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P R O C E E D I N G S

MS. LEE: The Urban Markets Initiative has been working in the area of understanding information gaps that affect the way in which certain groups in our communities are structurally affected just due to the lack of information.

Today we are very happy to have a wonderful panel put together to discuss the issue of alternative data and the impact of alternative data on credit scores and access to capital based on a study that we've currently put out called "Give Credit Where Credit is Due" headlined by Dr. Michael Turner, one of my very dear friends in this area of work.

For those of you that don't know Dr. Michael Turner, he is the president and lead scholar of the Political Economic Research Council and is the lead scholar in the Information Policy Institute, which is an issue area focused on understanding how information affects policy. We have worked with Dr. Michael Turner as a partner in this effort to understand alternative data over the past three years with some initiatives around very specific pilot projects, as well as this national perspective on having an engaging, very important debate around these issues.

We are here today to really bring forth some of the critical issues that now we've done some quantitative research we know need to be addressed to take alternative data from a promise into a reality, and with that I would like to turn the panel over to Dr. Michael Turner, who will be moderating this session.

Thank you.

DR. TURNER: Good morning, everyone. Thank you all for joining us today. I know there are a lot of competing events in Washington, particularly with the rejiggered congressional calendar and everything that's happening on the Hill this week. We feel this is a very important study for a variety of reasons, and we've been working with Brookings (off mike) really for the past year and a half on the issue of alternative data, which as many of you know really, at least from a policy perspective, was spawned by the Fair and Accurate Credit Transactions Act, or the FACT Act, in which Congress mandated that the FTC look at — in lieu of strict regulations actually — look at whether or not there were datasets out there that if included in consumer reports or consumer credit reports would actually increase access to affordable mainstream credit for — in the parlance of the industry — for thin-file and unscoreable Americans, which is a segment estimated between 35 and 54 million Americans. A year later the FTC reported back to Congress and basically said there may be in fact datasets out there that if integrated may increase access to credit but the market is taking care of this.

Well, we're here today to provide a little bit more of an analytical framework to that and tell you about some results from a major quantitative study that UMI and PERC did collaboratively with about 10 partners using TransUnion data, actual credit file data, but we're also here, really, to talk and to flesh out this issue more meaningfully as to whether or not the market is working — if so, what's the market doing? What we can expect in the near term? And is there a role for policy here, meaningfully and perhaps appropriately here at Brookings?

So, we've put together — I'm very excited about this — a very august panel if experts from a multiplicity of stakeholders in this issue area, and I'm going to provide a really quick introduction our panelists today. I'm particularly pleased with this group, and I'm hoping that they will impart upon you some sense of, again, what's been done and where we're going with all this.

To begin with, we've Clark Abrahams, who's the Executive Director of SAS Fair Banking at the SAS Institute in my home state of North Carolina, and Clark, in addition to being a self-proclaimed technology geek at SAS, actually brings to the table 30 years of experience in the financial services and credit scoring industries. Prior to working for SAS, he worked at Bank America, and prior to that he was one of the early few at the (off mike) Corporation, so Clark is going to share with us the technology perspective in terms of alternative data and alternative credit scoring.

After Clark we've got Alyssa Stuart Lee, who preceded me on the podium, and Alyssa is the Acting Director at the Urban Markets Initiative at the Brookings Institution, and UMI, for those of you who aren't familiar with it, is part of the Metropolitan Policy Program but is really the group that focuses on harnessing the power of information for the sustainable community development, and Alyssa's predecessor, Pari Sabety, and I came together after I read an article which he had generated that spoke about the information cycle theory and espoused the virtue of actionable information from data, which fit really well with the Information Policy Institute, and the UMI is really a results-driven think tank, and we were particularly pleased with that because, you know, our focus has really been not just generating research but applying the research to bring change in community development and other issues, so we're very pleased to have Alyssa provide the community development perspective on this panel with her years of expertise.

Thereafter we'll have Chet Wiermanski, who is the Senior Vice President of Consumer Analytical Services — am I getting this right? — Analytical Decision Services Group at TransUnion. Chet basically has worked at TransUnion for nearly two decades and has been involved in a variety of leadership positions at TU, but, more directly for this study, Chet provided enormous (off mike) equity in helping us with the analytics and methodology of the study that I will be discussing later this afternoon, and we benefited greatly from Chet's insights and TransUnion's overall effort, and Chet will be sharing the perspective of a major national credit bureau in terms of alternative data and alternative credit scoring.

