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INTRODUCTION:

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WELCOME REMARKS:

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RESEARCH PRESENTATIONS:

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PRESENTATIONS AND Q&A:

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Misha Williams: Hi. Good afternoon, everyone. We're going to be getting started. Okay. So I'm Misha Williams, I am the Senior Partnerships Associate for the Sadie Collective, and it's with pleasure that I welcome you all to the Sadie Collective's 5th Annual Sadie T.M. Alexander Conference for Economics and Related Fields, the research reception. So we are so excited to be hosting a hybrid conference and showcasing research spanning from economics to entrepreneurship and awarding our presenters with scholarships sponsored by the Alfred P. Sloan Foundation, as well as the Ewing Marion Kauffman Foundation, respectively. We are thankful for their contribution, as well as the Brookings Institution's Hutchins Center on Fiscal and Monetary Policy for sponsoring this event and the broader conference alongside our other conference sponsors Princeton University, the Federal Reserve Bank of Chicago, the Peter G. Peterson Foundation, Penta, Urban Institute, and the Federal Reserve Board of Governors.

So this is my first in-person conference and research reception working in the partnership space, so I am elated that I get to meet some of our funders in person, as well as our other types of partners, which are our members. Tonight, you will hear from six of our members who will go into some depth, depth about the research that they are currently working on, and some that they might have worked on in the past. I find this to be very important because research is how I actually found the Sadie Collective. I was working on my honors capstone and my project was focused on finding the answer to why there were not more Black women in economics. And I was helped by Dr. Michelle Holder.

So while I was doing this, I found that there was an organization that was doing the work to take that question and create an answer. Being able to be a part of that in a partnership capacity has more than reassured me that as the days go by and as we continue working hard, other young women will have, or we'll find other young women that will be able to find Black women produced research and feel less need to ask the question that I had.

Creating that reality is why the Sadie Collective prides ourselves on our ability to bring together all of our partners, whether they be organizations or members, so that they may share in collaborative programing like this event where we are amplifying research. The space that we've worked so hard to curate is a result of the dedication to providing support to all stakeholders through centering Black women and intentionally asking companies what their needs are. The needs of the two groups fit together almost like puzzle pieces, which is why we're able to have our members and sponsors and everyone else in this room together right now so that we can celebrate the research that some young Black women are producing.

This conference is just one of our spaces to gather and connect in knowing that we are all on this journey towards creating an environment where thriving means something different for each of us, whether that be having a chance to create the life that we dream of, building an organization that fills a gap, finding a pool of diverse, qualified candidates that you might have been looking for, or even finding the answers to research that has been historically understudied as well as something that reflects our reality. It is important to us to answer the question of how to fund and share more research done by Black women so that our members like Peyton, for example, have the time to focus on questions surrounding the long-term effects of redlining.

For five years, we've partnered with organizations like the ones sponsoring this conference, as well as our members, to create spaces that explore what it means to redefine economics while also changing what, what economists look like. Collaboration between all of us has always been and will continue to be at the home of our partnership strategy as we continue to further create connections with our stakeholders. Before sponsorship and before the Sadie Collective was even a nonprofit, it was funded by smaller donations from people who believed in the conference's goal.

Back in 2018, Fanta and Anna Giffty posted about an event that they wanted to create on econ Twitter, which gained nearly overnight support from many already working in this space. Crowdfunding created this organization before our founders knew what could be possible for the future. Sorry. Yes. It was the support from all types of partners, whether that be companies or people that just stumbled across posts while scrolling, that helped make the 5th annual conference or make the first annual conference, excuse me, come to life. This is why, for us, partnerships has always been a holistic concept, often meaning to include our members in conversations that they may not yet be privy to, and each year working to amplify research that not only acknowledges the current environment that we live in, but also uses learnings from our history as Black women to advocate for more favorable outcomes.

But my remarks, which have definitely been driven by collaboration and partnerships in research, would not be complete without a targeted celebration for someone very special to us all at the Sadie Collective, and whose commitment and research to women in the industry has not gone unnoticed. Dr. Lisa Cook received her first undergraduate degree from the illustrious Spelman College before getting her second B.A. in philosophy, politics and economics from Oxford University. She ultimately earned her Ph.D. in economics from the University of California, Berkeley. She serves on the advisory board of the Federal Reserve Bank of Chicago's Academic Advisory Council, the National Science Foundation's Social and Behavioral Science Division, the Federal Reserve Bank of Minneapolis Opportunity and Inclusive Growth Institute, and the Lemelson Center for the Study of Invention and Innovation of the Smithsonian Institution, while also serving as an Edison Fellow at the U.S. Patent and Trademark Office.

She has done lots of research, research on patents and banking, as well as their intersection with identity, leading to discussions on class, gender and race. Additionally, she is no stranger to sharing about the importance of mentorship. Dr. Cook has worked under President Barack Obama's administration from 2011 to 2012 on the White House Council of Economic Advisors. In 2019, she received the Impactful Mentor Award by the American Economic Association Mentoring Pipeline Program, as well as having been elected to Executive Committee of the American Economic Association, or AEA, an organization with a fantastic summer intensive program that I happen to know that some of our members have taken part in. These honors are so incredibly fitting since this is also where she met Fanta and ended up taking her under her wing.

Last year in May of 2022. Dr. Cook was appointed a member of the Federal Reserve Board of Governors, an accomplishment which made her the first Black woman to hold this title. All that I just said is only the tip of the iceberg regarding her impact. Her reputation precedes her and her accomplishments, sorry, her accomplishments have been shared far and wide and outside, inside and outside of the economic space. So it's with great honor that I present her with a lifetime achievement award from the Sadie Collective. So without further ado, you're going to hear from Dr. Lisa Cook.

Lisa Cook: Well, thank you, Misha, with a, what a tremendous surprise. And, and it's just moving to hear from, from you all and the great work that you're doing. Welcome, everyone. It is a pleasure to be here and to see so many friendly faces, including Bola, Nishan, my friend and colleague David Wessel, as we celebrate the Sadie Collective and these gifted young aspiring economists. Dr. Sadie T. Mossell Alexander has been a touchstone in my life and career. By that I mean she has provided inspiration, of course. But more specifically, she keeps showing up at times that turn out to be inflection points along the trajectory of my life. I should note that I mean that figuratively. I know you all are in Gen Z. I'm not that old, I'm not in the cohort with Harriet Tubman. I realize that as an economist, people might assume that I am too literal and quantitative to employ a metaphor. As my former students among you know, I still have to give an alert when I'm giving a joke or metaphor is coming.

I first met Dr. Alexander in the sixth grade when my mother initiated the new Tau chapter of Delta Sigma Theta Sorority on the campus of Georgia College and State University, where she was the first tenured African American faculty member. I heard conversations about all the presidents of Delta, but Dr. Alexander struck a particular nerve. I grew up in a college town and a family of academics who prized education. Yet at that point in my life, I instinctively divided academia into two discrete spheres. Humanities and hard Sciences. Sadie Alexander introduced me to the social sciences, which were to me the absolute best of both worlds. I still think so.

The next year, I took what I learned from Dr. Alexander to the County Social Science fair to present the results of my first foray into economics research: what are the major causes of unemployment among Black Americans? While I never told the story to my former students who founded the Sadie Collective, I have told it a few times in recent months and I will probably tell it a few more. But I think this is the last time I will admit there exists photographic evidence of myself at a middle school academic fair. We all know from a large empirical literature that there is plenty of evidence showing that this is life's most awkward period. Dr. Alexander showed up again in college when I went to Spelman and became a Delta.

Looking back, I see the Sadie parallel, not just in the academic path I took, but in the community I joined. I was surrounded by brilliant, fearless, thoughtful, civic minded women who prized intellect, hard work and public service. They were as aspirational and inspirational as Sadie Tanner Mossell Alexander was. But while she was a singular pioneer in her field, my classmates were legion. Not one future scientist or politician or executive or lawyer or medical doctor, but dozens. The Spelman students who intern this summer at top tier law firms and Fortune 500 companies will likely see executives and senior leaders who look like them. Deltas and other members of the Divine Nine sororities among them will likely meet fellow sorority members on day one.

Diversity is essential in every profession. That is especially true in professions that thrive and evolve by answering questions like economics. The American economy is a vast and intricate machine that is made up of its people. A profession that analyzes the lives and behavior of the country is at its best when it reflects the population it seeks to understand. As a result, we can pose questions that come from different perspectives. Everyone here knows the data on representation and the research on the experiences of economists from underrepresented backgrounds.

We also know that economic conundrums persist. And we know that solutions are more likely to come if more people from different backgrounds enter the field, and if each wave of newly minted economists reflects the makeup of the country. We are more likely to consider professions when we see ourselves reflected in their ranks, especially in prominent positions. That can be a catch-22. You cannot see yourself reflected in the ranks if you are underrepresented. Yet you cannot grow the ranks without representation. But our hands are not tied. We can do more to raise the profiles of past and present standouts in the field like Dr. Alexander.

Especially during Black History Month, I think about the names we remember and how we can expand the roster for historical contributions. But we should also strive to celebrate our contemporaries in the now to ensure that history records their excellent. Like William Johnson. Margaret Sims. Erica James. Julianne Malveaux, Erika Holder, Ellora Derenencourt, Cecilia Conrad and Ebonya Washington. Anna Giffty Opoku-Agyeman and Fanta Traore. My mentors Alice Rivlin, Emmett Rice, Sandy Darity, Christina Romer and Janet Yellen. That support and recognition should be a focus for everyone in the profession, not just economists from underrepresented backgrounds.

When I was told to change my research and subject because no one would read it. When male graduate student peers assumed I could not do the math. Even when I was tempted to pursue a Ph.D. in philosophy, I had mentors who were very much in the majority that believed in my work and ideas. Like my dissertation advisor Barry Eichengreen, Nobel Laureate Paul Romer, George Akerlof, Ken Arrow and Milton Friedman, and an English economist who convinced me on the side of Kilimanjaro, Mount Kilimanjaro, to pursue economics. I believed I would make a good economist; they believed I would make a good economist, and they were some of my most enthusiastic supporters.

