## FEDERAL DEPOSIT INSURANCE CORPORATION

 $+\quad+\quad+\quad+\quad+$ADVISORY COMMITTEE ON ECONOMIC INCLUSION
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MEETING


TUESDAY
OCTOBER 22, 2019
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The Advisory Committee convened at
8:45 a.m. in the Federal Deposit Insurance Corporation Board Room, 550 17th Street, N.W., Room 6010, Washington, D.C., Jelena McWilliams, Chairman, FDIC, presiding. PRESENT:
JELENA MCWILLIAMS, Chairman, FDIC Board of Directors
ROBERT ANNIBALE, Citi
JANIE BARRERA, LiftFund
RAPHAEL BOSTIC, Federal Reserve Bank of Atlanta JOSE CISNEROS, City and County of San Francisco MARTIN EAKES, Self-Help Credit Union DON GRAVES, KeyBank
MARTIN J. GRUENBERG, FDIC Board of Directors WADE HENDERSON, The Leadership Conference on Civil and Human Rights
MAURICE JONES, Local Initiatives Support Corporation (LISC)
ANDREA LEVERE, Prosperity Now MARGARET LIBBY, MyPath
ALDEN J. MCDONALD, JR., Liberty Bank and Trust JONATHAN MINTZ, Cities for Financial Empowerment Fund
PAM PATENAUDE, Habitat for Humanity JOHN C. WEICHER, Hudson Institute

## ALSO PRESENT:

> KANAV BHAGAT, Managing Director of Financial Market Research, JPMorgan Chase Institute LARIECE BROWN, Quantitative Analytics Director, Freddie Mac
> KELLY COCHRAN, Deputy Director, FinRegLab KATY DAVIS, Managing Director, ideas42 KEITH ERNST, Associate Director, FDIC DCP
AMELIA ERWITT, Managing Director, Cities forFinancial Empowerment FundLINDSAY FERGUSON, Director of StrategicEngagement for America Saves, ConsumerFederation of AmericaRYAN GOODSTEIN, Senior Economist, FDIC DCPJASON GROSS, CEO and Co-Founder, PetalEMERSON HALL, Associate Director, FDIC DCPJONATHAN MILLER, Deputy Director, FDIC DCPDANIEL NESTEL, Senior Director GovernmentRelations, FICOMARK PEARCE, Director, FDIC DCPLAUREN SAUNDERS, Associate Director, National
Consumer Law Center
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P-R-O-C-E-E-D-I-N-G-S
8:50 a.m.

DIRECTOR GRUENBERG: Good morning, everybody. Jelena got delayed this morning, so she gave me the privilege of welcoming you all. And a couple of things. We have a number of new members to the committee that we want to welcome, and I'm going to introduce them in a moment, a number of members whose terms are coming to an end. And I want to begin the process of thanking them for their service on the committee.

Let me just say at the outset that this committee has now been around at the FDIC for over ten years. It has started when Sheila Bair was the chairman. It was continued while I was the chairman. And now Jelena is continuing it as chairman of the agency.

And it has proven to be an extraordinarily valuable resource to the FDIC for ideas and energy for addressing an issue that is really core to the mission of the FDIC. We're
fundamentally about providing security to people for their savings, preserving the public's confidence in the banking system.

And so the mission of expanding access to the mainstream banking system is really a core part of the mission of this agency. And this committee has been really the driver of all their thinking and work around that issue. So I wanted to begin as a starting point for thanking you all for your willingness to serve and to underscore the value that from our standpoint you bring to the FDIC.

If I may, let me now introduce the new members of the committee who are joining. It's an extraordinarily distinguished group. And in alphabetical order, Raphael Bostic is the president of the Federal Reserve Bank in Atlanta. Raphael has dedicated his career to expanding economic and housing opportunities for underserved families. He previously served as Assistant Secretary for policy development and research at HUD and held a Chair in Governance
and Public Enterprise at the USC School of Public Policy.

Don Graves holds the Bruce Murphy chair on this committee. Don is the Director of Corporate Responsibility at KeyBank. His predecessor, of course, at KeyBank was Bruce Murphy who was really a very valued member of this committee, and I think we're extraordinarily pleased that Don is able to continue the service on this committee. He has extensive expertise in small business and economic development in both private and public sectors, previously served as Deputy Assistant Treasury Secretary for Small Business, Community Development and Housing Policy.

Maurice Jones to my left is president and CEO of the Local Initiatives Support Corporation or as LISC is known. He comes to us with a wealth of experience in federal and state government, previously served as Deputy Secretary of HUD and Secretary of Commerce for Virginia among many other things.

Margaret Libby is the founder and CEO of MyPath which uses strategies centered on the workplace to bring young, low income workers into the banking system and to encourage savings which are really two core objectives of this committee. So we're really pleased to welcome Margaret. And she previously worked with the Youth Leadership Institute and the California Reinvestment Coalition.

Jonathan Mintz is not a stranger to this committee. He is the founding president and CEO of Cities for Financial Empowerment. He has really led a national effort to expand access to the banking system, to support and sustain local Bank On coalitions, and has been a national advocate for the expansion of safe transaction accounts which is work that came out of this committee I think is fair to say. And I would note Jonathan was the longest serving

Commissioner of Consumer Affairs in the history of New York City.

And finally, Pam Patenaude joins us
after recently serving as Deputy Secretary of HUD. We have two former HUD Deputy Secretaries and currently serves on the Board of Habitat for Humanity and previously was president of the $J$. Ronald Terwilliger Foundation for Housing America's Families.

So this is a pretty good group, I have to say.
(Laughter.)
DIRECTOR GRUENBERG: And we do have a number of members whose term on the committee is coming to a close. I wanted to acknowledge them. Janie Barrera -- we really hate to say -- we like to add. We hate to say goodbye. I have to say that. Wade Henderson, Andrea Levere, John Ryan, Phillip Swagel, and John Weicher. We thank you for your service.

And I also want to acknowledge Ted Beck, Kelvin Boston, Ester Fuchs, Pat McCoy, Bruce Murphy, and Manuel Orozco whose terms ended last year.

We can now actually move into the
business of this meeting, and I'll turn it over to Jonathan Miller. And we are going to try something different this morning for the first time which is to give you all the opportunity for five minutes or so apiece to share your thoughts and what we ought to be thinking about.

Jonathan?
MR. MILLER: Thank you very much, Mr.
Chairman. So I just want to -- before starting, I want to just remind everybody. In your packet, you will see a sheet advertising our 2020 National Interagency Community Reinvestment Conference next March in Colorado. We want to make sure people get it on their calendars as quickly as -- as soon as possible.

It's a terrific group of stakeholders.
It's sponsored by the three prudential regulators, the FDIC, the Fed, and the OCC. And it's a great meeting of folks for the purpose of talking about national community reinvestment.

So I have -- I'm under strict orders to keep you to five minutes. I have my iPhone
ready to tell me when that comes up. So I'll just start, and we'll just go around the table. Bob?

MEMBER ANNIBALE: Always the "A". (Laughter.) MEMBER ANNIBALE: My childhood memories of being the first seat in the row of every class. I hated it.
(Laughter.)
MEMBER ANNIBALE: Just -- well, thank you first, again, to those leaving. It's been wonderful working with you, and thank you for all you've shared and we've learned. And for those joining, I'm looking forward to getting to know you better.

I think the additional expertise coming on about housing is going to be very helpful for some of us. So we'll look at that intersection of particularly communities working and the challenges of housing. Low income communities and density of that often corresponds to lack of access to many other services,
including financial.
I do want to just use this for a
moment to say there's something which we're more formally going to announce. But -- and of course, I always do these things. When it's all public, $I$ forget that we are streamed across the hall and elsewhere.

That we're doing some very good work with the City of New York, and Jonathan has been very helpful and others in that on something called EmpoweredNYC. And we've talked for a long time about really the lack of access of financial capability and coaching advice for people, the complex lives of people, particularly with disabilities, and those households with someone with disabilities. Anybody navigating through the benefits system, at least in this country, it's a landmine for anybody who has a disability. And we started with New York with the Mayor's office for people with disabilities, and Jonathan's success on the Commission for Consumer Affairs, and a group of very knowledgeable people
to look at the absolute absence of support and material. Also, the National Disabilities Institute joined us for that which was very helpful.

And as we look at that, we know that something like 18 percent of people with disabilities are unbanked. That's a big contrast to what we see nationally and other levels which have been improving. These levels actually deteriorated further. And there are only 37 percent of people with disabilities who are employed, 70 percent without disabilities are employed. Half of those that are working have \$25,000 a year.

And so we built a program in New York to really develop deeper coaching and training of financial counselors around the needs on the lives of people with disabilities. And we'll announce in a few days. But that will expand nationally to at least a group, a crop of about five cities to start with, New York, Boston, Chicago, LA, San Francisco and we believe more.

And we're bringing together the commissioners of people with disabilities from those cities and to build out -- invest a couple million dollars to really build out resources and trained counselors, financial counselors for those who are navigating the most complex lives.

So I really just wanted to share that. And did I use my five minutes?

MR. MILLER: Almost.
MEMBER ANNIBALE: There you go. I have two minutes left. Nothing more though that will come up later to just say I hope that an example of something we've also learned. We opened up our ATM network as we spoke, I think I mentioned before, to adopt a pilot for about 25 community banks and credit unions that are in our footprint.

And that's pretty -- almost a half million clients of those banks to basically give them access to all cities. The ATMs that we own, it's like 2,300 ATMs in the same footprint with no charge. Because the out of charge fees are
continually going up, anybody who tries using other bank's network which I disastrously did here and realized it costs over four dollars to do that.

The idea was to say, can small community banks, credit unions access our ATMs and their clients not pay an out of market fee or out of network? And that's proved very interesting, good.

Sixty percent use it for cash withdrawals just out of curiosity. And the average cash withdrawal is about \$204. And these are, like, sometimes the Lower East Side Credit Union. They're small groups.

And the other 40 percent are really just trying to check their balances, and they do it frequently. But they used to be afraid they'll get charged to use someone else's machine. So we really think there's an opportunity because those who run big networks, this is pretty de minimis. I mean, adding a half million people in a way because the usage is
spread and timely.
But for anybody who works is using a minority depository institution or a small credit union. The cost for those institutions of getting into a bigger network or to put in more machines just doesn't make sense. So yeah, we think it's a good experience. We wanted to share it, and we're going to try to expand it.

MR. MILLER: Thank you, All right, Janie, your five minutes.

MEMBER BARRERA: Thanks, Jonathan. Well, it is a bittersweet moment being the last meeting. And I'm happy that we got this five minutes to be able to share some of the good work that CDFIs and non-profits are doing across our country.

So where other people see risk, we see investments. And so some of that we have seen at LiftFund. We're celebrating 25 years this year. And what we do is that we work with folks that are unbankable. We do micro and small business lending.

The average credit score, FICO score, one of our customers is 590. And we have a 96 percent repayment rate. So today during the agenda to cease talking about underwriting, and I could relate to the stuff that was sent to us for reading because we do need to look at other things besides credit scores to be able to make a determination.

Having a 96 percent repayment rate with that high risk of that credit score says that, and we've proven it. We've dispersed over \$300 million in the 25 years. Average loan size is $\mathbf{\$ 2 5 , 0 0 0}$. So we do know that access to capital is so important for these small businesses that aren't able to go to banks and credit unions to be able to get these funds.

So we continue to experiment and pilot things. And so some of that is actually with some credit unions. There's a credit union, Suncoast Credit Union, in Florida that we're partnering with to see how we can say yes to their members that they have to say no to. And
we're trying to figure out a way by them not having to reapply for a loan.

Because right now in the banking community, we're having -- a bank says no. And then they have to reapply with us. And so what we're trying to figure out and we hope by second quarter of next year to accomplish this where in their system -- in their regulatory system, through NCUA and everyone else saying yes. Our backroom operation at LiftFund is a part of that regulatory box that is doable, so that the application goes in to the credit union and then it directly comes to LiftFund.

And so we're hoping -- I mean, that's
going to be a big change in our industry because the pipeline of where do we find customers, how do they find out about CDFIs and microlenders like us. We'll be able to share that with a bigger audience.

The other thing is that we are creating through the NALCAB, National Association of Community Asset Latino Builders, NALCAB, is
the fact that we are creating a national Latino fund for small businesses. And hopefully we'll be able to go public with that in the next couple of weeks. There's a major bank that has given us a ten million dollar grant to start this.

And what that is, the concept is there are a lot of small CDFIs across the country. But they're not able to reach scale because they don't have the cash to be able to provide these loans. So we create a national pool where we can have that ten million dollar equity grant that's come in and leverage it then to borrow more into that fund. Then we'll be able to serve more people.

So it's going to be a fund that does not belong to LiftFund. We are going to be the partner in it. We're going to be doing the underwriting. It'll belong to a for-profit LLC within NALCAB. So it's a brand-new concept that we are so excited about creating. And hopefully you'll hear about that in the next couple of weeks.

The other thing about our work as well is that technical assistance is so important. We've learned over the years that it's not access to capital but it's also the TA that small business people need.

We recently did a study, 77 percent of the small businesses that work with LiftFund are still in business three years later. And as you know, startup businesses go belly up within three years. And so to have those kind of statistics is proof to us that we're able to keep that legacy of that small business for the next generation.

So maybe you've heard me say before. You can teach a person to fish. They eat for a day. But what we're helping people do is buy the pond where they're fishing.
(Laughter.)
MEMBER BARRERA: And we'll be able to leave a legacy for the next generation. So that's what we're attempting to do as well.

And then lastly I just wanted to share
because I know our chairwoman, Jelena, is an advocate of de novo banks. And so I've been part for the last three years helping in a small way to start Piermont Bank. So it's located in New York City. It is a woman owned, minority owned bank. And it's been the first de novo bank in New York in ten years.

And so we're excited. We opened up doors July 1 and are ready for business. So if you want to make a deposit at Piermont Bank, we're located on Bryant Park. And it's a woman owned, minority owned bank. So we're also looking for investors from bigger banks to make deposits --
(Laughter.)
MEMBER BARRERA: -- into our bank.
And we'd be happy to entertain any questions you may have on that.
(Laughter.)
MR. MILLER: Thank you. Raphael?
MEMBER BOSTIC: Thank you. I wanted to just first say good morning, everyone. And
it's really a pleasure to be here. I thank the FDIC for the invitation to be a part of this committee.

I'm thinking about challenges that we're facing. It's been very interesting. Our bank has just finished a strategic planning process where two issues that we highlighted were the challenge of economic mobility and resilience and issues around innovation in financial products.

And we settled on those things for a couple of reasons. One is that the issue of financial wellness, financial stability is something that is critical for just families living and for people making decisions that are going to work and have longer term horizons.

So I've encountered issues around financial literacy problems, financial sophistication issues. And we've really been grappling with the idea that the seeds of these are sown very early in people's lives that too often people who are children, minorities, and
women are not getting positive reinforcement. This is something that they should be experts in or could be experts in.

And so we're actually working to try to provide some training and some curriculum for fifth graders and eighth graders to try to change that. And hopefully that will improve collective financial sophistication and also get more people in the pipeline so that our field looks more diverse as we move forward.

I would also say that the fintech space is something that is really active. And we've been doing a lot of work to just try to remind people or encourage innovators to think about the ability of their innovations to change people's access and increase people's access to financial services and to the capital that can be helpful.

I grew up in New Jersey. So the Southeast is not a place that I knew very well. And I spent a lot of time in the last two years just traveling around and seeing places. And
there are a couple of themes that have emerged. More generally, one is affordable housing is a problem pretty much everywhere. The source of that problem changes. So in some instances, it's income. In some instances, there's not enough housing. But it's something that we really must face.

Second thing is access to capital which is consistent in communities that are not connected to workforce and to employment networks. And so in that regard, we've been thinking a lot about CRA reform, about how to promote and engage with targeted and creative investments and deployment of capital for small businesses, for community-based amenities.

And really we've started to create some relationships with foundations and others just to point out to where there are opportunities. Because in the South, we're underinvested in these things. And we're on the ground, so we are seeing things a bit differently.

And then I would also say that I've been really struck by the difference in the challenges in urban places and rural places. And I would hope that we spend some time just being mindful to the special challenges that rural places have. It's kind of hit me pretty hard. You look at my map. Most of it is rural. Most of it is struggling.

And so issues around this capital access, workforce development, the strength of institutions. And particular issues around community banks, like smaller banks that are often the pillars of these communities, they're feeling particularly stressed. And without them, I think many of these communities are going to really have a hard time finding a future.

And then the last thing I would say is we've been -- I've been for a long time thinking about the cost of capital for lower income families. And really thinking hard of how I can get the banks in my district to be creative about providing products that are real competitors for
check cashing operations where it's not charity but it's also still cheaper than what they have today.

And we're going to keep working on that. There are some things that I think are quite promising. So thank you. It's really good to be here.

MEMBER CISNEROS: Thanks, Jonathan. Good morning, everyone. Jose Cisneros, San Francisco Treasurer. I'm happy to report that our Office of Financial Empowerment in San Francisco continues to deliver a number of important programs from the longest running Bank On, Bank On San Francisco program, that continues to connect unbanked folks to safe accounts in our city to a number of other programs.

Getting youth -- summer interns and youth into bank accounts by the time they get their first paycheck, financial coaching which we're providing to folks to help improve their credit scores and improve their financial situation. A first of its kind children's
savings account program which we do in partnership with CitiBank and our local public school district.

And even a new program we're developing with our San Francisco International Airport private employers to try and develop a workers fund to help low wage workers weather an unexpected financial need.

But a couple of things $I$ wanted to bring to this committee that's come out of a lot of that work are two important things that we've seen and would love to have help addressing. One is I just think an interesting thing that we need to keep in mind and it's something we've seen through our children's savings account program.

We opened our children's savings account program as I mentioned in partnership with CitiBank. And we've opened to date nearly 40,000 accounts that folks access by walking into a local bank branch in our city to make deposits. Quite a different opportunity of access compared to the typical 529 college savings accounts which
are more remote and challenging to access.
What we found in our program which has been very successful at getting low income families to save is that fully half of the first deposits that families make into their child savings account, they make it by walking into a bank branch and walking up to a teller window oftentimes with cash. And fully one-third of all the deposits made by all of the families, even the repeat deposits, are still made by walking into a bank branch.

I think the lesson we all need to talk away from this is the incredibly important reality that physical brick and mortar bank branches and cash deposits deliver for low income folks who are trying to safely and economically access our banking system. We're going to look to continue that and see how we can expand on that going forward to give them even more opportunities to saving cash.

The other thing we're noticing that $I$ also wanted to bring to the committee is through
our Bank On program, while we've significantly reduced the population of unbanked folks in San Francisco, we still find that there is a very challenged population who are blocked from opening up a bank account by negative banking records, by the histories that the banks discover in either check systems or early warning systems. And we have a number of concerns about this because, number one, these systems are very difficult to access by the consumer. They're not at all transparent. People don't know what it says. When you compare it to the access that our country has delivered around credit scores and credit reports, here, it's quite the opposite.

There are two primary flags in that system that restrict people from opening up accounts. One is account abuse. The other is suspected fraud. It's not at all clear that these flags are accurate when they're showing up in someone's record. And it becomes very difficult for the consumer to, number one, find out that they're there or, number two, correct
them if they're not correct.
We feel that it would be vitally important to find out how we can work with this and improve the access to these systems. And then the other side of the coin is the financial institutions are all over the board in terms of how they utilize these records.

So we see very little consistency, very little information about how the financial institutions will rely or not rely on these scores. And so the transparency is lacking there as well. So I bring that to the committee, and hope it's something we can talk about in the future. Thanks.

MR. MILLER: Thanks. Very
interesting. Martin?
MEMBER EAKES: Good morning. My name is Martin Eakes. I work with Self-Help Credit Union and the Center for Responsible Lending. I particularly want to thank you for inviting -credit unions and banks don't always get along. So I appreciate being admitted into the bank
bastion here.
My mother used to say that it's okay to be opinionated so long as you're willing to change your mind. So I forewarn you. She'd given me permission.

Self-Help started 35 -plus years ago. Our belief was that if we could understand wealth in families, we could make progress in the South on issues of race. And that without understanding wealth issues, we couldn't understand race in the South.

So we discovered early on that onetenth of the wealth that white families hold were held by black and Latino families. And our solution for that was trying to figure out how do we create and bring families of color to the national average of homeownership.

And we started making loans early on. I made $\mathbf{\$ 1 0 0}$ million of loans to mostly black single mothers, and my banker friends said you can't possibly do this without losing your shirt. My conclusion being pugnacious back then unlike
now was that, you guys know a lot more about banking than I'll ever know.

DIRECTOR GRUENBERG: You've really softened over the years, $I$ have to say. (Laughter.) MEMBER EAKES: I know more about black mothers than you'll ever know because I grew up with them. So we started making home loans. And in that first ten years, $\$ 100$ million in loans, we had not a single penny of loss over the first decade to families who had been unable to receive a home loan from any other source.

We've continued to believe that and despite a lot of the debate about what is the role of homeownership, let me just give you a couple of numbers that have confirmed. We've now done between five and $\$ 8$ billion of home loans and small business loans, particularly focused on communities of color.

The wealth gap has actually gotten worse for us. So my focus right now is I want to keep this idea of wealth and families and
homeownership front and center. Even though when we discovered that the wealth gap was ten to one, 30 years ago, I thought that was the most ignominious fact in a great economy, that it was just something that we couldn't tolerate.

It's actually gotten worse. In the last 20 years, the actual in real dollars gap between white and black families has gone from $\$ 100,000$ to $\$ 150,000$, the gap in real dollars after inflation.

So we're moving in the wrong direction, but we also know what the answers are. When we did 50,000 different home loans through partner banks, we found that from 2005 to 2012, which is a very weird period. Prices were at their peak. In 2012, they had really reached a trough.

The families that had become homeowners during this program that we studied over time increased their family wealth by 40,000, from zero to 40,000 over that time period, which again is a really hostile
measurement period.
And the families that had identical characteristics in every other way but remained a renter at the end of that 2012 had \$200 of net wealth. So homeownership is still a really wonderful path into the middle class.

Most families do not have cash reserves, both white, black, and Latino and others. But for families of color, 50 percent median has zero to $\$ 200$ of cash wealth in the household which means you can't sustain very much of a financial crisis and you can't have a down payment to make a home loan. So if we don't figure out how to enable homeownership with down payment assistance, we will never close this wealth gap.

The cash reserves are critical and brings us to several of the areas of the FDIC financial inclusion plan, the five different components. Small dollar, I will say to you small dollar is often the fig leaf for bad action that payday lending, direct deposit loans. And
thank you to the FDIC for continuing its rule and leadership and preventing payday lending directly by bank depositories in the form of the, quote, direct deposit advance, and then overdraft fees.

All three of these are essentially a trapping mechanism. Payday loans, direct deposit advance, and overdraft fees trap people and take cash reserves out of the household. And my focus is on bringing the black and Latino homeownership rate to the national average. If we allow abuse in this area, we'll never have down payment. We'll never ever get there.

A final thing is that the FDIC has been a leader through lots of different chairmanships in not permitting bank charters to be rented to companies that really are partnering with them solely to use the preemptive effect of a federal chart or a federal insurance to do bad things.

Fintech, I've heard this. If I had a nickel for every time $I$ heard, we just need more innovation in the financial services network.

Mostly, I heard that early on subprime mortgages. I would be a rich man today just from hearing that. And all I'm saying is that sometimes innovation is really wonderful and we have to be open to it. Oftentimes, quote, innovation is simply a refuge for scoundrels.
(Laughter.)
MEMBER EAKES: So we have to actually dig into the details and make sure that as this committee we stay focused. I would say that I really appreciate being invited with this esteemed group. I know many of the people on this panel are amazing. The folks in the audience are equally esteemed. And the professional staff at the FDIC are the best, bar none.

MR. MILLER: If you'd like to keep going.

MEMBER EAKES: So thank you very much. (Laughter.)

MR. MILLER: Thank you, Martin.
MEMBER EAKES: That was a good one.

Thank you. That's all.
MR. MILLER: Don?
MEMBER GRAVES: Well, thank you all.
My thanks to the Chairman and to Marty for having me. Don Graves from KeyBank. And while I am not a black -- I'm a banker and not a black mother, I did have a black mother. So hopefully I know a little bit about what --

MEMBER EAKES: You are not who I was talking about.
(Laughter.)
MEMBER GRAVES: Marty and I are
friends. I'll just say start with this to begin. KeyBank's mission, our stated mission, it's on our website. It's on all of our -- everything that we put out is to help our clients and our communities thrive.

And what we mean by that is that we're all about trying to support people's hopes and their dreams by providing them opportunities, and this is the important part, to live a life of dignity. And for too many people in this country
right now, they aren't living lives of dignity because they may have hopes and dreams that have not yet been quashed. But they don't have the opportunity that leads them to that place of living a life of dignity.

I think our commitment in this regard shows through what we received last year which is our ninth straight outstanding CRA rating. We had an outstanding CRA rating every exam since the inception of the Community Reinvestment Act. So I don't know how many there are. I don't think that there are more than on one handful that have received that every single time.

What that actually -- how we do that, some of you have heard this from Bruce Murphy in times that he's been here before, the types of products that we put out like our KeyBank Plus Check Cashing product which is meant to directly compete with the check cashers, a very, very low fee, very easy to obtain, go to any of our branches.

Our KeyBank Hassle-Free Checking

Account which is a Bank On certified account. Our KeyBank Secured Card, our Key Cashback credit card which is brand new, very, very accessible, two percent cash back into the pockets of any client as well as any card holder who's not a client. You can also get one-half percent cash back, no caps, no limits, no rotating categories, no annual fee.

And the reason I say all of that is because I think it's important that banks like Key and Citi and others that are pushing the envelope continue to offer these types of products.

We have a handful of brand-new things that we're trying thanks to many of the friends here at the table. Our E-Z Up program which is an innovative new tool that allows our clients to automatically save money for the payment of debts. For every debit card purchase or transaction, a dollar is transferred into a savings account. And that savings account is then able to -- you're automatically able to then
send money through the E-Z Up program to pay down the debt of your choice.

So what we found is that clients could save more than $\$ 300$ each year using E-Z Up which is a meaningful amount for low and very low income clients. You could pay off a 30-year mortgage, for instance, a year and a half faster by using this. You could eliminate three car payments on a five-year auto loan by doing that. Or you could pay off a student loan one year faster.

To Martin's point, zero dollar overdraft protection option for our accounts because we know that oversight happens. Even if you're well intentioned, we know that things happened to individuals over the course of a month.

So we're offering a new no fee overdraft protection for clients' checking accounts linked to a KeyBank savings account. If an overdraft occurs, if you're signed up for this service, the available money in your savings
account goes to cover that overdraft so that you don't end up having the overdraft fees and there's no shortfalls.

All of that said, we know that there continue to be major issues in communities. Oftentimes, it's around financial literacy. And it's less an issue of the -- it's more of a nuanced issue around financial literacy.

Most people -- not everyone, but most people understand the basics of how checking accounts work and how the systems work. But it's when you get into the more -- the deeper parts of the financial services industry, the more complex parts of the financial industry that people have real challenges.

So we're particularly challenged in terms of outreach around financial literacy I think as a bank and as an industry to make sure that people are getting that deeper level of engagement, deeper level of understanding so that it's not just, should I use a checking account, or should I go to -- should I open a checking
account or should I go to a check casher.
It's, well, if I do go to a bank, I don't know what I'm supposed to be doing. They offer 25 different types of accounts. I'm confused. I'd rather just go to the check casher that I know.