And then finally Windy Oliver from GE Money — she was the Vice President of Risk Management — will be joining us. Her flight was delayed earlier this morning, and we expect that she'll be joining us momentarily, but Windy will be providing the perspective of a major lender on this panel, and GE has been involved not only in our project but has had a great interest and level of activity in alternative data and alternative credit scoring for quite some time, so we're very eager to hear the insights that Windy has to offer us when she joins us.

So, with that said, I will turn the panel over Mr. Clark Abrahams.

MR. ABRAHAMS: Thank you, Michael, and good morning.

We're certainly wrestling with a big issue around how best to tap the alternative data. I firmly believe that technology can play an important role principally in three areas.

First, data management. There's a vast amount of data that needs to be sourced, acquired, standardized, validated, efficiently stored and maintained by central repository agencies, lenders, and recorders of consumer data.

Innovative and high powered approaches for predicting modeling and risk assessment are a second area. Modeling breakthroughs are achieved from time to time by combining the best science and subject matter expertise. The result is a closer fit to the business realities and improved in more sustained model predictive power.

Thirdly, model life-cycle management. We anticipate new generations of consumer credit models that will incorporate alternative data, and practical consideration is managing that in a persistent and increasingly operationally complex burden of model development, verification, testing, performance, benchmarking, deployment, and retirement of traditional and alternative models.

So, I'd like to take a few minutes to share observations relative to data and solutions since that's my professional area of focus these days.

A little over a year ago at the Brookings Institution UMI Roundtable on Using Alternative Data, Pari Sabety observed that markets are influenced by what information is made available and also by tools that are used to analyze and manipulate that set of available information.

First, some observations about alternative information. There is variation in what currently gets reported across and within industries, such as electric, gas, water, telecommunications, and so forth. Some companies choose not to report due to expense and the time consuming aspects of doing so. Those that do choose to report vary in practice relative to how much is reported of positive and negative information; on what to report on negative information — balances greater than an amount of X, for example; and when to report — for example, the number of days past due is greater than Y days. Furthermore, there are different jurisdictions — sometimes state boundaries are key — that have differing laws and regulations that impact reporting, such as forbearance policies that may not permit reporting in winter months; bans on reporting without first obtaining affirmative consent — and there are several states where that is true. Furthermore, federal legislative has had some privacy and data security issues around reporting alternative data. The upshot is that lenders who operate in multiple jurisdictions and whose prospective borrowers — borrowing population — use different service providers who provide alternative data differently have to address the issues of inconsistency in data availability and what ultimately gets reported and when.

The data monster is alive and well. Credit model developers will have to deal with some extra challenges around alternative data acquisition, interpretation, normalization, and validation. A model is only as good as the data that goes into it, and one of the providers of solutions — PRBC — does allow the consumer to bring forth data, so if that data is not captured in conventional means or automated fashion, the consumer has the opportunity to provide that data, and filling in those data holes can be important, and also understanding how to surf and navigate around incomplete information is important.

So, next I want to comment briefly on tools and alternative data solutions that are available in the market.

First, what do we mean by a tool or an alternative data solution? Is it a score? If so, (off mike) markets and expansion score that takes into account alternative data sources, and they're weighted by five categories with two of the categories capturing two-thirds of the weight: payment history and outstanding debt.

PRBC markets bill payment score. It takes into account information reported by either the consumer or service provider and they're weighed by six categories with three of the categories capturing two-thirds of the weight: types of trades; trade line — timeliness of payments, rather; and length of payment history.

Some observations. We can see the categorization schemes are not unique. I am reminded of the five C's of credit: character, capacity, capital, collateral, and conditions. The weighting scheme on those factors is not fixed.

Weights may not be optimal, especially when you start varying certain assumptions or drop into certain population segments. For example, there may be regional differences, product differences, or differences in customer culture or lifestyle — or life cycle, rather. Perhaps consumers that use credit more sparingly are more disciplined to live within their immediate means that are more risk adverse. Models developed in a more mainstream population may tend to over-estimate risk in such a segment.

The credit bureaus may also mark an alternative score in some markets. I don't have specifics, and there are other providers of scores based upon alternative data, and Chet can remark to that.

And so do we mean by solution or by tools the means to develop a score? There are providers of basic statistical tools that can be used to develop scoring models. SAS is a predominant player in this market, but there are others such as SPSS. Acquisition of these basic tools presumes that you possess a staff that is capable of developing empirically derived, statistically sound models that separate creditworthy and uncreditworthy applicants at a statistically significant rate per rate B (?). And a PhD or a Masters-level statistician is recommended for that exercise.

