can use to harness the upside potential of financial innovation while reducing the downside risks.



2018

November 15-16



**Financial Stability Conference**

Our 4th annual Financial Stability Conference moved to Washington D.C. for the first time, with a keynote delivered by FDIC chairman **Jelena McWilliams**.

2019

March 21-22



**Consumer Protection in an Age of Uncertainty**

Researchers, policymakers, rule-enforcers and boat rockers joined the **Center on Finance, Law & Policy** to explore the status of consumer financial protection as it affects American borrowers, investors, small business owners and those planning for retirement. Alongside this series of lively panels, the two day symposium included keynote addresses by **Rich Cordray**, founding director of the **Consumer Financial Protection Bureau** and **Rohit Chopra**, commissioner at the **U.S. Federal Trade Commission**.

2020

October 2-3



**Central Bank of the Future**

The **Central Bank of the Future** conference will convene international experts and practitioners to examine the evolving role central banks face in ensuring financial inclusion across the globe. The **Center on Finance, Law & Policy** will host this two-day conference as part of a research initiative taken in partnership with the **Bill and Melinda Gates Foundation** to identify technologies, processes, or tools that could benefit a central bank in supporting public policy objectives related to inclusion, and consider whether other sectors, including philanthropy, might have a role to play in supporting the development of those tools.



## MEET SOME OF OUR FACULTY EXPERTS

Founded in 2013 by faculty from Michigan Law School, Michigan Ross School of Business, Michigan Ford School of Public Policy, and Michigan College of Engineering, The Center on Finance, Law & Policy now benefits from a rich network of faculty affiliates representing an ever widening collection of University of Michigan schools and programs. CFLP affiliates draw on their depth of knowledge and experience to collaborate on building a safer, more inclusive financial future. Meet all of the faculty at <http://financelawpolicy.umich.edu/faculty>



*Assistant Professor of Law,  
University of Michigan Law  
School*

### GABRIEL RAUTERBERG

Gabriel Rauterberg's research interests include financial trading markets, securities regulation, corporations, and contracts. Current projects include assessing the role of high-frequency trading in the modern stock market; an empirical investigation into corporations' waivers of the duty of loyalty; and a series of related projects studying the intersection of market microstructure and regulation.



*Professor of Public Policy  
and Economics, University  
of Michigan Ford School of  
Public Policy*

### KATHRYN DOMINGUEZ

Kathryn Dominguez's research interests include topics in international financial markets and macroeconomics. She has written numerous articles on foreign exchange rate behavior.



*Associate Dean for Academic  
Affairs, Lynn A. Conway  
Collegiate Professor of  
Computer Science and  
Engineering, University  
of Michigan College of  
Engineering*

### MICHAEL WELLMAN

Michael Wellman's research applies principles of computation and economics to engineer rational decision-making strategies and analyze complex systems of interacting agents. A broad theme of his work is the interplay of technology and incentives in shaping behavior.



*Associate Professor of Social  
Work, University of Michigan  
School of Social Work*

### TRINA R. SHANKS

Trina Shanks is currently co-investigator for the SEED Impact Assessment study, which has set up a quasi-experimental research design to test the impact of offering Head Start families 529 college education plans for their enrolled children. Additional areas of research/scholarly interest: the relationship between assets, poverty and children's well-being; public policy for families; social and economic development, particularly in urban communities.



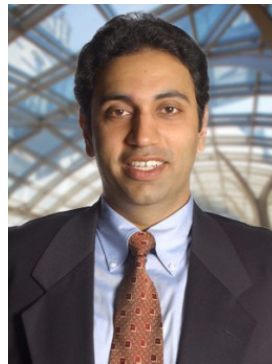


**DANA MUIR**

Dana Muir is a nationally recognized expert on fiduciary and remedial issues especially in the fields of investments, pension plan funding, plan investment selection and investment policies, and investment advice. She is a passionate supporter of Ross School research

*Robert L. Dixon Collegiate Professor of Business; Arthur F. Thurnau Professor of Business Law, University of Michigan Ross School of Business*

showing that business can play a positive role in society and the way law supports business in playing that role.



**VIKRAMADITYA S. KHANNA**

Vikramaditya S. Khanna's interest areas include corporate and securities law, corporate crime, law in India, corporate governance in emerging markets, and law and economics.