It's also, as you know, expensive to be poor. So applying a traditional fee structure to accounts for the underbanked instills a deep distrust. So once again, you end up sending folks to the types of accounts that are not particularly friendly to low and moderate income individuals.

And then I'll touch on just quickly a couple other issues before I finish. As my friend, Raphael, mentioned, the rural issue is a huge challenge for large institutions in particular. And the Community Reinvestment Act doesn't necessarily help us to achieve our goals in reaching rural poor.

And then finally, issues around how we provide credit and apply for it. Right now, the
challenge is access versus pricing and risk. And for institutions like ours, trying to get that balance correct is a problem. I suggest that we consider a range of new options, perhaps a public-private approach like an SBA guarantee.

Thank you.
MR. MILLER: Thank you. Wade?
MEMBER HENDERSON: Thanks, Jonathan. Good morning, ladies and gentlemen. I'm Wade Henderson. I represent the Leadership Conference on Civil and Human Rights.

The Leadership Conference is the nation's leading civil and human rights coalition with over 200 national organizations working to build an America as good as its ideals. This is my last meeting as a member of this esteemed committee, and I want to thank Chairman McWilliams for continuing the important work of this body.

> I'm also grateful to Chairman

Gruenberg and Chairman Bair for beginning this journey 12 years ago and for the foresight you
showed even before the onset of the financial crisis and recognizing that the financial industry would need to take a better, more collaborative and cooperative approach in facing the challenges in the financial industry and our economy at large.

Now together the work of this
committee has been critical in making sense of the constant changes we've witnessed in the past 12 years, from the foreclosure crisis to DoddFrank and through the growth of fintech and new banking services.

I really appreciate the willingness of the FDIC to genuinely hear the voices of the civil and human rights community and through the dialogue and the understanding and the relationships that you've engendered. You've also made those of us in the Leadership Conference community better advocates for the people we serve.

Now on a personal note, I'm especially grateful for the support you've all shown for
bringing communities of color into the banking system and not just as consumers but also as participants. I'm referring specifically to the recent policy changes to promote Fair Chance Hiring Section 19 policy reforms to make it easier for banks to bring in employees who are rebuilding their lives.

Now as our country continues to become more diverse, it's important that the banking industry look more like the communities they serve. And along with the First Step Act, the Section 19 reforms are an essential part of that. Now as I step down, we welcome new voices to the committee. I want to encourage you all to keep up the incredibly good work you've done. I believe that more can be done to advance Fair Chance Hiring and that the FDIC and this committee can help lead the way there.

Now second, and Chairman McWilliams who is not here this morning but $I$ wanted to acknowledge it. It was great to recently meet with her and my colleagues from the National

Community Reinvestment Coalition and other groups to talk about it.

The FDIC has a critical role to play in making sure that any reforms to the Community Reinvestment Act, and one of our most important but often misunderstood civil rights laws, truly lives up to its name and works to bring more people into the financial mainstream.

Now while we need the law to evolve, we also need to be armed with the right data before we commit to changes because the consequences are too great for impacting the racial wealth gap. And we really have only one chance to get it right.

Now third, as this committee continues to look at the evolution of banking and the growth of fintech, I want to issue a cautionary note about one particular growing threat to the consumer protection laws.

I want to salute Martin Eakes for his comment that there is an ongoing debate over what we call a rent-a-bank practice where some lenders
are taking advantage of relationships with federally regulated banks to do an end run around state usury laws.

As states continue to fight the scourge of payday lending and every state that puts payday lending up to a vote has found overwhelming opposition. We would do a tremendous disservice to low income families if we allowed payday-like products to gain new footholds at the federal level.

Now fourth, we need the banking industry and its regulators to do their part in addressing the troubling racial gap in homeownership. Homeownership is the primary means that most families build wealth, and housing is the biggest single expenditure that families face every month. And yet black homeownership today is as low as it was on the day that President Johnson signed the Fair Housing Act into law.

There are a lot of factors at work here, including the lingering damage of the
foreclosure crisis and the role that local rules play in reducing affordable housing supply. But we need to make sure to do no harm in our housing finance system.

And we need to provide a level playing field for lenders to serve all communities and to ensure that credit is as inclusive and as sustainable as it can be. And I hope that continues as a priority for this committee.

And finally, as this will certainly be a priority for me moving forward, the biggest financial threat that low income communities of color and our economy faces moving forward is student loan debt.

Now while most student lending is no longer done within the banking system, I couldn't agree more with Chairman Maxine Waters that we're going to need the best efforts of the banks to help respond to it because this is your consumer base and this is the economy that you're working to rebuild.

And I really want to salute the work
of the Center for Responsible Lending. Full disclosure, I'm a founding board member.
(Laughter.)
MEMBER HENDERSON: The organization has done an extraordinary job in focusing on the challenges of students attending historically black colleges and universities. And I hope that in the work this committee does, there's also emphasis on that.

And so while I say goodbye to this committee, the Leadership Conference and our partners are certainly not saying goodbye to the work that you're all doing. And we're looking forward to continuing these conversations moving forward.

It's been an extraordinary honor for me to serve with this committee for the past 12 years, and I appreciate your indulgence this morning. Thank you.

DIRECTOR GRUENBERG: Thank you, Wade.
MR. MILLER: Maurice?
MEMBER JONES: Well, good morning.

And I too want to say thank you for letting me join and learn from this group. I'm going to try -- I'm going to say ditto to everything --
(Laughter.)
MEMBER JONES: -- that's been said before. That's four minutes of my --
(Laughter.)
MEMBER JONES: And then add another minute. I think with respect to the key -- I think I'll use the word opportunities instead of challenges facing the communities that we serve, I'd articulate two or three.

One is helping members of the community become prepared enough to take advantage of this incredible jobs market that we have in most places. And for the members of the communities we serve, we found that you have to do more than just workforce development to make it happen.

And so a bundle of things for us that include financial literacy coaching. If you look in most of the communities we serve, most folks
have either a GED or a high school degree at least. But when you test those members, their literacy and numeracy skill sets are somewhere between the sixth and the eighth grade.

And what we have to figure out is how you can quickly at least get them to the tenth grade in those areas so that we can help them at a minimum to get on a pathway to a credential that leads to mental skills type job that pays livable wages and beyond and you can take off. And that's doable.

It's doable largely we found by working with community-based organizations that can actually have access to these folks that have been providing services and so have some street credibility and trust and can actually help them design a pathway. And so we spent a lot of time investing in neighborhood-based or communitybased organizations that can do that kind of work.

The second component of that
investment is case management around those things
that everybody needs to take care of in order to be a productive and sustainable worker, housing, transportation, child care, accessing the earned income tax credit.

And then the third component is actually the workforce piece. It's actually helping people achieve the soft and the hard skills that are relevant to the markets that they live in.

So if you're in Jacksonville, the port is still hiring. We're trying to get people employed at the port. If you're in Boston, biotechnology is still hiring folks for jobs all along the economic spectrum. We can help people get prepared to walk into those jobs, to compete effectively for those jobs.

So a huge opportunity for the communities that we serve is investing in folks at the local level to help them compete for jobs that pay livable wages. There's an incredible amount of work to be done on that. We as a country are missing an opportunity when we just
focus on the formal school system to do that.
This is a team sport that we can make a difference in if we own it. And so we want to get more partners involved in that.

A second piece for us does relate to this wealth gap, but $I$ want to come at it -housing is definitely a huge piece of it, but helping people own their businesses or start businesses is another. And investing in small businesses, we're finding as much demand for that in the work that we do as the housing component. And so we're trying to find more ways to take more risk in investing, in particular, in women-owned and minority-owned businesses. And the work to be done there is tremendous. I mean, just to give a -- we work a lot in Boston. And this wealth gap in Boston is as great as I've ever seen anywhere.

The Fed did a study a couple years ago which showed that the net worth of a white family in Boston was $\$ 247,000$. The net worth of a black family in Boston is \$8. \$8, I mean, it's not even
-- it's not a race. It's not even close.
And what we're finding is housing is clearly a component of that. But we also need to find more ways to launch and to create more entrepreneurs in the black community, period.

And so one of the things that we have found as a route, if you will, is working with anchor institutions to leverage their procurement power to build businesses and to share and mitigate risks jointly.

So an example, we have a partnership with Northeastern whereby Northeastern is using their procurement power to build businesses in Roxbury and Dorchester and Mattapan. We're investing in those businesses, both grants, technical assistance, and loans.

They're providing us loan-loss reserve so we can take more risk. And if we can get these companies to the point where they got the capacity to compete with confidence, they're going to spend 15 percent of their spend there.

The last thing and this is probably an
odd thing to say in the FDIC world. But the work of reconciling in communities or helping communities to reconcile so that we can work together across race, so that we can work together across class, so that we can work together across geographies. Whether it's North and South Dallas, whether it's Mattapan and Northern Boston, or whether it's San Francisco and the South Bay.

That work is tough and it's work that we're finding that if we're really going to make a difference in people's lives, we have to include that as well in our portfolio of tools. And there's no -- it's more art than it is science and has nothing to do with capital. It's more about how you build a team across folks who for a long time and continue today to live in almost separate worlds in our country.

And so that piece too requires an all hands on approach. Thank you.

MR. MILLER: Thank you. Andrea?
MEMBER LEVERE: So let me begin by
thanking Marty and my fellow committee members for an extraordinary not quite 12 but 6 years.

And I want to really give a shout out to the partnership we've had with the staff of the FDIC, particularly the research staff whose data we've been able to incorporate in the Prosperity Now Scorecard and has been a basis for really transformational conversations and the ability of Prosperity Now to do two metrics this year, not just looking at economic performance but also ranking all the states by racial disparities at the same time to see how dramatically -- having just come from speaking at the Boston Federal Reserve Bank on Friday that contrast in that state is quite profound.

And I'm Andrea Levere. I'm now President Emerita of Prosperity Now which is very exciting for many reasons. Emerita, yeah. They decided that there is a gender to Emeritus, the board. So that's why they gave me Emerita.

So I want to talk about a couple of things that are part of particularly the
innovation not for scoundrels over the last several years as we've lost all the federal programs to help match the savings of low income people. And how do we look at expanding savings and expanding savings in accounts that are safe? And so the framework we've used is savings for now, soon, and later. And we've looked at that framework as a way of really looking at where on the continuum people are, really starting where people are in the beginning. The framework we've used in our human insights research is nothing about us without us.

And that really has informed how we've done product design and development and how we've done, $I$ think, two fundamental things, identify the platforms that are the platforms that people use in their daily lives that can be leveraged on behalf of getting people banked and saving. And then being very innovative in cross sector collaborations to leverage the strengths. In many ways, your closing comment, how do we work across many, many silos that used to exist?

So I just want to highlight four of them, several of which have been already identified around this table. Several years ago, we took over the network of community tax prep sites when there was just 200 of them. As of this last tax season, we had 4,000 members of the Taxpayer Opportunity Network who were all using tax time to help people get banked, get registered to vote, and to save.

And the innovation and the advocacy network helped us, for the first time in 40 years, to authorize VITA and not only prevent it from being cut in half but to virtually double the amount of funding that we have for free tax prep, which I still count as a pathetic amount of money we provide to leverage billions for low income households.

> One of our key innovations that we've worked on with Kathryn Edin is the Refund to Rainy Day Savings Act which helps people when they get their refund save 20 percent of it for just six months which then prevents them from
doing the downward spiral into the payday lender, keeps them cash flow positive, and helps them move out of that tax year into a very different situation that next year. We're working on that with the District of Columbia, and we also have federal legislation around this.

We've also then worked with private sector partners on other forms of emergency savings. We have been working with Treasury to try to do something called the sidecar savings so that when people were taking hardship withdrawals out of their retirement savings, getting penalized for that, and then not being able to put it back to then link that to a Roth IRA so they could build an emergency savings account that was linked to their retirement. We are now piloting that with Prudential with a goal of really scaling that out.

Then back to our work which we've done kind of really deep research on the role of housing and the racial wealth divide. We have been piloting with a number of CDFIs mortgage
reserve accounts is one of the things we see happening is low income families often use all their cash, all their savings as Martin said. And they have very little emergency savings left over.

So why can't we automate the creation of an emergency savings account as they're paying back their mortgage and build that? So we're testing that with several of the leading CDFIs to figure out what is the best way to structure it. And particularly for different communities, what would it look like differently?

The third real fourth cross sector collaboration has been our work on health-wealth. If we want to go where the money is, it is the healthcare institutions as many of you have spoken that have a huge incentive to invest in addressing the upstream determinants of health. And in my other committee on the Fed, we raised this issue at our last meeting to really look at the health-wealth connection and look to see how we build that connection across
communities and build that partner in helping to build short and long-term savings.

And then I will finish really speaking about the work with children savings which Jose and I have been tireless advocates for. We reached a whole new level in our Campaign for Every Kid's Future this year with over 700,000 accounts with children.

And when I was in Boston on Friday, the treasurer's office announced that on January 1st, the Baby Steps Program where every child born in Massachusetts is going to start with an account as well.

And looking at how this field has grown over time and as we talked about, how do we integrate financial capability and financial knowledge? Rafael, you were talking about that for our hardest age group, middle school kids. How do we have the actual experience of having an account which then changes all the motivations that they have to go forward? We're working on this with baby bonds legislation as a way of
looking at this to really again help to address the racial wealth gap from the very beginning.

The key issues that we think about is how do we engage across all communities starting with the data and then coming up with solutions that they really see.

So Jonathan, I know you're going to miss my low key, non-enthusiastic reactions when we have great presentations and informative. And let me just say, Marty, that the partnership and the work you have done here at the FDIC and the advocacy and the convening has been an absolutely critical role in helping to expand the financial well-being of this country.

And one final point, two of the women are going off. That will leave only two women on this committee. So please think of that as you add new ones.

MR. MILLER: Thank you for all those wise words. Margaret?

MEMBER LIBBY: Okay. So good morning, everyone. My name is Margaret Libby. I'm the
founder and CEO of an organization called MyPath based in San Francisco but working nationally. Excuse me.

And I want to thank the FDIC for inviting me to be part of this committee. I'm excited to bring, I'm going to say, a youth perspective. I'm, of course, not a young person myself anymore. But we do work on behalf of youth and young adults and really focus on financial capability.

And the work that we've done has really been about how to bring financial capability into youth employment and youth workforce settings to really make sure that when somebody is 14 to 24 and they're having that first employment experience that access to banking and supports around saving and credit building are in place so that that income, that first income stream isn't just about income but is really about wealth building and lasting economic mobility.

And so I'll share. A lot of times
when we talk about the work, people don't necessarily have a sense of what the barriers are for low income youth of color in particular. That's really who we focus on. People don't often understand the barriers that young people face and trying to access banking.

And so I'll just share a quick story which is there was a young man who was one of our participants who told a story that when he first earned his paycheck, he was 16. He brought it to the local Safeway to buy a sandwich. And the cashier said, wait a second. This is a check. I can't process this.

But actually, okay, you know, he was, of course, embarrassed. And she said, don't worry, sweetheart. Go across the street. There's a check casher there. You can get the cash and come back and buy the sandwich. Don't worry about it. You're good.

And so I think when you think about that kind of experience and that community kind of and those messages that a lot of times like
the program wasn't able to provide the supports and the adults in the community are using check cashers, it's challenging for a young person to get on a different financial path.

And so we know that half of young people in San Francisco when we first started the program were using check cashers for those paychecks. And so as we innovated this approach not as scoundrels but as innovators who were working directly with young people to really figure out how do we build a model that will resonate with them, that will be relevant, that they can engage with and really start saving.

We figured out how to do that. We were seeing young people saving 30 percent of those incomes even though they were also in a position to need to really support their family, economic circumstances and lives. We partnered with Jose and the city to scale that up and then later with Jonathan.

> And so there's a number of cities now across the country using this approach to really
bring the banking services into the programs. And I think one of the challenges -- or I should say into the employment programs. One of the challenges that we continue to face is these barriers that youth face in getting into accounts. And so one of the things that we have been recommending is to have -- especially for 15, 16, and 17 year olds who can't open an account on their own without a parent, is to make non-custodial accounts available.

And not just the -- we love the work that the FDIC has done around the safe accounts and the non-custodial savings accounts which has been a really enormous step forward. And I think what we would love to see is some focus around how do we do the same thing with transactional accounts or checking accounts, debit cards so that young people have access to that when they're under 18 and can own that account on their own.

Because of a lot of young people, if their parents are -- well, if they're foster
children, if their parents are undocumented or in check systems, they're truly excluded from opening an account. And if they're earning that income, we know that there's such tremendous potential if they can be connected to that noncustodial account.

And I think the other key barrier is ID requirements. A lot of people who are minors don't have the government issued photo ID but do have a school ID. And so some financial institutions have been willing to accept that and change their CIP. But we'd love to see some more ways to really support those kinds of efforts.

Because I think with some of the Bank On accounts or really with the Bank On 2.0 standards, the accounts that are pretty airtight from a risk perspective. So we'd love to see how we can do some more around those transactional accounts.

I think the other point that I wanted to make is that we know from research that when we do these early interventions that there's this
generative effect, not just for that young person's life when they set and meet a savings goal. We know the second goal is generally a larger monetary amount and also longer term.

So our data has shown that it's really changing their time horizons, increasing their confidence in themselves, not just in their financial choices and their financial lives but in their career thinking and just their own sense of their own potential.

But we also know from Pew Research from a few years back that when you're raised in a saving household, you're much, much more likely to be economically mobile. So that we know if we can provide these supports from young people, we know they use them and they do great things for themselves. But it also puts them in a position where they're likely raising children who will also be economically mobile. So I think from that data perspective, it's an exciting approach.

How am I doing, Jonathan?
MR. MILLER: You're out of time.

MEMBER LIBBY: I'm out of time. Okay. So $I$ won't talk about the coaching that young people need when they're 18 to 24. Many financial diverse decisions that having a little bit more of some of the coaching, Bob, that you talked about is so essential to give them those supports as they make those decisions. I will not mention that.
(Laughter.)
MEMBER LIBBY: Okay. Thank you very much.

MR. MILLER: Thank you so much. It didn't take her long to learn, did it? Alden?

MEMBER MCDONALD: Thank you very much. My name is Alden McDonald. I'm president and CEO of Liberty Bank out of New Orleans, African American owned bank. We operate a community bank that operates within the rules and regulations of the banking industry.

What we bring to the table is information from another aspect of banking in the community. And before $I$ go any further, $I$ want
to thank again the FDIC for its understanding of the work that the minority banks play in the communities of color.

As more things in the country begin to reach out into the communities, we still see a tremendous need. And the FDIC has been supplying the banking community with the proper
information, the proper statistics, and the encouragement to do more.

And so I want to congratulate again the leadership of the FDIC and the staff for providing this information. It's much needed throughout the community.

I want to thank the members who are departing our commission here and for the information you have provided all of us. And I'd like to encourage the newcomers to feel very free to express yourself because this task force over the years, we've been very honest about the issues that we face in the community. And that is what has caused the FDIC to create the good work for the banking community. So I'd like to
encourage the new members to really feel free to put it out there.

When Jonathan asked for us to share what we see in the community, it reminded me that Congress chartered the first bank in 1870 to assist free slaves to enter into the economy that we live in today. Those challenges still exist today.

I've been around for 47 years as a
CEO. So I've been through many ups and downs in the economy, and I've been able to see improvement and I've been able to see the economy go back in a negative way. And we are very proud in our institution of the challenges that exist and to try to formulate methods of erasing the challenges that continue to exist in the community.

> I broke down my comments basically
into three different areas of information to give to this body. We see more deterioration in the income gap. The income gap is very real. Some members made reference to the different research
pieces that proves that out.
So in the community in the income gap, we're trying to put things together to help that income gap close going forward. And in the past, we've referred to financial literacy and going forward. And in our shop, we're trying to change the financial literacy phrase to increasing your wealth.

And even in our employ -- we're in eight different states by the way and ten different cities -- we see this income gap in all of the areas we serve. We see the second part of the affordable housing crisis we call it. It's an affordable housing crisis that we've been noticing now for about 10 to 15 years and it's getting worse.

In the affordable housing crisis, the way we see it in the communities coming from a number of different directions. Number one, the income gap, that's real. But the second piece is increased cost of housing through insurance coverage and real estate taxes.

In the communities we serve, we've seen in some communities real estate taxes triple within the last 12 to 13 years and insurance costs triple. We finance a lot of homeowners that can't qualify for the secondary market. So we have a portfolio of about 100 million of people that we have financed over the years who couldn't qualify for the secondary market for whatever reason.

And we're beginning to see more and more of the escrow requirement outstripping the P\&I and causing higher delinquencies. And when you take a look at the income gap, what we've seen is more and more of the consumers using credit card debt to cover that gap which is putting them deeper and deeper into financial trouble.

We've been looking at this, and we're trying to find different ways of helping to overcome this, not only from a safety and soundness position. And I want to probably say that we foreclose on less than three homes a
year. And we have credit scores down to the 550 range, and we do 100 percent financing. And so we've been able to do all of these things in support of not only wealth building but homeownership.

In New Orleans today, we have convinced some of our leadership to look at how we could adjust the real estate tax issue because the real estate tax piece continues to go up as property values go up.

And so we're looking at it. And within the next six months, we think the city is going to incorporate some changes where we can freeze the real estate taxes for certain communities as well as certain income groups. So it's a policy change.

And when you take a look at some of the other issues on affordable housing, I think we continue to talk today that homeownership assistance for 80 percent family income -- median income is where the assistance is.

We're finding that the 80 percent rule
can't afford the house anymore. So how do we begin moving that up to 100 , 110 percent of median income? Because that's where some assistance is needed. Otherwise, we're going to go backwards.

We began to see the deterioration in those neighborhoods and the lack of increase in value. In those particular neighborhoods, we have a lot closures of shopping centers, shopping malls which continues to decline the value in these neighborhoods.

I make that association simply because I think going forward we need to concentrate on some policy changes, centered around wealth, centered around real estate, centered around homeownership. And some of the policy changes are very, very important for us to make sure that we stop the blight that's taking place now in the urban communities.

Two additional things I'd like to just put on the table. The cost of construction continues to increase, and I know that's the
marketplace. But we have to find some policy to offset some of that cost.

I was recently in St. Louis trying to assist a neighborhood of coming back and the developers are still talking about housing costs in those neighborhoods above $\$ 150$ a foot. So when you begin looking at that, begin looking at individuals in those communities, their income levels, that's not going to work. So we need an overhaul of the policy changes.

The other piece that we're doing for wealth building and we started with our staff of teaching individuals what to do with their retirement dollars and how to invest. A lot of people have $401(k) s$ and they don't know what to do with it.

So we started some adult classes within our community in helping individuals navigate through how to invest their retirement dollars so that they can at least have some type of life after work.

And the other thing that we're looking
at -- and I don't know whether we're going to be successful at it. But we're looking at a summer camp for youth to teach them about the marketplace, teach them about investments, teach them about how to use their income dollars when they become wage earners. And we'll keep you posted on that.

Thank you.
MR. MILLER: Thank you very much.
Jonathan?
MEMBER MINTZ: Thank you. I'm so happy to be here. I'm really honored and there's few partners that rival the FDIC. And thank you to Jonathan. I'm the other Jonathan in this room.

I appreciate the opportunity to sort of use this group and the audience to think around an issue that we've been struggling with at the CFE Fund.

As you know, the issue, not to hide the ball, is really trying to bridge the divide between tech advances and, in particular, the
rise of branchless banking and the need for something Jose mentioned earlier which is the ability to make cash deposits and to be able to cash checks. And it is that divide that I want to talk about for a few minutes as we wrestle with it.

The CFE Fund runs the Bank On
initiative. We're working with about 80 coalitions around the country supporting their work. We certify accounts that meet the national standard which was, as Marty mentioned, absolutely inspired by, built upon, advised by the Safe Accounts Pilot here at the FDIC.

And we've been learning some
interesting things in our efforts and in our partners' efforts to connect people ideally through municipal programming into these certified accounts.

We partnered with the Federal Reserve Bank of St. Louis that worked with four of our financial institution partners, our seed partner at Chase, Wells Fargo, Bank of American, and U.S.

Bank to collect information about how those certified accounts were doing and how people were doing in those certified accounts.

We are about to come out with data for 2018. But at the moment, I'm allowed to talk about data from 2017. And the data was really instructive and exciting. There were about three million accounts just in those four institutions that were opened in that year, 600,000 alone had been opened in that one year in just those four institutions.

And what we found was that 72 percent of the people that were opening these accounts were new to that financial institution. So I do think that we are largely talking about the population that we are together trying to serve and to connect into or back into the system.

The conundrum that we have is that while about two-thirds of those people were interacting with those accounts in a tech friendly way. They were employing various technological capabilities of the financial
institutions. The truth is only a third of them have direct deposit and 87 percent of them were making regular cash deposits into those accounts with a monthly average of just under \$300.

So the simple truth is that even as people are successfully reentering the system thanks to safe accounts offered by many of the folks at this table, as the market begins to increasingly incorporate branchless banking and branchless bank providers. And many of them are coming to the CFE Fund seeking certification for their accounts as being Bank On compliant.

The truth is we're trying to figure out as we take a look at our standards which refreshes every two years. The best piece of advice I ever got from the FDIC is really to figure out, well, if we are going to be embracing, we -- and Bank On, we as a community if we are going to be embracing the role that branchless providers can play with good accounts, then what are our expectations? Or from a Bank On perspective, what are our standards in regard
to that part of the banking equation which is not all online.

And so that's, simply put, the issue that we're wrestling with. And over the course of the day and breaks and afterward, we would really appreciate any people's thought on that subject. Thank you.

MR. MILLER: Thank you very much.
Pam?
MEMBER PATENAUDE: Good morning. And I'd like to also add my thanks to Chairman McWilliams for inviting me to serve on this advisory board. And to those of you that will be departing, I'm very sad because I've heard some really fascinating ideas. And my brain is just spinning on what to share with you.

So I'm going to focus just on two recent experiences and ongoing work with the community in Puerto Rico. I'm going to touch on the easy one first. But $I$ wanted to share my experience with Habitat for Humanity.

I recently joined the board, but I've
been working with Habitat for more than two decades from my work at HUD. But this was my first hands-on experience where I worked alongside 21 homeowners for a week at the Carter Build.

And some of these families applied four, five, six times before they were eligible to be selected as Habitat homeowners. And some of the challenges were the language barriers. The family that we worked with on the house that I worked on was from the Congo. And if we had not had the translator there, we never would've learned the story.

So I just wanted to touch on that.
And then second, Puerto Rico, I'm very passionate about Puerto Rico. As most people know when they google me, that's the first thing that comes up. And the challenges are tremendous.

But because of my appointment to this advisory board, I started thinking about the opportunities and the connections. And this was my conversation with Liz. Is Liz in the room?

Okay. I have not met her in person.
Thousands of families are unbanked if that's the proper terminology to use. In Puerto Rico, there's an informal economy. More than half of the housing is informal. Title issues are tremendous challenges. Not the first time that disaster survivors have been faced with title issues. We encountered that in Louisiana. But in Puerto Rico, it's a much higher percentage.

So these families are not currently connected to the regulated banking system. And I have a thought about how that could happen, although I can also think of some potential criticism of this. But somewhere around \$90 billion of federal funding will flow into Puerto Rico. Only a fraction of that has through the FEMA fund has actually reached Puerto Rico. Only one percent of the $\$ 20$ billion of CDBG-DR has been dispersed in Puerto Rico.

So through some of these programs, whether it'd be small business loans or
reimbursement for rehabs on homes, this money is going to change hands from the federal government through Puerto Rico and then to the disaster survivor. And if direct deposit was required, that would be a nexus to the banking system.