There are also solution providers that provide a system that's geared for credit scoring model development. SAS provides such a solution, as does (off mike), and I believe one or possibly more of the credit bureaus, and there are others. This alternative is more expensive, but it's worth the investment if sufficient numbers of models are developed in-house.

Do we mean by tool or solution the capability to develop a model in a more general sense? Models can be developed that are combinations of business rules and alternative data, including scores. Without getting into the details, these models can exploit the conditional structure and interactions between alternative and traditional credit variables to form fairly homogenous segments whose risk can be evaluated and appropriate policy formulated to govern approval and pricing of loans.

While some are still in the laboratory phase, these types of models may become tomorrow's challenger alternative model to today's champion alternative scores. Time will tell. The point is that a credit risk modeling innovation can help leverage information value contained in the alternative data. Large lenders, credit bureaus, and solution providers, like SAS, are all conducting this type of research. As mentioned earlier, model life-cycle management will become an increasing problem with the imperative to ensure that models are constantly reevaluated and either updated if possible or replaced as performance drops below a predetermined threshold. On this front, I am only aware of one commercially (off mike) solution. It's available to create, manage, and deploy life-cycle analytics and a SAS model manager. The major banks and credit bureaus do this basically with the capabilities that they have (off mike) to my knowledge.

So, in conclusion, I just want to say that at SAS we recognized the importance of this work at the onset, and we feel the enthusiasm and genuine excitement shared by all those who have been associated with it. We look forward to playing a continuing role in providing technology to create superior consumer risk and market intelligence that can be leveraged for the common good.

MS. LEE: Good morning again. My comments are going to be much more general, much more focused on understanding why we're interested in this subject overall and what we hope to gain out of this particular effort.

As we've talked about the Urban Markets Initiative several times today, the focus is really on understanding why information and how information drives change in urban markets. We're concerned about residents of urban markets, how residents can access capital — how residents can access capital to get a job, to get a small business, to get an education, to actually buy a home. These are the critical issues that really underlie our basic concern around credit.

Someone asked me the other day, you know, you work in urban markets, what is the big deal around credit with you — you know, you do this stuff on retail services and I understand how that relates to you trying to provide basic services in the communities, but what's the deal with credit? Well, it is the one score that is accessed hundreds of time a day to price how much your life is going to cost in a market. It is not necessarily a perspective that we all have had historically around credit scoring, but it should be the perspective that we all have in the future, that the credit score is a critical element of who we are and who we can be.

Congress has done a lot in terms of helping us understand the ability — to access what that information tells us about ourselves, to help us understand how we can develop good credit. But there are a lot of issues around the cost of capital and not having access to capital that we find particularly important.

Research here, done at Brookings by Matt Fellowes, helps us to understand, when you talk about this population that Michael Turner has identified, this 35 million to 54 million population. We can put a picture on this. What we're talking about is the size of the total population of the state of California on one hand to the Midwest. We're including Iowa, Illinois, Michigan, and Kansas. This is the size of this issue in terms of the number of people that it affects, and the number of people that it affects does overlap at some level with populations that tend to be underserved not only by credit by also by the baking industry and have traditionally limited sources of income.

Studies that we've done here at Brookings tell us that because of lack of access to capital lower-income households pay higher-than-average mortgages, 4.2 million lower-income households pay higher than the average rate that should applied for mortgages; 4.2 million households, not necessarily the same, also pay higher-than-average auto loan prices.

Our perspective here is that while we are very critically concerned with those that are low in moderate income, we are also highly aware that this issue is not just an issue about poor people, an issue about one minority group. This is an issue that cuts across race, ethnic, and cultural lines. A recent study by Social Compact in Santa Ana, California, studied 60 — studied a portion of Santa Ana and found that 69 percent of residents in the community had no credit. None. Now, what you might think is that these people are very poor, that they don't own their homes, but the actual data tells us that over 60 — the average income is over $62,000, that the medium home value is $420,000 in the same community where these same people don't have access to capital. The issue that we're addressing here is something that cuts across all of the groups that we deal with and is critically important to understanding how we can do a better job of developing communities. Over the next 10 years, we anticipate that 3 billion dollars will be invested in urban markets. A lot of that investment — 80 percent of that investment is going to be invested by the private sector, by individual community residents, and by small businesses. Our ability to address this issue is critically important to driving that investment and making sure that our communities are as representative as they should be.

Now, the findings of our study — one of the findings of our study that we find particularly important is that the risk profile of these consumers that do not have credit scores or have very small credit files is just the same as the population that is in the credit system. There is no difference in terms of the distribution of risk between this group of folks that does not have access to capital and the group that has access to capital.