We can work to create and support networks, as other professions have done, to help expand their talent pools, something the Sadie collective is already doing with deep commitment and impact. Those of us in the profession should make a concerted effort to mentor young and aspiring economists from all backgrounds and to recognize when we serve as examples to those who do not feel represented or seen. We can also do more to keep students on the academic path and young professionals in the field, two of the stress points in the pipeline problem.

The Sadie Collective highlights important research and the young minds helping to shape the next wave of economists. I am not one to play favorites, and all the research projects covered great topics, but fully half investigate innovation and dynamism, an area of my own research. The last time I ran into Dr. Alexander again, metaphorically speaking of course, was my first day on the job at the Federal Reserve as a governor. I made my way to the first floor of the Martin Building to see her portrait, which hangs in the building where I was able to mark my own first, one that would not have been possible without Sadie T.M. Alexander.

As policymakers, my colleagues and I make decisions that impact the entire country. We are driven by data which we collect in abundance. But our own experiences, including our education, professional and lived experience and personal understanding inform how we seek and examine those data and discern what they mean for the future. It is wonderful to join the Sadie Collective today as we celebrate these women and their research and the positive contributions, they and their peers will make to the economics profession and to the world of economic policy. It feels like another example of Dr. Alexander showing up to mark an inflection point. Thank you all. Thank you for your work, Sadie Collective. And warm congratulations to Sarah Deschenes, why don't you put up your hand, say hi. Sarah. Peyton Dunham. Nishan Jones. Camillah Canty. Tarikua Erda. Lauren Mwale.

David Wessel: She's remote.

Lisa Cook: Okay, great. Could you please give them all a hand? Thank you again.

David Wessel: Thank you very much, Governor Cook. And it's very inspiring to hear your story. And I'm sure the young Black women in the audience or online, and I want to tell you that there's last time I checked, there were nearly 100 people watching online. So for every person in this room, there's at least one or two people online. I'm David Wessel, I'm director of the Hutchins Center here at Brookings and a member of the advisory Committee of the Sadie Collective. I am pleased to be an ally of the Sadie Collective, but to tell you the truth, Fanta and, and Anna didn't need much help from a gray haired white Jewish guy, they were going to knock down the walls of the economics departments of America without any help from me. I'm just glad that I was there to watch them do it.

But I think that this, starting off, the Sadie Collective's annual conference with a conversation with young Black women economists who are doing serious research is particularly important because it helps underscore that this is not— no disrespect, Governor Cook— a Delta event. This is serious economics. So we have six speakers tonight. Each of them is going to speak for about 10 minutes and then we'll have a little bit of time for questions from each one.

Our first speaker, I'll introduce them in turn, but our first one is Lauren Mwale, who is going to join us remotely from London if the technology works. Lauren is an impressive person. She, her first book is called "The Shuri Effect: Bridging the Gap for Young Black Women in STEM," that explores the reasons for the representation gap and the ways to fix it. She is one of the co-hosts of a podcast called *Stemettes Say What?* And she says in her bio that next, she plans to write a romance novel and get a master's degree in gender studies. So she's got a lot to offer. The topic of her presentation today is "For Us, By Us: Minority Angels, Angel Investors as Disruptors Bridging the Gap." So can we see if the, there we go. All right, Lauren, the floor is yours.

Lauren Mwale: Hello? Can everyone hear me?

David Wessel: Yes, we can hear you.

Lauren Mwale: Amazing. Well, my name is Lauren Mwale, I'm very excited to be kicking off this great evening of scholar research presentations. And believe me when I say that I'm absolutely devastated that I can't be in the room with all of you in person. Before I get started, I want to explain how I got to this question. So how did I arrive at this research topic of angel investors and angel investors from minority ethnic groups investing in underfunded founders? And I came through this with a passion for female financial resilience, creating it and supporting it. Female financial resilience is an intersection point where social scripts and financial ecosystems support the economic well-being of women and also people of other marginalized genders.

One slice of this is wealth generation opportunities. And that can be done by entrepreneurship. Not only for the founders of great companies, but also for their employees and their customers and other stakeholders. So with that being said, let's get started. I am a mathematician by training, and I understand all issues best when you can anchor them in data. So here are three interesting facts seemingly unconnected that spurned my research.

Number one, only 2% of venture capital funding goes to female-led startups. Okay. 47% of Black households are unbanked or underbanked, and the size of the worldwide impact investing market is $1.2 trillion. And I bumped into these facts as I was reading The Economist and as I was thinking as a young person who now has a full time job wanting to invest and generate wealth for myself, but also invest in line with my values and with the, with the layered interests of sustainability in mind and considering all the gaps that exist, as I said in my introduction, I wrote a book about young black women in STEM, and my favorite chapter is called “Designing the World for Able Bodied White Men,” because that is a lot of how things are functionally built.

So I have these three facts, independently compelling pieces of information. What do they represent to me? Well, when I see the first bit, 98% of funding is going to startups that do not involve women. Only 2% are going to women. That is a funding gap. That is a truly terrifying and very significant funding gap. Second fact. 47%, about near half of Black households are unbanked or underbanked. That is a significant innovation gap, amongst the other knock-on effects of such a problem. And finally, impact investing is a massive corner of the private equity and public financial institutions. I see an opportunity to solve the first two problems.

Immediately, this prolific Angela Davis quote sprung to mind as those three facts intersect into this compelling question of how are angel investors, one small part of the private equity and funding ecosystem for entrepreneurs and startup companies, what are they doing with this opportunity, with this problem, with these funding and innovation gaps? And the quote is, of course, “I am no longer accepting the things that I cannot change. I'm changing the things that I cannot accept.” And I began to wonder, actually, is the very function of investing activism? Is it true that investors, angel investors, specifically for my research, are funding the people and the companies who remedy the ills that they can no longer tolerate? Oh, wrong way.

Okay, so to level set with the group, let us define what impact investing is. In practice, it looks very different. People describe it in all kinds of ways, but really, generally speaking, any form of impact investing may include one or more of the criteria on the slide. The first one being impact investing is increasing access to capital for diverse founders, and these are founders from underfunded groups because that is my preferred term. Of course, you can also think about founders from marginalized ethnic groups, marginalized genders and other communities. But the term I'm going to be repeating throughout this presentation is underfunded.

The second criteria is workplace equity for diverse people. Is the C-suite of this company sort of people who look different? How does this look when you look across the employment spectrum? Are the entry level graduate students working straight out of university, the middle managers and the top level, is this a combination of very different people who have very different lived experiences and so bring different things to the table? And finally, maybe those companies are founded by a diverse person. Maybe it doesn't have the most diverse startup team. But is the solution it's creating specifically for an underserved community? Is the product or service going to fill a hole that persists for people whose needs are often ignored?

So to answer this question, to explore these, these ideas that were forming, I carried out an exploratory study, and the two themes that I was investigating are as follows. Number one, if I don't do it, no one will. And this is me leaning into angel as activists. Are they showing up, putting their money where their values are, putting their money where their mouth is because they, they see a systemic issue where people who look like them or people who are serving, people who are often ignored do not receive money from traditional funding communities and networks and are bridging that gap themselves.

The second thing. Disrupting startup funding disrupts the innovation agenda and leads to more inclusive creations. Thinking about that third sector of impact investing, are these angels showing up because they themselves see or experience a gap that they believe needs to be filled? And this is why they're investing; this is why they're arriving to the space. Through snowball sampling, I have built a cohort of 14 angels, and I plan to expand this cohort to 25 within the next few weeks. They all came from historically underfunded backgrounds, and these were women, nonwhite angels, often both. I spoke to a lot of incredible Black women angels and Asian women angels.

Excitingly, all 14 of the angels I spoke to consider impact as we defined in one of the earlier slides as a core criteria to their investment decisions. When they received pitches, when they were thinking about where they put their money next, they were thinking about women, they were thinking about underserved communities, they were looking at the team of that first five people and asking founders why everybody looks the same. What did I find? The most interesting part, I'm sure.

Number one. So the way this is going to be broken down is that I'm going to show two findings per theme and reminding the first thing is, “if I don't do it, nobody else is going to do it.” And the first incredibly interesting finding of mine is that angel investors invest with impact in mind in order to change investment norms. So, of course, for a second, ask yourself, how do investors, angel investors, VCs, private equity guys, how do you find early-stage companies to invest in? Where do you find these founders? Where do you find these companies? They don't yet have a website. They're doing something interesting and compelling, but they're based in a different part of the country. How do you find them?

Deal flow is the term that is used to describe the stream of inbound pitches that investors receive. And classically this comes through networks and is evaluated based on gut instinct, because remember, this is an early-stage company, they don't yet have five years of receipts to show you. And imagine that the average investor today is a white man in his fifties whose professional background is financial services or consulting, management consulting. More likely than not, his network of other high net worth people look like him and have the same professional experiences that he has. All of these people have similar gut instincts because they, because of their professional background, because of their lived experiences.

When presented an African edtech startup, or a US based natural hair care company. Will they understand it? Will they understand the business case? Will their guts tell them that this is a good business to put money into? Potentially not. This is, this is unconscious bias. This is, this is them investing to the best of their ability, but because they can't understand the problem, they can't, they can't make the investment, they can't pull the trigger.

Minority angels, the fourteen angels I spoke to, they come into the space, and they specifically target founders from underfunded backgrounds. And by doing so, they open up the ecosystem to receive those pitches. They are the first move as they are role-modeling the investment culture of tomorrow. Because if you want, if you want something to change, you have to do something differently. And continuing to assume that your deal flow will evolve without taking specific actions to evolve it yourself will not lead to different results.