I brought this up with one of my colleagues that I'm working with right now, my consulting business. That would be discriminatory. So then I worried about even bringing it up until $I$ could really think this through. So I think this committee could be very helpful in helping our fellow citizens in Puerto Rico access the financial mainstream, if you will.

So thank you again for this opportunity. I look forward to working with you, not just on Puerto Rico.

And just one final comment. When I did talk to this colleague of mine, he mentioned that in Florida Walmart was cashing the checks for the disaster survivors. And I didn't know Walmart was in the banking system. So they're
leaving with cash in their hands then. And that certainly is not a safe way to save.

Thank you.
MR. MILLER: Thank you very much, Pam.
John?
MEMBER WEICHER: Thank you, Jonathan, and thank you, Marty, for appointing me to this committee half a dozen years ago. I have enjoyed the meetings and I have enjoyed my colleagues. I have learned a lot, and I am very grateful.

I'm with a different kind of organization than the organizations that all of you are with. We are a think tank. We don't run the kinds of activities which you have been describing, although we have from time to time gotten involved, particularly with state governments.

And I'm particularly pleased with a project we had which created a new property tax reversion system for the State of Michigan to replace the system that had been enacted right after the depression of 1893 so that farmers
would be able to keep their property if there was a bad year of crops. They wouldn't lose their farm.

That system is one major reason why Detroit is famous -- has been famous for abandoned housing. And on a lesser extent, so had most of the other towns and bigger towns in the state of Michigan.

But we are a think tank, and we cover the world. And you may have missed our session last week on policy challenges in the Arctic and around the Arctic which attracted a respectable crowd of people who know something about the Arctic, not including me.

Wade mentioned that the committee was started 12 years ago. And as an economist, I think of 12 years ago in a different context. Twelve years ago -- 12 years ago and two months is the start of the Great Recession. And it has been the worst recession. It was the worst recession that we've had in this country since the end of World War II. And it has been the
slowest recovery from any economic downturn that we've had since the 1930s.

And listening to my colleagues, you have been working in an environment where the wind is dead against you and has been against you for as long as this organization has existed and certainly as long as -- for a long part of the time that you all have been working in this area.

And several of my colleagues have talked about wealth in America. And in the first couple of years after the onset of the Great Recession, American households lost a quarter of their wealth which is an impressive achievement in its way.

We had \$88 trillion in wealth among us in 2007 and $\$ 66$ trillion among us in wealth in the year 2010. And it hurt everybody. It hurt the rich and it hurt the poor.

But if you were in the riches 20 percent of the population of the United States, you lost about 11 percent of your wealth on average. And if you were in the poorest 20
percent of the population of the United States, you lost half of your wealth on average in three years.

Not that there was a lot to begin with, but there was a lot less and in a quite short period of time. Things have been improving since then, but it's been a slower process than we've experienced in the aftermath of other economic downturns.

And also looking at the changes that have occurred for different groups in the population, white households and other households which are primarily Asian Americans in the data are not too far below where they were on average ten years ago. Black and Hispanic households are farther away from where they were ten years ago on average.

It hasn't been a good time for a lot of people, and I kept thinking about as I was listening to what you all have been doing over this years of this weak economy. I think in the housing world -- in my background in the housing
world, we have seen a decline in homeownership which has only started to turn up about three years ago and has a ways to go before it catches up. And I know we're going to hear about some of that this afternoon.

It's been -- it hasn't been a great market. It hasn't been a great time for those of you who are involved in housing. And I'm pretty sure it hasn't been a great time for those who are making loans to people or mortgages and rehabilitation, renovation, whatever it might be.

It seems likely the work of this committee over the next few years and the work of your organizations will be with a little more of a headwind - a little more of a tailwind. I'm not good at weather. It'll be a fairer climate for you, but it will still have a ways to go.

So I want to wish you all well. My colleagues who have been on the board, I have enjoyed meeting with you, talking with you, learning from you. And to Jonathan and to the staff, I have enjoyed the presentations.

I cannot finish without mentioning my suggestion to the FDIC is to find a principle of selection for speakers that is not alphabetical.
(Laughter.)
MEMBER WEICHER: I have sat in this chair --
(Laughter.)
MEMBER WEICHER: -- and this
microphone, which I think works even though it's not attached to anything, for many meetings wondering if $I$ was going to have anything left to say after all my colleagues have spoken. And I want to thank you for leaving me room for things to say over these last few years.

And thank you, Marty.
MR. MILLER: Thank you very much. I think we're scheduled for a 15 -minute break. And that was terrific hearing from everybody. Thank you very much. See you in 15 minutes.
(Whereupon, the above-entitled matter went off the record at 10:27 a.m. and resumed at 10:45 a.m.)

MR. MILLER: So for our first panel today, the moderator is going to be Keith Ernst. He's Associate Director for Consumer Research in a Division of Depositor and Consumer Protection. I'll hand it over to Keith.

MR. ERNST: Great. Thank you, Jonathan and good morning, members of the committee. And I thought about how to place the panel in some context. And I thought back to results from our most recent survey.

In that, the FDIC reported that one in five households didn't have access to mainstream credit in the last 12 months. As a result, they likely lacked a credit score which if you think about it, it really means if they have a need for credit when challenges arise, they're going to have a hard go of it.

And this is true, even though a large majority of these households have a bank account. Many other consumers have a thin credit file, applies only a limited basis for evaluating their creditworthiness.

Well, not all these consumers will want or necessarily have the ability to repay credit. These observations illustrate the benefit that can flow from advancements in underwriting technologies.

This morning, we're fortunate to be joined by four panelists who have considerable experience and expertise to help us consider related developments.

First, we'll hear from Jason Gross, CEO and co-founder of Petal, a credit card company that works to deploy innovative underwriting and to extend credit to a broad set of consumers.

Next, we'll hear from Kelly Cochran, Deputy Director of FinRegLab who will share results of research exploring how cash flow based underwriting may complement traditional credit measures.

Following Kelly, Daniel Nestel from FICO will discuss the company's efforts to use information beyond traditional credit bureau data
to better score consumer's credit risk.
Finally, we'll conclude opening remarks with Lauren Saunders from the National Consumer Law Center who will point out some potential concerns that attend these developments.

Now in addition to questions that Lauren might raise, I expect that members of the committee will have questions of your own. I'd ask you to please hold your questions until after the presentation. And knowing the committee, if I don't, we will not get to --
(Laughter.)
MR. ERNST: I think it's going to be a rich conversation. I know this is an area of a lot of interest, if we think about what are the opportunities to expand access and use small-dollar credit within the financial mainstream. Developments like the technologies we'll hear about today are a potential concern and a promising avenue. And so without further ado, I'm going to pass the floor over to Jason

Gross .
MR. GROSS: Thanks very much, Keith. And before I begin, I would like to thank Chairman McWilliams and the larger FDIC for hosting us today. I think it's a really important topic that we're discussing obviously, but with some really exciting new developments that are occurring and have occurred over the last couple of years.

I want to maybe begin -- and I have no slides for my presentation. But I want to begin by putting my organization in context so you have some understanding of what we've done, the data that we've seen, some context for our learning, et cetera.

We started this organization known as Petal about four years ago and began talking about issues related to credit access quite some time before that. We are a purpose driven organization in that we started the firm setting out solve some particular problems that we saw in the marketplaces.

And in particular, we were very much sort of inspired by the work that we had seen from the public and private sectors six, seven years ago around measuring access to credit and starting to understand folks that we've referred to as credit invisible, thin file, the size of that market and the problems that result for consumers and for families.

This was a problem that was -- it was personal to our founding team. We had a founding member of the team, it's a first generation immigrant to the United States. And despite his income, his relationship with a U.S. financial institution, he was unable to qualify for mainstream credit. So he had sort of a personal experience with the system.

But of course, as the CFPB and others have pointed out, there's a tremendous number of Americans that lack a full credit file such that you can generate an accurate credit score, 45 million Americans with no score, tens of millions of additional thin file consumers.

And demographically, these consumers are not a cross section of the U.S. population. They are disproportionately young. They are also disproportionately minorities, blacks and Hispanics in particular, low and moderate income consumers and first and second generation immigrants.

We looked at this problem and had kind of a similar insight into what Keith mentioned in the overview that while these consumers may be invisible from a traditional credit score perspective, they're certainly not invisible in the larger marketplace.

And in fact, the vast majority of them have plenty of other financial data, the type of which we use every single day in the underwriting of other sorts of financial products that today is not being used in the decision to extend small-dollar credit like a credit card, for instance.

And not only does that data exist but it is becoming digital, standardized, and
accessible through the control of the consumer to use, to verify their identity, and to confirm their creditworthiness and their ability to repay a loan.

And we set over the following four years to build technology and consumer financial products that could leverage all of that additional information. And I hesitate to call it alternative information because really what I'm referring to are digital bank statements, the direct measurement of a consumer's ability to pay.

The verification of income, liquid assets, other monthly expenses, these are things we've been using to underwrite loans arguably for hundreds of years, right? But we built technology to access the data and to underwrite it in an automated rather than a manual process which, of course, allows you to extend it in a cost effective manner to small-dollar lending.

Today we offer a credit card product that's specifically designed for these consumers
that are new to credit. We're able to leverage the rest of their financial picture, the rest of their financial data to underwrite them for the product, including if they have no traditional credit information at all. We can generate our own proprietary score.

About 70 percent of our overall user base is thin file or credit invisible today. And we are able to extend to them credit at lower cost than they would get anywhere else in the marketplace because of the additional data that we can use to price that risk.

And I think over the course of the panel, I'd be happy to speak to our learnings so far in operating this product in the market. And we've been very fortunate to collaborate with some of the other panelists as well on these issues over the last couple of years.

MS. COCHRAN: Hello. My name is Kelly
Cochran. I'm the Deputy Director of FinRegLab which is a new non-profit research organization that started in 2018. We're focused specifically
on technology and data and financial services to look at ways to drive financial inclusion and encourage safe and responsible products.

Our first project -- major research project has focused on use of cash flow data. And I joined the organization earlier this year. So I'm really happy to present our results.

We're in the process of publishing a number of papers about our project. The empirical results which are mostly what I'm focusing on today came out this summer. A second report looked at small business lending in particular and how this data is being used in that market. The third report will look more at the consumer market and our policy issues overall. It'll be forthcoming this fall.

So one thing that we feel is really important to start with is just what is cash flow data because it means different things and people use it in different ways. What we primarily looked at were records from consumer and deposit and card accounts. But it can also include bills
and receipts. So not all of it is electronic. And some of the participants in our study did use paper sources as well as electronic.

And then in the small business world, there are additional sources, things like accounting software feeds, payment processor records, e-commerce records, and other sources that can give at least a partial view of cash flow. Although they may not show the business' entire set of operation.

As Jason has already said, one of the things -- in some sense, this data has been used for generations for underwriting. What's really different here is that people are collecting more of it electronically and using algorithms and highly automated processes to do very sophisticated, consistent analyses to derive more insight from this kind of information.

When we set out to do our project, we had gathered data from six companies on all known banks, really a range of different products and services. All of them are providing some form of
unsecured credit, but it really varies.
Two were small business -- focused on the small business market, four on consumer. And we had two CDFIs, a number of fintechs. So a really broad range of companies that are serving different markets. Their product structures are different, so really a range. It was all unsecured, relatively short term. Up to about four years is the longest, a long length. But really a variety and a rich source.

We ended up having to study the results -- the loan level results for each company separately. We couldn't combine the data sources because it was just too diverse to make that practical. And when we did that, we working with Charles River Associates and set out to basically analyze the three research questions that are on the slide.

The first was just, like, a general predictiveness to find out how predicted is this data. And where we could and had the data available, we also benchmarked it against more
traditional metrics, traditional credit scores and attributes. And in some places, we were able to combine the two sources and see what that further did to the predictiveness.

The second question was looking at inclusion. All of the companies that we worked with have a particular focus on serving underserved markets. We wanted to get some sense of whether they were, in fact, able to reach applicants that might have trouble accessing credit under more traditional metrics and data sources.

And the last question was to begin to look at the fair lending effects to see if there were differences in the results.

We had several different findings which I'll just kind of march through. But I want to save some time for the graphic on the next page. In terms of the predictiveness, the overall results were quite compelling where we had loan level data and were able to analyze. We found that the cash flow data was in fact
predictive.
Different companies were using different types of variables. It really ranged. But in general, they were looking at things like inflows, outflows from the account, what's the balance in the account, are there negative balance incidents, those sorts of things. Really getting a sense of how the applicant is managing their finances on an ongoing basis.

And what we found was that it was, in fact, quite predictive. The cash flow metrics generally performed as well as the traditional metrics that we had available for comparison. And in some cases actually performed better. And then the other really interesting thing is that when we were able to combine the two sources, we often found an additional source of lift.

And so what seems to be happening here is that cash flow data is actually telling these companies something slightly different than what the traditional scores are telling them which kind of makes sense if you think about the nature
of the data because it's showing not just the expense side but also the income side and some sense of overall reserves over time.

And so it's complementary and it is actually providing lift even for consumers or small business applicants who do have traditional scores. It is adding value even in that situation.

In terms of inclusion and fair lending, our data was a little bit more limited in these two areas. But we were able to study what we could. What we generally found was that there was evidence that the various study participants were able to reach different applicants who might have been underserved.

In some places, we were able to look at traditional score ranges. Some places, we had income information and looked at geography in various different metrics. There was not a consistent metric that we could across every single participant. But the results were encouraging.

And then on the fair lending side, we weren't able to do a full fair lending analysis or the type that a company would do for itself in a compliance exam. But what we could do was use a proxy analysis to determine likely demographic groups, both in terms of race and gender. And then compare the results for each of those groups separately to see what the predictiveness was. What we found was that the data was general predictive for all of the groups. There were not large variations between the groups. And so what seems to be happening here that it's not proxying for race or demographic status. What it is doing is providing independent predictive value.

That's certainly encouraging and it's consistent with -- it's a similar test to what the Federal Reserve Board did when they were studying traditional credit scores several years ago in a report to Congress. But again, it's not the full picture and there are many things we don't know.

We do know that there are some differences, for instance, in transaction account between different demographic groups that certain groups, African Americans and Hispanics, are more likely not to have transaction accounts as well. So this is not likely to make all demographic differences disappear. But it is an encouraging sign that it may be useful information in this space.

This is the graphic that $I$ wanted to explain. It's a little bit complicated, so stick with me.
(Laughter.)
MS. COCHRAN: Where we were able to, we differentiated for each of the participants. We differentiated the output of the borrowers based first on their traditional metrics. So that's along the -- in each of the rows is a different cluster of borrowers with similar risk profiles using traditional metrics.

And they we differentiated them by cash flow metrics, and there's a couple of things
that stand out. What this is doing is showing default rates and how close they are to the median for this particular participant. When most people read this, I think the first thing they notice is that there's a lot of red in the top corner and a lot of green in the bottom corner. Now those are places where the two metrics are predicting the same thing, and the default rates are kind of what you expect.

But what's really interesting is if you go row by row across, what you see is it starts red and goes towards the green. And that's the differentiation that we're talking about because in each row, these borrowers are ones that are ranked as being about as risky using traditional metrics. But when you look at the cash flow metrics, they start to separate out. You can differentiate risk.

So that's -- it's a visual
illustration of the effect that I was talking. I should say in the gray rows, if there were less
than five observations, we had it gray. So that's why there's a different color there.

There aren't necessarily equal numbers of borrowers in every single one of these cells. So it does vary a bit. But one of the things, we weren't able to study this. So we don't know for sure based on empirical analysis.

But one of things that's maybe shown particularly along the right margin where there's a lot of green, these may be thin file consumers or borrowers. Or they may be people who have had marred credit who have actually recovered so that their finances are more stable. But their traditional scores may still be relatively low. So we weren't able to study that for sure. But that's certainly one hypothesis for what may be causing some of this spread.

So just really briefly to talk about our next couple of reports. We are seeing an evolving market, particularly in our second report.

As we detailed, there do seem to be a
number of different types of institutions including both large and small banks as well as community development organizations and even some companies who are really actually not primarily financial services companies who are getting into this space and using cash flow data in some way or another to make loans to borrowers.

And in particular, they seem to be focusing on the smaller side of the small business market. There's a lot of demand, and it's often very difficult to serve that market in a cost effective way. So that's an encouraging sign.

In the consumer side, our sense is that the adoption is a little slower on the bank side. But we are seeing it continue to grow. And people are certainly using this kind of data for verification, even if they're not actually feeding it into their underwriting processes. And going forward, as I said, we'll also be looking at some of the policy considerations. This slide just outlined some of
them. And I know Lauren is going to talk more, so maybe we can save that for the overall discussion.

Thank you.
MR. ERNST: Thank you, Kelly. Daniel?
MR. NESTEL: I'm Daniel Nestel. I lead government relations for FICO. I'm based here in the Washington, D.C. area.

Just as a way of background, I suspect many of you are familiar with FICO because of our work in credit scoring. But you may not be as familiar with some of our work in other areas.

Back in the 1990s, we pioneered a fraud detection solution in the payment card space. Today we protect 2.6 billion credit cards, debit cards globally across 9,000 banks. We have just announced that we are developing a platform to address the new landscape of real-time payments and the convergence of fraud and financial crimes.

We have solutions -- leading solutions in the cybersecurity space, the financial crime
space. And we use analytics and AI and ML and all of the buzzwords to help businesses make quicker, more efficient, more informed decisions. Everything from airlines that use our analytics for logistics. We allocate gate allocations for their planes that are arriving at airports to professional sports leagues that use our optimization solutions to determine the best schedule for their games. But today we're here. CHAIRMAN MCWILLIAMS: So I just have to interrupt. So you are to blame for all of my gate changes?
(Laughter.)
MR. NESTEL: No, Chairman McWilliams, we are actually to ensure that your gates are closer to where you have to be. And I hope the airlines that are using us are --
(Simultaneous speaking.)
CHAIRMAN MCWILLIAMS: Well, I'm not a good runner. So if you can, like, shrink the distance when you move me to another gate, I would greatly appreciate it.

MR. NESTEL: We're here -- I'm here to talk a little bit about what we're doing in the financial inclusion space, but specifically some of the credit scoring innovations that we've been working on to help drive those initiatives.

So 2019 is a big year for FICO because we're celebrating an anniversary, 30 years of the FICO score. Back in 1989, we introduced the FICO score that many people refer to as the classic FICO score. This is the score that leverages the credit bureau data from each of the credit bureaus to drive our score.

And it's also -- 2019 is also a milestone. We are now working in 30 countries across the globe on credit scoring innovation and financial inclusion, doing some really interesting work which I'll just refer to in a slide or two forward.

When we were developing -- during the 30 years that we've been working on the FICO score, it's not surprising that we've come out with updated versions. Our latest version is

FICO Score 9. It is our most predictive FICO score to date.

When we were developing that score, we did a fair amount of voice of customer. And around that same time, we had some lenders come to us and say, FICO, we understand you score about 200 million consumers today.

But we also understand that there are about 53 million -- we've heard 45 million FICO depending on the data set. We arrived at about 53 million that the classic FICO score is not scoring today. Half of those, roughly half, 25 million are credit invisibles. They have nothing, no files at the credit bureaus. And then the other 28 million or so, we are not scoring them because we have insufficient data to return an analytically sound score.

And the lenders really encouraged us to do some additional research. They did not want us to lower our standards and simply just to score more folks. What they did want us to do was to look at alternative data sources to see if
we could bring in new insights on the credit risk profiles of some of these 53 million folks.

And this is when we started to really delve deeply into data sets that resided outside of the credit bureau files. That's how FICO has kind of looked at alternative data, data that resides outside of the credit bureau files.

So we look at alternative data in categories. And this here shows the kind of hierarchy of data and credit risk predictions that we look at across the globe.

Not surprisingly at the top of the pyramid is financial account data. You can see the credit bureau trade lines as well as -- and I want to highlight this because it's been a theme -- demand deposit accounts which we're going to talk about in just a few minutes.

In the third box there is non-financial data. In many geographic locations around the world, we are leveraging some of this data. Where credit bureau data just doesn't exist or is very sparse, we can use greater
insights.
These insights that we're gaining from this data, we may not be using it here. But it helps inform our work. I want to concentrate, though, on the second box because this is pivotal in the kind of story that $I$ was referencing about our initial research efforts.

Telco utility data, there's some confusion around this. FICO scores since 1989 have considered telco and utility data when it is available in the credit bureau files. The fact is there's not much available today in the credit bureau files. Anywhere between two and a half and five percent of consumer files actually have telco and utility data.

Rent is somewhat of a new phenomenon in the credit bureau files. But only about 1.8 million out of 80 million renters actually have any trance of rental data in their files.

So when we started to look at data and explore using alternative data to build a new score, we ended up in 2016 introducing a score
that is used in the unsecured lending space. And it's really used as a second chance score, and it works like this.

It leverages a telco database that resides outside of the credit bureau files focused on cell phone data, landline data, cable payments, as well as another data set that has some public records and property records that also do not reside in the credit bureau file.

When a consumer would apply for a credit card and become a no hit, a FICO score is not returned. The card issuers now have access to a score which can look at these other data sets and hopefully score these individuals and get them on an on-ramp to credit.

Because once they get a traditional credit score, a traditional credit tool, they can then as they make on time payments, those payments are reported into the credit bureaus. And then they get a -- within a few months are eligible to receive a FICO score which can provide them with more access.

But we're only looking at -- in this case, we were just looking at the unscorable population. And in terms of kind of looking where we could expand access to credit and financial inclusion, we wanted to look more expansively.

And as you can see here in the two addressable markets, the unscorable and those that are not receiving a FICO score today, we also looked at those that were below 680, a FICO score of 680. It's a larger population and one that we thought had a lot of promise for our next initiative which we announced at the end of 2018.

So I must say a fair amount of fanfare. We got a front page Wall Street Journal article, and the phones started ringing from financial institutions who were very interested in participating in what would be a pilot project to start.

The score is called UltraFIco. And this leverage is demand deposit account information, think checking, savings, money
market accounts. But what's unique about this, it's consumer contributed data. So this score is going to be driven with the consumer provides permission to access their bank account information.

The score looks like a FICO score. It has a score range from 300 to 850, so very easy to understand for lenders. It's a line to the same score -- odds to score relationship. So a 700 performs like a 700 in a FICO score.

And as you can see, what we're looking at, if you take the checking account information that's provided by a consumer, we're not looking about what they purchase. We're looking at how they maintain that account over time, the recency and frequency of the banking transactions. Are they maintaining positive balances, and are they incurring negative balances?

As you can see in the slide, we have two partners. Experian is our credit bureau partner. They're not only providing the credit bureau that drives the FICO score which is kind
of the base here. They're also providing the distribution and the FCRA support.
We have a not so young fintech,

Finicity. They're been in the data aggregation business for two decades. It's interesting to talk about a fintech that's been doing work for two decades, but they have. And they're the ones that are facilitating the access to the DDA account information.

Sometimes it's easy to just look at a graphic on how this works. This is just one use case. The consumer would apply for credit. They would not meet the underwriting criteria. The consumer would be presented with the option of leveraging their DDA account information through UltraFICO.

> If they gave permission, that information would be obtained through an API that they would credential through a Finicity facilitated portal online. They would get the information, bring it back to Experian who would calculate the UltraFICO score and hopefully the
minimum criteria would be met.
Let's talk about just -- let me conclude by talking a little bit about preliminary results and then leaving you with a roadmap as to where we're headed.

This graph talks about first the applicant population. So why are we looking at the applicant population? We can produce a score that can find many people who have very strong credit risk profiles.

But if they're not likely to be an applicant, for instance, they're 81 years old. They paid off their house, their car, their car loan, they're not seeking credit. We have insights to be able to kind of focus on those who are likely to be applicants.

So we looked at the applicant population. We also know that this score is -because it's consumer contributed, we're going to see some interesting behaviors. Those who may not be managing their DDA accounts like they would hope, we'll likely not give permission. We
know there will be some selection bias here.
So what we try to do for both lenders and consumers is hone in on where the real benefits of this score will be seen. So you'll notice that the two criteria we have here is no negative balances within the last three months and a positive balance of at least $\$ 400$ average over the past three months.

So when you look at this pool, the total applicant pool with these two criteria, we saw about 70 percent of this population will experience a score increase.

When we look at the thin young credit files is where we really see the sweet spot for the score. Not only do we see about 78 percent of the population experiencing a score increase, but we see about a 40 percent increase of 20 points or more for this population. So about 40 percent, excuse me, of this population will see an increase of 20 points or more.

When we look at those with FICO scores of less than 680, about 77 percent of this
population will experience a score increase. And about one in ten will see an increase of 20 points or more.

So in conclusion, I'll just leave you with a little idea of where we're at. We announced that we were interesting in having financial institutions engage in a pilot project. We had many people raise their hand.

We had three quick early adopters. While I can't release their names, I can tell you kind of generally what they look like in terms of the entities. We have a very large credit union. We have a very large fintech lender, and then we have a credit card issuer that focuses on young buyers.

We hope that that those pilot projects will be completed by the end of the year, maybe very early 2020. Around that same time frame, we hope to make the score generally available for financial institutions. We'll have much more to talk about then and really look forward to keeping all of you informed as we kind of do our
work, not only here in the U.S. but globally. Thanks very much.

MR. ERNST: Thank you, Daniel.
Lauren?
MS. SAUNDERS: Thank you for having me. I'm Lauren Saunders, the Associate Director of the National Consumer Law Center. I don't have a fancy graphic to put up there, but his is our 50th anniversary this year. I hope we'll see some of you at our celebration in November.

At the National Consumer Law Center, we focus on low income and vulnerable consumers and working to make sure that they are protected in the financial marketplace, have access to safe and affordable products, and hopefully are protected against ones that are destructive of their financial health.

We think that cash flow underwriting is a promising form of underwriting. Some of the key pillars of responsible lending are a fair, affordable rate and making sure that the person can actually afford to repay the loan.

And cash flow underwriting clearly goes to that question. It is basically can be used as a form of residual income underwriting. The basic question of, what income do you have coming in, what expenses do you have coming out, and is there money left over? Which is, of course, not a question directly addressed by credit scores or credit reports. Certainly, there's going to be overlap.

But as you've heard, there are certainly populations for whom the credit scores aren't going to work well. And being able to look at that core issue, can you afford to take on more debt and to repay a loan for populations for which FICO doesn't work we think is potentially promising.

In particular for people -- for obviously the thin and no-score people that we've heard about gets at that catch-22, you need credit to get credit. I think the jury is still out on that one. It sounds like the FinRegLab's study didn't get too much at that question,
focused more on those with a little bit of thicker scores.

And for those who have scores but maybe had a problem in the past, they have gotten over. Obviously the financial crisis impacted a lot of people. But hopefully some, at least, are recovering.

For those who are relatively new to credit and they have high utilization rates on the few credit lines that they have and they end up with a more negative score. Or just have had trouble getting their feet under them as they start to use credit but are good credit risks today.

So we think it definitely has a role in a responsible marketplace. And we are very interested in the studies and the work going on about how to use it.

I'd also add that $I$ think it is a better way of accessing utility data than mandating that utility companies report their information to the credit reports. Both being
something voluntary and we don't have to get into the problems and risking people's access to government utility programs in the winter or issues of accuracy and whether the utilities are really set up to be furnishers. I think this is a way of accessing that data for those who want to permission it without running to the larger problems of mandatory reporting.

That's it. I do have a number of questions about the use of cash flow underwriting. Obviously it is generally accessed through a data aggregator and access to the bank account. And we don't really know how every company is using the data.