*William W. Cook Professor of Law, University of Michigan Law School. Faculty director of the Directors' College for Global Business and Law, Co-director of the Joint Centre for Global Corporate and Financial Law & Policy*



**UDAY RAJAN**

Uday Rajan's research focuses on informational frictions such as adverse selection and moral hazard and their effect on market transactions. His recent work is on the role of credit ratings in the financial markets

*Hermelin Professor of Business Administration, Chair and Professor of Finance and Real Estate, University of Michigan Ross School of Business*

and on bank regulation.



**JEREMY KRESS**

Jeremy Kress is a former attorney in the banking regulation and policy group at the Federal Reserve Board of Governors in Washington DC. From 2015-16 Kress served as assistant executive director of the Center on Finance, Law & Policy.

*Senior Research Fellow at University of Michigan Ross School of Business, Associate Professor University of Michigan Ross School of Business*

Kress graduated Cum Laude from Harvard Law School and holds a BBA from U-M's Ross School of Business. Kress clerked for the Hon. Matthew Leitman of the U.S. District Court for the Eastern District of Michigan. His written work has appeared in the Harvard Journal on Legislation, Bloomberg, Corporate Law Journal and Administrative Science Quarterly.



**ADRIENNE A. HARRIS**

Adrienne Harris is a Professor of Practice in Residence at the University of Michigan's Ford School of Public Policy and a Gates Foundation Senior Research Fellow with the Center on Finance, Law & Policy at the University of Michigan.

*Gates Foundation Senior Research Fellow, Professor of Practice, University of Michigan Ford School of Public Policy*

Adrienne was a Special Assistant to President Obama for Economic Policy at the National Economic Council in the Obama White House. Adrienne currently serves on the Board of Directors for the Financial Health Network, as a Network Leader for Village Global, on the NYU Stern School of Business' Fintech Advisory Board of the Fubon Center for Technology, Business, and Innovation, and as a Term Member on the Council of Foreign Relations.

# BLUE BAG LUNCH TALKS

“Blue bag lunch talks” are free and open to the University of Michigan community. They aim to foster interdisciplinary collaborations and showcase the work being done at the University of Michigan on issues related to finance, law, and policy. Faculty and graduate students are welcome to present research related to finance, law, and policy at any stage at these monthly events – from general questions and ideas, to works-in-progress, to published work.

The Center on Finance, Law & Policy has hosted more than 40 lunch talks since its founding, creating an opportunity for University of Michigan faculty to receive feedback from their peers at other University of Michigan schools and colleges.



**Amiyatosh Purnanandam**  
*Ross School of Business*  
**Color and Credit:** Race, Regulation and the Quality of Financial Services



**Peter Adriaens**  
*Ross School of Business*  
*College of Engineering*  
**Private Financing of Public Infrastructure:** Will Digital Finance Open the Floodgates?

**Linda Tesar**

*LSA/Economics*

**The Value of Being Systemically Un-Important:**  
The Case of MetLife



**Elizabeth Anderson**

*Women's Studies*

**The Business Enterprise as an Ethical Agent**



**Paula Lantz**

*Ford School of Public Policy*

**Social Impact Bonds:**  
Potential Challenges in Bringing Private Sector Investors to Public Problems



**Adam Pritchard**

*Michigan Law School*

**Should I Stay or Should I Go?:**  
Gender Gaps in the Lateral Market for SEC Lawyers



**Tawanna Dillahunt**

*School of Information*

**Necessity-Driven Entrepreneurship**  
in Resource-Constrained Communities



## Q&A with the Program Manager

How did you become interested in entrepreneurship?

When I was in graduate school, I was accepted into a fellowship program with an international NGO that ran an accelerator program for small businesses in Central America. It is fascinating to work with small businesses— entrepreneurs are constantly dealing with questions of strategy that could have a huge impact on the success of their business.

How does DNEP fit into the entrepreneurial ecosystem in Detroit??

In Detroit, a few large nonprofit organizations do a great job working with idea-stage and early-stage businesses. DNEP tends to work with small businesses that have been around for a couple years, are revenue positive, and have employees— or will likely hire employees after working with DNEP. We work almost exclusively with neighborhood-based businesses. We are unique in the ecosystem— we are able to help businesses in a lot of different ways because of the variety of DNEP courses at U-M, and we are able to provide professional quality technical assistance at little or no cost to business owners.

What have you learned about successful businesses in Detroit?