The second finding under the first theme again, “if I don't do it, nobody else is going to do it.” Angels provide patient money that sets the standard for later stages. So the classic entrepreneur's story involves the kitchen table and very late nights and a dream. And that is often true and incredibly aspirational. But the reality is that innovation costs money, especially if it's safe, and especially if it's in specific sectors and segments like medical technology, education. You want people to have a robust research and development budget to invest in improving the product that they're providing to these underserved communities who, you know, historically do not receive the best quality products. And we don't want that to continue.

Customer acquisition costs money and speed to market is also dictated by the availability of capital to drive the company forward. Additionally, companies go through multiple rounds of investment before they become publicly listed and traded on exchange. Angels are showing up right at the beginning pre-seed. And in line with classic supply and demand dynamics, money begets more money. How? Well, adequate funding allows the business to improve its core offering and so become a better investment to later investors.

Secondly, hype. Knowing that other investors have faith in this company, have faith in this founder, understand the product market fit and believe that this is the future success story produces more goodwill, gets more investors on board to jump in, claim their slice of the pie. More likely than not when you, when you go back in time, the unicorn companies of today, the billion-dollar companies we have now, climbed an ever-increasing valuation ladder. And at each investment stage because of the value that the previous stage could then claim this new rung of the ladder, could then claim this new higher value could then create future wealth, assuming that the company exits through IPO or a sale to a larger conglomerate for that founder, for those early adopters, for those early employees.

Because again, theme of financial resilience, financial resilience for people who historically have been excluded. We want these companies created by and for people who are historically underfunded, historically ignored. We want them to grow. And so we want angels coming in at the beginning alongside family and friends or assuming the network of the founder doesn't have personal wealth, we want angels to show up and put a high price tag on this company so that the company can develop, but also so that at later stages, the company's value can grow.

Moving on to the second theme. Disrupting the Innovation Agenda by directing money in a very specific way. Founders from underfunded backgrounds are often filling a glaring gap based on their own lived experiences. They see and understand the problem, intimately understand a problem that other entrepreneurs who might not come from their background and might not have the lived experiences simply don't. Despite what the statistics imply, you know, 2% of VC funding is going to female led startups. There is an abundance of entrepreneurial activity coming from women, coming from disabled people, coming from Black men and so on. The problem is that just that they're not getting the money. That, that is the problem.

But impact investing is not charitable giving. It is simple economics. As ecosystems evolve and economies mature, the greatest growth opportunities, the places with the greatest returns are going to be found with presently underfunded entrepreneurs. The room for economic growth, the room for expansion is going to be with communities that today are ignored. Impact investing, investing in these groups, investing in these founders, investing in diverse teams, investing in products and services that serve people who today are ignored is good business.

And finally, angels and founders are working together to build tomorrow. Angel investing happens right at the beginning of a company story. This is early, early, early stage. And these founders, of course, would need to have a minimum viable product in order to compel the angel. But they're still years and years and years away from that polished, perfect final iteration. Angel investors often invest alongside a full-time job, so they bring with them an active expertise and specialty that can supplement the startup's founding team.

Angels are also investing their own money. These are not VC or private equity guys who have loads of cash from pension funds or from Google. Angels are putting their money where their mouth is, and so they invest in founders they trust, ideas they believe in and in areas that they can understand and so support the founder in improving the company and building it up. Angels show up and add to the diversity of thoughts, add to the questions, add to the ideation, and improve the company and build it up before handing it over to the VC who can provide more money. But more likely than not, less substantial support. Diverse angels like diverse founders bring with them a lived experience and a grit that can really propel a company forward. So.

As a reminder, the main things I'd love you to take away from this presentation. Number one, impact investing is not charity, specifically targeting historically underfunded founders, having, being an angel that only invests in women, only invests in Black founders, that is actually good business. Those are areas that are poised for future growth, and it also happens to do good. Number two, angels are active assets to founders. They bring their expertise, they bring their excitement, and they open up the funding ecosystem to these founders. They connect founders to people who can provide more money and resourcing and advice and support that will propel the company forward, as well as participating in the company's growth and trajectory.

Finally, fundraising is a ladder, fundraising is a game. And because of because of historical legacies, it's a game that's currently closed to women and closed to Black founders and closed to other people of diverse backgrounds. Minority angels coming in and specifically finding people who look like them or people who they understand have been systemically ignored opens up ecosystem and gets that founder and gets that company on the ladder and then supports them as they climb up the ladder and create both for that founder and for that community.

Where am I going next? Well, this is a little graphic of the funding landscape. If you are an entrepreneur, where are you going to get money? You're going to get it from friends and family. You might get a bank loan. We have discussed angels and we've made mention of venture capital. That is the next step that I would like to take. My research interests are, you know, moving slightly up the rung, and I would like to look into the experiences of female fund managers, specifically in sub-Saharan Africa. When you are in that architecture, how, how does, how does sexism and racism play into suppressing your trajectory and employment development as a female fund manager? And how empowered are you to put money into women and into other diverse peoples who you recognize, and notice are being ignored by the systems? Thanks.

David Wessel: Thank you very much, Lauren. We're a little behind schedule, but if someone has one pressing question, we can, we can put it or we can just move on. Great. So our next speaker for 10 minutes is Tarikua Erda. Tarikua is a Ph.D. candidate at Columbia. Her work leverages her training in economics and environmental sciences to understand how various phenomenon from natural disasters to social inequality shape business dynamics, human capital, and ultimately the pace and inclusivity of economic growth. Before going to graduate school at Columbia, she was at Princeton, where she got to a B.A. degree in economics with honors. And the topic of her presentation is "Floods and Firms: The Impact of Disasters on Regional Startup Dynamics." Tarikua.

Tarikua Erda: Thank you. Hello, everyone. My name is Tarikua. I'm a fourth year Ph.D. candidate at Columbia University. I'm very excited to be here to share this research with you. So I thank the sponsor, Kauffman Foundation, as well as the organizers for having me here. I'm also very grateful to Lisa Abraham at the RAND Corporation for helping me prepare for this. So let's jump in. So let's start with what we know. We know that climate change is predicted to increase flood risk. Already, flooding is the most costly and the most frequent disaster in the United States. So with these, you know, projected climate risks growing into the future, we know that disaster relief spending to affect and disaster relief aid finances are going to increase.

So why do we care about this? And specifically, why would we care about this in the context of entrepreneurship? Well, we should actually care very much because business dynamics or the process by which firms are continuously entering into the market, growing, contracting and exiting is a key process and market economy that drives economic reallocation and growth. And so specifically, actually, the firm entry process is a key driver of this productivity and aggregate economic growth.

So we know that disasters are disastrous, they're destructive. And research has already shown that they reduce firms’ survival rates. And while not a lot of research has actually explored, explored the impact on new firm entry or new entrepreneurship, it's not hard to imagine that disasters would also reduce firm entry. Now, federal aid is something that aims to mitigate the negative impacts of disasters, right. And so a lot of research has explored and found that federal aid can be helpful for household welfare or physical capital rebuilding in their recovery process. But not much has been explored about the impact on the business sector. There's surprisingly little on that. So that's exactly where my research comes in.

I'm asking two key research questions. So I examined the impact on new firm entry, as well as on the outcomes of existing businesses. And then I also explore what the role of disaster aid is in mediating these outcomes. And specifically, I look at aid by the Federal Emergency Management Agency, or FEMA. Then lastly, we care about, of course, the broader societal outcomes we care about.

So I look at what happens to jobs and employment. So to address this research agenda, I need to use data that helped me capture the two main components: businesses and disasters. So to look at business formation and outcomes of existing businesses, I use survey data as well as census records that help me capture what's happening to the business sector. And then to look at disasters, I use data that capture climate shock events and also the damages associated with flooding events.

And a subset of these events are what I'm going to call federally declared. This is when the U.S. president declares a disaster as a major emergency event and then FEMA steps in to give that, you know, aid on steroids that non-declared disasters don't really get. And so to keep it at a high level, what I use are event study methods. And so I document the recovery process in the post-disaster setting in regions that receive a disaster with federal aid or at regions that receive a disaster, but no federal aid. So this table is capturing that intuition.

So because federal disaster declaration is a response itself to a disaster occurring, you won't have federal declaration if there's no disaster, hence that X in the in the bottom left. But when there is a disaster, if it is declared by FEMA, it ends up in the bottom right corner, so we compare it with the regions that get a disaster, but no federal aid, so the top right column. So in all of this, what we're holding fixed as a control group are regions that are the healthy economy. They don't get any flood and therefore also no FEMA aid.

So the first result I want to show you is looking at what happens to new business formation. So as a reminder, the baseline control group are regions that don't get any flooding at all. And so on the left, what I'm showing you is what happens to regions that get a flood, but no federal aid and response. So what we're seeing is that there's no statistically significant change in how new business registrations evolve in those regions. But it is notable, of course, that over time the coefficients are getting more and more negative. What we see on the right are regions that did get a FEMA declaration and large FEMA aid in response to a flood.

So that picture is remarkably different, right? We're seeing about a 20% increase in new business registrations associated with a federal disaster declaration in response to a flood shock in these regions. Now, this large increase also actually persists for about two years after that disaster event. And even compared to that baseline control group, it's a remarkable increase. Now, what are the channels through which this may be happening? So far, I've documented two very interesting ones.

So the first one is that federal aid seems to be associated with an increase in interest in first-time entrepreneurship. So when I look at Google searches for the term “how to start a business,” I see about 40% to 100% increase in regions that experienced a FEMA declared flood. And this persists for about ten months after the, the declaration. Now, this is just suggestive. I don't know if exactly the person who Googled that is the one who's setting up a business, but it's something that tells us that that large 20% increase might not just be driven by people who already have one business starting another one, that this may be coming from true first-time entrants starting a first business.