The FinRegLab's report talks about how they deliberately chose a number of different lenders with different models and who have different proprietary ways that they use the data that you didn't get into and I would, of course, love to know a lot more about.

But I think that some of the lenders are very different from Petal. For example,
there was a payday lender, a balloon payment, single payment loans at triple digit rates. I suspect that the data from a bank account is probably used differently for that kind of lender than for a credit card like Petal.

I think it's important to note that credit risk which is what the FinRegLab's report was getting at. Credit risk from the lender's perspective is not the same thing as affordability or ability to pay from the borrower's perspective particularly because I suspect that the vast majority of the consumers in your study were using electronic -- automated electronic repayment.

And so the fact that a particular line of credit or loan was repaid doesn't necessarily answer the question of whether it jeopardized the person's ability to pay other expenses, led to overdraft fees, NSF fees, late fees on other credit lines that aren't even visible in the bank account.

So it's not necessarily the same thing
for all consumers. It's also possible that some lenders might use this data to find that sweet spot of where they can collect but not necessarily help their financial health. It's not all about, is there money left over at the end of the month? It could be how do we time our payments? What does the ebb and flow look like throughout the month? What kinds of expenses is the person spending money on?

In fact, we don't even know -- correct me if I'm wrong -- if some of the vendors might look not just at amounts, what comes in, what comes out, what's left over, but where the money is spent. How is that information used?

So those are things that give me pause and make me worry. Obviously disparate impacts is a very important question. I really appreciate the effort that FinRegLab went into to dive into that question. And I would be remiss if I didn't point out that we think disparate impact analysis is a critical tool that we hope will be retained in the broader financial
marketplace.
I would think it's a fintech friendly tool because it gets at that very question of, is something predictive of credit risk, or is it just a proxy for race or a proxy for disadvantaged populations? And hopefully we all really want to treat people as individuals in their own right. And can they afford to repay the loan and not look at what populations they're a part of?

So we support using disparate impact analysis. Obviously, there were limits given what you could do in your analysis that lenders can do more of. But it certainly is a very important question.

I'll also note that your study -- I'm sorry to keep pointing to you. But it's the study we have. As I understand it, it didn't look at people who were denied. And we may see very different results there.

And that also gets to the question of right now in this early stage, this data is being
used on a voluntary basis with consumer permission. But I can see us rapidly moving to the place where it's not so voluntary.

And frankly, even today, I think -correct if I'm wrong -- if you want to apply for a Petal card, you have to get permission. Now there's other products that you can choose, and you can choose whether it's worth it for you or not.

But eventually, if this becomes much more widely accepted, agreeing is just clicking that I Agree box that you really don't have that much consent over. And so that gets us into the broader questions of how is it going to be used, how it impacts people. How will it impact people who may be denied credit and not just as a second chance score? And so those are much broader questions.

And then, of course, I'm sure we probably don't want to dig in today to the broader issue of data aggregators and the privacy issues and security risks and all of that. But
of course, it's an elephant in the room because you're giving access to a lot of very personal and powerful data.

And we don't know who's going to use it, how they're going to use it, who they're going to sell it to, what will be done with it. I would love to try out all sorts of interesting fintech products, but I just can't bring myself to say yes to those data aggregators, even the ones who I've met with. And I probably know a lot more about them than your average consumer. But it makes me very nervous.

So I'm just happy to be part of this conversation and have thoughtful people looking at a lot of these questions. And thank you for having me.

MR. ERNST: Great. Thank you. So I'm going to open the floor here in just a second for general observations and questions. Jason, maybe I'll give you a chance to ask the question. I don't know if you want to address that.

But before I give you that chance and
open the floor, I'll just say if 1 could give an award for explaining a chart at this table, Kelly, $I$ think you'd get it.
(Laughter.)
MR. ERNST: I don't know that we've ever had to give such a cogent explanation to such a complicated chart. So thank you for doing that. I'm sure we'll have many questions remaining nonetheless. Jason, do you want to speak to that?

MR. GROSS: Sure. And I think that Lauren raised a number of really important issues, and I think that it's a balanced assessment of the different considerations in play. Taking a step back very quickly and then I'll kind of respond to some of the specifics around consumer permission and pricing and use of data, et cetera.

Part of our sort of vision for where all of this goes over the long term I think is worth mentioning very briefly. Data aggregation, although in its infancy, is allowing for the free
movement, fairly frictionless movement of consumer financial records from provider to provider.

More and more, your financial record is the basis for which a provider can serve you will in the financial services marketplace. It is what your bank knows about you. It allows your bank to extend credit to you for the most part, to customize financial products for you or recommendations about how you should manage your financial life. It is similar to your healthcare record, and it is very personal, sensitive information.

What we said in Dodd-Frank, Section
1033 is that information is the property of the consumer and the consumer should have a reasonable digital access to that information. And so if that information is essential to you receiving well-priced, well-tailored financial services, then you as a consumer must be able to obtain your property and move it from place to place if you want to so that we can have a
marketplace with competition and options, et cetera.

As this information becomes more available, we now have a very different backdrop upon which we can reimagine something like a credit score. The credit score -- the classic FICO score that we're familiar with is based on the information available at the time to come up with our best metric for someone's likelihood to repay a loan obligation.

But in a world where the full set of consumer financial statements are available and we kind of think about the credit report like the liability side of the consumer's balance sheet. But it doesn't have the assets and it doesn't have the cash flows or the income statement.

In a world where that full record is available to the consumer to share with the service provider of their choosing, then how can we not create a comprehensive score that looks at the whole thing? And we're talking about some of these very specific, acute examples where
consumers have no liabilities. They have only assets and income and they don't qualify under a mainstream credit system, right?

But overall, we can make credit decisions more accurate and more inclusive decisions for more people if we look at the full financial picture instead of just one facet. So that's where we think that credit scoring is moving over the long term.

So I thought that was an important kind of framing for how we view the topic. And something that Kelly pointed out as well is that the addition of these other financial statements actually increases the predictive power even when folks have a full traditional credit record. So even if you have lots of information about the liabilities, adding the rest increases your predictiveness.

To respond to the specific question about whether linking a bank account is required, we've been trying to find the right way to do that vis-a-vis our customer based when we ask for
cash flow information. Do you use it as a second chance, for instance, like with UltraFICO?

For certain consumers that have no traditional information, we have to ask for something or else there's no way to underwrite them at all. Where we're moving as a firm is towards a system that allows consumers to opt in to sharing more information and then receive benefit for doing so.

So if you want to share only your credit report, we're building the ability for you to do that. But we can only underwrite based on the information that we have. And if in addition adding the rest of your financial picture would give us a better view, a view as a potential borrower. And it would better represent your ability to repay the loan. We want to give the consumer the ability to share those records with and then potentially improve their access or improve their pricing to the product.

MR. ERNST: Great. Thank you. I'm
going to come to the committee members now. And
with John in mind, I'm going to start this way and scanning over. Alden and Andrea, I see. Any other hands? I see Raphael and Bob and Jonathan. Okay.

MEMBER MINTZ: Thank you. Thank you, guys. This is super interesting and a very important topic. I just want to make sure that as you're thinking through the cash flow analysis and the underwriting particularly with -- I think with the UltraFICO. What I'm hearing is just a reminder that -- again, this is a little bit parochial.

But as Bank On stakeholders are bringing in hundreds of thousands to millions of people into accounts where they can't go negative by mutual design, I want to make sure that your standards are inclusive of those accounts and how they're performing in those accounts as opposed to seeing the inability of a negative to therefore be insufficient information for your scoring.

MR. ERNST: That's helpful. Thank
you. Alden?
MEMBER MCDONALD: Thank you very much.
This has been very interesting for me because a lot of the techniques that you guys are changing to a digital world we've been using it for the last 30 years to underwrite our customer base. And as $I$ went through the presentation with you guys, a couple of things jumped up.

Jason, you first. What is the cost of the interest rate on the card that you're going to be issuing and how are you going to price that out? And what is the history so far that you've found --

MR. GROSS: Yeah.
MEMBER MCDONALD: -- from the delinquency point of view.

MR. GROSS: Yeah. So we use risk-based pricing for the APR on the card. The APR is a range from about 15 percent to around 26 percent. So that's roughly in line with the credit card market overall.

This product in particular serves the
new to credit market. So it's compared to introductory credit products which usually carry subprime interest rates. The card has no fees as well, one of the only no-fee cards in the market. And so when you look at the overall effective cost to the borrower, we think that it's the lowest cost product available to our consumers. And then in terms of performance, while I can't share too much, I can say that we've seen thin file customers underwritten using cash flow data, perform about twice as well as thicker file consumers with the same credit score underwritten using traditional metrics.

MEMBER MCDONALD: Going to Kelly, and I wrote down your pass through history for the research. What is it that you're finding for the pass through history and the interest rate that are being charged?

MS. COCHRAN: There was a range of price structures on the products that we looked at. Some used a fee-based system. Some use interest rates. So it really varied. And
because we looked at each participant company by itself, within that population, we were able to hold the price and the product structure consistent and look within some unit as to how predictive was it.

So to Lauren's point about different pricing product structures, that's exactly right. There was a variation. What really strikes us is how consistent the results are across all the participants, whatever those details were. So it really varied.

Some of the participants used a default metric. Some used delinquency. It really depended on what their product structure was as to how they were measuring it. And we generally use their measures. We confirmed that they were kind of an objective standard but then looked at whatever they were using in their own underwriting model. So it really was all over the place.

MEMBER MCDONALD: Daniel, $I$ do have a question for you, so don't feel left out. In
looking at the whole FICO piece, the credit report piece, you're coming up with this new product that is going to give a new credit score. It was interesting to hear you say that an average balance of $\$ 400$.

That's not going to cover a whole lot of people in the marketplace with negative credit. I can tell you we have 40,000 customers and we have a huge percentage with average balances less than $\$ 250$. And so the predictor that you're going to use there you might want to look at again.

And in the second part of the question would be that how do you rate a credit that perhaps has a regular 30 -day delinquency but yet no sixties and no nineties? Because those are in the individuals who are working day to day, hand to mouth, and how they going to pay.

And those individuals are really left out of the cycle. So I would like to sort of suggest to all of you that there's a huge amount of that data out there. And we've been doing
cash flow lending utilizing the manual system of which you guys are doing. And I think if you could begin looking at the $30-$ day chronic delinquencies and have some data on that, that would be very, very helpful.

MR. NESTEL: So Alden, both excellent points. To the $\$ 400$, we -- I asked this specific question of our data scientists as we presented this. As you know, I'm the government relations guy. Unfortunately, we couldn't have our subject matter expert here today.

You make a good point. And the point that they made is we use that -- we kind of put a pin in for $\$ 400$. It could've been 300 or 200 . I don't want you to be left with the implication that the $\$ 400$ is some kind of threshold.

We are trying -- what we're hoping to do with consumers is not only is this a slide that shows the results to lenders and encourages them to look deeper in this. But also to help with consumer management issues.

We've used the $\$ 400$ one because there
are significant benefits that we've seen. But to your point, we're acutely aware that not everybody has $\$ 400$. And this score can be beneficial.

I think -- and even to your point about delinquencies. When I talked about the thin young, I think this slide shows thin young, we're not looking at 30 and 60 days. We're looking at 90-day delinquencies and that in terms of benefits.

So there can be significant benefits derived by someone who doesn't have a charge off or a serious delinquency. So to your point on the 30 to 60 days, but both very --

MEMBER MCDONALD: And I share all the grievances. One additional piece, if I may, for the FDIC. The FDIC policy for examination drills down into a lot of the data points that we talked about here. I remember years ago there was a Rule 660. It was an automatic classification for consumer credit. That has been changed a little, and it uses it as a guide.

In looking at the underwriting based on cash flow, you might want to take a look at what do you have in your examination procedures that will help offset some of the negative guidelines for the financial institutions.

Because if you raise those issues, and with this type of information, you may find more community banks that might be willing to lend to the population that we're talking about. Because this has been a deterrent. Because normally those banks are basing their delinquency ratio and they're charge offs and their risk factors. And I think it's a perfect way of encouraging the larger banks or community banks to do more lending in the consumer space.

Just as one note, I'd like to speak to you a little bit more, Jason, because we have a credit card that starts at 12.9, fixed rate, not a teaser rate. And we can't seem to find the consumers to really like it the way we would like to encourage them. So this is something that we've been having for a while and maybe we could
be a part of your study on that.
MR. GROSS: Sure.
MR. ERNST: Great. Thank you very much. Andrea?

MEMBER LEVERE: Could we get the heat map back up? And by the way, Daniel, 400 is the most popular number in the world because of the study. It's also the most misquoted, erroneously quoted data point. That's what all my Fed friends tell me. So it's not that they don't have the 400. It's how they would get it.

So what I was struck by, Kelly, here, first of all, what I'm really interested in is how the research you done is tracking the financial volatility at the household level in a way that deepens our understanding of the implications of that volatility. And also how we think about the volatility now part of labor markets and how that changes how we assess credit and underwriting because it really is transformative in terms of cash flow.

So what I want to make the point is
there, $I$ don't know if you're familiar with the data point we created called liquid asset poverty which is the data point that actually measures financial insecurity, not just income poverty. And basically it measures the ability of a household to have three months' worth of cash so they can exist at the poverty level if their main source of income is disrupted.

What's incredible about that data point, 40 percent of American households are in liquid asset poverty, 51 percent of households of color. And what is interesting is it goes all the way up the income level, right to the fifth quintile in terms of high levels.

So when I look at your heat map which goes down to those very high credit scores, right? And you see the same point. So I'm just very interested in how you're looking at -- how does the transformation of our labor markets and your ability to look at it with cash flow help you rethink underwriting?

MS. COCHRAN: I think that's a really
important question. We didn't have the data to look at that here.

MEMBER LEVERE: Yes.
MS. COCHRAN: What we had was just the variables that the participants had actually used. We didn't have a picture of their underlying accounts ourselves.

MEMBER LEVERE: Yes.
MS. COCHRAN: So we couldn't study that kind of question. But I think one of the reasons why this data is so important is it really focuses on income and reserves whereas traditional credit reports, while they are very useful, don't directly --

MEMBER LEVERE: Right.
MS. COCHRAN: -- reflect that
information. And as we see more income volatility, that's usually important. We think that's one of the reasons why it may be spreading more rapidly in small business is because income forecasting on small business is incredibly important. It's incredibly hard to do.

MEMBER LEVERE: Right.
MS. COCHRAN: It's never been automated very easily. And so we think that there's a range of lenders in that space who are really interested in working with this data because they see the value of it on the income side. And there's also research. I think some of the research this afternoon in the mortgage market suggesting that reserves can be incredibly important.

So we are definitely thinking along those same lines. We weren't able to study that question directly here. But we're really interested in continuing to work on that topic.

MEMBER LEVERE: That's great. So, Daniel, here's the most important question for this town. Is the schedule of games for the Nationals the right schedule or not?
(Laughter.)
MS. COCHRAN: No, because I'm going to be out of town.

MR. NESTEL: I'll have to put it into
our optimization so we can figure that one out. I don't have that one, Andrea.

CHAIRMAN MCWILLIAMS: Only after you put the gate.
(Laughter.)
MEMBER LEVERE: Thank you.
MR. ERNST: Let the record show we made it almost to noon before baseball. I've got Rafael, Bob, and Martin.

MEMBER BOSTIC: So I had two comments and two questions. The first was to agree with the $\$ 400$. That jumped out at me as well. And it would be interesting to see how the chart changed, if you moved it to $300,200,100$, and to zero just to have a sense of how important picking some kind of average balance is for how we think about access to credit. That would be useful information for all of us.

I only had one comment, then Andrea spoke and got me thinking. So this issue about really continued labor force engagement is an important one. So what I've seen consistently is
that people in low income neighborhoods and in our neighborhood in particular feel like their attachment to the labor force is more tenuous. And so that puts a constraint. I think you've shown pretty clearly. It puts a constraint on ability to be included in financial markets. And so talking about this is something that is going to be important if we're going to see this expand in a significant way. So trying to make sure that we understand that is important.

My questions are really to the whole panel, and they are larger issues about this whole approach. So Jason, you said something very interesting which I had not thought about in terms of Dodd-Frank which is the idea that financial records or consumer financial records are -- I wrote this out because you said it's similar to a healthcare record.

And I think about all the protections around healthcare records and the hoops you got to jump through to share that with one doctor let
alone a whole system. How do we compare the regulatory infrastructure for financial data with that of the healthcare system? And if there are differences, does that suggest that we may be exposing people in a financial space to different kind of greater risks? And I hadn't thought about it like that. But that's actually an interesting question.

And then my second question is really about the operations of the marketplace. So if we're going to allow a potential applicant to opt in for a lender or for a rent payment or for a utility payment, that, I guess, would mean that all the landlords would have to agree to participate and all the lenders would have to agree to participate to share this information.

And that seems like a high bar to me. And I know rental markets better than others. But in some markets, what you have are dominated by some national players. So getting a big landlord multifamily company to say, yeah, we'll do it if anyone participates.

But the thing about Atlanta or Los Angeles where ownership of rental property is highly distributed and disaggregated, how do you think about participation in that context? And does that requirement then implicitly mean that we're going to have some sort of geographic selection or market-based selection? And to what extent does that translate into just for impact that we actually care about?

And so I don't know the answer to the question. But it seems to me that figuring how that's going to work out is going to be something that's really important.

MR. ERNST: I'd invite anybody from the panel to respond.

MR. NESTEL: I can start. We were very fortunate on a couple of things on security and privacy. We were very fortunate the -- and access. The partner that we have, Finicity, as I said, has been in this space for 20 years doing data aggregation. They're not only a data aggregate. They're also a consumer reporting
agency.
The way our score works is that it is this information is not going in your credit bureau file. Both Experian and Finicity are consumer reporting agencies. They do have to keep the data for regulatory reasons, dispute resolutions, corrections for some time. But they have added responsibilities being regulated and pretty closely regulated as a consumer reporting agency.

So the other thing I just wanted to note is that while we're fortunate because our partner is a trusted partner of thousands of banks. And so we aren't having challenges getting access to the DDA account information. There are efforts being led by not only our partner, a number of banks, consumer advocates to come up with a uniform API standard that would enable -- and perhaps Jason can expound upon this -- but that will enable both banks, consumers, and the lenders themselves one kind of uniform tool that everyone is comfortable with and that
has the adequate security around it.
So these efforts are going on. And I think we're getting closer and closer to having that where to reference Jason's point that you'll be able to really have a passport where you can take your information and share it when you give permission to others, not just your own bank having that information and do it in a safe way.

MS. SAUNDERS: And if I could address the credit reporting issue. Yes, Finicity accepts being a credit reporting agency and follows the Fair Credit Reporting Act. That is not uniformly true among other data aggregators.

And if they are not following the Fair Credit Reporting Act, people don't have the same rights to know what information is being used about them, to know if it results in a higher price or they've been denied to correct errors, to get a copy of their report. So those are definitely issues that hang over the broader issue of data aggregation.

MR. GROSS: Lauren, that's not my
experience with the data aggregators in the market, and we don't work with all of them. So there could be others that you have in mind. But the ones that we've worked with, all are either credit reporting agencies or are compliant with the FCRA for the way that they treat any data that's being supplied to a lender.

Because arguably under the FCRA, if you are knowingly providing data that will be used in an underwriting decision, you're transformed into FCRA anyways. Or at least you could make the argument that you have those same obligations.

And so all of the data aggregators that I'm aware of that provide data for underwriting meet those same obligations with respect to corrections and copies of the report and all those sorts of things.

Now if they're providing data for a non-credit use case, if an aggregator is providing data to power mint.com, for instance, then the same obligations do not necessarily
apply.
MS. COCHRAN: I might just jump in with a few last thoughts. First of all, on the question about specific expenses like rent or utilities, $I$ think that's one of the reasons why transaction account data is useful because potentially you can pull that information from the transaction account data without having to have every last landlord report.

Now transaction account data will tell you what the consumer or small business applicant paid. It doesn't necessarily tell you what they owed. So in some ways, it's not as complete of a source on that expense side as a traditional credit report might be. But it is useful, and that's one of the reasons why I think it's appealing to a lot people in the market right now. So you can get most of that information in one place as opposed to having to have a lot of individual sources feed in.

In terms of the aggregation question, a couple of things. This is usually important.

Aggregation is spreading very widely. At this point, it's estimated to cover about 95 percent of U.S. deposits.

The industry is about 20 years old and has been growing. And it is not only essential for this kind of underwriting, but it is also being used in a huge range of personal financial management wealth advisory activities. It's being used in payments and all sorts of kind of account identification and verification of consumer identity and other purposes.

So it's becoming really important to the broader financial system. Not just for underwriting but in other ways. And that's certainly going to be something that we're focusing on. In our last report is what are the practical and regulatory issues arising in that space.

There are questions in terms of Fair Credit Reporting Act, Gramm-Leach-Bliley Act. Some of the laws that do apply in the financial services space are a little different than what
applies in health. And I think there are a number of questions about is that the right framework as data use and transfer becomes more and more common in the financial services system overall.

So there are a number of questions there. There are some self-regulatory efforts and industry working together to try and solve this, especially on the technology side which is encouraging and I think in everyone's best interest.

But there are a number of other
questions. I think one of the important things is how authorization works and what the applicant understands when they are authorizing access in terms of what's being pulled and what will it be used for. What are the data management practices of the institutions that are involved in both the ultimate end user like the lender as well as the aggregator?

So there's a lot to think about in that space. It's a really important question not
even just for underwriting.
MR. ERNST: Thank you. We have just a handful of minutes left. I'm going to try and get both Bob and Martin into the conversation. Thank you.

MEMBER ANNIBALE: Data protection certainly being based in your GDPR, of course, I mean, is incredibly controlling now as to how much you control your own data and privacy. And banks have gone through an enormous amount and all firms and you're trying to protect that.

I would just reemphasized the income volatility question. I mean, you can look at things like The Financial Diaries which many of us sponsored Jonathan Morduch and Rachel Schneider who authored that.

Young people -- this is not just low income. It's young people. It's many professions, consulting, independent employees, contract workers. It's across that. So we're going to see a lot more volatility, and that's going to show up immediately in the transaction
account.
The other is for low hanging fruit if anybody ever thinks of it. For anybody who's an immigrant who happens to come from a country where there was credit bureaus, you come here and you're a thin file. I was a thin file being away for 15 years graduate school. But I had a full credit file in the UK.

We tried to use the credit files in Mexico here, but one of the agencies or regulators -- I won't point fingers --- but they were concerned you're only picking Mexico. But it was clearly the most relevant in a place like ours. But people don't -- they have a history but you can't track it. So they lost the history when they moved here. That happens to a McKinsey partner coming from London. That happens to a worker, a middle class worker or anybody else.

Last thing was overdrafts versus availment of credit lines. Transaction accounts, I really wonder. When you look at the data, you're going to see people going dipping in and
out sometimes negative. Sometimes that's a prearranged credit line. So just no different than using a credit card. You can choose to do that.

The others might be people going into overdrafts and for a different mechanism. I'm just wondering if you -- I don't know if you should. But would you be able to differentiate those behaviors? And is it pejorative or not, having frequent use of an overdraft? Because one is a credit line. The other is an overdraft. MR. ERNST: Anybody want to take a crack at a response?

MR. GROSS: Yeah. I would -- I think it's a great point and on the immigrant market as well. I think I mentioned that one of our cofounders was an international student and then was getting his PhD at MIT and he couldn't qualify for a credit card.

And so we certainly see that show up in our customer base quite a bit. We are not able to bring in credit bureau information from
other countries, at least not today.
But what we can do is generate a score for you after just three months of banking at a U.S.-based institution. So that's a lot faster than the time that it typically takes to ramp up into the traditional credit system. And so we do see a lot of folks with international backgrounds that are a good fit for our product.

On the question regarding sort of overdraft versus other forms of credit line. It all depends -- and this kind of goes back to Rafael's point as well. It all depends on what we see, what information is passed through that digital bank statement that we're accessing, right?

So what information is in the metadata or sort of the memo line that describes the transaction? And oftentimes with overdraft, you see an overdraft fee clearly labeled. And so we know what that is. For other sorts of products, there could be other labeling.

But at the end of the day, these are
not being made in a judgmental fashion. The decisions are all being made in a statistical one. And so we would look at that particular tag and the number of instances overall of the historical data that we're analyzing and determine what relationship it ultimately has to someone's likelihood to repay an obligation.

I know that's not the most satisfying answer, but that's the way that we would do it.

MR. ERNST: And Martin, I think you may get the last opportunity to put a question on the table.

MEMBER EAKES: So a couple points. One, I want to make sure that the panelist and others -- thank you for the presentation. I have read the book, Shoshana Zuboff's Surveillance Capitalism. You heard of it or read it? If you haven't read it, I think it's the most important single book in the last two or three years.

It's a Harvard business school professor, 1,200 pages, 400 pages of footnotes. And it talks about basically how the financial
sector has ripped off people's data. So using Google and Facebook in particular, taking -- and so it is really terrifying to read it and it's very well documented. I think it's -- if you haven't read it, then you're on the border of malpractice in the jobs that you're in, I would say.

Secondly, I want to frame a little bit from this committee. Over the last 12 years, we've talked a lot about serving low income individuals and said that we can't really expect a banking sector or banks to scale a program either of safe accounts for deposit transactions or small-dollar loans unless it can at least break even.

So what that meant for us was small account balances that we had to drive cost down, whether it was figuring out how you have branches be more effective, whether you have algorithms. So this is all a prelude to saying I actually do believe that algorithms are important.

But as soon as I say that, I would say
that just listening here that we need a whole hell of a lot more humility than what $I$ heard. If you've been four years and you got data, you can't tell me what the default data is going to be over a stream of different periods. You just simply -- your data -- you just can't get there. And when I look at the heat map here, what I see is just that the two different grids don't match. It doesn't tell you anything about reliability necessarily. It just says that they're different. Because you can go down the charts and they're just -- they don't go linearly up or down on any single row or any single column.

So to me, the question that Lauren raised are really going to be the exact question is, what's going to be the transparency? What commitment are you going to have, not just that you can assert to us, that we have reliability, that you get the same test over and over, that you have predictability, and that you have fair lending?

I don't believe it until I see it. So when I hear a number that 70 percent of the people's scores went up, well, that's great. But I usually care about the bottom 30 percent that went down. And I don't even care if they go down if it's accurately predicting what the actual risk will be.

But most of the fintechs and folks that I see who are talking about new scoring do not provide any transparency whatsoever. The amount of difficulty I've had trying to just get what is the median FICO score or the median credit score for African American borrowers. Nobody wants to report it because they know it's disparate from what it is for white.

So transparency of what you would do, I just would love to hear what'd you say. When I hear people talk about opt-in, my whole question having dealt with subprime mortgage loans and single premium credit insurance, opt-in is truly a language without more that is a refuge for scoundrels. And I'm not saying you're the
scoundrel. I'm just saying that language is not sufficient by a long shot.

The question is how do you opt out? How do you get out of -- if I've shared my data from Self-Help Credit Union to you and you have shared it with somebody that $I$ don't even know about, how do I get it back? How does my member or customer -- in European terms, it's, how do you have a right to be forgotten? How do you clear out the crap that's inaccurate and wrong when there's no regulation in this sector of data sharing virtually whatsoever?

So opt-out, I just would love to hear you talk just about algorithms and the dangers that come from it. And how do you opt out of getting the data back? Because digital data once shared is really hard to get it back. So what do you have as safeguards? How can you prevent my doomsday scenario which I predict will happen if we don't have regulation to control it?