DNEP has grown rapidly since launching in 2016. I anticipate that the demand to be part of our accelerator will grow over the next couple of years, as more and more businesses learn about DNEP. I would love to see DNEP work with more schools at U-M. Strategically, we have learned a lot about what works and the type of businesses we are best at helping accelerate. As we gather more data on the impact of our program on businesses growth, we will be able to target our efforts even more to have a greater economic development impact.

What makes a good DNEP client?

Small businesses owners who are open to change and excited to try out new ideas — these types of businesses tend to be more



**Justin Erickson**  
*DNEP Program Manager*

# DETROIT NEIGHBORHOOD ENTREPRENEURS PROJECT

The Detroit Neighborhood Entrepreneurs Project (DNEP) is an accelerator for small businesses in Detroit. Small businesses work with DNEP by being paired with a team of students through DNEP courses at the Law School, Business School, School of Public Policy, or the School of Art & Design. DNEP businesses receive free strategy, marketing, legal, accounting, and/or design consulting work that can help accelerate their business, and are able to build lasting connections with the University of Michigan.

By participating in a DNEP course, U-M students apply skills learned in the classroom to challenging, real-life problems facing small businesses. Students learn how to think critically, act strategically, work in teams, and manage client relationships. DNEP aims to foster a life-long commitment to community engagement, particularly with the city of Detroit.

An interdisciplinary team of faculty across the University of Michigan provide guidance and direction for DNEP. DNEP is housed within the Center on Finance, Law & Policy.

successful and more fun for student teams, and also businesses that are trying to do something innovative. For example, a team of business students worked with PizzaPlex, a pizza restaurant and event space in southwest Detroit. PizzaPlex had a lot of innovative ideas, like a program to give away free pizza for customers who couldn't afford it.

Why should students to be interested in taking a DNEP course?

You get the opportunity to take things you have learned in the classroom and see how they work in the real world. Small businesses in Detroit have some of the most interesting, complex problems: How can we most effectively market to millennials? Should we move into a storefront location or focus our efforts online? Should we expand our marketing outside the city? How do we want our customers to feel when they see our branding materials? U-M students are great partners in helping businesses answer these types of questions.

What would you like to see for the future of DNEP?

DNEP has grown rapidly since launching in 2016. I anticipate that the demand to be part of our accelerator will grow over the next couple of years, as more and more businesses learn about DNEP. I would love to see DNEP work with

more schools at U-M. In our first three years, we have learned a lot about what works and the type of businesses we are best at helping accelerate. As we gather more data on the impact of our program on businesses growth, we will be able to target our efforts even more to have a greater economic development impact.



# MUSE COSMETICS

**Muse Cosmetics** worked with DNEP's Business+Law+Design program. The interdisciplinary team of students revamped Muse Cosmetics' operations – they analyzed revenue, which led Muse to close its unprofitable brick-and-mortar shop, and developed a new marketing plan for the company. Art & Design students redesigned the company's logo and updated the company's packaging. Law students conducted trademark research, and business students researched potential markets into which Muse Cosmetics should expand.



*I'm 110 percent better than I was. I did the work, and the team from DNEP gave me the path. They showed me the blueprint.*

- Sheryl Espinal, Founder



# DETROIT DOUGH



photo courtesy of Detroit Dough

**Detroit Dough** worked with a team of six BBA students at the Ross School of Business through the Multidisciplinary Action Project (MAP) senior capstone course. The team did research on value creation in the industry and surveyed current and target consumers; created a social media campaign designed to increase sales; and, proposed recommendations for an expansion strategy. The team also proposed the addition of a new product line and provided the company with an implementation plan.

# SWEET DREAMZ CREAMERY



*It is great to work with U-M students. The team provided creative advice and they all understood the latest trends in marketing.*

- Carla Quarm, Founder

## Sweet Dreamz Creamery

worked with a course called Designing Persuasive Communication at the Ross School of Business. In the course, teams of students compete for a client's business by designing an advertising campaign – similar to ad agencies making a pitch to a potential client. The winning team, as chosen by Sweet Dreamz, provided market research, guidelines for social media marketing, a new logo, and packaging designs. #WorryLessIndulgeMore



left: previous logo

right: logo developed through DNEP



*"DNEP was an exceptional resource that allowed us to think outside of ourselves as a result of the students giving our business a fresh perspective."*

- Daniel Washington, Co-founder and CMO

CEO Autumn Kyles went on to win \$225,000 in the Detroit Demo Day pitch competition.