Second, I also find that when federal low interest loans are given to existing businesses to help them rebuild and kind of recuperate their establishment after a flood, there are more business registrations in that region potentially by upstream or downstream businesses that would interact with these rebuilding firms. And so there are positive spillovers to federal aid. So now we come to what happens to jobs. So on the left again are regions that did get a flood but no federal aid in response. And what we see is about a 9% drop in the total number of employed individuals in firms in that region. So employment drops in those regions. But when there is federal aid on the right, we see no statistically significant change in how employment evolves compared to the baseline control group. And all these results actually control for a flood size.

So even if we were to expect that harsher and more severe disasters would lead to more negative impact, this is something that's still surprising that shows us that federal aid helps to sustain and maintain employment that would otherwise drop in the counterfactual, which is regions that don't get that aid. So, okay, this is all great. Is it broadly shared in terms of how the benefit is distributed across regions? And what I find is unfortunately, no. So there are large heterogeneities by how regions are composed demographically. And in particular, when I look at regions that all experienced one flood in one year, I actually find that the worst impacts to young businesses and the highest drops and new firm formation rates are concentrated in regions that have the largest shares of non-Hispanic Black residents. So federal aid helps to mitigate that a bit. And so those declared disasters are slightly less bad compared to undeclared disasters and those high Black population concentration regions.

But it really doesn't undo the majority of that impact. So this suggests that there's a lot of equity questions to be explored here, and that's part of what I plan to do in the rest of my two years in graduate school as well as beyond, using confidential micro data from the Census Bureau. And this is particularly important because FEMA processes are not perfect. Research in the past has shown that there can be political favoritism and partisanship that influences whether the U.S. president declares a disaster for one county or not based on kind of party affiliations. The funds have also been shown to be associated with corruption, higher denial rates for racial minorities or more credit constrained communities, and also in favoring wealthier and whiter communities. These funds have been shown by research to actually further widen the racial wealth gap.

So to summarize, this research is showing novel evidence of the impact of disasters and federal aid on regional business dynamics. And I show, showed here specifically that federal aid really helps to smooth out the recovery process. And one part through which it does this is actually by spurring new entrepreneurship. But equity goals may suffer here. And so this warrants for their research. And my research contributes to the literature on reallocation aftershock events and the economics of entrepreneurship. But even more importantly, it really shows timely evidence that federal aid and public assistance funding really can help the economy stay alive in a world where we expect more climate risks. Thank you.

David Wessel: Thank you. Anybody have a question? Because if not, I'm going to ask. Yes, please. There's a mic coming and tell us who you are, please.

Audience Member: Hi, I’m Amy [inaudible], I'm a econ Ph.D. student at Berkeley, so I was wondering whether for the business start results, do you also, can you also see business exits to see whether there's an overall potential increase in businesses after floods? For those regions that get federal aid.

Tarikua Erda: That's a great question. So, yes, and results that I don't show here, I capture kind of what's the difference between a new business registration minus a firm that dies based on records that the census maintains. And what I see is that still controlling for firm debts, we do see more business entries in regions that do get federal aid. And potentially this is something that can speak to the broader literature about growing market power and concentration, undermining the optimal pace of business dynamism in the US. But yeah, I'm also still surprised.

So actually to elaborate on that a bit, what I see is that in the baseline control group, which doesn't get any flooding at all, when one business dies, there is one business registration, but there are about 2.5 business registrations in the FEMA declared region. So potentially there may be some pent-up supply of entrepreneurs that just haven't found that funding yet. So something I plan to expand on in my future research, but I appreciate the question.

David Wessel: Thank you. Sarah.

Audience Member: Thank you. Sarah Rosen Wartell, President at the Urban Institute. I'm going to ask you to a question that goes beyond what you have researched so far, but about where you think you might want to go. Particularly from this field of work, can you imagine, you've sort of made the case for FEMA aid, helping to at least deal with some of the adverse equity consequences of disasters. Can you think about ways that either FEMA or other policy consequences from this work, what kind of recommendations do you imagine this body of work could lead to for either FEMA or other academic development programs from what you've found so far?

Tarikua Erda: Thank you. That's a great question, because every time I present, there's somebody asks, so are shocks good, should we want more shocks so that we can get better entrepreneurs or something? And the answer is no. This is just happens to be one useful but tragic way in which we're learning about business dynamism in the US. I would say their recommendations, of course, is that there is a duty to fairness to make sure that these benefits are equitably and broadly shared.

But beyond that, I think the results that I discussed just earlier now may indicate that we should make access to financing easier as such that the pent-up supply of entrepreneurs can access that financing to start ventures and grow early ventures. That's really what I see in my broader results. I guess we also, as I showed earlier, that X, where if there's no disaster, there can't be FEMA declaration. So it's kind of a counterfactual that we can't explore. And but, you know, broader subsidies, tax credits could be something that could help revive this entrepreneurship.

David Wessel: At the back.

Audience Member: Thank you. I might have missed it, I'm Michael Palumbo home, I'm on the Board of Governors at the Federal Reserve. Did you talk about what types of businesses seem to be like what industries or what's the nature of the businesses that seem to be advantaged by the existence of aid or whether there are places that are not recovering so quickly where there seems to be a gap in the opening of new businesses? In other words, can you see anything that that suggests, you know, again, I think we are, where a targeting of aid sort of at an industry level or something like that might get you, or looking for particular services that are that are in desperate need and whether or not there's sort of aid that turns out to work really well in that dimension or, or even if you're getting overall growth, maybe you're not getting it necessarily in the places that would have the highest return or whatnot.

Tarikua Erda: That's a great point. So because I don't have industry-level data for the business registrations, I can't give you that specific answer. But looking at young firm or broader firm outcomes using the business dynamics statistics data that the census makes public, I do see that the the construction sector and also sectors that deal with waste management, things like that are the ones that experience the boost, especially when there is FEMA aid.

However, going back to the earlier result, about one firm death still being replaced by more than one firm, that's something that at least makes me stop and think about, like, wait, why weren't the incumbent construction firms or real estate firms able to actually “capitalize” on the disaster opportunity? And so in that sense, it's something that tells us more about business dynamism, especially also in light of recent work actually in January, that has shown that construction sector productivity has remarkably dropped in recent years. So that could be, I guess, one kilo of salt that we should take these results with, in terms of how federal aid helps or to the extent to which it can really help productivity and efficiency in the economy. Thank you.

David Wessel: Thank you. So our next presenter, Camillah Canty, is an undergraduate. She's a senior at Bryn Mawr. I'm not quite sure how they let you in here, since you're majoring in English with minors in Psychology and Africana studies. Is it too late to convince you to, like, change your major as a senior? Yes, it is. Okay. Her interests include equity, marketing and entrepreneurship. She was an intern at BlackRock last summer and she looks forward to pursuing a career in finance. And the topic of her paper is “Barriers in Entrepreneurship for First Generation College Students.” Camillah.

Camillah Canty: Perfect. I'm a little short. Good afternoon, everyone. I'm delighted to be here in community with you all. My name is Camillah Canty. I'm a graduating senior at Bryn Mawr college, majoring in English with minors in Psychology and Africana studies. I will be presenting a qualitative study conducted in the spring of 2021 under the guidance of my professor, Dr. Laurel Park. This study explores the perceptions of first-generation college students at Bryn Mawr College regarding entrepreneurship as a potential career path.

As a first-generation student myself, I am personally invested in understanding and more importantly, demystifying this unique lived experience through this research. I aim to shed light on the perspectives of this underrepresented group and provide insights that can help inform and support future initiatives to empower first generation college students pursuing entrepreneurship. Our question is: what are some of the perceived inhibitors or motivators in pursuing a career in entrepreneurship in the sample of first-generation college students at Bryn Mawr College?

So let's first define what a first-generation college student is. A first-generation college student is an undergraduate student whose parents did not complete the bachelor's degree. According to the Center for First Generation Student Success, in the 2015-2016 academic year, 72% of undergraduate students at private, not for profit institutions identified as first-generation. However, after six years of post-secondary education, 56% are first-generation college students and 40% of continuing generation of college students had not earned any post-secondary credential.

At Bryn Mawr College in the 2019 admissions cycle, 19% of students reported being first-generation. However, the percentage decreased to about 14% in the 2020 admissions cycle, and in 2021, only 11% of students reported being first-generation college students. A study conducted by the Pew, by the Pew Research Center to understand more about how the educational backgrounds of parents is linked to their children's labor market and economic outcomes, found that among household heads who have at least a bachelor's degree, those who have a parent with a bachelor's degree or more education have substantially higher incomes and more wealth than those who are the first generation in their family to graduate from college.

The median, the median household income for households headed by a first-generation college student, which was 99,00, $99,600, is substantially lower than the income for households headed by a second-generation college student, $135,800. The median wealth of households headed by a first-generation college student, 150, $152,000 also substantially triples that of households headed by a second-generation college undergraduate, $244,500. The findings underscore the importance of intergenerational mobility in achieving economic prosperity.

Additionally, entrepreneurship can play a significant role in driving economic outcomes for first-generation students. In fact, a report by the National Bureau of Economic Research indicates that roughly 14% of college graduates in the United States venture into entrepreneurship within a decade of graduation. Entrepreneurship can contribute to narrowing the wealth gap between first-generation and continuing generation students by offering a means of creating wealth. Thus, upward mobility. To help create a more inclusive and accessible entrepreneurial, entrepreneurial ecosystem, it was important to understand the perceptions of first-generation college students in relationship to entrepreneurship.

In this slide, we'll be exploring some of the key finds from the body of literature on this topic. The first article, written by Georgescu and Herman in 2020, explores the impact of an entrepreneurial family background on college student’s entrepreneurial intentions. The authors found that the students who have an entrepreneurial family background benefit from the informal education they receive and exhibit a higher level of entrepreneurial attention compared to students who do not have such a background.

The second article, called from 2019, explored the relationship between a first-generation college student's sense of coherence and career outcome expectations. The results showed that the higher level of sense of coherence and support from family, friends and a special person, the more favorable the first-generation college students career outcomes were.