MR. GROSS: I'll jump in with a few things and then we'll let others respond as well
because I think there were a number of different topics that were touched on there.

So first of all, just to maybe help to alleviate some of the concern, we're talking about making statistical determinations based on financial data inputs into a model. That's done at every single financial institution that I'm aware of using the exact same methods that we are using and that the other lenders that we've discussed are using.

This is a question of using different inputs into the model. And those inputs are -for the most part, that we're discussing DDA information that comes straight from the system of record of a financial institution in most cases, right?

> We're not talking about black box machine learning techniques which is certainly something that folks need to be aware of and that folks need to understand. These are transparent models. We understand what goes in. We understand how the decision was made, what
factors went into the decision. And then we can provide that transparency to the consumer -MEMBER EAKES: But -MR. GROSS: -- on the other side. MEMBER EAKES: -- it's proprietary, right? You're not publishing it. It's not peer reviewed. It's not --

MR. GROSS: Well, every proprietary model inside of a lender is not peer reviewed or --

MEMBER BOSTIC: But I don't think that's the issue. So I think about the Great Recession, and we had a bunch of models of how risk was going to be distributed for these new products. And they were wrong. And they were horribly wrong. And I think Martin's point is that risk certainly exists here because we don't have time to go through any kind of business cycle. We don't have time to go through any kind of perturbations, even minor ones in labor market.

> And so we should be -- I think his
admonition is we should be cautious because given that reality, you heard it going around the table. All the wealth that was lost in African American communities because we were wrong in that estimation.

And I think Martin is just saying I don't want to see that happen again. And the way we prevent that from happening is by taking baby steps before we run all the way in.

MR. NESTEL: Martin, as you know, FICO can put compelling research forward. But our customers are credit unions, the community banks, medium-sized banks, and the lenders. And they're not going to take our word for it. The whole reason for pilots -- and as you know, banks are very cautious in introducing new products. They are going to kick the tires on every assertion that we make and then double down and scrutinize it further.

So we're not designing the model for our personal use. We're doing it because we know that our customers are going to scrutinize it
even further. And hopefully we'll be able to share more insights as we get out of the pilot phase. But we hear you. And certainly I think our customers and the banks are going to really scrutinize how this -- what this impacts are, what the benefits are. And perhaps if they find that there are challenges, we certainly will hear about it.

MR. GROSS: Yeah. This is being done very much in baby steps, and it is nascent. We're one of the few examples up here of anyone experimenting with these approaches. But the results so far have been very interesting. And so we think it's important for folks to be aware of them.

There is quite a bit of history associated with using residual income based underwriting models over many, many years and many credit cycles. And so this is not without precedent either.

I've heard of a lot of different approaches, some being used in the third world
and other countries where there's less traditional credit infrastructure where completely exotic data sets are being used that have little relation to your financial position, your social media data or the battery on your cell phone.

And I think that there's an even degree of skepticism that we should apply when looking at those sorts of data sets. But in this case, it really is more about bringing down cost so that we can serve folks that are otherwise excluded from the system.

We are automating underwriting techniques that are being used in a manual fashion every single day today to underwrite mortgages and small business loans, et cetera. I think that's really what's at the core of this, and it's all about how we get the data for that automated process.

One more thing that I would add regarding opt-in versus opt-out as well because I know that was another part of your question. For
our model at least, and I can just kind of speak to our experience, the opt-in requires you to authenticate through your bank. So it's not as simple as kind of the click wrap sort of thing. It actually introduces quite a bit of friction. And then the opt-out is a simple click, and then you have severed the connection.

Now if you submit certain information for use in a credit underwriting decision, of course, there are rules about keeping that information on file for a certain amount of time. But those are regulatory requirements.

MEMBER EAKES: Regulatory by whom?
You're not a bank, right?
MR. GROSS: We work with a bank.
That's the issuer of the card. And so we are a critical third party vendor to an FDIC regulated financial institution subject to all the same -MEMBER EAKES: Do you override any -MR. GROSS: -- regulations. MEMBER EAKES: -- state consumer protection laws with that bank's charter?

MR. GROSS: Sorry?
MEMBER EAKES: Do you override any
state level consumer protections?
MR. GROSS: The bank charter is subject to federal preemption, so --

MEMBER EAKES: Do you utilize it?
MR. GROSS: The bank is the owner of the account.

MEMBER EAKES: Would you be out of compliance in any state if you did not have this state preemption by federal charter?

MR. GROSS: I don't know the answer to that.

MS. COCHRAN: I might have a few thoughts. Is there time, or --

MR. ERNST: I think probably we are out of time and well into the lunch period. We won't answer every question fully that's been addressed at this table. But we'll have an opportunity at lunch for members of the committee and panelists who can join us. So I probably need to wrap up and thank everyone for the
participation and the robust conversation we've had. Thank you very much.
(Applause.)
(Whereupon, the above-entitled matter went off the record at $12: 11 \mathrm{p} . \mathrm{m}$. and resumed at 1:23 p.m.)

MR. MILLER: So to moderate this next panel on mortgage market trends, Mark Pearce, the director of the Division of Deposit and Consumer Protection.

MR. PEARCE: You're turning it over to me?

MR. MILLER: I am.
MR. PEARCE: No long introduction? So thanks, everyone. Good afternoon. I've got a pretty easy task moderating this panel. I think as we were going around this morning, I think there are only four former officials from HUD here with us today to talk about housing markets and mortgage markets.

I think in the comments this morning, I noted seven of you talked about mortgage or
affordable housing in your comments. So some of the issues that were brought up earlier around disparities in home ownership rates for whites versus African-American households and Latino households was raised. Talking about having liquidity, post-closing liquidity was a topic that came up and some of the transitions in the mortgage market in general.

All three of those issues came up, and we've got three experts here. And they're going to answer all your questions. Well, maybe not all your questions, but they're going to present some of their research.

And we're going to take John's advice and go in reverse alphabetical order. So we're going to start --
(Off mic comments.)
MR. PEARCE: It actually just happened that way, but Ryan Goodstein, who is a researcher here at the FDIC, will talk a little bit about insights from the 2018 HMDA data. We have Lariece Brown from Freddie Mac to talk a little
bit about transition rates among rental -- from rental to home ownership for African-American households; and Kanav Bhagat, who's here from JPMorgan Chase Institute to talk a little bit about post-closing liquidity and the importance of that for sustainable home ownership.

And with that, I'll turn it over to Ryan.

MR. GOODSTEIN: All right. Thank you, Mark.

So while I'm waiting for the slides to come up, I'll just say thanks, I'm pleased to be here today to talk to you about what's happening in mortgage markets.

That's me who's supposed to be moving the slides. Okay. All right.

So I have about 10 minutes, so rather than covering everything, I'm just going to focus on a few topics that $I$ think will be of particular interest to this group. Specifically, I'm going to discuss the increasing role of non-banks in the mortgage market and how this has
impacted consumers as far as access to mortgage credit.

So one of the biggest stories in
mortgage markets over the past decade or so is the growth of non-bank lenders. So this -- the chart on the left here, we'll start with that one. This is a look at all single family residential mortgage originations. If you look at the red line, that shows the share of originations made by non-bank lenders.

As you can see, non-banks had more than half of originations in 2018. That's about -- you know, about 56 percent. That's more than twice the share they had following the crisis in the 2008, 2009, 2010 period, and it's even higher than the share they had in the pre-crisis period. Another thing this chart shows very clearly that -- is that as non-bank share has increased, the decline in bank share has occurred disproportionately among the largest banks. So that's the blue line, the dark blue line in the chart.

As you can see, the share of the loans by the largest banks has fallen sharply. It's about 37 percent in 2010. That's down to about 13 percent in 2018.

And in contrast, the share of loans made by other banks has not fallen nearly as far. That's the light blue line there. And in fact, I'm not showing it here, but if you look just at community banks or very small -- or smaller banks, the share is essentially flat over this period.

There's a lot of explanations for why these trends have occurred, and, you know, I'm happy to talk more about that in the discussion period. But for now I'm just going to highlight a second important point, which is that the non-bank share growth has differed substantially across markets.

So on the right, the chart shows shares of government lending. Non-banks are the dominant player in this market now. So three out of every four government loans is made by a
non-bank. Large banks, on the other hand, have really pulled back from making government loans. Less than 10 percent of government loans were made by the largest banks in 2018.

And of course, you recall that
government loans include, you know, things like FHA loans and VA loans. These are often taken up by first-time home buyers or other segments of the population that have lower levels of wealth, or, you know, because they offer -- they allow a lower down payment, right?

So the fact that non-banks differ from banks in the markets that they serve means that the characteristics of their borrowers also differ. So this -- these -- this basically shows the distribution of loans across different borrower characteristics. So just focusing on the top three bars, the red bar says that basically 31 percent of loans by non-banks went to low and moderate-income, or LMI, borrowers.

In comparison, only about 22 percent
of loans by the biggest banks went to LMI
borrowers. Similarly, you can see loans to properties in LMI tracts or to black and Hispanic borrowers are disproportionately made by non-banks.

And so overall, the data suggests that non-bank lenders are filling a gap in access to mortgage credit by making loans to borrowers that some banks, particularly some large banks, seem less willing to serve, so for example, borrowers with less than pristine credit scores. So that's what these charts will show you.

Many of you or some of you may not have seen charts like these. Let me just sort of walk through how to understand them.

So if you just focus on the top line, this is a look at the credit score distribution for on all single family residential originations. And the white line in the middle of that red bar there, that's the median credit score among non-bank loans. That's 717. That's what the median credit score on non-bank loan was in 2018.

The box shows the range from the 25th to 75th percentile, so from about 670 to 765 , and then the whiskers, those are the little lines at the end, they show the values at the 10th and 90th percentile. So for non-banks, this ranges from 636 to 792.
And so if you compare non-banks to banks, you know, especially large banks, you can see that the credit score distributions are substantially lower, right? So for example, the largest banks, the median credit score is 755, so about 40 points higher than for non-banks.
And so of course much of the
difference in these credit score distributions ties back to the differences in the markets that these lenders are serving, right? So the bottom chart shows -- it's essentially the same chart, but now it's just limited to a more homogenous market. This is the market for single family residential conforming purchase. These are loans that are eligible for sale to the GSEs. And you can see the differences are much less
substantial, right?
I'm just showing one aspect of credit risk here, you know, the actual credit score. There are of course other elements of credit risk. So for example, DTI, LTV, and you see similar patterns, you know, for those types of measures.

Okay. So let me just shift now away from the focus on non-banks versus banks and discuss a broader trend in the overall mortgage market, which is that we've seen an expansion of credit availability in recent years. So these are charts all based on HMDA, all on single family residential purchase originations.

The chart in the upper left, this shows basically the share of loans to LMI borrowers and LMI tracts over time. You can see it's been increasing. On the upper right, you see the share of loans to black and Hispanic borrowers has also been increasing. Denial rates have been falling steadily. That's what you can see in the bottom left there.

And I should pause here. I'm an economist, so $I$ sort of -- I have to have at least one caveat per, you know, few slides. That's part of my nature.

So I'll just note that, you know, these trends, these reflect not only changes in supply of mortgage credit but also demand, right? So these are just raw trends. I'm not controlling for differences in borrower characteristics. That -- you know, that of course could be driving some of what we're seeing here. But in general, I would say that these are suggestive that credit availability has been expanding.

The chart on the lower right, this shows the share of single family residential purchase with rate spread above either 1.5 percent or 2.5 percent. So you can think of rate spread as an indicator of risk on the loan. So under Reg. -- the Truth in Lending Act, Reg. Z, higher priced loans are defined as those with rate spread of 1.5 percent of higher.

You can see that's been increasing. That's the solid blue line. And I'll note that these are really -- it's really most of the action here is in the government loan market. That's where we're seeing these increases.

CHAIRMAN MCWILLIAMS: Are these HOPA loans? You're talking about HOPA loans?

MR. GOODSTEIN: These are not HOPA loans. These are something different, just -they're called higher priced loans under --

CHAIRMAN MCWILLIAMS: Just higher priced on --

MR. GOODSTEIN: Yeah.
CHAIRMAN MCWILLIAMS: -- Reg. Z.
MR. GOODSTEIN: Right. So I wanted to put not only the share that are higher priced but also another measure of risk which is, you know, I could have picked any number, but here I'm just showing 2.5 percent rate spread. That's the dotted blue line.

So it's worth noting that, you know, so although the share of higher priced loans has
gone up, a lot of the action is really close to this threshold. More deeply higher priced loans, if you think of these sort of larger rate spreads the incidents of those loans have not been increasing. You know, less than 1 percent of loans in 2018 had a rate spread of 2.5 percent or more.

Thinking back to the pre-crisis period, it's hard to compare this directly because of differences in measurement, but just for reference, you know, about 25 percent of loans in 2005 and ' 06 were kind of classified as higher priced, and about half of those were deeply higher priced. So this does not look like what things looked like in the crisis.

And continuing on the same theme -- so it's important to keep in mind that while it looks like credit availability has been expanding, we're talking about an expansion from historically tight levels of underwriting.

And it's worth emphasizing that the
level of risk in the market now doesn't look like
-- you know, doesn't -- things don't look now like what they looked like in the crisis, right? So this is just one example to support that.

This is a chart from the -- using data from the New York Fed Consumer Credit panel. It shows the distribution of credit score at mortgage origination, you know, on originations back to 2003. And so if you look -- let's just focus on the median. That's the green line.

You can see that credit scores have declined in the last few years compared to, you know, 2010, '11, '12. But the median credit score is still substantially higher now than it was, you know, in the run up to the crisis, about 50 points higher.

And at the lower end of at the 10th percentile, the credit score is about 70 points higher in 2018 than it was in the 2005, 2006 period.

> Another item worth pointing out is that the actual loan products themselves look different now compared to what they looked like
during the crisis. So again, I'm borrowing another chart here. This one is from the CFPB. It shows the incidents of loans with risky features.

So it shows that, for example, about 20 percent of loans originated in 2005 and '06 had less than full documentation. That's the dotted yellow line. About 15 percent of loans allowed interest only or negative amortization payments. These loan features, as I'm sure you know, were associated with elevated risk of default during the crisis. Almost all loans made now, you know, don't -- you know, these features are absent from loans being made now, right?

So the takeaway I want to leave you with is that, you know, while credit availability has been expanding recently, the pool of borrowers getting loans is still relatively of low risk by historical standards.

Underwriting practices generally appear to be sound, and lenders -- you know, basically the loan products don't have these
risky features baked into them as they did during the -- in the run up to the crisis.

So let me just wrap up. Again, non-bank lender share has been increasing dramatically in part because they're filling a gap in access to mortgage credit. And underwriting standards are loosening, but you know, this is not a return to pre-crisis, at least not yet.

To state an obvious point, you know, continued monitoring of the mortgage market is critical, right? It's important to really keep an eye on things to see how much mortgage credit will continue to expand, how much will loan performance deteriorate.

I mean, right now, performance looks good, particularly on conventional loans by historical standards. We're in a good economic period, so how will things evolve, you know, when we hit the next recession.

So I will stop there.
MR. PEARCE: Hand the baton to

Lariece.
MS. BROWN: Thank you. I want to spend just a few moments talking about what the minority home ownership gap has been looking like since the crisis.

So we've spent -- we've seen a lot of papers that have talked about during the crisis, the loss in wealth due to foreclosures and some of the lending practices that have taken place during that time. Now we're looking at are we seeing recovery. And when we look at the recovery, who do we -- who are we able to observe a recovery for and who might be lagging in that recovery.

So this is some of the research that we're doing now, but I'll start off with some -a little background information for us. The -first off, the home ownership rate chart here, this is probably one that you've seen before. It's public data.

When you take a look at the home ownership rate, in 2019, overall the home
ownership rate was -- is at 64 percent. What I'm showing here in the top time series is the non-Hispanic white home ownership rate and then for blacks in the lighter blue down below and for Hispanics in the orange-ish red color.

And one of the disturbing things we're noticing -- I have circled there -- is a divergence in home ownership rates post crisis. That's one of the things we want to take a closer look at with the data that we have available to us. In particular, the black/white home ownership rate gap is now at 30 percentage points, and Hispanics are 26 percentage points less likely than whites to actually own a home in 2019.

And what -- the other thing $I$ have circled there is that the story for blacks is even more dire in that the home ownership rate for blacks is actually declining while the home ownership rate for Hispanics is actually increasing in the most recent years.
okay. A few -- a couple of other
research studies that have come out looking at this post-crisis period include Acolin, Lin, and Wachter. This particular paper looks at what are the main factors that seem to be able to explain the home ownership gap, the home ownership rate gap kind of pre-crisis leading right up to the recession and then post recession.

And one of the main things that we see in this work, they talk about endowment, that endowment measure that Wachter, Lin, and Acolin come up with is this idea of permanent income, where the permanent income that they measure includes all of the factors that you might want to consider such as education, age, gender, marital status, and other family attributes and as well as kind of access to funds based on their location and parental wealth.

When they look at all of those potential explanatory variables, they're finding that when they decompose how much they're able to explain versus what's left in the residual, the residual portion is actually increasing in the
post-crisis period.
The residual in their situation is maybe dominated by credit factors. They're not able to observe the actual credit profile of the consumers that they're looking at. But it's still a pretty interesting tell there.

Another paper put out by the Urban Institute this year, which Choi is the author, does a similar thing where they actually are now able to bring in credit attributes and look at the MSA level credit attributes as well as what may be driving the home ownership rate gap across different MSAs.

And again, they're finding that they have a residual; it's very similar to what Wachter, Lin, and Acolin find, and they say, you know, basically 17 percent explained in the 2017 data. But, you know, they do find that things like family -- things that may drive demand such as marital status, age, and so forth are very major determinants of whether or not someone will -- is a homeowner when we observe them in the

2017 data.
Let me turn to our work a little bit here now. What we've decided to do is with all of the information about home ownership rates and kind of the static that -- that we see, we wanted to understand could we -- we wanted to see if we could start to disentangle what is going on post crisis.

So one measure that we could -- that we decided to come up with is, well, who's actually transitioning into home ownership in the post-crisis period. This is one piece of our research. You can certainly ask other questions about what the -- what other aspects of recovery you may want to measure.

In this particular measure, what we do is we have a random sample of 5.8 credit visible consumers and an additional 8.9 million consumers who are in the household with those consumers in 2016. For all of them, we have information about their detailed credit profile, including foreclosures, the amount of debt held,
delinquencies, charge-offs, bankruptcies, inquiries, DTI, and of course credit scores as well as whether or not they're thin file which becomes pretty interesting as well.

We use that, and we are able to look at transition from 2012 through 2018 into a mortgage situation which we proxy for one aspect of potential recovery during this time period.

Okay. And the top chart, what we are looking at here are the people .- what percent of the people who did not have a mortgage when we look at the data in 2012, which -- what percent of them actually observe -- are observed with a mortgage by 2018. So that's the measure there. And you can see the differences in transition rates as we look at those percentages.

New mortgage holders in 2018 as a share of non-mortgage holders in 2018, we look at the gap in the transition rate for African-Americans, for instance, is the 5.8 percent. While delinquencies and foreclosures are down, we believe the new transition -- this
new mortgage transition is an important metric for this time period.

We analyze the extent to which racial difference and individual characteristics contribute to the white/black and the white/Hispanic gap in the transition rate to new mortgage ownership.

We find that -- so to talk about the second chart here, we find that age, income, unemployment, and housing demand are big drivers for determining who acquires a new mortgage.

Consumers with no credit score or insufficient credit histories are less likely to transition, of course. Student loan debt, gender, and education level matter, but they actually play a lesser role in explaining the transition. And in this situation, blacks and Hispanics are one-half and two-thirds as likely to transition into mortgage ownership compared to non-Hispanic whites, respectively.

Okay. In this chart, again, we're
decomposing the factors that explain now the
transition to mortgage ownership, which we used a proxy for a new homeowner. We do some test by age and so forth to make that more robust going forward.

But in this situation, you see that for the black/white gap, we're able to explain 66 percent with the various credit attributes as well as macroeconomic factors in the geographies that they live in. And a very -- you can't even see the tiny sliver of socioeconomic demographic information that's included there, which matters.

For the Hispanic to white gap, we do explain a little bit more, substantially more, 79 percent with the factors that we're able to control for in our analysis. I'm going to break that down just a little bit to talk about what specific factors matter and how they matter.

Okay. It turns out that individual demographics, when we look at the distribution of individual demographics, which includes things like age, female headed households, and so forth, that is actually decreasing.

If we look at the differences in the distribution between blacks and whites and Hispanics and whites, those factors are actually decreasing the gap in transitioning. In our time -- in the data that we observed, we're actually seeing that the older millennials are indeed transitioning into home ownership in this -- at the highest rate for this particular time period. So again, this is different from just looking at the home ownership rate and looking at who our new homeowners are.

Okay. Of course, credit worthiness or credit factors or attributes are lumped together, and that explains, again, the more than 60 percent for the white/Hispanic gap. Some people were surprised to see it being that large for the white/Hispanic gap, and then 49 percent for the white/black gap. Okay. And the chart that I showed you before is basically combining all of this information into one picture.

Geography is different. So geography in this situation includes two primary macro
variables: house prices and unemployment. And what we're finding is for Hispanics, they -- the mortgage-ready Hispanics in our data tend to be concentrated in higher-cost markets, and that's driving a lot of the difference in the Hispanic/white gap that we're observing in transition rates.

Okay. Since we -- after taking a look at the role of geography, we decided to do a little bit of additional disaggregation in geography and look within these metropolitan areas. I -- we have a lot more in the actual paper, and we can tell where -- everyone where the paper is located.

But for today, just a few key markets that we wanted to show you to demonstrate that the impact of these different factors does vary by geography. Okay?

So for instance, when we look at this
-- all this picture here is for the white/black transition gap. And you can see in each of these situations, the lighter blue bar is what we saw
when we just did that national. That's the same result that was in the prior slide when we just look at the national result.

And now the darker blue bar is when we look within -- when we do it by -- for just that geography and look at what are the main determinants of the transition rate gap for just that particular geography.
okay. And unequal - and you can see kind of a few different cases here. Florida down in the far right looks very much, very similar to the national picture while California and New York -- we're surprised by California.

In California, you do get geography mattering more for African-Americans for the black/white gap there. But in New York, that was one of our starkest differences there compared to the national picture. House prices -- so there -- it could be a factor of segregation within the state or blacks living in different urban pockets or cities that are more expensive when they're pursuing home ownership potentially.

Mississippi, completely different story. Mississippi is a scenario where we actually have unequal unemployment. I have the numbers for that somewhere. For Mississippi, the mean unemployment rate for blacks is 9.8 percent. And this is just 2018, as a matter of fact, and 8.6 percent for whites. High across the state compared to the national average, but even higher for African-Americans in that state. And so that's the -- kind of the driver for that -- for the Mississippi picture.

For Hispanics, again, we see variation across markets in what is explaining the gap. So this -- if you have interest in some local policy makers or people thinking about those local effects. In Illinois, I provide that example because there, again, the lighter bar is the national picture. The darker bar is for that particular state.
When we look at Illinois, for
instance, the geography piece looks very similar to their national story. But the impact of the
credit factors is very different in Illinois for explaining the Hispanic/white gap when we look at that picture.

In New York, we do still see that the credit factor portion is a little lower while the geography piece is now higher, again, likely due to house price differentials. New Jersey is provided there. We have -- I think we were looking at some of the differences in the demographics, wanted to have a contrast, similar to the national picture for New Jersey.

Texas was one that was another stark difference that we observed where geography, maybe house prices aren't as dramatically variant for where Hispanics are living within the State of Texas. So that's what we observed there.

To summarize, the racial differences in the distribution of credit attributes does explain a large part of the racial gap. In aggregate, while racial differences and household composition contribute significantly and explain the white/black gap, geography matters more in
explaining the white/Hispanic gap. However, there is a lot of heterogeneity in the contribution of the factors across different states.

You know, we're doing this research, so it would be very natural to ask what is Freddie Mac doing about all of this and how are we thinking about some of these issues. That would be a fair question, so I'll go ahead and start it off now.

First, want to point out that we are partnering with Borrower Help Centers. Borrower Help Centers are non-profit -- it's a network of non-profit counseling agencies and other non-profits, CDFIs for instance, with HUD certified counselors providing home ownership preparation and foreclosure prevention services to their clients.

Of course, Freddie Mac has for a while now had flexible products for lenders that we want to encourage more lenders to use for -- with their client including our Home Possible and Home

One products where the Home Possible product is to meet the home financing needs of the low to moderate income borrower.

Home One is relatively new. That's for first-time home buyers to also offer a low down payment option, but it doesn't have the income restrictions or the geography restrictions that Home Possible has. Home Possible has income restrictions or geography restrictions and also offers the down payment, the lower down payment option, the higher LTV option.

We're also working with Down Payment Resource and other non-profits to assemble assistance options for consumers to help bridge the gap for the down payment that they need to link up with the actual mortgage products that they're interested in.

Okay. As a matter of fact, on our website, we have a link for our Home Possible eligibility tool, and when you go into the tool to try to see if the home and the consumer would be eligible for the Home Possible product, you
actually receive a link to Down Payment Resources that may be available in your community.

Okay. Freddie Mac has partnered with FHFA and the other GSE to offer Spanish translations of the Fannie Mae and Freddie Mac uniform documents. And the translated documents include Freddie Mac's Your Step-by-Step Mortgage Guide. These documents are available as resources for lenders, servicers, housing counselors that are working directly with their communities.

Okay. And of course, we're working with MBA, their members, other research partners to come up with more targeted strategies to expand access to mortgage credit.

Thank you.
MR. BHAGAT: Okay. Well, first let me just start by saying thank you very much for inviting me and for the interest in our research.

Just to spend 30 seconds, the JPMorgan Chase Institute, just in the event people don't know, is an internal research organization. You
can think of it as a think tank with a public good mandate.

So our goal is to use the administrative data sitting within JPMorgan Chase to do economic research, and our hope is that business leaders, non-profit leaders, and policy makers will find that research useful as an input into their decision-making processes.

All of our research is free. It's available on our website. The report that I'm going to talk about today was published back in June. The URL is at the bottom. It's -- there's quite a bit more detail there in case folks are interested.

And before I start, I'll just offer this disclaimer. This -- what I'm going to say reflects my views and not necessarily the views of JPMorgan Chase.

Okay. So the research question that we wanted to answer or attempt to answer in this piece is what evidence do we have in our data -and I'll talk a bit about what that data are --
about the role of liquidity, equity, income level, and payment burden as determinants of mortgage default.

And within that research question, we wanted to ask something very specific, which is if we took a new homeowner and at origination apply the treatment of reducing their down payment by a small amount and taking that residual cash and setting it aside in a liquidity account, and we've named it an emergency mortgage reserve account, and keeping that liquidity available in the event of financial distress, how might that impact default rates going forward.

And so just to put it -- provide a numerical example, imagine a homeowner that might put 5 percent down. Well, instead of putting that 5 percent down and being left with very little in post-closing liquidity, put down 3 percent, take that 2 percent of house price residual, put it aside in this emergency mortgage reserve account.

And what we'd like to know is how
would that impact default rates relative to a similar cohort of borrowers, so folks with similar credit attributes that might have bought a similar home. What would be that default rate differential?

To answer this question, we use a deidentified sample of Chase customers that had both a Chase mortgage and Chase deposit accounts. And I'm going to highlight two findings, and I'll talk about them in quite a bit more detail.

First, we found that borrowers with little post-closing liquidity defaulted at considerably higher rates than borrowers with at least three mortgage payment equivalents of post-closing liquidity.