CENTER ON FINANCE  
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## INTERDISCIPLINARY RESEARCH PROJECTS

The University of Michigan is a collection of top-tier undergraduate and graduate schools from a wide variety of disciplines. The CFLP acts as a convener to facilitate interdisciplinary research among U-M's award-winning faculty to take on some of the toughest challenges facing our economy. U-M researchers leverage theoretical, empirical, and applied research in service of creating a financial system that is safer, fairer, and better harnessed to a real, current day economy. For more information visit <http://financelawpolicy.umich.edu/research-projects>

# The Central Bank of the Future

Ford School of Public Policy

*Traditionally, central banks have served three policy functions – monetary policy, payments systems oversight, and financial institution supervision. The Central Bank of the Future project explores how these core functions contribute to financial inclusion, poverty alleviation, and a more inclusive economy – and what could be improved.*

Central banks play important roles in monetary policy, financial sector supervision, and payment systems. Central bank policies can play critical roles in whether the financial system advances financial inclusion. As technology continues to change the financial sector, however, there may be new ways in which these institutions undertake this work using financial technology (“fintech”). This also raises the question of whether central banks are well positioned to promote a more inclusive economy– or whether the role of the central bank should be revisited. Simultaneously, the 2018 World Inequality Report finds that global income and wealth inequality is growing. In partnership with the Bill and Melinda Gates Foundation, this project explores the mandate and design of central banks to consider whether they might play an even stronger role in promoting financial inclusion, financial health, and a more inclusive economy. More broadly, it creates a vision for what the “central central banks of the future” might look like and focuses in particular on how emerging technology could support the bank in its efforts to promote financial inclusion, growth, and development.

Primary investigators Michael Barr, Dean of the Ford School, and Adrienne Harris, Senior Research Fellow, Ford School Professor of Practice and former Special



Assistant to President Obama, are leading a project to help develop the central bank of the future and its role in fostering financial inclusion around the world. This project will consider how the role of a central bank could evolve in the future to enable it to make greater contributions toward financial inclusion. The project will consider monetary policy, financial sector supervision, and payments systems, as well as other functions. The project also is meant to identify technologies, processes, or tools that could support a Central Bank to achieve public policy objectives related to inclusion, and consider how other sectors, including the private sector and philanthropy, might have a role to play in supporting the development of those tools.

Over the period of this two-year grant we are engaging with standards-setting bodies, central banks, financial regulators and policymakers, as well as futurists and technologists, incumbent financial institutions, fintechs, and other financial ecosystem stakeholders.

One key output of this project will be a policy paper outlining potential future designs for a central bank and potential pathways for reaching that future state, along with a series of working papers focused on specific topics.

Read our working papers at [financelawpolicy.umich.edu/central-bank-research](https://financelawpolicy.umich.edu/central-bank-research) or join the conversation on our **LinkedIn** page.



# Detecting Financial Market Manipulation

U-M College of Engineering • Ross School of Business  
Ford School of Public Policy • U-M Law School

*The Market Manipulation Project represents a multidisciplinary effort to modernize enforcement mechanisms against manipulative trading activity in large capital markets.*

There are two components to this project: (1) developing methods of detecting manipulative activity, and (2) updating legal and regulatory frameworks to enable more effective and precise enforcement against new forms of market manipulation. The primary target is 'spoofing' – the act of placing trade orders without the intent of execution in order to influence market prices. Funded by the National Science Foundation, the project brings together faculty members from The University of Michigan College of Engineering and Computer Science, the Ross School of Business, the Law School, and the Ford School of Public Policy; these groups work in concert with faculty from the Georgia Institute of Technology.

## **The Issue**

The vast majority of all orders sent to exchanges are cancelled, which makes it difficult to distinguish spoofing from innocent trading activity. The Project aims to develop improved detection methods through a three-step process. First, the Project will construct manipulation strategies that could theoretically yield profits in the real world. Those strategies will then be executed in a simulated exchange built from actual market data. The Project will examine actual market data to try and infer the extent of spoofing, and will use machine learning to discover signals that will permit algorithms to detect spoofing in real exchanges and in real-time.