The last article published in 2020 explored the relationship between first, between perceived lack of skills, financial and time resources and career decidedness among both first-generation college students and non-first-generation college students. The results showed that for both groups, a higher level of perceived lack of skills was related to lower levels of career decisiveness.

To recruit participants for this study, online fliers were created and shared on social media, which directed potential participants to a Qualtrics survey. Physical fliers containing a QR code that linked to the same survey were posted in common areas around campus. No incentive was offered for this participation. Selection criteria included attending Bryn Mawr College as an undergraduate student and having neither parent attend a four-year institution. After applying this criteria, we were left with 27 participants between the ages of 18 and 22. All participants identified as female. Let me give you some context, Bryan Mawr is a historically women's college. Mean age of participants was 20.3 years old. Ten participants identified as Black or African American, eight as Latinx or Hispanic, seven as mixed race and two as white.

Data collection: participants were asked to respond to open-ended questions, which produced long form type responses. These open-ended questions allowed the participants to provide in-depth responses and insights into their experiences. This offered a more nuanced understanding of their experiences. Participants were asked questions such as, in your opinion, what are the key skills and traits that are important for a successful entrepreneur to possess? A subset of seven participants were selected for an in-person interview using a semi-structured format based on the quality of their answers; particularly thorough or insightful responses were chosen for a follow up question for a follow up interview. All of the data collected was analyzed using thematic analysis and patterns, which provided insights into the experiences of first-generation college students at Bryn Mawr College.

Our study found that participants most commonly reported barriers were fear of financial risk, lack of professional network, lack of opportunities for skills development and lack of familial support. Participants that indicated a fear of financial risk decided that starting a business as a risky endeavor that requires upfront money to fund. They also indicated that entrepreneurship does not offer the same financial security as a traditional corporate role. For participants that indicated a lack of professional network, a lack of a professional network as a perceived inhibitor to starting their own businesses, they valued mentorship and cited not having access to a network of entrepreneurs who have done it before as an inhibitor, as an inhibitor to pursuing it as a career path.

Participants that indicated a lack of familial support expressed that their families would be resistant or skeptical or hesitant to entrepreneurial aspirations, citing that they would prefer a traditional corporate role. And for participants that indicated a lack of skills development, they cited not being aware of programing at Bryn Mawr that provides students with opportunities to hone their skills. Some also mentioned lack of access to mentors, training materials and things such as that to build a sense of confidence in their capabilities.

According to the participants, there were several motivators for pursuing entrepreneurship. These motivators included a desire for autonomy, the opportunity to pursue a passion project and the potential for a positive impact on individuals and society. For the first motivator, participants indicated a desire to break free from the traditional workplace setting, suggesting that first generation college students desired more control over their professional life. Participants also indicated that entrepreneurship would offer an opportunity to pursue, to pursue a passion project that aligns with their goals, values and interests. Finally, participants also recognized entrepreneurship as a tool for social change and expressed a desire to start a business that would positively impact their communities.

It is very important to acknowledge the limitations of the study, particularly its small sample size and specific geographic location, which, which restricts it from being generalizable. Instead, this study is simply a glimpse into how first-generation college students are thinking about entrepreneurship at Bryn Mawr College. Furthermore, this study provides a snapshot in time and does not follow participants through their college or professional career. Therefore, while this study provides valuable insights, further research with a more significant sample size, a diverse sample is needed to draw more of an accurate conclusion and applying it to a larger population, of course.

First, future research should take into account things such as demographic factors, age, gender, socioeconomic status, and geographic location, and how they influence perceived motivators and inhibitors of pursuing entrepreneurship. Finally, first-generation college students face unique challenges that are not encountered by those who have parents or family members with college experience. These challenges can include navigating the complexities of college life, financial barriers and limited access to social and cultural capital. Despite these challenges, first generation college students are often incredibly resilient and determined to succeed.

To help create a more inclusive and accessible entrepreneurial ecosystem, it's important to understand the perceptions of first-generation college students in relationship to entrepreneurship. By gaining insight into their perspectives, policymakers, educators and support organizations can develop targeted strategies to support the entrepreneurial aspirations of first-generation college students and create a more equitable and supportive environment for them to thrive. I think that's all I have.

David Wessel: Thank you. Thank you very much. I'm very impressed. You held your own, everybody else seems to have a Ph.D. and you did just as well, and maybe even better than they did. Is anybody else? No. No, you can't be insulted because I haven't heard your presentations. I'm curious what led you to pursue this, of all things. Here you are, majoring in English, minoring in what, what in God's name got you into this?

Camillah Canty: So I have my own entrepreneurial aspirations and, so I have my own entrepreneurial aspirations. And I'm, of course, a first-gen student. And I'm always, I've always been interested in my own lived experiences and what complicates and the nuances of it. And I think I was just like, okay, I have two things that really make me who I am, how do I merge them? And it led me to this.

David Wessel: Thank you.

Camillah Canty: Thank you.

David Wessel: So our next presenter is Nishan Jones, who transferred from Chabot, is it right? Chabot, should have, at least I didn't screw up your name. Chabot College to Berkeley, where she earned her B.A. in economics in the fall of 2019. She's currently working as a senior research assistant at the Federal Reserve Bank of Boston and is very interested in the intersection of inequality and household finances and macroeconomics. And her presentation is called "Stimulus Garnishment and Consumption Outcomes." Nishan.

Nishan Jones: Oh, okay. Okay, great. Hello, everyone. My name is Nishan. I just wanted to thank the Sadie Collective for giving me this opportunity to present my work. I can't think of a better space to do it, so I'm really grateful and excited. So, yeah, in my project is stimulus garnishment and consumption outcomes and I started this project and the research in color program last year, so that's a great program. Please check it out if you haven't heard of it. But it was a great place for me to start in terms of conducting my own independent research.

Okay, so just an outline, I'm going to go through the background, my research question, literature review, data, and then show my main findings and how I would like to take this project further in future iterations. Okay. So to start with background, garnishment, here is the formal definition of garnishment by the Consumer Credit Protection Act, and garnishment is essentially a debt collection method that's a legal procedure where a portion of an individual's earnings are required to be withheld for a debt payment. And this usually involves a court ordered judgment where your bank or financial institution or your employer is forced to withhold a portion of an individual's disposable earnings for a debt payment.

And a few key terms here, there's bank account levy, which is the act of your bank account funds being frozen for the amount to be taken out. And then there's bank account garnishment, which is the act of having money taken directly from your bank account. And then there's wage garnishment, which I think is one that we most commonly know where your earnings are withheld by your employer to pay back a debt payment.

And here is a list of reasons for garnishment. And again, I think we've all heard of child support payments, and that's a form of garnishment that can come in the form of a wage garnishment. But there's also alimony, so like a payment that you would pay to an ex-spouse, for example. And there's also legal financial obligations, which are like fines and fees owed to the court system, administrative fees, bail bonds, etc. And there can also be back, back taxes you may owe to the IRS. So like past due or unpaid income taxes, state or federal level.

And so background in terms of the pandemic, and just in case we forgot, it's been, it's been almost three years now, but the CARES Act was signed into law March 27th of 2020, and this was when the first round of economic impact payments came into existence to support Americans during this difficult time. And just a brief reminder. So if you were a single tax filer, you could receive $1,200 dollars as a stimulus payment, and if your income, adjusted gross income was $75,000 or less, you would receive the full 1200 dollars as a single filer. And if you had an amount above that, that amount would be phased out, $5 for every $100 amount you were over that income level.

You could also be a joint filer. And as a joint filer, you would receive $2,400. And if you were, you had to be above or equal to $150,000 or less to receive that full $2,400. Otherwise, again, it would be phased out by the same amount. And if you had dependents under 17, you receive $500 per dependent. And so actually, this is the the overall COVID relief package that happened the second time, but the Consolidated Appropriations Act is actually the second EIP payment that was passed on December 27th of 2020. And this actually had full protections against debt collection through garnishment. And these protections were similar to how federal benefit payments are protected once they hit your bank account. There's a method for that and there's an encoding for that, a federal benefit payment like Social Security when it hits your bank account. And so the second payment was protected along similar lines.

And so the problem here, as we know, debt collection is a spending constraint and a problem for many households and combined with the impact of the pandemic, the CARES Act actually didn't protect consumers' bank accounts from garnishment during this, this first wave of stimulus. So this implies that a portion of this first EIP payment could have been seized to pay, past due debt like, rather than provide the necessary relief, especially for low-income families. So my research question, I'm just trying to understand the impact of estimated garnishment on consumption outcomes during the pandemic. And I hypothesize that, predictor or potentially garnished households impacted by measured garnishment would have decreases in consumption of essential goods, like food consumption.

So just a brief literature review. There's been extensive research on the consumption response to this first EIP payment. Jonathan Parker is a big one, also. Oliver Coibion et al. And they have looked at the consumption response to this payment in terms of when you received your payment or how you indicated you would use your payment if you said to pay off debt or to mostly spend or to save your stimulus payment, how did your consumption change as a result of this decision?

And also, these authors both found that households with low liquidity or low-income households actually had a higher marginal propensity to consume this first stimulus payment. So they actually would more than likely spend more of their stimulus than households who have higher incomes. And Scott Baker actually found that households with low bank account balances actually would also spend more of their stimulus check. So this is in line with the theme that lower income households would actually spend more.

And so in terms of my contribution to the literature, I'd like to understand the impact of or the loss and potentially in aggregate consumption as a result of low-income households actually not having the full access to their stimulus payment due to debt obligations. Okay. So in terms of data, I'm using the Consumer Expenditure Survey. It's a survey by the Bureau of Labor Statistics, and it provides consumer unit or household level expenditure data. And for all of the expenditure categories, they do a three-month lookback period or reference period for all of their categories, and there's roughly 10,000 households interviewed in a rotating panel structure. So four consecutive interviews every three months before the household's dropped from the sample. And so they also provide tax estimates for each eligible tax unit within a household. And I use this to construct my garnishment indicator.