Secondly, and this gets at that trade-off between home equity and liquidity, we found that borrowers with little liquidity but more equity defaulted at considerably higher rates than borrowers with more liquidity but less equity. And so from this analysis, we conclude that liquidity may, in fact, be a more important
determinant of mortgage default than equity, income level, and payment burden.

And so what I'm going to present to you in the pages that follow is really correlation-based evidence. And because it's correlation-based evidence, we come to the first implication, which is a pilot program that essentially took a set of borrowers, again, with similar credit characteristics interested in buying similar homes and applied the treatment that I described before, so a slightly smaller down payment with a liquidity account setup, comparing that to a control group that made the normally sized down payment and didn't have the liquidity account.

That type of pilot program might be very instructive in terms of the effectiveness of this type of program. And then secondly, there are some implications for how we think about the impact of total DTI as a default prevention mechanism. And it could be the case that liquidity might be a better measure of the
ability to withstand financial volatility. Okay. So that's an overview. If we dive in, as I said, the first finding, borrowers with little post-closing liquidity defaulted at considerably higher rates than borrowers with at least three mortgage payment equivalents of post-closing liquidity.

So let me define some terms and talk a bit about the data. So here we used a sample of about 300,000 Chase customers, again that had both a mortgage and deposit accounts. The mortgages were originated between 2012 and 2016.

We observed default rates for three years after origination, and we defined default as missing three or more mortgage payments. We also observed the balance in these new homeowners' checking and saving accounts in the month after they closed on their home. So this is our concept of post-closing liquidity.

And what we plot here in the line is essentially the default rates for this sample according to how much post-closing liquidity they
had. And importantly, we take that balance in their checking and savings account and we normalize it by dividing by their scheduled mortgage payment. So we take the balance in the checking and savings account, and we divide it by principal, plus interest, plus taxes, plus insurance, plus association dues, and so that gives us this concept of liquidity normalized, and we're going to -- I'm going to refer to that as the number of mortgage payment equivalents, or MPEs, of reserves.

So on the $Y$ axis of this chart, we're plotting default rates for this group. And on the $X$ axis, we're plotting the number of MPEs that they had in their checking and savings account in the month after closing on their home. And what you notice right away is for the group on the left-hand side, folks that had less than one MPE, the default rates are about five times higher than the folks that had, let's say, between three and four.

In addition, you notice as you move to
the right in the chart, the marginal benefit of additional liquidity seems fairly small, so default rates don't continue to drop once you get beyond three and four. The blue and green bars tell another interesting story. The blue bars show the share of the sample in that liquidity bin after closing. And the green bars show the share of defaults in that liquidity bin.

And so you see right away that while 20 percent of our sample at origination was in that first bin, that first bin accounts for over half of our defaults. And so this tells us that liquidity in the month after origination is an important factor in terms of the impact on default.

Flip to the next page, we'll see that this relationship persists over the life of the mortgage. So now we've done almost exactly the same analysis, but rather than measuring default rates in the first three years after origination, we take a slice or a snapshot of our servicing data in 2014. So in this case, it's about

500,000 Chase customers with both a mortgage and deposit accounts.

These mortgages were originated in 2009 or later. And now we measure liquidity in January of 2013. So again, it's the same liquidity measure that I mentioned before, and we plot exactly the same thing, default rates in 2014.

And the pattern persists here. Once again, for the borrowers who, again, over the life of their mortgage are in that left-most bucket with less than one MPE of liquidity, we see default rates are about six times higher than borrowers with between three and four MPEs of liquidity.

And again, the marginal impact of more liquidity on default rates seems to flatten out over time. And the disproportionate nature of the first bin is again evident. It makes up about a third of our sample but three quarters of our defaults.

Okay. So that's our first finding.

Our second finding on Page 5, borrowers with little liquidity but more equity defaulted at considerably higher rates than borrowers with more liquidity but less equity. And so now what I'm doing here is I'm taking that same sample that we just looked at, so the same roughly 500,000 borrowers, and we're looking again at 2014 default rates.

But now we're looking at it in a cross section, and so I'm adding in this concept of equity, and I'm adding it in by observing their LTV on their mortgage, not at origination but in January of 2013. So our observation of their home equity or their LTV is consistent with our observation of their liquidity which is also January 2013.

The Y axis is still default rates. And in this instance, we're showing that LTV on the $X$ axis. And in order to see the cross section, we're showing a different line based on liquidity. So the dark blue line at the top is the borrowers with less than on MPE, and then we
also show one to two, two to three in the light blue line, which is folks with three to four MPEs of liquidity.

And immediately you see right away that there's a significant gap between that dark blue line and all of the other lines, and that's roughly about 3.5 percentage points.

Now, I mentioned at the outset this concept of trading equity for liquidity. How are we going to accomplish that? Well, if you think about at origination -- we're going to use the following translation mechanism, which is 1 percentage point of house price at current interest rates and at a 95 LTV is about equal to one and a half fully loaded monthly mortgage payments. So again, PITIA.

So that means that I could create liquidity by taking a 1 percent of house price smaller down payment, I could create liquidity of about one and a half monthly mortgage payments if I did that exchange at origination.

Now, if you remember from the previous
chart, we saw that the steep part of that slope was between less than one and three to four. So I'm going to anchor on that, and I'm going to say, well, let's think about exchanging two percentage points of house price, so reducing your down payment by two percentage points of house price and setting that aside in this liquidity account, and that will take us from that less than one bucket into that three to four bucket. And so that's the way that we're going to make this exchange.

And so if we use this chart to think about that, what I'm -- what we're actually -the impact of making that trade would be think about taking borrowers out of a particular point on that dark blue line, sliding them two points to the right because their LTV would go up by 2 percentage points and then sliding them down from the dark blue line to the light blue line.
And you can see right away that while default rates do increase at higher LTV levels, the decrease from adding the additional liquidity
is significantly larger.
Important, important caveat, I'm not an economist, but just like Ryan, I have a caveat here. This is correlation-based evidence, right? And so the borrowers within each dot and the borrowers on each line are substantially -- could be substantially different, right? Different borrower characteristics. And so -- and that's super important to keep in mind, and I'll talk a little bit about how that might impact our results.

So what do we think that -- if I was to try to reproduce this chart but instead of just showing you correlation-based evidence, actually show you the causal version of this chart, what do we think that that would look like? I'm going to split it up, and I'm going to talk about first the impact of lower equity on default, and then I'll talk a bit about the impact of more liquidity on default.

So if I think about the first one, if
I think about the impact of more equity on
default, and that's sliding on the line. That's essentially the slop of that line. We think that the causal version of this chart would actually be a bit flatter.

And the reason we think that it would be a bit flatter is, first, borrower credit quality tends to decrease with LTV, so as I move to the right, we're talking about lower FICO scores. Now, if I controlled for that, that would flatten the line, number one.

Number two, we also think that lenders use down payment size as a proxy for the borrower's ability to save, and therefore, as a predictor of default risk. However, as you can see from the -- this chart and the previous charts, our data suggests that there's a stronger relationship between liquidity and default than between LTV and default.

And I should add a very important point here that for this discussion, we ignore the loss mitigation effects of a larger down payment. Clearly in the event of a foreclosure,
having a larger down payment makes a very large difference.

So that's how we think the -- so just to summarize, we think that the slope of the causal version of these lines would be a bit flatter. With respect to the impact of additional liquidity on default rates, here we think that -- here we're thinking about the difference in the levels between the lines. Here we think we're probably overstating that impact a bit.

And there are three reasons why we think that we're overstating that impact. First, as I talked about before, the borrowers in each point and on each line are different. And so with respect to the preferences of the borrowers on the dark blue line relative to the preferences on the light blue line, there are probably important differences in terms of preferences regarding savings and consumption, and so it's important to keep that in mind.

Second reason is that we don't see
liquidity. We don't see checking and savings accounts held away from Chase. And while we would like to believe that all of our customers hold all of their liquidity with Chase, we know that that's not the case.

If we were to include what I would call unobserved liquidity, we think that the gaps between those lines would shrink slightly, and I can talk about that more during the Q\&A if people are interested.

And thirdly, we think that one countervailing measure that would actually increase the impact of more liquidity on default rates would be to have some access requirements for this emergency mortgage reserve account. So you could imagine certain hurtles that the borrower would have to cross in order to access that liquidity would actually improve the impact on default.

Okay. So one question, natural question would be, look, you just showed me results using this snapshot of servicing in 2014.

Why didn't you use the origination sample, so that first sample that I talked about? Why didn't you use that sample to produce these results?

And the reason we didn't use that sample to produce the results is because of selection bias. And what I'm showing in the chart here, and I'll just focus really -- let's just focus on the green and blue bars.

What I'm showing here is now for both samples, I'm showing you the share of mortgages in those bars at origination. That's the blue bars. And the share of mortgages in each LTV bin in January of 2013, and that's the green bars.

And unsurprisingly, at origination, there's this big spike at 80 percent, again not surprising. There are also peaks at 90 and 95 and 99 all created by the pricing incentives that are part of mortgage financing, right?

And so you get a lower interest rate if you meet a particular LTV hurdle, but there's no additional incentive to go, for example, from
making a 20 percent down payment to making a 21 percent down payment. And so we see a lot of bunching in our data at origination that also affects the amount of liquidity people have on a post-closing basis.

Again, if there's no incentive to put down 21 percent, we'll put down the 20 , the 1 percent remains in your checking and savings account, and that spikes liquidity at 80 as well.

And so for those reasons, when we do this analysis using our origination sample, it's noisy, and it looks like this. So the message is we think consistent -- you have to squint a bit to see it, and the noise creates some of the bumpiness in the data.

Okay. In the interest of time, I'm going to skip that slide and just go straight to the implications. So I'm on Page 9.

As I've talked about, we're providing what we think is correlation-based evidence about the impact of -- the potential impact of liquidity and improving default rates. A pilot
program could test this, right? And so again, you'd set up a treatment and control framework where you had certain folks in the example that I used at the outset put down instead of 5 percent, 3 percent, take the residual 2 percent, hold it in this emergency mortgage reserve account, and compare the default rates for that group versus the control group that put down the original 5 percent.

Importantly, you'd have to think a bit about balancing access versus restrictions, right? And so you could think about at one end, if you make the restrictions too tight, the account loses its value, right? If the borrower can't actually tap into the funds, they're not helpful to the extent that they end up in financial distress.

On the other hand, at the other end of the spectrum, probably don't want to give people a debit card associated with that account because you're likely to have less of an impact on reducing default.

And then there is a lot of takeaways from behavioral finance that we could use just in terms of naming conventions, setting a target, automatic enrollment, and things of that nature that would probably increase the effectiveness.

So maybe I'll stop there.
MR. PEARCE: Thank you. We had three great presentations on different aspects of the mortgage market. I know we've got a lot of housing and market -- mortgage market expertise in this room, and so without further ado, I'll just open it up for questions from committee members.

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\text { We've got about } 20 \text { minutes to -- Bob? }
$$

MEMBER ANNIBALE: Hi. Bob Annibale. Just a quick question on -- it's so informative, all of you. Thank you for this.

And on this last presentation, have we thought about, you know, any kind of incentive for someone to keep that liquidity premium because there's a bit of a drag obviously on -in the markets, today's rates, too.

So if you had an incentive to keep that 1 percent signed, and could it be then kept in some sort of escrow. In other words, to dedicate it as a backstop, you know. You might make some difference on the interest rate, or not. And would that have then -- if this data proves itself on your loan loss reserves and other things, it should also prove your own economics and capital allocation. Have you thought about that at all?

MR. BHAGAT: Yeah, no, that's exactly
right. Escrow account would be one way to implement this type of account. And I think importantly, particularly in the treatment and control framework, but -- and if that works, you would want to provide the borrower that sets up this type of account with interest on that mortgage reserve account, for example, and potentially a lower mortgage rate --

MEMBER ANNIBALE: Yeah.
MR. BHAGAT: -- that reflects the lower probability of default. And importantly,
those two things could actually make the monthly outlays for that -- folks that have that account --

MEMBER ANNIBALE: Right.
MR. BHAGAT: -- the same as the monthly outlays for the folks that made, in our example, the 5 percent down payment.

MEMBER ANNIBALE: That's exactly what I had in mind.

MR. BHAGAT: Right. And the numbers work out. I think we looked at about a 12.5 percentage point -- 12.5 basis point discount in terms of mortgage rate, and about 2.25 percent interest. Obviously with the Fed easing, that's potentially a bit high compared to where we were in -- a few months ago.

But 2.25 percent on the balance in that emergency money reserve account would accomplish equalization of monthly outlays ignoring the effect of taxes.
member annibale: Yeah. And it would reduce your loan loss reserve requirement and
your capital allocation as a lender.
MR. PEARCE: Great. Andrea, you were talking about reserves earlier.

MEMBER LEVERE: So you can get your payment from me before you leave. I don't know if you were here when I said that we are piloting exactly this. And with Homewise, many people may know Homewise in New Mexico and with the Statewide Housing Authority in Oregon. We're not doing an RCT, but we are testing out all these different designs exactly as you're saying but in the terms of how -what's easiest way for people to set up these accounts, what are the incentives both with the mortgage or with the savings, and it is on a voluntary basis at this point.

But with the results from this -- so we'll have real live results. It takes a while obviously, in terms of what this can do. And it also, what's interesting, and it could get to Lariece's piece is how does this help people imagine themselves as homeowners as well.

And so to me, that's another benefit of what this could be doing. And we are discussing an expansion of this program with your colleagues.

Since I also have the floor, I'd love to know -- we were, Margaret and I, talking. In your data, are you looking at all at student debt?

MS. BROWN: We do. We have the student loan debt because it's part of the credit bureau data.

MEMBER LEVERE: Right, because it wasn't on any of the slides.

MS. BROWN: It is part -- we've -- I have it separate in the analysis and then we -in order just to summarize the slides, I've included it as part of the credit attributes, and it's also in the DTI.

So yes, we know whether or not they're delinquent on their student loans, as well as the amount of the student loans. So that's part of the full credit picture.

I think I mentioned in brief passing, it does matter. Student loan debt matters. It's not the major determinant of all of the credit factors. In fact, the -- of course the credit scores and income -- income matters more. But yes, student loan debt does matter.

MEMBER LEVERE: I think there's a very broad sense that it is an incredible driver of the lack of household formation --

MS. BROWN: Right.
MEMBER LEVERE: -- and homeownership. And so being able to tease out how much of it is truly that and how much is other factors would be very helpful.

MR. PEARCE: Jonathan?
MEMBER MINTZ: I just have a quick clarifying question and then a question for Ryan. Your findings around the importance of liquidity in comparison to equity I assume accounts for income. Is that --

MR. BHAGAT: We -- so that's a good
question. So we did not --

MR. PEARCE: Could you ask the question again?

MEMBER MINTZ: Oh, I'm sorry. I prefer to mumble.

I just want to make sure that your findings about the importance of liquidity in comparison to equity accounted for income.

MR. BHAGAT: So that's a great question. Thank you for that. We, at the time -- at the time that we produced this research and still today, we do not have access to credit scores for research purposes.

And so we didn't -- because of that, controlling for variables including income and others, felt wholly incomplete, and so we didn't do this analysis in a way -- in a statistical way where we control for the typical underwriting variables.

That is something that we would -that we're hoping to do going forward if and when we get access to credit scores.

MEMBER MINTZ: But then how -- I'm
going to ask this in sort of a dumb way. How do you decide that what you're looking at is in comparison to equity as opposed to being rich? MR. BHAGAT: Right. It's a good question. So we're essentially assuming that people that are in adjacent LTV bins at origination are similar.

MEMBER MINTZ: I see.
MR. BHAGAT: Not -- but not the same.
But it's absolutely -- that's something that with the ability to look at credit score we would test in a more --

MEMBER MINTZ: You also can look at deposits, can't you? Can -- you guys can -- I think you can look at models of income projection based upon direct deposits.

MR. BHAGAT: Yes, we can.
MEMBER MINTZ: Right.
MR. BHAGAT: We can. We haven't incorporated that into this analysis. The thing that we do do -- and I would direct you to the website or I'd be happy to follow up after -- is
we do show that there is a very close connection between a loss of income and mortgage default.

So for folks that default, there is a drop in income that precedes their third missed mortgage payment of only about a couple of months, and that that pattern persists -- if we break our sample up by income quartiles, that pattern persists for both the highest and the lowest income quartile.

So that's what points us at -obviously the default rates for folks in that higher income -- highest income quartile are lower than the default rates for folks in the lowest income quartile.

However, the proximity of the loss in income to the first missed mortgage payment in terms of time suggests that even folks in that highest income quartile did not have enough liquidity to withstand the loss of income.

MEMBER MINTZ: Interesting. And, Ryan, can I just ask you a super quick question? Is there a -- when you were talking about the
movement of availability and in -- of mortgages and you're talking about the versions -- I'm not a housing person, so my words are going to be wrong, but the versions of mortgages that are riskier products, is there an industry sweet spot on what that balance is? Is there a kind of a like a safe harbor-ish policy component around where ideally that mix is, presumably then to be able to encourage lenders to be hitting more of our intended market?

MEMBER BOSTIC: So I'm not -MEMBER MINTZ: I told you I was dumb about this. I'm just -- you were talking about, you know, where available mortgages were and the percent of mortgages that were riskier mortgages, right, and that obviously -- that riskier mortgages are now way down from where they were. MR. GOODSTEIN: You're talking about like --
asking is: is there some sort of a policy-based or other indicator of where it ought to be for purposes of like sound -- safety and soundness for lending institutions?

MR. GOODSTEIN: So I don't think there's a right answer on that. I mean, I can just point to, you know, there are obviously a number of people in this room and other, you know, researchers in the industry, analysts who have thought a lot about this.

So just one thing that comes to mind is like Urban Institute has a housing finance policy center. They have an index of credit -mortgage credit availability which is just sort of -- really they look at sort of the ex-ante riskiness of loans and they sort of trace that over time.

And so if you were to ask them that question, they would point to like the 2002, 2003 period as like a reasonable --

MEMBER MINTZ: Got it.
MR. GOODSTEIN: -- standard. That's,
you know, one opinion. I don't think there's a -

MEMBER MINTZ: I just wonder whether that could play a role in safety and soundness examinations that might help the lenders feel more comfortable.

MR. PEARCE: One thing that just from a regulatory perspective, CFPB has the ability to repay rule that has a qualified mortgage bucket. And one of the elements of qualified mortgage definition involves the absence of some of the risky features that Ryan was talking about from the data.

Martin then Rafael - or Rafael and then Martin.

MEMBER BOSTIC: So thank you, Martin.
MR. PEARCE: He's never done that before, by the way.

MEMBER BOSTIC: He's a trailblazer, right?

I guess $I$ had a couple of reactions. One is I agree with Andrea and Margaret. There
should be a whole separate student loan paper because the marginal impacts of student loan debt, those dynamics are not well understood, but we know they're out there. And clarity we can get on that can sort of help us partition the population.

I cannot -- I would strongly recommend that you do the controls, do some analysis of the controls when -- very early in my career, I was at the board, and we did some early warning stuff for fair lending exams, and we didn't have all the controls.

But if you do the controls and things disappear or shrink to small levels, and you're pretty sure you don't have anything else, right, and you can sort of be clear because your statement that liquidity may be more important than equity, income, and payment burden, that's a strong statement.
And to me, it just raised the question, if that's true, then probably almost all of our underwriting models are not right.

MR. PEARCE: Right.
MEMBER BOSTIC: So we should sort of really unpack this and really understand it, and yeah, it would be very interesting to have deeper understanding on.

And then my last question is really about the geography results. So they were very interesting. You showed aggregate results and then you showed breakdowns for some states and they didn't all balance out,

So for the African American/white home ownership gap, in the aggregate it was like three. It was --

MS. BROWN: That's right.
MEMBER BOSTIC: -- a small number.
But then you showed New York and Mississippi as being gigantic.

MS. BROWN: That's right.
MEMBER BOSTIC: Right? And so where are the offsets? Like how do we get to an aggregate of basically zero if you've got these big effects in a small number of places? And
like does the big positive and the big negative -

MS. BROWN: They kind of cancel each other.

MEMBER BOSTIC: -- they probably balance out, but they don't really balance out. Right? That can have implications for how we think markets will work in those places. Similarly on the Hispanic/white gap, there's a big gap there. The four examples you showed, none of them had a big gap.

So for me, it was like where are the four or five -- you ranked in order of the states by biggest contribution to gap. Like what are those states? What do they look like? How does that play out?

And then the other question, the last question $I$ would have, is: is this at the state level? Can you do this at the MSA level?

MS. BROWN: I think we can. We have

MEMBER BOSTIC: Because that would be
super interesting.
MS. BROWN: -- county data.
MEMBER BOSTIC: I think about, like I say, for Florida or Texas where you have significant demographic variation, or Ohio. Cleveland, Columbus, Cincinnati, they're not going to be the same.

MS. BROWN: That's right.
MEMBER BOSTIC: And so just sort of breaking that out I think would be really interesting for -- you know, for helping to think about how -- what's really driving these differences and getting that understanding. But this is all very interesting stuff.

MS. BROWN: Yeah. Thank you.
Just a quick comment, thank you so much for the additional paper idea. We're always looking for those.
(Laughter.)
MS. BROWN: For the -- I think we can do MSA level. We actually received feedback to do the state level. We had not done that in an
earlier version of our draft. So if our data allows us to go more granular, I think we'd be interested in taking a look at that.

On the student loan piece, I -- you know, maybe in a future iteration we can even have the bar graph just with the student loan piece broken out. It is in our data. I do -wanted to look up what the magnitude of that impact was for you.

> We have -- when we include the student
loan relative to the income, the effect of that on the likelihood of transitioning to a mortgage is -- it decreases that likelihood by 1.3 percent. And - but that's the -- that may sound small, but that's with a lot of other factors in play. Put that in context with another similarly scaled measure such as house prices relative to income, for instance, that is a negative 5.6 , so there's -- that's a larger effect than the student loan debt.

However, another smaller effect is the auto debt and the credit card debt, which we also
include as separate controls, and those were actually much closer to zero in our analysis. So there -- it matters, but there's a lot of different things. So it may sound like a small effect, but it does matter.

MR. PEARCE: So Kanav, did you want to say anything on here?

MR. BHAGAT: Yes. I do -- yes.
MR. PEARCE: I just want to give you a --

MR. BHAGAT: Thank you very much for the suggestions. And that is absolutely -- once we have access to FICO, which hopefully knock on wood will be in a few months, we will absolutely do --

MEMBER BOSTIC: Yeah, don't wait for FICO.

MR. BHAGAT: -- we do the tests.
MEMBER BOSTIC: You could do it right now. Like to me, if you ran the analysis and you had payment burden, liquidity, and income all just together, you're going to get three
coefficients that will rank order their importance.

MR. BHAGAT: Right.
MEMBER BOSTIC: Right? That's a baseline. And that will give you some sense. You know, credit score in my experience basically just reduces everything. It has not historically led to sort of those interactions such that the ranking changes. So I think you can know much of the answer now.

MR. BHAGAT: Right. One thing we have done is we've looked at -- we have looked at event studies around mortgage default, and whether you segregate your sample by total debt to income above or below 43, whether you look at the highest income quartile or the lowest income quartile, or whether you look at under water versus above water in terms of home equity, the connection between the income loss and mortgage default is always there, and it's always income tends to drop somewhere between one and three months before people start missing their mortgage
payments. And so it suggests to us again these other factors might be compounding factors, but the single constant in all of those equations is this drop in income that --

MEMBER BOSTIC: So can $I$ just react to that because, you know, life happens. What you're saying, you live, and then there comes an episode and you lose your money, you lose your income, and so you default.

I don't think that would surprise anyone here. I guess for me, the question is like if I'm ex-ante, and I'm looking at an applicant or I'm trying to figure out who needs the extra counseling or extra servicing attention, like what information would be useful? And that's kind of why I want you to just give me everything you know about me right now, and can $I$ use that to identify my higher risk population, and maybe if you have other algorithms to say who is more likely to have life happen, right? But that's a different kind of exercise. And so the part -- like separating
them out I think would be really an important -MR. BHAGAT: Yeah. MEMBER BOSTIC: -- but useful thing. MR. BHAGAT: No, that's a great suggestion. We'll absolutely do that. And I think part of me wants to say that knowing what I know already is that -- and the reason why we think this emergency mortgage reserve account might be impactful is because life does happen, and actually predicting ex-ante who it will happen to and when is super hard. And that's why the presence of that liquidity through this reserve account we think could be super impactful. But it's a great point. Thank you for that.

MR. PEARCE: Martin, and then I thought I saw Margaret raise her hand, if you want to give that -- and then Pam at the end.

MEMBER EAKES: Thank you. These are
all fabulous presentations of data and really appreciate it. I have a question I think for each of you.

Kanav, the first one for you is I would like to see some sort of breakout on race and wealth. When you talk of that three payment equivalents, $I$ think that that will eliminate virtually all black applicants that if we said that the wealth or cash wealth for black families, the median is $\$ 200$ to zero, you're not going to have -- and it's somewhat consistent with what I think I remember from HMDA data for Chase that it was a little bit truncated for African American borrowers during this time period for low LTV -- I mean, high LTV, low down payment loans.

So when you break them out, my hypothesis listening to you is that you are really -- you're proxying for wealth, for family wealth, and you're excluding by having the three payments. In that category, the risk factors -that somehow race is going to play in there, it's going to be -- I agree with Rafael that credit score is generally a compilation of other variables so that it by itself doesn't give you
much intuition about explanatory power that the underlying variables do.

So I don't know. I mean, I would love that.

And just another data geek point is that since you weren't measuring cash in accounts that were in escrow, these were just actual operating accounts that they had, and the way that you define default as being three payments behind, that if you have cash and people use their cash to make the payment, of course you're going to have a lower default if you started out with three payments as a gimme.

See what I'm saying? That if you have cash there and you got behind one month, and you depleted your cash by one month, you got behind two months, you got behind three months, by defining it as three months past due within the first three years, then the people who actually default who started with a lot are really six months past due. They just had reserves to make that payment.

So one of the things we learned early on is that delinquency does not ultimately equal default unless you have a period like 2008 through '12, and lots of people who have very low cash reserves, they get behind 90 days --- I mean, we did this for 30 years -- and they catch up. They catch up when things get better. They have the same life events: death, illness, divorce, job loss. Those are the four income disruptors that really hit you.

So I just would love to see that for -- but Lariece, what I wanted to ask you is a thought about DTI. So DTI is the most robust discussion right now trying to figure out the qualified mortgage, whether or not we go back to a 43 percent DTI without any GSE patch.

And Peter Zorn, one of your colleagues, had done a paper at Harvard, which you may have seen or disqualified, I'm not sure, but basically concluded that 95 percent of low income borrowers, which would be a good proxy for communities of color, would be excluded from
being approvable loans if you had a 43 percent debt to income ratio.

So it's -- my question is whether you think that that is a valid standalone overlay, or whether it should be built into the model with all the other compensating factors. And then for you on student debt, the piece that $I$ wanted to comment or think about there is that anecdotally, when we see borrowers and we see, you know, a few thousand, so it's not enough to really conclude anything, we're seeing that a third of the applicants we have that are African American are disqualified from getting loans, not that they get the loan and then default later. They simply are not able to even qualify because of the student debt.

So that when you do your study on student debt, in addition to seeing whether it impacts the default for people who get the loan, if there's some way to measure how many people disqualified and don't -- aren't able to get the loan at all. And finally, Ryan, I was thinking
about -- and I don't know the answer to this, but it's really interesting to me, is that thinking about what causes a bubble and then a collapse. And most of us think of it as loose underwriting. So we had several places in there where you concluded that the underwriting is nowhere near -- I mean, despite the rhetoric we sometimes hear in the press, the market still feels pretty tight in terms of underwriting in even the special programs where we used to try to have 20 percent of borrowers below 620, nobody's trying that anymore.