We know that the size of the state of California should be serviced by financial service institutions, and I think financial service institutions also know that these are markets that they feel are critically important to serving the needs of these communities.

I think finally in closing what I'd like to say is there are a lot of regulatory barriers that we know are currently in place. The promise of alternative data is huge. You know, the findings in our studies say that we can eliminate the number of people that are unscoreable overall, but there are a lot of barriers that we have to address. Some of those barriers are regulatory, that there are regulations that impact the ability of a utility company to report.

There are also issues around education. In Detroit, for example, just yesterday an article came out about DTE and their full-file reporting of credit and concern among consumers that just because I've not paid my utility bill, now I'm not going to buy a house. There's a lot that has to be done in terms of education in helping us understand what the implication of full-file reporting is. It is not the promise of credit or capital to all people. It is not an inalienable right. It is a promise of the appropriate capital for the deserving risk profile. For those that pay their bills on time, for those that have the capacity to grow economically, to grow their families, to grow their businesses in their communities, that's what this alternative data has a promise to provide. And hopefully today we'll continue to talk about not only the analytical issues but also the data issues, which I know Chet is going to address, in terms of how can we get this data to be reported? How can we address concerns in the community that reporting this data is positive or negative? And how can we get the regulations that we need to get in place to enable this type of access for all Americans that are deserving of this access?

MR. WIERMANSKI: Thank you, Alyssa.

Well, you're looking at a thin-file individual, so this is a very important topic for me personally. While I have a home — it's been paid off and it's no longer being reported, and so my credit file basically consists of one bank card, so as Alyssa mentioned, this crosses all different types of age and I think groups of individuals.

Thank you, Alyssa.

Once again, TransUnion is proud to participate with PERC and Brookings on a panel to discuss how millions of Americans can enjoy affordable credit. Whether TransUnion is jointly working with PERC and Brookings in studying the financial and credit impact that national disasters have on local economies, such as New Orleans, or the far-reaching benefits of full-file credit reporting in countries throughout Latin America, the Asian-Pacific rim, TransUnion is committed to helping consumers and businesses achieve more through access to reliable and accurate credit information. For decades TransUnion has been active proponent and voice in the marketplace for full-file reporting by all public utility and telecommunication providers. For more than 20 years, all kinds of public utility and telecommunication providers have been sending performance information to TransUnion. Today this information is an important component within every credit risk and fraud solution that TransUnion offers today.

Unfortunately, because of limited and sporadic reporting practices, the benefits associated with the information are enjoyed by only a small percentage of TransUnion's customers and the consumers they serve.

Finally, the release of the Brookings Institute Study on measuring the impact of including utility and telecom data in credit reporting helps quantify TransUnion's position on this important topic.

When asked to participate on this panel, I was asked to identify what needs to be done to promote full reporting of this information. First I want to make sure that the audience knows that this is not a technology issue. From TransUnion's perspective, the process to gather, organize, and make utility and telecommunication account performance information available for credit risk assessment and identity management is already in place.

The Metro 2 format — this is the standard reporting format accepted by all three major credit consumer reporting agencies — specifies how positive and negative data can be formatted and provided to consumer reporting agencies. Hundreds of utility companies and telecommunication companies provide this information to TransUnion on a monthly basis. So, what do we need to do to encourage more utility and telecommunication companies to provide this type of data? First and foremost, we believe that the legislative obstacles at the state level need to be modified to allow for sharing of this information. In addition, (off mike) similar to this, the credit granting and reporting community must continue to work closely with the providers demonstrating the value this information offers. Finally, and probably most importantly, consumers need to be better educated about the critical role public utility and telecommunication accounts receivable data have in creating their credit risk profile. Too many consumers do not understand that the reporting of this type of information is bonded(?) in the credit bureau, and they don't treat their accounts like a credit account and they tend to lapse. There has to be — before we start full, widespread reporting of this information, utility companies and telecommunication companies need to educate consumers in the vital role that this information plays in forming their credit profile.

One of the concerns about reporting this information on a broad, comprehensive scale is that the practice will diminish the predictive power of the existing credit risk evaluation systems, unfairly impacting low-income and minority consumers. While these are valid concerns, results from the PERC and Brookings study clearly indicate that millions of consumers will benefit from the reporting of this information. The study also suggests that the ability to rank order credit performance with the existing models offered by TransUnion may actually improve as this information is added to consumer credit files. To the best of our knowledge, TransUnion is the only U.S. credit reporting company that includes utility and telecommunication information in the consumer credit report.