Improved identification and detection will complement the second component of the Project. An empirical understanding of the incidence of spoofing will help to draw sharper and more workable distinctions between innocent activity and manipulative strategies subject to enforcement. Better detection methods will guide recommended revisions to legal definitions relating to market manipulation. Such definitions currently over-rely on notions of fraudulent intent that do not translate well to the new world of computer program driven market manipulation. Superior detection will also provide enforcers more compelling data that will strengthen their cases against suspected manipulators. Thus, the Project hopes to yield new and robust strategies for detecting and enforcing against novel forms of market manipulation.

*Content by Matt Garry, U-M Law School '20*

*What does it mean to have intent  
when the trader is a computer?*





# Testing The Financial Capability Of Small Business Owners

Ford School of Public Policy • Princeton Psychology  
U-M LSA Sociology • MIT's Sloan School of Management

*Small businesses are an essential part of the American economy, yet they face significant barriers to success. According to the Bureau of Labor Statistics (2016), around 20 percent of new small businesses fail in their first year and almost 50 percent fail by their fifth year. While small business failure is commonly attributed to inadequate access to financial and human capital, the link between small businesses' financial capabilities— financial literacy, financial behavior and decision making in the face of complexity, and business outcomes has been neglected in small business research, especially as it intersects with the contemporary economic and regulatory conditions these businesses typically face.*

Failures due to a lack of capital and expertise highlight an important but understudied truth about most small businesses: in terms of financial capability they often more closely resemble households but are treated like large corporations. As noted in Robert Dilger's "Small Business Size Standards: A Historical Analysis of Contemporary Issues," 80% of US small businesses have no employees, and only 10% of those that do have over twenty employees. Given that the majority of small business owners lack advanced accounting expertise or dedicated accounting staff, the gap between the financial capacity of small businesses and the regulatory expectations they face is made clear. The line between business and household for many small businesses is blurred even further by the common practice of applying personal finances, family savings, personal credit and loans towards business expenses. Despite this, small businesses are generally omitted from regulations that protect financial interests, and often do not qualify for programs such as the Truth in Lending Act, due in part to an assumption of financial expertise. This lack of protection, paired with often complex and obfuscated financial language, often results in an unsustainable

*Content by Michael Barr, Antoinette Schoar, Eldar Shafir, excerpted and edited for space*

financial position. In 2016 an Opportunity Fund study found that nearly half of small business owners were devoting more than 100% of their monthly take home pay to debt-repayment.

The present project aims to revisit existing assumptions about small businesses financial sophistication and to offer a more complete picture of small business behaviors and decision making to researchers and practitioners alike. Specifically, our research aims to document financial knowledge and behaviors that are important drivers of small business decision processes and to use those insights to develop and pilot impactful, empirically informed behavioral interventions optimized to the financial environment within which small businesses operate.

By focusing on financial literacy and activities specific to the needs of small businesses, this project will more clearly capture heterogeneity in small business capacity – by business size, type, and outcomes – and how small business capacity differs from that of individuals and from larger enterprises. While there is some evidence to suggest that entrepreneurs may be more financially literate than the general public, this project looks beyond simple conceptions of literacy to reveal more complex relationships between financial knowledge, decision making processes and context, and impacts on actual financial health. Further, our study will offer insights into how, when, and why small businesses mobilize (or fail to mobilize) resources to assist in financial decision making to better explain why small business owners rarely consult with experts, even as they face an increasingly complex capital marketplace that requires heightened financial literacy skills to navigate and make financially sound decisions

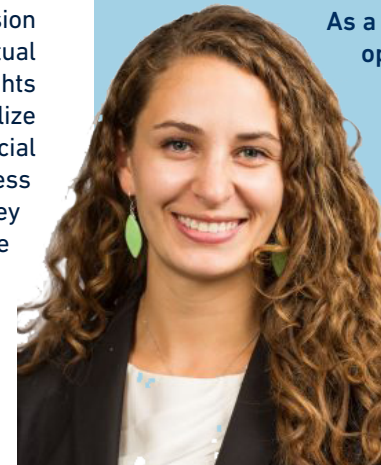
## CONDUCTING SMALL BUSINESS OWNER RESEARCH

" The diverse backgrounds and level of expertise of the research team are two aspects that make this project so exciting.

When you combine the questions of an expert on financial institutions (Dean Barr), an expert on entrepreneurship (Dr. Schoar), and an expert on decision making (Dr. Shafir) into one research project the result is a dynamic research agenda that asks complex questions and takes nothing for granted.