The question is can we get the minimum threshold to be lower than 680? So the -- and all the products that went away with Dodd-Frank were clearly part of the problem.

The question is can you have a deep recession that is based on asset bubble that is simply the fact that we've got real interest rates at zero or negative for a long period of time so that asset prices are going up. Can you have a bubble just from that without having the
additional increment by loose underwriting?
So loose underwriting creates defaults, but it also creates more demand. So I'm trying to get you to break those two out if you have any intuition at all from the data that you presented.

MR. GOODSTEIN: So let me just repeat the -- again, I want to make sure I sort of get where you're going with that. So are you asking whether, you know -- so given that for the most -- you know, from what we see the loan products themselves don't have these risky features. Are you asking whether -- how likely it is that we're going to see sort of a fall in real estate prices?

MEMBER EAKES: Yeah. I mean, what I took from your presentation is we haven't seen underwriting in terms of FICO score and other things really deteriorate back to 2005. We don't have any of the products of the NegAm, No-doc, all those kinds of products that were essentially prohibited under Dodd-Frank.

So I'm asking -- and so you were concluding from that, I take it, that we're really not near to hitting a 2008 event. And being the paranoid fool that I am, I'm sort of thinking if we also haven't had a period where we had 10 years at zero interest rate, real interest rates, that do we have an asset bubble.

MR. GOODSTEIN: Right.
MEMBER EAKES: Could that alone create a collapse without underwriting weakness?

MR. GOODSTEIN: So yeah, I guess I'm -- so I don't really know the answer to that. I guess, what I -- I do sometimes worry when I make a presentation like that I'm too rosy, you know, in terms of, you know, trying to make the point that we're not --

MEMBER EAKES: It's better to be rosy than a paranoid fool.

MR. GOODSTEIN: I mean, you know, there -- underwriting is loosening, right? There are loans. You know, so for example, you know, I shared credit score trends.

LTVs are going up, DTIs are going up on average, so I mean there is some risk going back, you know. Risk is expanding.

That, together with, you know, the fact that we have not had a recession, you know, so I think performance of loans is going to deteriorate.

I mean, I -- certainly when we see the next recession, right? The question is: how bad is it going to be? You know, I don't have a great answer to that other than I don't -- you know, $I$ don't expect it to look like that.

MEMBER EAKES: My own intuition is that the underwriting risk that's been assumed now --

MR. GOODSTEIN: Yeah.
MEMBER EAKES: -- is maybe 10 percent of what it was in 2005 or -- I mean, it's, you know, we had 25 percent of the entire mortgage market that were subprime exploding arms that had no chance of doing anything but exploding into foreclosure. We don't have any of that now.

MR. GOODSTEIN: Right.
MR. PEARCE: So I've gotten permission from the conductor of master of ceremonies here, we are already over time, and so I want to go to lightning round.

And so anybody has a quick response to one of Martin's questions, if we could be quick, and then I want to try to get Margaret and Pam to have a moment to ask a quick question, if we could have another five minutes or so.

MS. BROWN: Thank you. We -- you've -- this will be quick because you've touched on a topic that in my current role I can't speak much on at this point with respect to the DTI potential overlay.

Peter Zorn is still in the business of dealing with trying to make sure that the models are incorporating the risk associated with DTI as robustly as he possibly can with his particular group.

And yes, you're absolutely right that minorities are going to be kind of
over-represented and that higher DTI range, so that would be relevant considerations for those who are able to make those considerations, of which I can't.

MEMBER EAKES: Study which didn't use Freddie Mac data said that DTI alone between 43 and 50 would add like two to four loans of default per 10,000 loans.

MS. BROWN: Right.
MEMBER EAKES: Very small --
MS. BROWN: Additional default --
MEMBER EAKES: -- additional default and --

MS. BROWN: -- relative to the --
MEMBER EAKES: -- very high amount of exclusion for access.

MS. BROWN: Right. And the student loan piece I think, yeah, we're definitely interested in taking a look at that group, thank you.

MR. BHAGAT: So I'm not prohibited from commenting on total DTIs.

MR. BHAGAT: Everything that we have looked at has suggested that total DTI is not a particularly effective measure for preventing default. There is academic research that suggests that had the 43 percent limit been in effect in the pre-crisis period, it would not have had a material impact on defaults during the crisis, just as -- just to provide one example. And our research suggests something similar.

With respect to the point you made on a breakout by race and wealth, I think it's important to note that because we're talking about trading equity for liquidity, and if you were going to make whatever down payment you were going to make whether it was 3 or 5 or 7 or 20, reducing that slightly and taking that residual cash and putting it aside in a reserve account, it shouldn't impact affordability at all, right?

We're not asking for additional
liquidity. We're asking for just the same amount of the down payment you were going to make, make
that down payment slightly smaller and set up this liquidity account. So I think that's important to note. I think the cuts by race and wealth are still super important, but $I$ want to emphasize that we're not impacting liquidity in the way that -- in a way by having an additional down payment or an additional cash requirement.

MEMBER EAKES: That's your proposal, but your data that you had doesn't make that breakout because it's not an escrow account. MR. BHAGAT: No, that's right. Absolutely. Absolutely.

And then just with respect to -- yes, it does seem somewhat mechanical like if you have money in your account, you're going to make your mortgage payment. But that -- I would just note that that effect seems to persist over three years. So the level of cash that you had in the month after closing seems to be impactful for three years hence.

> And so I think it's -- that's the thing that I think is powerful. But you're
absolutely right that there is a mechanical relationship between the amount of cash you have in your checking account and whether or not you can make your mortgage payment. So point well taken. Thank you.

MR. PEARCE: All right. Margaret, can I ask you to ask your question?

MEMBER LIBBY: Yes. I will ask my question much in the way that $I$ made my final statement earlier, try to like by not asking it or keeping it short. But just short of building on the questions around the student debt, and I think that breakdown that Martin eluded to around race ethnicity, but I think even more broadly I would be really interested in looking at cutting these data by gender as well, just knowing how the race gap I think is -- or the racial wealth gap, I should say --- is really I think intersects with the gender wealth gap, and would just be really interested in -- I don't know if that's another paper idea, but --

MR. PEARCE: You've got a lot of work
to do, right?
MEMBER LIBBY: Yeah. Yeah.
MS. BROWN: Thank you.
MEMBER LIBBY: But thank you all, this was really --

MS. BROWN: Yes.
MEMBER LIBBY: -- very interesting stuff.

MR. PEARCE: Great.
And Pam?
MEMBER PATENAUDE: Ryan, you list four government loans on the second slide on the non-bank share of mortgage originations. John Weicher and I don't know what FSA stands for. The VA, FHA, and Rural Housing?

PARTICIPANT: Yeah, farm -- it's farm credit.

MEMBER PATENAUDE: Oh, it's farm credit.

MR. GOODSTEIN: They're both rural housing programs, right? Yeah. But most government loans are FHA or VA. These are
smaller programs.
MR. PEARCE: And anyone else with a question, we'll -- we can cover during the break maybe.

So thanks again to the panelists for the work on the mortgage market.
(Applause.)
MR. MILLER: Why don't we reconvene at 2:50, and we'll try to make up a little bit of time. Thank you to the panelists.
(Whereupon, the above-entitled matter went off the record at 2:41 p.m. and resumed at 2:51 p.m.)

MR. MILLER: Well, we've -- as we often do, we saved the best for last. So Emerson Hall, the associate director in consumer community affairs, is going to moderate this panel for us. Emerson?

MR. HALL: Good afternoon, everyone. I'm delighted to have an opportunity to be here and to moderate this panel on sustainable bank accounts.

It's always a pleasure. I think this is my second time, but I've been to these meetings probably about four times now, and it's always a pleasure to be the last panel because you get a chance to hear a lot of the comments that takes place during the day.

I always write out my remarks, so I'll know exactly what I want to say because at the beginning of the day I have certain things I want to say, and towards the end of the day I have other things I want to say because of what I've heard.

> But it's been really interesting today. And as John has said, I'm an associate director of community affairs, recent position that I was selected for. But I'll -- I do want to share this because of the fact of what I've heard today is every time I come to these meetings, I get inspired. I get motivated. I get encouraged, energized as a result of listening to what you guys share with us.

We provide a lot of information. We
have good panels that provide quality information, but you guys give us good feedback. In community affairs, it's our job to go out and execute the strategies to try to get results, impact, and outcomes.

And what I see and what I hear when I'm in the meetings here is $I$ get a chance to be among the champions, the heroes, those that are actually not just talking the talk but walking the walk. I was impressed by all of you in regards to the information you shared this morning, and I was particularly impressed with the information that Martin shared. I had a chance to talk to him at lunch about black mothers. I have a black mother, and it certainly is -- we don't just talk about what we're trying to do. We're talking about what's actually being done, and that's impressive.

So we get as much here at the FDSE as we give, and so we certainly appreciate that. So I'm going to get on point here with my remarks. But we have a great panel. We appreciate you
guys staying the entire day to get a chance to participate with this panel as well.

So again, my name is Emerson Hall, and I'm pleased to have the opportunity to come before the Committee as a moderator for this panel today. One of the key challenges to expanding participation in the nation's banking system is undoubtedly getting the attention and commitment of unbanked and under-banked consumers. And for all -- most people, including the unbanked consumers, don't wake up in the morning thinking about their choice of financial service providers.

So our panel this afternoon will
showcase and address several effective strategies that have helped increase the rates at which consumers are willing to consider to obtain and use bank accounts. Experience has taught us that sincere intentions and enormous efforts do not necessarily translate into successful outcomes.

To help us, our panelists will draw on a wealth of experience, research, and insight.

First, we will hear from Lindsay Ferguson, director of strategic engagement for America Saves. Lindsay is responsible for creating and managing American Saves outreach week, communications and partnership strategies including ongoing technical assistance for new and existing America Saves local campaigns. Ms. Ferguson has been in the non-profit sector with a focus on financial stability for over a decade. She will share with us principles of social marketing and behavioral economics that motivate and encourage Americans to save. Over 710,000 Americans have established saving goals and created savings plans using the America Saves pledge.

Next, Katy Davis, managing director for ideas42. Ms. Davis oversees portfolios in financial health, charitable giving, and related areas. Katy has more than 13 years of experience working across the public and private sectors in economic development, finance, and behavioral design. At ideas42, Katy has led engagements in
applying behavioral science insights for financial institutions, fintech startups, colleges and universities, housing providers and asset building non-profits. Ms. Davis will present topics addressing behavioral perspective, closing the intentional gap, what deeper supports look like, and what bid design means.

And finally Amelia Erwitt is managing director of Cities for Financial Empowerment Fund. Amelia provides leadership for CFE fund staff in the development and execution programs, technical assistance, research, policy and communications. Ms. Erwitt will share findings from research they have coordinated to uncover what types of messaging can most effectively move unbanked people to consider opening bank accounts.

> So as you listen to these
presentations, we would encourage you to consider what resonates with your own experiences, and conversely to identify where something you are hearing that's not consistent with what you may
have thought before today. So we'll start with Lindsay.

MS. FERGUSON: Okay. First of all, I want to say thank you for letting us be a part of today's meeting and share with you what we are doing at America Saves. I just want to highlight what I'm going to talk about. I'm going to share a quick overview of America Saves, who we are, what we do, share with you some of the communication strategies that have been most effective for us, what that looks like, what are the interventions we're using. I'll talk to you about how we're engaging with financial institutions at a national level, and then I'll wrap it up with showcasing what we're doing at the local level through our local campaigns and the financial institutions that they are working with.

So America Saves, who we are, we're an initiative of the Consumer Federation of America. We were founded on principles of social marketing and behavioral economics, and our main mission is
to motivate and encourage Americans to save. We focus on those who are most vulnerable, and we focus on creating savings accounts with at least \$500.

We focus on two main audiences throughout all of our campaigns, our initiatives: savers, which are individuals or Americans who are aspiring to save, they need a little bit of help to save, or just seeking more information about saving. And Emerson mentioned to date we have encouraged over 710,000 Americans to create a goal and a savings plan with the America Saves pledge. Our second audience are what we call partners, which are organizations that use the plug and play resources, messaging tools, et cetera, that we provide to help them promote saving and taking financial action to a targeted community or audience.

So the nucleus or the foundation of our campaign and all of our initiatives is the America Saves pledge. This is a simple savings plan that allows somebody to make a commitment to
saving, which we know is important when it comes to behavior change. Write down a plan and create a savings goal. And after that, we follow up with them with ongoing, what we call saver supports, which essentially are nudges and communication strategies to help them accomplish their savings goals and be more successful at saving.

So I do have some statistics I wanted to share with you from some recent surveys. We did a saver survey in 2017 where we asked our savers, those who have taken the pledge -- again, when I use the term saver, it's the people who have taken pledge. We've asked them how regularly are they saving or putting away money since after taking the pledge. And 60 percent of them told us that they are saving and putting away money on a regular basis versus before they took the pledge. That was only 29 percent of them.

We also recently used -- played around with the statistic that, you know, the now famous
\$400 statistic and polled our savers through a text message and asked them if they had enough -$\$ 400$ for an emergency. And 69 percent of them said yes, and 31 percent of them said no. And these, again, are the individuals that are receiving what we call our saver supports. So they're getting those ongoing messages about saving, reminding them to save, giving them information, et cetera.

And I just want to share with you all that the top savings goals as of last week -- I think I pulled them --were emergency fund, debt repayment, and vacation or a special event. So I wanted to uplift here that these savings goals kind of change, and -- but consistently we have seen emergency fund and debt repayment be one of the top savings goals for our campaign.

So the main interventions that we use to encourage Americans to save and our savers specifically to take financial action are email, text, blog, and social media. We are communicating with over 100,000 savers through
email and about 50,000 through text message on a weekly basis. Our blog is robust and we're always directing them to more resources that we have been creating in-house. And then for social media, we have an expansive network of about 25,000 followers on Facebook, another 15,000 on Twitter, and then our Instagram is growing since we know that's a new hot social media platform.

So I put on the screen kind of what we're sending through text message because I think it shows a lot of the objectives I'll talk about in a minute that we're using. So actually, I'll talk about the objectives first. So we really have made a conscious effort to have objectives for all of our communication strategies so that we're not just sharing out information to share out information, right? We know that we are being inundated with information from all over the place. And America Saves doesn't want to get lost.

So we made sure that all of our communications are accomplishing one of the five
objectives, and I left one off, so I'll have to share with you guys what that is last. It is to provide a value, so something that is a tip, information, something of value for that individual, provide support. Again, this is when we check in with them on their savings goals. Have you made your savings deposit this month? Response seeking, we want to have a relationship with our savers, and we know that a relationship you have to have engagement. So we want to have them share something back with us, whether it's that statistic I shared with you earlier when we asked them: do you have $\$ 400$ for an emergency fund?

We obviously send them nudges or reminders. It's the 15 th of the month, some of you may have been paid. Don't forget to transfer money into your savings account. Then the one I left off, which is I think one of the most important ones is humor. We have started to incorporate humor into our communication strategies, again, to try to rise above some of
the noise and be more -- have a personal approach with our savers to let them know that we're people, too. The people that are sending you messages about savings has humor as well.

So the two yes and no kind of
statements here, those were the responses that were automatically populated after we asked the question: have you made your savings deposit this month? And if they replied yes, we say, like nicely done, save automatically with split deposit to transfer money into your savings account every paycheck, and then it links them to a helpful resource from our website. If they say no, we let them know there's still time. Here, you know -- here again, is a way to split your deposit.

And I think these are really, again, humanizing what we do and telling people like it's okay if you have not made that savings deposit this month. And again, these messages are going out on a weekly basis to all of our savers. And oh -- well, I'll go back really quickly
because I wanted to lift up something here, too. Some things that we have been really making a conscious effort to do when it comes to communications is removing any type of saver chain.

So all of our communications are, again, we're trying to make them more personal. We're removing the "skip the \$5 latte" statement as a part of our communication strategy, and we're really making a conscious effort to meet savers where they are, and we're introducing a think like a saver mentality where saving is for you, it's not for me, it's not for America Saves, it's not for your bank, it's for you. So we are truly making a conscious effort with our communications to incorporate that language.

And then, of course, we're also incorporating video, images, GIFs, and we are shortening our messages because we all know that the more information you can punch in a couple sentences, the better, right? So that's kind of our communication strategies, what's working, and
what we're finding. And then I wanted to talk to you guys about financial action, which in our case means specifically working with financial institutions.

So the theme of taking financial action is one of the key messages throughout our entire campaign. While we're wanting to motivate and encourage Americans to save, we want them to do something with that money. So we want them to put it into a safe and secure account, set up automatic deposits, set up split deposit. You all know the drill. So that is a common theme throughout all of our messaging, and we work with financial institutions to provide safe and secure vehicles for our savers to take financial action throughout all of our America Saves programs.

So we do have programs that are actually embedded into financial stability programs through our Young Workers program which targets youth employment programs. And then we also have the Split to Save program which targets employers. It provides them a platform and an
avenue to share information about split deposit with their employees. So a piece of all those programs is working with the financial institutions so that they have access to a safe and secure account.

And then another way that we're working with financial institutions on a national level is obviously through America Saves Week. We have had America Saves Week since 2017, and since then financial institutions have been a large participating organization of the week.

Last year we had around 2,000 participating organizations, and of them over 400 were from a financial institution. And the financial institutions are using the week to just amplify the savings message to their communities, and again amplify that they do have safe and secure products that people can take advantage of.
We also are highlighting those
financial institutions who we think are going above and beyond to promote saving and provide
safe and secure accounts through our Designation of Savings Excellence program. So last year, we awarded 18 financial institutions and you can see some of the impact that they made here on this screen. Over 246,000 people have deposited over \$500 million during America and Military Saves Week 2019. And this is from that group of 18 who we awarded the designation to. It's an application process and then they also are -their application is reviewed by a committee for both banks and credit unions.

And then lastly, I just wanted to highlight what we're doing at the local level through our local campaign network. So America Saves, we have almost 70 local campaigns across the country who basically use the America Saves branding, resources, tools, et cetera, to share the message of saving to their specific community. And with that, we provide a lot of technical assistance. So we provide them their own branding. We provide them a database. We provide them a website, and then we also make
sure that they are connected with a financial institution, the more the merrier, but at least one in their community.

And a great example of this is LA Saves, which is actually a part of the AEI network in Los Angeles. And it is coordinated by a local non-profit, but they have over 100 organizations that support the campaign. They have embed what they call team leaders, which are volunteers from various financial institutions and organizations that go in the community and talk about saving and talk about financial -taking financial action through various events and outreach opportunities. So I wanted to make sure that we gave them a little bit of credit since they are part of the FDIC family.

And that's kind of it. I just want to make a selfish plug here that America Saves Week is coming up in February 2020, and I hope that you and all of everybody in the room can participate with us.

MEMBER LEVERE: You have an extra day.

MS. FERGUSON: I know. We do. We do. So thank you.

MS. DAVIS: Good afternoon.
There's a great cartoon. I don't know if any of you have seen it. It shows a boy sitting in a classroom with his hand up, and he's saying may $I$ be excused, my brain is full. I'm sure that's how many of us feel right now. So I'll try to keep things as lively and entertaining as Lindsay has.

So some of you may have seen this image before. It's sort of a classic in the behavioral economics world.
(Laughter.)
MS. DAVIS: I think it really captures a couple of important things about humans. And it really describes not other people that we're designing for, but all of us. So these fellows have made it all the way to the gym. They have their towels in their hands, and yet at the last second, they're taking the escalator instead of the stairs.

I, of course, packed my gym shoes coming here to D.C. Did I take them out this morning? No, I did not. So they actually made it farther than I have. But this tells us how humans have very good intentions when it comes to things like healthy eating, exercising, financial management, not texting while we're driving, but that doesn't mean that we necessarily follow through on these actions. And it's not something where we want to say humans make mistakes or are fundamentally flawed, but it's just the way our brain is designed. It means that we react to our context.

So consider if this staircase and escalator had been placed in slightly different places, you might actually see a very different outcome here. And that's something we see from social psychology over and over again is that as humans, we react disproportionately to our environment. Now, that's actually good news from a design perspective because it means that the way we design things, the way we craft messaging
actually can have a lot of impact on how people behave.

It's easier to imagine how people might behave when we're designing tangible objects because you can imagine how someone might interact with them. It's absurd to imagine that someone could use this fork and successfully lift food to their mouth. It's absurd to think that someone could use this teacup and teapot to actually drink a steaming hot cup of tea.

It's harder to imagine how people might be interacting with financial products, and that's often because they're sometimes intangible, and often the way that people interact with them is subconscious. Even they might not be aware of exactly why and how they're making decisions. So as designers, we should be using what is known in behavioral science about human behavior to be able to better predict how people might interact with my product.
I'm sure this study is also familiar to everyone in the room. So over the past few
decades, there have been many explorations of financial education as a way to increase financial well-being. This meta-analysis back from 2014 looked at over 200 studies of traditional classroom-based workshops around financial education and financial literacy. Now, the general findings in that meta-analysis were that, yes, these types of workshops can increase people's knowledge in a measurable way. Unfortunately, that doesn't mean that they translate to a lasting change in behavior over time.

And a more recent meta-analysis that came out last December in 2018, again, reexamined that set of studies, and they actually found two examples of successful financial education programs -- one with the U.S. Army, one a Brazilian program conducted in high schools, and found positive results from those studies. So I think the takeaway here is not that information doesn't matter. But why might some of these programs not be successful?

There are a couple of reasons. One is perhaps the information that I'm receiving isn't relevant to my life or isn't translated into something that I can apply. Often they teach abstract concepts like the value of compound interest or saving over time, but they don't translate that into something I can do today in my own life.

A second challenge is information decay. As humans, we don't remember things persistently throughout our lives. There's a decay effect. So even if I learn something in an eight-hour workshop, I may not remember it two years later, especially if it's about a future action that $I$ might take.
(Laughter.)
MS. DAVIS: So knowing that, what are some ways that we can prompt people not just to understand, to learn, but also ideally take action in the same moment to improve their financial health?

And just to share a quick example from
ideas42, we worked with Alliant Credit Union. it's a credit union based in Chicago but with a national membership base where they rolled out a new mobile remote deposit capture feature. We're very excited about it. Sent out many solicitations to their member base, and probably not surprisingly to anyone in this room, most people did not even try that new method of depositing.

So our objective here was to think about: how can we encourage members to try this given that it's much more convenient to not go into a branch or mail in your deposit and continue using it over time? So we believe strongly in not taking behavioral interventions and throwing them into the field, but really trying to understand the context.

So first we started looking at existing data and we found that actually once members used mobile deposit once, they were quite likely to continue using it over time. So we saw once a subset started depositing, they continued
persistently, which meant that we don't have to sustain this behavior over time. Maybe we can just get people to try it once, and there will be some persistent effect.

We also started talking to members and asking them their perceptions of mobile deposit. At first, we thought that most of the answers we would hear would be around things like trust or data security or comfort with technology. But instead, these were the kinds of answers we started hearing. First was just that the app wasn't top of mind. They remembered vaguely there being some kind of mobile deposit thing, but they couldn't recall, and they didn't think about it at the moment when they actually might use it.

So we designed a communication that went out to members. It was personalized and addressed to them. It highlighted some social norms around other Americans using mobile deposit, and it was signed by a real person from Alliant Credit Union, so it felt personalized.

We wanted to send it in a large envelope, knowing that often what distinguishes something in the mail can be the size and the appearance of the envelope, and that good things sometimes come in large envelopes like college acceptance packages. Unfortunately, that was cost prohibitive in the real world, so instead we put some messaging just on the outside of the check highlighting what was inside.

And the thing inside was actually a $\$ 5$ starter check for people to try out mobile check deposit. This was based on hearing from people that, yes, they were interested in mobile deposit, but when it came time to get that paper check deposited, it was just easier to do what they'd always done. This is status quo bias, right? Even the thought of switching to another method and the uncertainty and effort involved can be prohibitive. So we put a starter check inside the package, and we had very clear step by step instructions of exactly what to do.

A third thing we found from members
was that they had tried the starter check -sorry, they had tried the mobile deposit feature, but it didn't work. And often these were preventable things like the person putting it down on too light of a surface for the check to be captured. So we actually created a little place mat where they could put the check right in between the window and follow the instructions, and they would already be able to see what correct and incorrect capture would look like. So this fun kit went out to members. We randomly assigned members into a treatment group that got this package as well as a control group who got just standard messaging about the value of mobile deposit generally. So this chart shows mobile deposits per thousand members. It does not include the starter check itself. So you can see here where there was an initial excitement effect after people got the starter check, and it definitely dipped over time. You can see there's a persistent increase in usage of mobile deposit between the treatment and the
control group.
This ended up translating into doubling adoption rates. It was about a 40 percent increase in mobile deposits relative to other methods. And interestingly for Alliant, it actually increased the total number of checks deposited, not just deposited from mobile, suggesting that it didn't just switch people in terms of what channel they were using, but it actually ended up bringing in more deposits, which ended up making this more economically sustainable for the credit union given that a \$5 starter check for every member can be a little costly.

So that's a fun example where we have a group of people who are maybe likely to be using a feature but simply aren't following through on that action. That's what we call the intention action cap. But often when it comes to financial health, there can be more complex situations to tackle such as savings and debt reduction, many of which Lindsay has already
talked about.
So I wanted to highlight one other example which is a partnership with multiple credit unions in the Pacific Northwest around a program called the Financial Health Check. And the basis for that financial health check was the recognition that wealthy people have access to very deep supports via wealth advisors, and not everyone else does. And oftentimes, those supports can be very specific, such as debt counseling, but may not cover everyday things like savings and basic debt reduction.

So the financial health check was created as a moment for members to schedule time with their credit union to make decisions and take actions just around setting aside savings for making reductions in their debt. We tested in-person vision -- in-person sessions in an earlier pilot and then tested a 30-minute phone call in a second pilot.

We had live support from a human, and I think importantly, that human could actually
mirror the member experience to see what they were doing in online banking and help them through those action steps.

They were able to, similar to a financial coaching session, identify some personal goals, labeling them in a really vivid way, hopefully setting up a labeled savings account for that goal, and then making a concrete plan about how much of their cash flows could be put aside on a monthly or weekly basis to reach that goal.

And then they got support in real time to set up an automated transfer or set up some sort of reminder for the future for themselves, knowing that members who are in more complex situations would be routed to debt counseling or a debt consolidation agency.

So the financial health check has shown positive results on savings. We did a randomized control trial and found positive impact on the number of savings deposits. We saw a positive impact on total dollars deposited,
although that was weaker in terms of statistical significance.

We actually didn't see any impact on debt probably because a large percentage of members did not take debt actions and the ones who did were often referred to outside agencies to handle those more complex situations.

But I think we're in a moment now where we do see this positive effect but we really want to know is this impacting the people who could benefit from it the most who may not have 30 minutes to spend on the phone with someone or an hour to come in in-person.

So we're doing some work now to think about more scalable solutions and we're doing some testing with an academic at University of Washington who specializes in study of emotional stigma and shame and thinking about what kind of language makes someone more likely to engage.

So we're running some tests around normalizing language to help members who might be in financial distress and feel like it's not
stigmatized, it's normal, many Americans experience this and hopefully make them more likely to engage.

And here are my caveats at the end of these two examples. In behavioral science we find that there really aren't one size fits all solutions.