Since the introduction of our first generic credit scoring system in 1987, every generic credit and insurance scoring system offered by TransUnion, and most likely hundreds of custom models developed by our customers that rely upon TransUnion archived credit bureau information, already include utility payment performance in the risk assessment and score calculation.

Forgive me for my shameless plug here, but one of the reasons why believe our models are more predictive is because we use and rely upon this information.

This type of information is incorporated within the general credit characteristics used to evaluate aggregate credit availability and use. General credit characteristics such as the total number of accounts paid as agreed; date of most recent delinquency; and the total amount of debt outstanding already rely upon this information and have proven to be a powerful component in our generic models. It is TransUnion's opinion that the full-scale reporting of utility and telecommunication performance information will not happen over night. We expect to see a gradual increase in the number of accounts being reported, not a stampede. As a result, the performance of the existing credit scoring models that are in place today will continue to perform well. Possibly as the Brookings Institute and PERC study suggests, these models may even improve. As a result, we believe that the existing tools can continue to be relied upon as the reporting of this data builds momentum. Eventually, existing models will need to be redeveloped to optimize the value associated with telecommunication utility account performance account performance information.

The credit industry experienced a similar phenomenon in the mid '90s when reporting mortgages increased significantly. The practice was the direct result of Fannie Mae's and Freddie Mac's decision to adopt credit scoring into their mortgage underwriting process. During that process they required the users — or their customers to fully report mortgages to all three national credit bureaus. The inclusion of this information in the consumer reports resulted in score distribution shifts. We generally saw higher score distributions as this information was made available. As a result, some lenders needed to modify their lending decisions by adjusting their cutoff score strategies. But the ability to rank order credit risk by these models was unaffected, so the data did not affect the ability to predict who is a high credit risk; it just shifted the distribution of the population into different risk categories.

New generic models, such as Vantage Score, and customer-specific models are now just beginning to leverage the predictive data associated with full and complete mortgage reporting. Future models can be developed to take advantage of the broader utility information, but until there's widespread reporting will need to rely upon the existing tools in the marketplace.

Future models can be developed with utility and telecommunication data by leveraging specific credit characteristics and better analyzing and understanding the independent contributions this information provides toward evaluating credit risk associated with different consumer segments. For instance, consumers with thin credit files may have public utility and information weighted differently than those with lengthier or thicker credit files.

Through today's panel discussion and others like it in the future, the benefits associated with the full reporting of this information will be further dissected, but at the end where will we go? Well, TransUnion hopes that this effort will encourage full participation by utility and telecommunication providers. It is our belief that more complete reporting of this type of information will enable modelers and credit underwriters to develop more predictive and meaningful credit risk evaluation and identity management tools, enabling lenders to give more credit to a broader, more diverse set of Americans who traditionally have been overlooked by the conventional tools employed today.

Thank you.

DR. TURNER: Has Windy Oliver arrived? Joined us? No? All right, absent Windy — Windy's presentation, and I'm hoping that actually she'll turn up — I'm going to provide a thumbnail sketch of a lender's perspective on this issue, and so bear with me. Anything I say is actually not a representation of any of the lenders who are in this room or participated in our study and solely represents my opinion.

Effectively, from the perspective of a lender, the issue of alternative data has arisen in response to a challenge, and that is to say this segment that we've identified, this 35 to 54 million Americans that exist, really, outside of the credit mainstream are outside of the credit mainstream because of the business model of mainstream lenders, which is automated underwriting. Automated underwriting requires a sort of minimum threshold of data (off mike), and absent that — and this is the thin-file or no-file, unscoreable population — it's very difficult to assess an individual's credit risk, credit capacity, and creditworthiness, and so as a result mainstream lenders that rely largely on automated underwriting are left to look at this population as high risk by default. And as Alyssa pointed out, one of the key findings of our study, and a study that's corroborated by a study done subsequently by Fair Isaac is that the risk profile of this thin-file, no-file population bears a strong resemblance to the risk profile in terms of credit score distribution of the general population but for the top level, but for the super prime — the 800 or 850 and above. And so that assumption that little or no information translates to high risk is a costly one from a business perspective for lenders. And this is a promise to lenders as an ability to enter into previously untapped markets where there is promising risk profile to extend credit and to capitalize previously undercapitalized communities.

Now, we know that lenders are very interested in this data from empirical evidence. If we look at the mortgage-lending sector, mortgage lenders have been gathering alternative data, not just the telecommunications — wireline and wireless — and the energy utility data — oil, electricity, gas, etc. — that we analyze in our study, but other data — presence of children, truancy, some very granular data, but they have to manually verify this data, and much of this data is self-reported in the application, and this represents a considerable investment in terms of the resources. So, the ability of any organization to centrally collect comparable data and verify its accuracy and be able to engage in data reverification, verification per the FCRA, represents an incredible efficiency gain for lenders, so, you know, there's a huge market opportunity here for bureaus or, you know, for CRAs — not just the three national bureaus but others that emerged into this niche as well. And, again, I'm trying to get back to some of the market dynamics of this.