For example, a portion of the survey we're developing tries to capture how small business owners respond in trying life moments. Unlike larger companies, small business owners are more likely to have limited attention and resources with which to respond to significant disruptions— like family illness— and generally lack staff who can easily step into the fray. Our survey interrogates how issues like bandwidth limitations, inattention, inadequate planning, and knowledge gaps might influence the quality of small business decision making and ultimately affects small businesses financial success.

As a student, having the opportunity to work with these faculty from multiple institutions and gain insights into how they think and conceive of a project has been invaluable to my own research."



**Lydia Wileden PhD**  
in Public Policy & Sociology

# Data Privacy and Portability

Ford School of Public Policy  
Michigan Law

User consumer data is playing an increasingly important role in driving value creation in the financial services sector.

Personal banks utilize advanced processing techniques to study client behavior, applying this knowledge to developing their own technologies, as well as sharing it with Financial Service Providers (FSP): third party developers who create ancillary financial products to meet needs outside of what banks provide.

But who owns a customer's financial data? FSPs assert that consumers should be empowered to own their own data and welcome the innovation this generates, while many banks have voiced concerns that increased data sharing would pose a severe security risk. Both sides argue that their approach to financial data is in the consumer's best interest. This uneven approach is exacerbated by a localized policy approach to data protection in the US, resulting in a fragmented and inconsistent regulatory system, rather than an overarching legal standard.

Solutions to these issues need not be mutually exclusive: banks, FSPs, and policy-makers can develop standards that improve customer choice, consumer protection, security, and privacy. A cooperative effort can promote new entrants, competition, and innovation that

improves both efficiency and the economic well-being of consumers. Progress will involve both technological security improvements, as well as changes in how society and regulatory bodies interact with technology.

As it stands, however, consumer financial data lacks portability. In other words, the data lacks the freedom of movement that could drive competition among service providers by allowing consumers to choose the optimum mix of products and services that suit their particular financial needs. Portability would allow consumers to take greater ownership and control over their data, which could also be good for the economy as a whole. In 2013, the McKinsey Global Institute estimated that increasing access to data in consumer finance could add between \$210 - \$280 billion a year to global GDP, with up to 50 percent of this total flowing to consumers through enhanced price transparency and tailored product

offerings.

Globally, data portability is not a novel concept. In fact, the U.S. lags significantly behind some other countries such as the U.K., Australia, and India, which have taken strides toward attaining data portability; however, the challenge facing U.S. policymakers is to construct a sensible policy framework suited to the particular regulatory and technical attributes of the U.S. consumer financial services sector. With support from Omidyar Network, the CFLP completed a working paper on this topic. Soon to be available at [financelawpolicy.umich.edu/working-papers](http://financelawpolicy.umich.edu/working-papers)

*Content by Abigail DeHart, U-M Law School '19  
excerpted and edited for space*



# University of Michigan FinTech Collaboratory

U-M College of Engineering • Ross School of Business  
Ford School of Public Policy • LSA

*U-M's Fintech Collaboratory will build multidisciplinary curricula around financial technology developments, such as blockchain, cryptocurrency and digital payments systems.*

Supported by a \$1 million dollar gift from the Ripple University Blockchain Initiative, the University of Michigan established a FinTech Collaboratory in 2019, enabling University students and faculty to conduct research and develop programming at the forefront of financial technology. An interdisciplinary Collaboratory is a natural fit for the Center on Finance, Law & Policy, who will act as a convener, along with the Center for Smart Infrastructure Finance at the School of Engineering, and the FinTech Initiative at the Ross School of Business. As an integrated effort between the schools and research centers, the Collaboratory will have the capacity to look at advances in financial technology through a multifaceted lens, addressing the business impact and social ramifications of these growing technologies, alongside the computational data.

With such a rapidly emerging and evolving field as FinTech, the Collaboratory will prove invaluable as an educational resource for providing active learning experiences, allowing the curriculum to develop alongside the technology, and allowing students and faculty research to shape real-world solutions to contemporary economic challenges, such as global infrastructure and data portability and security in a mobile era.