So for households that, they report their adjusted gross income and their filing status, and so I calculate the stimulus amount that they should receive, and I compare that to the amount that's reported to and depending on if there's discrepancies in that amount that I'm flagging, this household is potentially garnished. In terms of my panel element in this data because of the timing of the First CARES Act and then the Consolidated Appropriations Act in December, I only have a panel of about two observations like per consumer unit because of this tight time frame and the three-month gap in between interviews. So this just paints a broad picture of garnishment protections at the state level. This is data that I was able to find on different state policies that they had in place to protect consumers of this during this for this first economic impact payment protections against garnishment.

So I organized this by executive order, signed by states. And there was also 25 states who were, had their state Attorney General signed a coalition demanding that the Department of Treasury take immediate action to protect consumers from garnishment for this first payment. And there was also states when they issued guidance and then there were states who I was able to find that didn't have protections. And so there's like a dispersion across the country, there's like a clustering of no protections in the South. And then I also calculate, based on what's available in the data, the share of potentially garnished economic impact payments at the state level.

So out of everyone who received a stimulus check in the data in that state, how many are potentially garnished? And so you can see, like with states with no protections like South Carolina, Georgia, there is like a higher share of potentially garnished stimulus payments. And so my model's pretty simple. It's just a reduced form, fixed effects regression where I'm regressing my garnishment indicator X on changing consumption or log of change in consumption. I'm expecting the beta one coefficient to be negative, which is indicating that there was a decline in consumption during this early stage of the pandemic.

And the garnishment indicator is, again, just if the household, based off their tax information and if the stimulus amount that I'm calculating doesn't match the amount that's reported within the household, then I'm flagging them as potentially garnished. I'm controlling for state fixed effects, which account for the COVID-related issues at the time and state level employment, etc. and time for the month of the interview.

I'm also, I also have here like controls for age, age squared, changes in family size, the log of the consumer units income, also variables for race, gender, education of the reference person in the household who's also the household head. So here are my base line findings. I'm using the definitions, the consumption categories based off of Anna Marie Lusardi's paper from the late nineties. She was look, she was one of the first people to look at the consumer expenditure survey and form these categories.

So we just have food, which includes food at home, food away from home and alcoholic beverages, select or strictly non-durables, which include household operations, gas, public transportation costs, non-food durables, which has apparel and reading materials, and then total expenditures, which is all, all of these expenditure categories grouped together. And my main coefficient on food spending, there's like a, there is a decline in food spending of about $183, and this translates to about 4% decrease in food consumption when I regressed this on log of change in consumption.

So this is in line with my hypothesis, but this isn't consistent across all expenditure categories, and this could be due to the level, the amount of observations that I have because of the panels so small. And then there's also a lot of variation in spending this at this stage in the pandemic. And within my garnishment indicator, there is a lot of measurement error. It's not perfect because of the data. And so what I was just trying to look at is within my indicator how many people would actually be garnished versus potentially just measurement error.

So on this graph, you can see that for households who were supposed to receive $1,200 dollars, that's the little black number at the top of the the blue box. So $1,200 dollars or $1,700 dollars, they're actually reporting on average that they received more than that. So that's not really an indication of garnishment, but rather a measurement error, for example, you would want to see that they receive less. So there was a higher concentration of people who were supposed to be receiving $1,200 dollars or $1,700 dollars. So this was a concern for me. And then there was also endogeneity between potential garnishment and consumption, because you're consuming more and this is more likely leads to you having more debt and then a greater garnishment risk.

So to address this, I was attempting to use an IV, or instrumental variables regression, to look at the, or to instrument for garnishment using the state level change in small claims court cases between 2018 and 2019. And the reason for this is because of the link between creditors using small claims court to file for garnishment judgments and also because of the state level variation in court filings, I figured this would be a somewhat exogenous indicator. And then also this wouldn't directly impact household consumption and it would only go through garnishment rather than directly impact to household spending.

But this is actually not the best instrument it was, the first stage F-statistic was greater than ten only for food consumption. So it wasn't consistent across my expenditure categories. So this isn't really a reliable instrument, and this is something that I'm trying to understand further and expand later on. So then the last piece. So to address this, I would like to use better data. I think that's the main issue here. It's hard to identify garnishment in data. I don't, I haven't seen too much of this in the literature, I've seen wage garnishment is talked about frequently in terms of differences in state level policy on how much money can be garnished through wages, but not so much with bank account garnishment, which is sort of what I'm trying more interested in.

So I was thinking of using high frequency transaction data. So data potentially from JPMorgan, which is like bank account transaction level data. And then there's other data sets such as like factions, for example, that also has like more observations on everyday transactions that go into an individual's bank account. And then there's also the Federal Reserve Bank of Atlanta Survey of Consumer Payment Choices, which has expenditure data, but it also has more information on a household or individual's financial background. So they would ask more questions that could potentially be used to identify whether a household had garnishment happen to them at some point.

So I could also proxy for garnishment using whether an individual had their credit card frozen, for example, and this is somewhat close to bank account levy. So this is your card being frozen because potentially you had a garnishment order out against you. And also, a, another area that I would tie directly into this is the bankruptcy reform that happened in 2005, and that's been shown to actually increase insolvency nationwide. So that means the inability for people to pay off their debt.

And I was, there's been a recent paper where they've shown that this increased bankruptcy attorney fees nationwide. And so I thought of potentially using bankruptcy attorney’s fees as an instrument for garnishment because of the lack of access people had to debt relief through bankruptcy. And this could also somehow link to increases in garnishment probabilities leading into the pandemic. And lastly, California, for example, also passed legislation in late September, or in September during the pandemic to restrict the amount of funds that could be garnished from an individual's bank account.

And so another potential way to look at this would be to do maybe a regression discontinuity and look at the difference and how this policy impacted individuals within the state. But I think one of the biggest pieces is the, the data related to garnishment. It's a little bit hard to find, but yeah. Okay. Thank you.

David Wessel: Thank you very much. I really admire your candor in explaining both what motivated you to do the research, but also the shortcomings of your thing. That takes a great deal of courage. Yes, we're all behind schedule, but if there's one question, I'll take one. If not, we'll move to the next. Miss Berkeley. Can you wait for the mic so that people online can hear you.

Audience Member: I was wondering whether, you know, whether you'll be potentially be able to estimate where garnished money tends to go. I was thinking like the case where it's going to child support payments, maybe consumption after consumption isn't changing, it's kind of shifting between people versus going to debt or the IRS where, you know, something does increase.

Nishan Jones: Yeah, that's actually a good point, looking at where it could go, because garnishment happens for a lot of reasons and it's a little bit hard to narrow in on one form of garnishment. Also, like wage garnishment, again, could happen for child support, alimony, etc. But finding that data is a little bit difficult and something that I'm trying to figure out. But yeah, no, that's a really good point, I should look into different avenues to figure, to understand that better. Thank you.

David Wessel: Thank you. Our next presentation is from Peyton Dunhan. Peyton, Peyton Dunham, who lives in Brooklyn. She has a B.A. in economics with honors from Harvard and most recently worked in municipal finance at Goldman Sachs. And her work seeks to illuminate the extensive and compounding socioeconomic ramifications of government-sponsored financial discrimination in the U.S. And so her topic, her paper is right on that topic, “The Long-Term Effects of Redlining on Environmental Health.” Thank you.

Peyton Dunham: Great, so thank you all for being here today. As you mentioned, my research is going to be focusing on the long-term effects of redlining on environmental health. And to start, I'm going to provide a little bit of the historical context on redlining and how it relates to environmental justice. I'm then going to provide some background on my data collection process before walking you through my empirical methods and showing some results and policy implications.

Great. So jumping right in, following the Great Depression, the federal government sought to support middle class homeownership by passing the Homeowners Loan Corporation Act, which formally established the HOLC, which is the government body that's typically associated with the practice of redlining. So in the early 1930s, the HOLC sent appraisers to over 200 cities across the United States to assess the credit worthiness and mortgage security of specific neighborhoods.

So the HOLC would assign a neighborhood a grade from A which was most desirable to D, which was the most hazardous, depending on a multitude of factors, such as the infrastructure of the neighborhood, its economic trajectory, housing prices, and most famously, the racial and ethnic composition of the neighborhood. And it is well documented that the HOLC consistently downgraded neighborhoods that had a large influx, large influxes of immigrant communities, Jewish communities, and especially black and brown communities. Redlining refers to the color that the HOLC used to demarcate the neighborhoods that they assigned a low grade.

And on the screen, you can see presented the original HOLC mortgage security map for the City of Detroit and to the side I prevent, presented an HOLC area description file for one specific redlined community in Detroit. And in the language, I have blown up, you can see that although in this particular community, the HOLC remarks that some of the infrastructure was fair and it was in a convenient location, the mixed populations Negro and Polish precluded the area from a better rating and that the bank will landed at this area at very conservative terms.

And to date, most of the economics literature that has focused on redlining has been more focused on its long-term ramifications for housing prices and other mortgage market dynamics. And although there's been a few ecological studies that have uncovered a correlation between redlining and environmental health, the question still remains largely uninvestigated within the field of economics.

With that being said, environmental justice advocates often point to redlining to explain why low income and minority communities are positioned in neighborhoods that have greater exposure to industrial pollutants and closer proximity to hazardous waste facilities or are in closer proximity to highways or a lot of freeway traffic, for example. And one hypothesis that they suggest is that redlining suppressed the infrastructure prices in those neighborhoods, making them more desirable or attractive locations for private companies to then go in and place their factories or toxic waste facilities, or made the neighborhoods the real estate in the neighborhoods cheaper to buy up to finance the construction of a highway, for example.