We also know that lenders are very interested in this from a CFSI — Center for Financial Services Innovation — sorry to get caught in the acronym soup — study that polled lenders about their interest in using alternative data for extending credit for underwriting, and there was a very high level of interest expressed, and I know that Arjan Schütte, who is with us today and moderating a panel later this afternoon, will be sharing some of those findings.

We further know that lenders are interested simply because of our involvement in this space. Many lenders — at least a number of significant lenders, including Bank of America, J.P. Morgan-Chase, and G.E. Money — have been directly involved in our own analysis and have been very supportive and expressed a high level of interest in trying to move the needle forward on not only having alternative data reported but developing alternative scoring models and using those in underwriting decisions, and representatives from those organizations actually will be also sharing their interest in this in their activities as well later today.

And, finally, we also know there's an interest because of the existence of these emerging solutions, not only with SAS but with other folks like PRBC as well, that banks have been involved from day one, and this shows, again, that the market is responding to an information gap in an unmet need and there is a desire for, you know, harnessing the potential of the alternative data to extend credit to these undercapitalized areas and consumers.

Now, what are the challenges from the perspective of the lender? Right now there are a few solutions, and the solutions that are out there are embryonic and relatively untested, albeit some of them show great promise. There's also the challenge of — there's a paucity of alternative information. In fact, in our study we see that the alternative trade lines in the credit bureau with which we work, TransUnion, account for fewer than 1 percent of the total trade lines and their credit-scoring database, and very, very few energy utility companies and telecommunications company actually fully report. That is to say, they report monthly positive and negative information to national credit bureaus — one or more national credit bureaus. And, in fact, I've come to learn recently that not only is that number small, but it has at least shrunk by one significant player owing to their internal counsel's interpretation of Section 222 of the Telecommunications Act of 1996, which is a privacy provision that restricts the use of customer proprietary network information. But basically they've interpreted the Fair Credit Reporting Act carve-out to mean telecom firms may only report negative data to credit bureaus, not negative and positive, as that was the intent — that's the inferred intent of Congress at the time of the passage of the Act. So, that represents in my mind a (off mike) setback, and the setback represents a challenge and opportunity for policy. There's a need for clarification on the intent of Congress in TA96. This data is important. Our study shows the benefits of reporting — fully reporting alternative data to credit bureaus for the thin-file and unscoreable population and its impact on community development. So, there is a need to explore not only the state regulations but, more importantly or as importantly, the federal regs that are barriers to the onward transfer of this data to consumer reporting agencies.

And then, finally, I think as Clark pointed out — or actually as Chet pointed out, this is not a technology, but as Clark was pointing out, this is really a modeling challenge. It's a business issue and there's a policy challenge, but it's a modeling challenge. You know, there — for folks to invest significant resources in this, there needs to be a demand from potential (off mike) users, and we've shown that there is a lender interest, but the models need to be developed but there's no data, so we run into this chicken/egg dynamic. So, something needs to be done to move the needle forward and bring more data online, and we'll discuss more of this this afternoon. We think there's a real harmony of interest here. We think that this is a win-win-win from the perspective of lenders in terms of the ability to use this data to be able to differentiate between goods and bads or high risk and low risk, to enter into new markets, into these — this untapped market and extend credit and prevent overextension and grow margins, and that's — those are all good things. We think this is a win from the perspective of data furnishers, and as we've seen at the Brookings (off mike) — someone I know from (off mike) Asset Builders of America is here as well —. An event they did last year we had Verizon, we Energy, and — no, Nicro wasn't here — but the three utility companies basically came and suggested that one of the near-term benefits of reporting alternative data fully to credit bureaus was a significant and relative immediate reduction in delinquencies and charge-offs, so a cash-flow benefit, and we think, most importantly, this is a win for borrowers, for the — on bank, under-bank, under-served thin-file — and they're not the same thing, Chet being a great example of a thin-file borrower, that can thicken their files and build credit history and receive more affordable credit on terms of national credit risk, credit capacity, and creditworthiness. So, these are substantial challenges.

And so, again, I tried to sum up basically the alternative data shift from a lender's perspective. I hope, and I'm sure there are lenders in this room who, if I've done disservice, will step forward and say as much. But I hope that sort of rounds out the perspectives on this panel.