You can download a current list of Fintech Classes offered at U-M during the 2019-2020 School Year at <http://financelawpolicy.umich.edu/fintechcourses>





## Annual Financial Stability Conferences 2015-2020

U-M Center on  
Finance Law & Policy

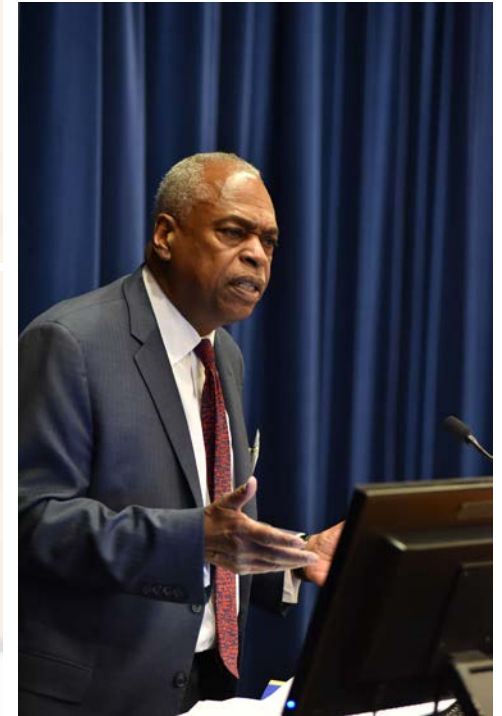
US Office of  
Financial Research

Since 2015 the Center on Finance, Law & Policy and the US Office of Financial Research have co-hosted a financial stability conference to bring together interdisciplinary groups of regulators, policymakers and researchers to take on the most pressing threats to our financial system. In 2018 the conference took place in Washington DC, at the US Treasury Department's historic Cash Room.

On April 2-3, 2020, the conference will return to DC with keynote speaker Gillian Tett, U.S. managing editor of the *Financial Times*, to explore Global Systemic Risk.

For more info, visit us online at <http://financelawpolicy.umich.edu/global-systemic-risk-conference>





## Additional CFLP Conferences & Speakers



## Abigail DeHart

CFLP RA 2016-2019  
Law School, 2019

Law Clerk to Judge Judith Levy,  
Eastern District of Michigan

**I can't imagine my law school experience without working at CFLP** It felt like working in a think tank

because you find yourself sitting at a table with people from several disciplines trying to solve a problem. Importantly, it taught me to rely on the skills of others. It was amazing to be able to produce a tangible good while in graduate school, and have a lot of fun in the process.



## Joanna Howard

CFLP RA 2014 -2017  
Law School 2017

Counsel at WilmerHale

**I thoroughly enjoyed my time spent working as an RA for the Center** while studying at the law school.

The projects are intellectually challenging but have practical outputs, for example updating detailed sections of the Financial Regulation: Law and Policy textbook. Being an RA also gives you the opportunity to collaborate in teams with other students outside the classroom environment. And I gained great insights from understanding the benefits of interdisciplinary work across other U-M schools.

## REPLACING WITH ANDREW INFO



## Andrew Kang

CFLP RA 2016-2019  
Law School, 2019

Law Clerk to Judge Judith Levy,  
Eastern District of Michigan

**I can't imagine my law school experience without working at CFLP** It felt like working in a think tank

because you find yourself sitting at a table with people from several disciplines trying to solve a problem. Importantly, it taught me to rely on the skills of others. It was amazing to be able to produce a tangible good while in graduate school, and have a lot of fun in the process.



## Annabel Jouard

CFLP RA 2018-2019  
Ford School MPP, 2019

Analyst, Bureau of Economic Analysis,  
Chief Innovation Office

**The opportunities CFLP offers are unmatched** I felt supported and

challenged to produce my best work as a graduate student. You're given the chance to work on something you're passionate about and to try something new, all while focused on creating something of real value to the public. It's exactly the kind of experience I came to grad school for, and I'm so grateful to have had it.



## Who We Are

Michael S. Barr - *Faculty Director*

Christie Baer - *Assistant Executive Director*

Justin Erickson - *Program Manager, Detroit Neighborhood Entrepreneurs Project*

Tracey Van Dusen - *Administrative and Project Coordinator*

Jeremy Kress - *Senior Research Fellow*

Adrienne Harris - *Senior Research Fellow*

THANK YOU to the dozens of student research assistants who have made our work possible over the last six years from the Law School, Ford School of Public Policy, Ross School of Business, College of Engineering, Stamps School of Art & Design, School of Information, and College of Literature, Science, and the Arts (LSA).

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*The Smith Richardson Foundation, the Alfred B. Sloan Foundation, and the Washington Center for Equitable Growth.*

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**CENTER ON FINANCE  
LAW & POLICY**  
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