Okay, so moving into my data, fortunately, as a part of their mapping inequality initiative, the University of Richmond has actually archived all of the HOLC maps that the, or all of the original HOLC maps that were created in the 1930s, and they've geo coded them into shape files that include the grade that the HOLC assigned to each neighborhood they surveyed. So that is the main data that I'm able to use as far as measuring the exact grade that was given to each neighborhood across the cities.

And I then compare those to a multitude of different environmental health indices, the first one being the 2014 Environmental Health Hazard Index from the U.S. Department of Housing and Urban Development. And this particular index is sort of an aggregate ranking of environmental health based off neurological, carcinogenic and respiratory toxins ranging from 0 to 100. I then also use the Child Opportunity Index from Brandeis University, which includes ten indicators for environmental health that fall into the categories of exposure to toxic chemicals, environmental climate and access to healthy resources. So whereas the first dataset gives kind of an overall picture, an overall ranking of environmental health, the second one allows me to more accurately discern the channels through which redlining could have infected environmental health.

Great. So before I dive into my empirical methods, one, I wanted to just share one caveat to my data collection process. And to do that, please focus on that math that I have on the screen, which is again, for Detroit. The pink shaped file represents the neighborhoods that were demarcated by the HOLC in the 1930s, and the gray shapefile represents census tracts, which is the unit of measurement at which all my environmental health data was collected and the unit at which I conduct my specification. So as you can see, the census tracts don't cleanly overlay with the HOLC neighborhoods.

So I address this discrepancy in two ways. The first one is I create four indicator variables for each grade that the HOLC assigned, A, B, C, and D, and assign the census tract a grade depending on the grade of the HOLC neighborhood that the majority of the census tract overlapped with. So, for example, if a census tract primarily overlaps with the D neighborhood, the binary variable for grade D will then be equal to one. My second method, which I won't touch on too much for today, is developing proportion variables that reflect the percentage of a census tract that overlaps with an A, B, C, or D rated neighborhood. So that method will account for if a neighborhood was 50% exposed to a D-rated neighborhood, but 50% exposed to a C neighborhood. So the first strategy is a bit cleaner, a bit easier to understand, but the second one has a little less measurement error. And those results were affected less by attenuation bias.

Great. So moving on to my empirical method, I put a lot on this slide. I'm, so I'll walk through it step by step. But first, taking a step back, one important thing to recognize when doing this sort of research is that prior to the 1930s when the maps were drawn, there were already a multitude of formal and informal practices that treated minority communities unfairly, all of which have had negative implications for contemporary development outcomes today. And so because of that, in the economics literature, the key challenge then becomes measuring how much of those health disparities, those contemporary health disparities can be attributed specifically to the practice of redlining and the subsequent mortgage lending discrimination, instead of measuring the long-term effects of differences that already existed prior to HOLC intervention.

And so to do that, one would have to design a specification that controls for those preexisting characteristics that the HOLC measured. So I do this in two ways. The first one, which I'll focus more on for today, is an OLS regression. And as you can see in the specification, I included the indicator variables that I talked about before and the coefficients beta one, beta two and beta three will measure the change in environmental health outcomes for a neighborhood only exposed to A, B, C, or D-rated neighborhood or D-rated neighborhoods compared to the environmental health outcome for an area that was exposed to A-rated neighborhoods.

And I, to address the challenges I just mentioned, I introduce city fix effects and interact those was longitude and longitude variables. So that allows me to control for preexisting economic trends that have a linear spatial dimension. So how I define that is if you think, for example, of a city that has maybe a body of water on one side, you might expect housing prices to increase as we get closer to that body of water. So that, for example, is a linear spatial dimension. But on the other hand, if you think of a city that has a core city center, you might expect housing prices to increase as we get closer to that city center. And that would not be a linear spatial dimension. So this specification will account for the former, but it won't account for the latter. And so for that reason, the results from this method do have to be interpolate, interpreted a little bit more correlationally.

And the second specification that I use in my research is a regression discontinuity design which exploits the HOLC's decision only to survey neighborhoods that had a population, or only two survey cities that had a population above 40,000 at the time of the 1930 census. And there's no evidence that suggests that this was done for any particular reason in the HOLC archives. And for those unfamiliar with the method I presented, there are a McCrary test and a balance table which shows that these two populations, meaning a group of cities that fell right below that threshold and a group of cities that fell right above that threshold are, were pretty similar sample sizes that are samples that you could then compare. So you can compare the city level environmental health for those two groups of cities.

Okay, great. Moving into my results. So on the screen here are the results from the Environmental Health Hazard Index, which was an index ranging from 0 to 100, the greater the index, the better the environmental health. And as you can see, the national ranking for in areas that were exposed to D-ratings is nine units lower relative to areas that were exposed to an A-rating. So that kind of speaks to how on aggregate, on a whole, neighborhoods that were assigned a D-rating, do you have overall less environment or worse environmental health than neighborhoods that were assigned an A-rating.

And if we dive a little deeper, looking at the results in the Child Opportunity Index, we can see that for the majority of these indexes, environmental health outcomes were significantly worse for redlined areas, and the most staggering differences can be shown in the first two columns, which shows exposure to toxic waste facilities, which the EPA calls Superfund sites and exposure to industrial pollutants. And as, you can see from the results that areas that were historically redlined have over 50% more exposure to toxic waste facilities than areas that were assigned an A-rating and areas that are historically redlined have over 20% greater exposure to industrial pollutants. They also have significantly less greenspace and less access to healthy resources.

So just finishing up with some policy implications. These results capture the lingering effects of one specific credit lending policy enacted and sanctioned by the federal government. So when taken at face value, these results suggest that HOLC intervention may be responsible for wide health disparities in environmental health between these different neighborhoods. And so although since the 1930s, there has been legislature that's meant to address mortgage lending discrimination and some of its ramifications, they may not have been completely successful in eradicating specific, specific contemporary development outcomes such as environmental health and much more investment in low income and minority communities is going to be needed to address those issues. And with that, I'll take any questions.

David Wessel: Seems to me like this is like when people ask what is systemic racism? This is example A. Time for a question or two. Okay. It's not because they're not interested, it's because the light is getting long. So our final speaker is Sarah Deschenes. Sarah is a post-doc at Northwestern. She has a Ph.D. in economics from the Paris School of Economics. She's a development economist who focuses on family and gender economics and on domestic violence in sub-Saharan Africa. And her paper is on expanding access to schooling and— please go ahead— in Nigeria, impact on marital outcomes.

Sarah Deschenes: Hello, everyone. Thank you very much for attending this reception. I want you to know I'm very grateful to the Sadie Collective for giving me the opportunity to present my work. I would also like to say that, you know, in six years of PhD, a year and a half of post-doc is a first time that I get to present my work in front of such a diverse audience with lots of friendly faces. It was worth the wait. And because I know that I'm the last presentation standing between you and the bar, let's dive in.

I am Sarah Deschenes, this is a joint work with Rozenn Hotte from University of Ottawa, and we are presenting a job market paper on the impact of education on marital outcomes of women in Nigeria. So fostering gender equality has been and has become an objective of policymakers for the last two or three decades. And there are roughly two type of policy that were employed to do that. The first one were actually directly targeting women's empowerment, and the other one was more taking though, this objective of women empowerment more as a byproduct, and as notably the case of the many large scale educational policies that were implemented in developing country after the wave of independence from colonial powers. And the rationale behind that was to say those policies are intended to increase education and then in the creation is believed to be able to erode restrictive gender norms.

So for now, the literature has focused a lot on the impact of women's education, on women's empowerment, and with excellent reasons, is that we know that there is a crucial role of education through the impact of marriage on women's welfare in developing countries. First, because there are still countries where female celibacy is highly stigmatized, and as long as women are of marriageable age, they have to be married. The second reason is that we are in a context where there are very little safety net outside of the family and that having access to resources through the family is absolutely key for survival.

Now, those laws and educational policies pose an interesting challenge, is that they not only increase the level of education of the wife, but also of the husband at the same time. And in countries like Nigeria and those of South African countries, which are societies based on a hierarchy that relies on gender and on age, the net effects are not obvious. Because even a more educated husband may not welcome the fact that he's more educated, a wife may challenge the traditional gender order. And this is where we know we're making a strong contribution.

So in this paper, we are going to study a policy that increased primary education in Nigeria, and we are going to look at whether it led women to form more gender equal unions, notably through the age gap. But here for today, you know, going to focus on whether women are better or worse off in terms of marital outcome, meaning are they more or less likely to tolerate domestic violence as a result of the exposure to the policy, to educational policy? Are they more likely to be involved in decision making? Are they more or less likely to experience actual domestic violence? And then we are going to look at whether husbands and wives' education actually have similar effect on those different outcomes.

So I'm going to give you a bit of element of context. Nigeria is currently a federation of 36 states and is divided in 774 localities, which are the level at which I am going to measure my treatment. Nigeria is the most populated country in sub-Saharan Africa, with 100 million inhabitants. And it's a country that is very rich and very diverse in terms of identity, religious, ethnolinguistic. But it's a country that is fractured between the north and the south of the country. For us, in terms of education. Here on this map, I've plotted the share of women who had no who had not completed primary education before the start of the policy that we are going to study.

And there are two main takeaways here. The first one is girls, because the darker the shade of blue, the higher the higher the share of women who had not completed primary school, you can see that the north of the country, the north of the country, women are less educated compared to the south of the country. But the second takeaway is that there is variation at the locality level across the country, and you're going to use that to identify the impact of the policy we're interested in.

The second dimension that is important is the marriage market in Nigeria is also very different in the north and in the south with notably two key features. The first one is the timing of union by the, differs by gender. It is characterized by an early entry into marriage for women at 18 on average, but as young as 16 on average in the north compared to 20 in the south. And there is a late entry for men around 26 on average, and that creates conditions that allow a matching so marriage between partners belonging to distant generation. That's why on average in Nigeria, there is a ten-year age gap between partners and also, that also goes to those matching between this generation is also one of the reasons why there is a high level of polygamy in Nigeria, with 30% of women who are married in a sample and being married to a polygamous partner. And the difference is that in the north it is as high as 46% compared to 20% in the south of the country.