It's unfortunate that Windy couldn't be here — sorry? I asked if Windy was here and —

I didn't see you, I'm sorry.

Windy's here, and so in addition to hearing me sum up, Windy's actually going to give Windy's own perspective now.

Windy, would you — thank you very much. I hope I did all right.

MS. OLIVER: Hello, everyone. Sorry that I'm late. Left New York this morning, the flight was delayed, so I apologize for that.

But my — this data is very important to lenders. I'm a lender. I work with G.E. Money, G.E.'s consumer finance business, and I guess about a year and a half ago I was appointed to the role of V.P. of Risk, roll to credit leader (?). That shows how important this particular segment is to our business.

My entire job is to find ways to underwrite customers that have little or no credit. And when we look at those segments, we look at no-hits, thin-files, and unscoreables. That's how we classify. A no-hit is basically a customer that has no credit at all, no record with the Bureau. Thin-file would be — well, Chet would be an unscoreable, someone that has a thick file but no activity for the last 12 months — no activity for the last 24 months — and a thin-file would be someone that had a shell of a bureau with maybe one or two trade lines but not enough credit for us to score that individual to determine their credit worthiness. So, that's pretty much how we view it.

When you look at our core customer base, we provide credit to most of the — well, a lot of the retailers out there. Look at our clients. You look at Wal-Mart, you look at J.C. Penney, and when you look at that sort of customer you can understand why this data is important to us — because those retailers have a lot of customers that have little or no credit. So, one of the first things that we did when I started this role was to analyze the customers that applied to today. We looked at our entire portfolio of customers that submitted an application, and we segmented that to identify the customers that we decline due to no-hit or thin-file, and it's a huge population. Huge. And one of the things that we did — we started a test to understand what — you know, what type of data can we utilize to potentially book some of these customers, and we knew that we just didn't want to book these — we want to be responsible with it as well. We want to make sure that we educated them and made them credit-savvy customers as well. So, we put together a plan and we did a study and one of the things that, you know, we realized was that this particular segment of customers — when we have the type of data that we need to qualify them, the sort of data that we're speaking of today and the research that was conducted, these customers are just as profitable, in some cases more profitable than customers that we're booking today. And that's what changing — you know, we're offering them the same type of product that we offer a thick-file, good-paying customer. We didn't change the APR. We didn't change any of that, and we found that with this data — utilizing this data from a creditworthiness predictiveness standpoint, there is a segment of customers that we identify that pay very well. So, that's one of the reasons that we made a decision to get involved with this study, because we needed to understand more, and the study has identified exactly some of the things that we thought and even more from the urban market standpoint — and also from a customer that's, you know, that's been here, established — you know, we found a different type of customer. We found widows. You know, we found customers that had paid off their mortgage. For some reason they didn't like, you know, credit. They didn't want any credit at all. We found customers that were immigrants. You know, that was a large percentage of the population. And we know that in order to continue to deliver what we need to deliver to our client that we have to find a way to properly book this segment of customers, and this sort of research and this reporting to the credit bureaus will enable us to do that. So, that's one of the reasons that we feel very strongly about having this data in a format and report it where we can pull that data to create models to develop strategies so that we can approve these customers. At the end of the day, you know — you know, I've heard so many different numbers in terms of what this population looks like, you know. 56 million customers out there, 60 million customers out there. These are customers that we should be able to find a way to book these customers, and this sort of data is going to get us there.

You know, we're calling this — at G.E. we're calling this the last frontier from a credit perspective, and we want to go out there with the help of this data to book these customers.

I'm going to be short because I was late, because I know we have some questions.

DR. TURNER: Take your time.

MS. OLIVER: But I'll turn it back over to you, because we're going to have questions and answers.

DR. TURNER: The hope this morning is actually that we could have more of a dialog between the panelists and the audience as much as a discussion among the panelists, and whereas I do have several prepared questions, I'd like to at least begin by opening up the discussion to the floor for any questions that you all may have, because your questions will be far more interesting than mine I'm sure. So, gentleman in the back, please.

MALE SPEAKER — Yeah, I have a question for, I guess —

DR. TURNER: Also could you identify yourself?

MR. SQURES: I'm Greg Squires. I chair the Sociology Department at George Washington University, and I have a question for anybody on the panel. This sounds too good. I mean, everybody wins. The rating agencies develop more accurate models; lenders provide more customers; customers who didn't get credit can now get credit. This just seems so good. I'm wondering why everybody just isn't demanding that this information be publicly disclosed yesterday. And, because I'm not an expert in this area, I can't help but feel that there's some kind of institutionalized interest that is somehow threatened by efforts to disclose this information or to do on a larger basis, and I guess I'd like to ask the panel what are the barriers to more free-flowing of this information so that everybody can win?