There are themes, there are common trends, but often people make the mistake of taking a behavioral tool that worked in one context and just blanketly applying it to other contexts.

Here's where we really want to emphasize the point of designing with communities as opposed to four communities and really listening to the barriers that people perceive in their lives.

And I think a lot of those barriers, some of them can be overcome with smart behavioral design or messaging, some of them are much deeper and core to the way products are structured. And there's where I see a lot of
potential to change the way products are delivered on the way that would have outsized impact on outcomes.

So first we hear from a lot of families about liquidity barriers, about being concerned am I going to actually be able to access my money when I need it when I'm managing a very tight budget and tight cash flows.

This is a quote about someone not having a bank account because they save their money below the mattress. If there's an emergency, the money is right there when you need it.

And here, I think there are inroads to be made around settlement speed of transactions so that people can get their money quickly when they need it in real time as well as what Andrea referenced earlier about now, soon, and later, about easing restrictions on accessing funds from, for example, a standard savings account where you might not be able to make more than six withdrawals in a month. That alone can be a
deterrent to someone having an interest-bearing savings account.

Secondly, around trust barriers, we all know that many disenfranchised communities rightfully have lack of trust in the financial mainstream in wondering whether that money is really going to where someone says it is.

We recently did some primary research and talked with families who actually go together in a group to the bank because of concerns around those trust and not wanting to engage with people who work in that bank as well as documentation issues and being concerned about asking for identification while they're in there.

And that gets to some of the structural barriers. We're all aware of the very real risks around documentation for people when it comes to accessing these financial institutions and we hear these stories over and over again around even if there aren't actual barriers there, the perception of barriers that prevent people from engaging.

Finally, I wish I could have spent all day today talking about scarcity. For those of you who are familiar with the scarcity research, it's really about how when someone is in a state with limited financial resources our mind naturally tunnels on that resource which is missing, which means that we can be so trapped in day to day financial management that we don't have a sense of being able to breathe and step back and plan for the future.

So knowing this context of scarcity, I think, gives a slightly different lens to behavioral design around both cutting costs of participating in programs or cutting perceived costs of participating as well as ways to really create slack in people's lives whether that's by helping them accumulate a financial cushion, reduce debt, or additional income supports or income subsidies that might benefit them.

I'll pause there and pass it over to Amelia.

MS. ERWITT: Thank you and thanks to
everyone for remaining awake. I have the much coveted position of the very last presentation at the end of a long day, so I appreciate your patience for that and I'll try to speed up a little bit. I know we're low on time and I'm sure you all have questions as well.

I'm Amelia Erwitt with the Cities for Financial Empowerment Fund. I work with Jonathan. We work with mayors and other local leaders and their local partners to build resident financial stability into the fabric of local government.

And one of our key programs is the Bank On initiative which I know many of you know very well, so $I$ won't go into too much detail on what that is, but we'll just quickly kind of go through currently today what the Bank On equation looks like for us.

Really the CFE Fund is working to negotiate safe and affordable banking accounts. We currently have 36 accounts available in 22,000 branches in all 50 states and Washington, D.C.

As referenced earlier, many of you around the table have been early partners in that work.

We're working programmatically to connect people into those accounts and then supporting the almost 90 coalitions across the country that make those programmatic connections possible.

The programmatic connection points come in a number of different ways as we've discussed sort of earlier today including things like our summer youth employment programs, workforce development programs, one on one financial counseling and coaching programs, et cetera.

And as we're working with our partners to make these integrations possible, we want to be making sure that we're also informing the interactions with the on the ground staff we're having with unbanked folks in a research-based way that we're really communicating in the best way possible.

So the key goal with the research that I am sharing with you this afternoon was to build a more complete understanding of the financial attitudes and goals of unbanked people and to explore the most effective messaging themes that could drive account adoption.

We're looking to, again, inform messaging that Bank On coalitions, financial counselors and other front line stakeholders can use to convince people of the benefits of banking and the benefits of Bank on-certified products.

So just quickly on the methodology, as always, our starting point with all of this work is with the FDIC and the National Survey of Unbanked and Underbanked Households.

We worked closely with the FDIC, particularly with Keith and his team in the early days of this work. By looking at segmenting the unbanked and specifically what segment of unbanked people were unbanked for reasons that could be moved by a communication strategy.

So in other words, we focused on
people with a motivational barrier for opening an account and eliminated from our research anyone who said that they have a structural barrier for remaining out of the system like being on ChexSystems.

We conducted focus groups in both English and Spanish in four cities across the U.S. We did some in depth inter -- phone interviews with rural unbanked people and then two different rounds of surveys, national digital surveys, oversampling for Spanish speakers and, again, sort of pegging that research sample to the FDIC research sample as well.

And all of that was really got us to these key messaging things that are up on the screen that we really dug into in the second survey, tools for easy banking, maintaining control, rethinking the relationship and helping to achieve goals, and I'll get into that in a minute.

I have just one note as I go through this, across the focus groups and the surveys,
the respondents had very little familiarity with the credit unions and there was no real noticeable difference between perceptions about credit unions.

And so we worded the research questions to be specifically around banks.

Okay. Now to jump to our high-level findings. And you obviously have the slides in your packets. You also have I should say the draft research brief behind my presentation with more detail. It's not been published yet, so your eyes are the first ones on this research, so please be kind.

So the first finding that we found was that messaging can really change minds. Unbanked people in both the focus groups and the phone interviews -- well, and the surveys, they all had very negative feelings about banks starting out, which is not surprising.

However, across both the English and Spanish speaking audiences, almost half of those surveyed were open to changing their minds about
banks through messaging, and this was especially true for people who had previously had and then closed a bank account. This was really surprising for us.

We had kind of designated that group. We were calling them burned by a bank internally for a while thinking those would be the hardest to get back into the system if they had had a negative experience in the past. But much to our surprise, they were actually among the most interested in rejoining the banking system once they heard about some of the changes in the certified products.

Just to orient you to these graphics a little bit and on the left you'll see -- on the left of each of these squares, you'll see where each of the groups started in terms of the three factors up there: favorability towards banks, interest in learning about banks, and intent to get a bank account.

And on the right is there they ended after being exposed to our messages. So the
overall trend was positive across all of the categories and the little blue arrows indicate where the gains were statistically significant.

Overall, favorability towards banks increased -- increased, rather, by a statistically significant 17 percent after hearing the messages. And intent to get a bank account increased 14 percent overall.

And again, this was even more true for the Spanish speakers, those who are younger and surprisingly those who had had an account in the past.

So a couple more high-level findings. The successful messages emphasize kind of two basic topics. One are short-term goals and the other being keeping money secure.

And we sort of structured the report, as you'll see as sort of a myth-busting
structure. But really looking at this first myth on this slide, the under -- you know, the original thinking that the best way to convince unbanked people about the importance of account
is sort of looking again to the later savings, the home ownership, the starting a new business thing, which, you know, many coalitions have been messaging that way.

In reality, although of course people do connect, having those bigger assets with also having a banking relationship, that wasn't motivating right now. And so really needing to focus on the right now, what are goals that you have today, building, savings, getting out of debt, improving your credit score, and how can we be convincing that opening a bank account is a good early step towards those shorter-term goals. The second myth that we hear pretty often is that those out of the system can't be well-served by the traditional system and, therefore, may be better served by technology, by apps, by Fintech.

What we really found were that the specific tangible features really well associated with mainstream banks were the things that resonated most with the people surveyed, things
like fraud protection, having a debit card, and access to direct deposit, these were the bread and butter issues that people were most interested in. And so that was sort of interesting to learn.

So how we figured out what resonated, this is another complicated and, again, I emphasize draft, a draft, it's not very pretty. We will make it look nicer when we actually publish this.

But just to kind of give you a sense, the message themes that were tested and sort of where they fell -- so just to, again, to orient you to this graph, the $Y$ axis shows the average message score in terms of believability and favorability. And then the X axis shows how strongly the message is correlated with actually changing your mind about opening an account.

And so the red box in the bottom left corner, these are messages that both lack developments and credibility, and they also didn't motivate. You know, even if they were
true, they wouldn't motivate anybody to open an account.

This is very interesting to see how lowly -- how poorly low cost scored on both of these metrics. It was neither believable nor motivating.
(Laughter.)
PARTICIPANT: In that order.
(Laughter.)
MS. ERWITT: The green box on the top left, those messages were believable and important but they didn't motivate action.

The yellow box, they motivated action if they were -- if you could believe it, but we really see this as sort of an opportunity area if we can really work on the credibility of things like banks are for everyone, which again echoes a theme that many Bank Ons have used for many years. It's sort of highly motivating but not believable.

And then the top right blue box, these were the most credible and relevant to the survey
respondents and they were motivating to bank account adoption. And so these are the key messages that were really focused on leveraging.

The category that you can see in the small text is sort of what they literally were and what the messages tested were. But the kind of overall categories that we've pulled from those messages were around those three that I mentioned earlier. Those were easy banking, maintaining control and helping to achieve goals.

So then we -- so we're going to dig into one of those examples. This is the maintaining control example. And we've got this for each of the themes in the report and more background and detail. But in the interest of time, I'm just going to dig into the theme around maintaining control.

So in addition to rating the messages in the way that I just showed you around believability and motivation, we also look very closely at the actual words that coalitions could be using to resonate with individuals.

So respondents were asked to highlight the words they found most compelling in each of these messages. So the bigger words are the ones that were highlighted most frequently.
so maintaining control, you know, scored well because losing control of money through things like fraud and overdraft fees was a barrier that came up over and over again in both the focus group and the survey work we did.

The fraud messages were particularly appealing to Spanish speakers, and the overdraft messages were more resonant with the English speakers.

So then finally just in sort of summary, the winning themes, again, that we pulled out, tools for easy banking, really reinforcing how direct deposit and other tools to manage and check money can make banking easy and stress free were very compelling.

Maintaining control, explicitly highlighting the no ability to overdraft whatsoever and fraud protection really addressed
the central concern among unbanked people about being hit with unexpected fees and having their balances threatened.

And then highlighting achievable short-term goals, the idea of taking short-term steps like savings and paying down debt rather than focusing on bigger picture, further away stuff.

Just a couple additional
considerations that weren't too surprising, but keeping a positive tone is really important, focusing more on how a bank account can help you achieve your goals rather than using more things like fear or urgency to say you're behind, you've got to act now to kind of catch up.

Again, the short-term goals really focusing on the specific and tangible account features that are available, debit card, direct deposit, that type of thing and being explicit on cost.

Hidden fees are really top of mind for people. So having a very transparent cost
structure that -- and being clear on that, that is important.

And then finally, the most persuadable groups, those who are -- were previously banked, Spanish speakers and the slightly younger demographic.

So as I mentioned, the research is still unpublished. We welcome your feedback and questions as we continue to refine what we put other there.

In addition to finalizing this report, we're also going to be making a number of tools, talking points, and things for front-line staff to actually be implementing some of these findings out in the field.

So any reflections or thoughts you have on that, we -- you're welcome to.

MR. HALL: So we're open to any questions that you have.

Maurice?
MEMBER JONES: On the America Saves piece, how young do you target? Is your age
range --
MS. FERGUSON: Yeah. So we -- America Saves, the campaign, the parent campaign is targeted for adults 18 and above, but we do have America Saves for young workers, which targets the 16 to 24 group with the custom messages for that specific group.

So we're still kind of using the same objectives, but we're changing them so that they resonate with that population.

MR. HALL: A follow-up, so your data top savings goes --

MS. FERGUSON: That's across all of our campaigns.

MR. HALL: Including the young --
MS. FERGUSON: Including the young workers.

MR. HALL: You know, this is
interesting education doesn't show --
MS. FERGUSON: But --
MR. HALL: -- theme, you know --
MS. FERGUSON: Yeah.

MR. HALL: -- so I'm just trying to -MS. FERGUSON: And when you pull out the young workers data alone, education kind of comes and goes as one of the top savings goals.

We see consumer product as a top saving goal for young adults, which is fine. I mean, we want them to have a savings plan for whatever it is that their heart desires. We just want them to have a plan and a goal.

MR. HALL: Yep. Don.
MEMBER GRAVES: Just a few quick questions or comments.

Lindsay, thanks for -- well, thank you all for your presentations. They were great, as were all the others today.

My understanding is that America -the America Saves designation you get that by the change in deposits or -- amount of savings during the America Saves Week. Is that -- am I correct on that or no?

MS. FERGUSON: Yeah. It's an application process where the financial
institution reports on their activity during America Saves Week.

MEMBER GRAVES: I don't know, for those banks who have a very robust program that is focused on increasing the savings, we have a big financial wellness program, a platform when we -- especially after we acquired HelloWallet.

For us, that is a yearly thing. It doesn't coincide with that one week. So I would just suggest that there are a number of banks, some of whom are in the room today that might not -- it might not be the best way to incentivize us to be a part because that one week for us is -well, it's an important week, obviously, because of tax season.

It's not as -- much more important than any of the other weeks. So just --

MS. FERGUSON: No, good feedback.
MEMBER GRAVES: Katy, thank you for your presentation. You don't happen to know the demographic breakdown of the 90 percent of non-mobile depositors, the folks in that first --

MS. DAVIS: We don't. So we did not have reliable data on age, race, or ethnicity, or income level, actually.

MEMBER GRAVES: And you don't -- do you have any information on the types of mobile devices or phones that they were using, that sort of thing, because I suspect -- I don't know for certain, but I suspect that there were issues around -- and certainly age and income level as well as the types of mobile devices that they might have been using and the ability to use those effectively for. But that's just my assumption -- presumption.

MS. DAVIS: I would not be surprised.
I would say in other studies that we've done around forms of digital engagement in the developing world, we've actually found very surprising and counterintuitive trends around age that don't match our often beliefs about older people not using technology.
(Off mic comments.) (Laughter.)

MS. DAVIS: But in this study, we couldn't look at that. In the --

MEMBER GRAVES: Who's talking about young people?
(Laughter.)
MS. DAVIS: In the Alliant study, with the data that we had available, the only predictor of whether someone used mobile deposit was whether they had downloaded the app to begin with on their phone, sort of the only helpful predictor.

MEMBER GRAVES: That's great. And then Amelia, when does this become public?

MS. ERWITT: I think very soon. We actually have, at the end of this month, a grantee convening where we're going to be distributing some of the tools I mentioned, the practitioner tools. So as soon as we get any final thoughts from you all, I think we're going to print on this. So it'll be out soon.

MEMBER GRAVES: Thank you.

MR. HALL: Yes, Wade.
MEMBER HENDERSON: Thank you.
This question is for Lindsay, but I welcome the input of anyone, and it's about childhood savings accounts.

A few years ago there seemed to be a sort of growing sense that investments in childhood savings accounts for newborns, an investment of perhaps as much as $\$ 500$ held in trust until the newborn reached majority age, 21, 18, whatever, and restricting the use of that money for some, you know, laudable goal, education, a house, some other, you know, long-term goal was one way of creating wealth and helping to limit the wealth gap among the poorest of the poor.

I'm not sure whether that's fallen into disfavor or not, but I haven't heard nearly as much clamor about it as there was a few years ago when there was talk that I think England was thinking about making these investments in other communities.

Obviously the population of people that would be targeted in this country are far too poor to offer that resource on their own. And the temptation to use it over the life of the child is obviously very great, so there would have to be some limitation held in trust of some kind for purpose might be there.

Is there any research that your organization has developed on this issue? Is there any deeper analysis that you can offer about the efficacy of these childhood savings accounts? And where do you think that might stand currently in the public debate around policy?

MS. FERGUSON: Yeah. And I'm going to punt this to any of my panelists because we currently have not done research on child savings accounts specifically, but I know that work has been researched.

Prosperity Now has done a lot of it. Some of our municipalities are doing the child savings accounts, so I'm going to punt the answer
over to my colleagues.
MS. ERWITT: I think you should ask your fellow committee members in --

MEMBER HENDERSON: I think I should. (Laughter.)

MS. ERWITT: There are some experts around the table here on your side. Yeah.

MS. DAVIS: I would add a quick thought.

MEMBER HENDERSON: Yeah.
MS. DAVIS: I think to take Jose's words away from him, there seem to be two positive models of college savings accounts, one which is an account at birth with a specified amount of money --

MEMBER HENDERSON: Yeah.
MS. DAVIS: -- one which is in a demand deposit account but with more continual engagement over time because the family can contribute. Both have been found to have positive impact on college-going in some way.

So I think those are two different
models that have some evidence behind them even if it's not a randomized control trial.

And then I would add an example from actually the cash transfer world. You've done a lot of work with cash transfer programs internationally where the traditional model was making them conditional upon a specific use.

And we've actually tried different ways of delivering them where the cash is unconditional but it's labeled for a specific purpose, for example, education or health.

And we find that just by labeling it and framing it for that purpose, it has just as much positive impact as having it actually designated and restricted for that purpose.

I think there could be an in between solution there where you still have some flexibility around how to use it, but it also achieves its original goal.

MEMBER HENDERSON: That's very helpful. And so let me do one follow-up. Jonathan, this is sort of directed at you. And
since I'm leaving, I feel free to throw new assignments around to all my colleagues who are here.

Look, I would think that the FDIC, if there were any effort to examine this issue of the efficacy of child savings accounts, I know that the imprimatur of this agency obviously carries a lot of weight.

In communities where they are struggling to get a toehold on a build in wealth providing resources for education and training going forward, a study of the FDIC suggesting that this may be a model that community foundations or other philanthropies might look to as a way of helping to build wealth among the poorest of the poor would carry greater weight than just the casual conversation among, you know, people who sort of dabble in this area.

And I would think that given the importance of this issue and the widening wealth gap that this might be something that you would take a look at. It also has implications for the
unbanked and the under-banked.
So I'll leave it there as to whether there could be a follow-up study that would show some efficacy in this area. It would be helpful if the FDIC would look at it.

MEMBER LEVERE: I don't know if -- I mean, there are many researchers who are doing in depth analysis of this. Willie Elliott, the University of Michigan, has done extraordinary research, Michael Sheridan, we have been lucky from the very first day we worked on children savings accounts that we have had a broad range of academic researchers taking this every step of the way.

And I just say live by Jose's groundbreaking program. Last year we had more children savings accounts opened than in any time in the history of this initiative and we have Cory Booker with a major proposal that many people worked on explicitly to address the racial wealth divide called baby bonds.

So Wade, I just want to say that
things are very healthy --
MEMBER HENDERSON: Good.
MEMBER LEVERE: -- despite some of the barriers we're facing.

MEMBER HENDERSON: Yeah, yeah, yeah.
MEMBER LEVERE: But there's -- I have to say that this is one of the areas where we started paired with researchers, so we have incredible data, not just on the financial impacts but the aspirational changes, the child save -- the college saving mentality that happens with households.

I'll say one other thing before Jose jumps in. When we did the first experimental site with the children's savings demonstration, we had five Head Start centers right outside Detroit.

We found that the majority of those parents had given up on their child going to college by age 3, and they had given up because they had exactly the wrong information on what the net cost of college would be for their
household. And if they went to community college or public college, they knew what it would cost to go to Harvard, and so they thought I can't disappoint my child, $I$ could never pay for that. Subsequently, we recruited Martha Kanter, the former -- yeah, well, you were at our wedding together. And she said every step of the way, middle school, people had the wrong idea. This is something they track all throughout education. So just to say there's a lot, but thank you for being a booster.

MEMBER HENDERSON: Yeah, yeah.
MEMBER CISNEROS: I'll echo the thank you, the gratitude, Wade. There is a lot going on. There's a number of cities that have launched programs very similar to San Francisco's.

There's a number of states now. There are a growing number of states and I'm happy to add the State of California with our new governor who has dedicated $\$ 50$ million --

MEMBER HENDERSON: Wow.

MEMBER CISNEROS: -- of this year's state budget to be split amongst two different models of children savings account programs.

But that all being said, $I$ very much second your request to the FDIC --

MEMBER LEVERE: Yes.
MEMBER CISNEROS: -- to get involved in this --

MEMBER HENDERSON: Yeah, yeah, yeah.
MEMBER CISNEROS: -- effort because with all these different efforts going on and growing and many of them are getting set up in slightly different ways or dramatically different ways, we really could use more research, more knowledge and more cold hard facts to help guide us as we want to do more and more good things to make sure we're doing things that are going to make a difference.

MEMBER HENDERSON: I'm really excited to hear both of you talk about this. It's obviously something that's grabbed the imagination of many who are trying to think about
how you cut through that wealth gap divide and the, you know, racial wealth gap divide in particular and trying to aggregate that data, presenting it in a coherent way.

Giving that the implementer of the FDIC could carry some real weight and policy circles around the country, so I hope that when I come back as a visitor, perhaps this will be --

MEMBER LEVERE: But you're --
(Laughter.)
MEMBER LEVERE: -- right, Wade?
MEMBER HENDERSON: Yes. Thank you so much. I appreciate it.

MR. HALL: I think what I heard either Andrea or Jose say before is that in some of the research -- I'm not real sure, but I heard someone say this is that a child is more likely to go to college -- seven times more likely to go to college if they have anything in savings.

It doesn't matter if it's \$100, if it's \$500. It's certainly something that it encourages, it gives hope to specifically
children of color that would not think to have the ability of -- or the parents think they wouldn't have the ability, the financial capability to send them to school.

So whether it's true or not, whether I heard that from one of you or not, I did hear it, and I think it is -- it's hopeful, it's beneficial.

Jose, I was talking about seven times a kid more likely --

MEMBER CISNEROS: Seven times more likely to go to college if their families engage with the account, which builds -- making deposits in account -- in an account on an ongoing basis builds an identity, a savers identity, I'm a person who saves.

And if that account has the name college savings account and the name of the child on the account, then it -- that saver's identity gets translated to a college going identity. I am a -- because I save for college, I am a person who is going to college.

MEMBER LEVERE: Can I ask one other thing?

MR. HALL: Sure.
MEMBER LEVERE: One of the most fascinating debates we've all had -- and this is where we need numbers -- is every time they do the unbanked and the under-banked when you ask people the reason why they are unbanked, the most common answer is $I$ don't have enough money. And that has always frustrated all of us because we knew there is something behind it.

I'd love our three panelists to then say how do we get deeper than that answer.

MR. HALL: A good question.
MS. FERGUSON: Well, I can start us off. And since we are a social marketing campaign and just use a lot of messaging, what we tend to say is saving is a habit, not a number and encouraging people that it doesn't -- we've all heard this, but reiterating that message \$5 -- savings is not a number. It's a habit. It's an identity.

So in regards to what we're doing to kind of tackle that challenge is we're really focusing on those types of messages when we talk about saving and taking financial action with our savers.

It's not the answer to everything, but that's kind of what we're doing.

MS. ERWITT: I would just add that, so we heard that a lot, again, reiterated in our focus groups, for sure and in the survey as well, and I think it's -- you know, it's really kind of fed into some of the messages that we developed.

And in the report you'll see literally spelled out all of the messages that we tested, and some of them got to a bit of that.

But really, it -- for us, it drove home the point about emphasizing the short-term goals. Not having enough money, you know, maybe one day I'll have enough money, I'll buy a -- you know, I'll think about purchasing a home and having these sort of longer-term aspirational things, and that's the thing that they connect
with a bank account.
And so trying to figure out a way that we could be making a better case for how short-term goals could also be achieved with entering the system and that taking a first step of getting an account leads to short-term achievements rather than being so connected with like one day I'll be there and then I'll consider it.

So you know, I think it's more about the whole package. It's not -- you know, we've also been frustrated by, you know, what does it mean I don't have enough money. We know how low

MEMBER LEVERE: Right.
MS. ERWITT: -- these, you know, balances can be in a formal account.

And so I think being very clear on cost structure, being transparent on what that means, and then, again, connecting starting with a bank account is the first step in a series of short-term goals is something that we can do a
better job of communicating.
MR. HALL: Thank you. Because of time, we're going to probably cut it off. All right. We'll turn it over to Jonathan. Thank you.

DIRECTOR GRUENBERG: And I've always thought, you know, the second most frequent response to the question why don't you have a bank account is the fees and minimum balances associated with an account. I've always felt there was a close connection between the first -MEMBER LEVERE: Yeah. DIRECTOR GRUENBERG: -- answer and the second.

MEMBER LEVERE: Yeah.
DIRECTOR GRUENBERG: They don't think they have enough money to make it worthwhile because they're concerned that the cost of the account is going to actually outweigh the -- and in a sense trying to deal with that always seemed to me to be threshold.

MEMBER MINTZ: And the just saying low
cost --
DIRECTOR GRUENBERG: And the safe account --

MEMBER MINTZ: -- doesn't ring true.
MEMBER LEVERE: Doesn't do it.
MEMBER CISNEROS: Yeah.
MEMBER MINTZ: Right?
MEMBER CISNEROS: Yeah.
MEMBER MINTZ: You have to be more explicit.

MR. MILLER: So thank you very much to the panel. I'll just observe -- that we spent a lot of time in this committee building the safe account standards promoting the idea of a safe account.

We now have, as Amelia pointed out, banks in all 50 states that offer the safe account. We have a -- we have banks that cover most of the -- you know, the vast majority of the population.

I think what this panel has done is given us a set of tools to think about how now we
can drive consumers to those accounts, particularly those consumers who are unbanked.

So really helpful panel. Thank you very much. And to close it up, let me hand it back to the Chairman.

CHAIRMAN MCWILLIAMS: Thank you very much. I would suggest that you -- as you go to your clients and your members you can do what I did and tell them to lie to their kids. It works wonderfully.

My daughter until she was probably 14 was convinced that she won't get into a good college if she doesn't save money. And the causality wasn't you can't pay for college. You won't get into a good college until her friend said what. And I never invited the friend back to the house.

I want to thank you all for taking the time. I know how busy you are and the work that you do in all of your cases translates into something on the ground that's tangible and real.

And for you to take the time to travel
and spend time with us and to inform our policy is extremely valuable to us and something that $I$ personally am very grateful to all of you for doing.

I'm grateful to all of the presenters.
You work on amazing stuff and it's exciting. I wish I were younger and the opportunities would have been endless in this space to actually engage with a lot of things.

Now that I am not your age -- we'll just leave it at that, and $I$ can barely run from a gate to a gate whereas my friends go -- I marvel at the work that your groups are doing and your organizations are doing in this space, and thank you for that.

Before everyone leaves, I would like to make sure that we all know that the National Interagency Community Reinvestment Conference, an interagency conference focused on CRA that is held every two years, will be held on March 9th through 12th in 2020 in Denver.

We encourage broad participation of
all stakeholders, bankers, CDFIs, community groups, for- and non-profit developers, and anyone else with a stake in the growth of economic and housing opportunities in our communities. And I suspect we'll see some of you there as well.

Finally, I know our staff is in touch with the members to schedule our 2020 meetings. In the meantime, we'll work on the agenda.

I thought the agenda for today was excellent. We had excellent presentations today. I'm very grateful for that. The discussion was so robust. Even when I wasn't here, I was able to watch on the screen as I had my conference calls and I had to mute the phone and turn the volume up a couple of times, but I won't tell you who those calls were with because otherwise you'll tell on me.

Thank you all, again, for coming here today. For the members, if we won't see in this capacity, we look forward to seeing you in other capacities. And to the members of the committee
who are new to us, welcome and thank you all. And I can't wait to see you again.

Thank you.
(Applause.)
(Whereupon, the above-entitled matter went off the record at 4:00 p.m.)
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Neal R. Gross and Co., Inc.

## CERTIFICATE

This is to certify that the foregoing transcript

In the matter of: Economic Inclusion Adv. Comm.

Before: FDIC

Date: 10-22-19

Place: Washington, DC
was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.


Court Reporter