So the policy we're interested in is actually the universal primary education program implemented by the military government in 1976 in Nigeria. And it had three main components. The first one is that it made primary education free for all Nigerians. The second one is that there was a very high number of classrooms that were built. It is believed that it was around 1 billion naira that were invested at the time, which was a huge program with a huge push into supply of education. Now, the rationale of the policy was to have resources directed to areas where there was a lower level of enrollment to start with. So having to have them catch up with the most advanced region.

So to study this policy, we are going to use a demographic and health survey that was collected by DHS in the 1980s and are now going to pull together four waves of data collected in 2003 and 2018. And we are going to focus on the women, married women in their first union who are between 15 and 49 years old at the time of the survey and unmarried men. So now we are going to use two sources of different, of the variation with the difference in different setting. Just as you know, as Peyton explained very well, just saying that if you only compare the before or after, you may actually confound the effect of the policy with a positive trend, for instance, in marital outcomes. And because you want to get rid of that trend, you need two sources of variation.

So the first sources of variation that we use is the fact that we use the birth, the cohort of birth of women. So women, children starts from primary school at 6 years old. And so we are going to compare first women who are of primary school age before the policy started and after the policy started. And you are going to compare, you know, sorry, you are going to compare them to women who are too old to have been exposed to the policy. In the second dimension, we are going to use the intensity of the investment that were made for the policy. And you are going to compare localities where the intensity of the treatment was high compared to localities where the intensity of the treatment was low.

So doing that, what do we find? So here I plotted the yearly effect of the universal primary education program for women who are exposed to this program year by year. So these women are in the shaded area. So women born women between born after 1970 who were exposed to the program and who were able to have more education and is what we, we see here. We see that women who are exposed have more years of education compared to the ones that were not exposed, who are on the right hands or left for you, left hand side of the graph. We see that we have similar effect for men. There is also an increase in the use of education of men, meaning that men who were exposed to the policy were also more likely to attend primary education and had longer, more years of education.

Now, as I said, we want to in this context, we want to leverage the age gap between partners. So remember, there is a ten-year age gap between partners with men being systematically older than their wife. So that means that we have three groups that we're interested in and that we can use for, you know, leveraging an additional source of variation. We are going to compare in the same setting, you know, so typically, you know, in category A, we are going to compare women who are exposed to the policy and who are married to men who are not exposed to the policy because they were too old when he started. And with B, we are going to have women who are exposed to the policy and who are also married to a man who was exposed to the policy. And C, our control group are going to be the cohorts of women who are too old to be exposed to the policy and so was the husband.

Now comparing A and B, so both those group together to our control group, we are going to have the overall impact of the policy regardless of the education of the husband. And then by comparing women who are in the Group B compared to Group A, we are going to know whether there is an additional benefits for women of having a treated husband when they are compared to women who are the only, who were the only ones who were treated. And I'm going to utilize beta one and beta two.

So what do we find? So here I first plotted the impact of the policy for the south of the country. The diamond shape is for the tolerance of domestic violence. So if it decreases, it's a good idea. And in the dot line is we do the impact on whether women are involved in decision in the household, so if it increases, it means that the policy has improve women's marital outcome.

And this is what we find. Beta one again, is the overall impact of the policy and we see that it led to a decrease in the tolerance of domestic violence in the south of the country and to an increase in the involvement of women in decision making. Now, looking at beta two, that is going to tell us whether there is additional benefits having a treated husband on top of women's education. What we find is that when it comes to tolerance of domestic violence, it is the case. Having your husband who is treated further decreases women's tolerance of domestic violence. And those magnitude are not, I know, negligible.

When it comes to the overall impact of the policy, it led to a decrease of a third of the baseline level of tolerance of domestic violence. When it comes to decision making, there is an increase of 14%. Now, what's going on in the north of the country? So in the north of the country, we find that overall, when we look at the overall impact of the policy, so beta one, there is no significant change in either the tolerance of domestic violence of women nor in their involvement in decision making.

Now, what's going on when the husband is treated as well. When it comes to tolerance of domestic violence, we see that when both husband and wife are treated, we find a decrease in the tolerance of domestic violence and an increase in the involvement of decision making of women. The magnitude of the effects though a bit smaller than in the south of the country because they represent only 5% of the baseline level.

So to summarize what I've shown you right now, it just means that women overall are better off as a result of the educational policy, but the mechanics of the effects differ. In the South, it's really a result of the combined effect of their own education and the education of the husband. And in the north, the effect seems to be unlocked when the husband is getting more education. So what does it mean overall? You know, what are the mechanics that we can have in mind.

First, we could think that because women are more educated, the timing of marriage becomes more preferential for them. Maybe they marry later. And this is what we find in the south of the country. Women delay marriage by a year. And we also see that they tend to marry husbands who are younger, so they decrease the age gap with the husband. In the north of the country, we find no such change. There is no change in the relative position of the wife within her couple. You can think that, of course, education of the wife can directly have an impact on, you know, her situation in the household by typically do they have more education women getting more proficient at dealing what, you know, what's within their own sphere in the domain in the in the household, and so increase your bargaining power relative to the husband. And that's, you know, something that we think that is shown here that because we find in an increasing involvement in decision making.

You could think that education makes women more likely to have access to a job outside of the house and they have more financial autonomy. So it doesn't seem to be the case. And we say that based on previous work we're talking about Oyelere, who looked at the precise impact of this policy on women's income. And she found that the changes are very small, only 3% of income of extra income per year, whereas usually for this type of policy we are more around 11%. The education of the husband may change that. You can think that a more educated husband is more likely to be more progressive when the answer is not clear cut.

In the North, we found no change in in husband's tolerance of domestic violence nor willingness to share decision power the household. In the South, there seems to be some improvement, suggesting that women seem to have access to better husband on the marriage market. Again, the labor market has come to the husband just out of the wife based on what you know this previous study. The changes have to be limiting so we knew do not believe it is the main driving force in the changes that we find.

So to conclude, we find that large scale educational programs can improve gender equality in marriage, but it may change it unevenly. In high empowerment context and the south of Nigeria compared to the north of Nigeria, it can boost gender equality. So educational policies can make women better off in terms of marital welfare, either through their own education and the husband's education in high empowerment contexts, but in low empowerment context, husband seems to mean husbands education still seems to have a very critical role in order to improve women's empowerment. And this type of research and resource seems to further feed the relevance of policies that try to target both men and women in order to first do more support for gender equal norms. Thank you very much.

David Wessel: Sarah, thank you for an exceptionally clear presentation. And also, in these days of darkness, it's nice to hear that there's some benefit to women from educating men. I hadn't heard before, and it's good to know. I think we have time for a question or two. Yes. Back there and then here.

Audience Member: Hello. Hi, I'm Vanessa [inaudible] And I'm a research assistant at the Federal Reserve Bank of Philadelphia. That was a great presentation. It was really clear, as you said.

I wanted to ask a question about regarding the, like, map that showed sort of the disparity. And like the average women's educational exposure in, like the south of Nigeria versus like the north of Nigeria. I was wondering if you could like elaborate a bit, perhaps more on like why that disparity like was occurring and if there was like at all like a related disparity for like men's educational exposure at the time?

Sarah Deschenes: Sure. So there are two main reasons for those disparities. The first are happening pre-colonization. So in the north of the country, that is more likely also to be where I mean, there are more Muslim people in the north of the city compared to the south. There was a very strong tradition of Koranic education that really relates to I mean, like we, way before and I mean, I think that, you know, there was a strong dynamism that was also enhanced by the Sokoto Caliphate that happened that was still, you know, there before the British colonization. And it has a very long and strong tradition of scholarly work and work on pedagogy around Koranic education.

So it means that pre-colonization in the north you had a very credible alternative for parents compared to Western type education, whereas in the South it was more animists, there was a type of education but more of a community education, a bit more informal. I mean, we built classrooms, for instance, and these differences so that's the second reason were enhanced by the British colonization. So the British arrived and had this indirect rule in the north because they saw the type of infrastructure they could rely on to exert their power. And so they dissuaded missionary schools to be implemented north of the country. In the south of the country, they didn't recognize that in community education. And so they, you know, encourage missionary schools to completely erase that kind of particularism.

David Wessel: Here. Stand up so she can find you with the mic.

Audience Member: Hi, I'm Simran, I'm an RA here at the Brookings Center on Children and Families. This is more of a clarification question. I don't know if this is something you mentioned, but could you describe what tolerance for domestic violence means? Is the prevalence of DV and IPV or is it women leaving marriages?

Sarah Deschenes: So the tolerance of domestic violence in the data that I use is measured by a question about norms. Whether women adhere to harmful gender norms, women are directly asked, do you find it justifiable for a husband to beat his wife if she goes out without telling him, neglects the children, argues with him, burns the food, refuses sex. And we aggregate all this binary answers to the question in an index. We also have information about the actual experience of domestic violence collected on a random subsample of women. And because we don't find significant results here, I didn't show them. Having said that, it doesn't mean that there is nothing happening because we know that measuring domestic violence is a very sensitive issue, we couldn't make the difference between a change in actual prevalence or essentially reporting.

Audience Member: Thank you.

David Wessel: So I think I want to bring this to a close by thanking particularly all the presenters for such interesting presentations and for all of you who came in person today, as well as the people on the online audience. Out, out this door here, we have a lot of food, both in the hallway here and in the room beyond. So I want to invite you all to enjoy that, and to have a very productive conference tomorrow at the Urban Institute. And I want to thank my colleagues, Stephanie Cencula and Megan Waring for helping to organize this thing. We decided to do a natural experiment at Brookings by having our Internet go down this morning. So we learned that the Internet is essential to education, but fortunately it was up by this afternoon. So thank you all for coming and please help yourself to the goodies we have.