MS. OLIVER: I think in the past we spent a lot of time dealing with customers that had thick files, you know, trying to figure out how to — you know, I receive probably, you know, 12 credit card offers a week, you know, 12 offers to — I'm a thick-file, and I think we concentrated on that. It's kind of like when we moved away from manual, you know, classifying credit report customers — automation, automation — we forgot about those customers that, you know, that didn't have a credit bureau at that point. So, now I think as a lender we're looking at this particular segment. I know all of the competitors out there — all of our competitors out there have different teams and groups of folks still looking at how do you book this last frontier customer that's out there and I think you'll see a lot more, you know, as we move down the road.

MR. WIERMANSKI: I think it's a cost-benefit equation for the public utility companies. There is a — it's not a trivial expense to provide this data, set up customer service organizations, to manage complaints and inaccurate information being reported to the data. There's liabilities if the information is not reported as provisioned under the FACT Act, so I think that's the concern, and until the credit granting and credit reporting community can show the benefits that these providers may experience by reporting this data — it's going to take a little bit of time for them to get a better understanding of what the cost dynamics are.

MR. ABRAHAMS: I would just like to agree and say that I think that the business case seems to be totally fleshed out, and I think it's sort of a chick and egg situation. I think calling out and, you know, problem multiplying is half solved really isolating all the points that Chuck has brought out that are barriers, and there is cost, there is time-consuming aspects of this, but the benefits are there and I think the business case is going to be very important to fully lay out and drive home.

MS. LEE: I think from a community development perspective we have to be very clear in terms of our education as the development corporations, as to the impact of this data positively and negatively on our credit records and as we, as a nation, become more aware of the impact of credit on our capacity to develop and our legislators hear our need to access credit in a better way, that reaction will change within the community development field.

DR. TURNER: And I point to a study that we released last year in May following some congressional hearing — or hearing on this. One of the key elements of that study was in fact a discussion of the barriers to the reporting of this data, and we looked at technological, economic, and regulatory and we found, I think consistent with what the panel discussed, technological barriers. Largely because of Metro 2 and the Oscar and just the state of IT, we're really nonexistent.

Economic barriers I think Chet hit on. There are costs to reporting data. Those were affected by, you know, decisions in terms of implementing regs from the oversight agencies, but also most important we found were regulatory barriers, and either two types here. There were the actual statutory barriers, and we did a survey of NAROOK(?) members — NAROOK is the actual cessation of regulated utility commissions. Those are regulators in the states — the PUCs, PFCs. We — I think we have 22 or 24 states respond back. Very, very high response rate. Only four states had statutory prohibitions on the onward transfer of this type of data to any third party, including credit bureaus — significantly, California and telecoms data, for instance.

But more importantly was regulatory uncertainty. Many, many of these commissions said that they had been approached by utility companies or telcos, and I asked whether they could report, and frequently even though there was no statutory barrier prohibiting this data reporting, the regulator told them no, and this owes to the heightened sensitivity to data privacy and data security currently. In cases where they were told okay, go ahead and report, the utility company, which is also subject to great public scrutiny, wanted written permission from the regulator, and the regulator refused, and I'm saying this — many regulators refused. They wanted a cover, they wanted direction from the State House, and it's very difficult to get laws enacted on in the State House or anywhere in this environment that promote additional information sharing. So, there's a real challenge here from a policy perspective. It's more the regulatory uncertainty than the actual presence of any statutory barriers. And so there is work, and we think that this — you know, the educational component has to not only focus on making the business case to perspective data furnishers but also outreach needs to be had to state and federal lawmakers about these benefits to, you know, reduce the regulatory uncertainty and create an environment which is conducive to the pervasive reporting of alternative data.

Arjan? Sure. Also, just identify yourself, please.

MR. SCHÜTTE: Arjan Schütte at the Center for Financial Services Innovation. In addition to the points you guys raised as to your good question, I think their business is always going to pursue the lowest hanging fruit, and so I think in the past they've always gone after the high net worth or the full-file customer, and as the comments earlier and I'm sure later will suggest, everyone who is advocating for this kind of information goes out of their way to stress how this is not just an LMI kind of underserved consumer group but how it in fact reflects a whole array of people. I think the overriding assumption, and a deep assumption amongst lenders, is that thin-file equals low income or some kind of other unserved subprime group.

DR. TURNER: Okay, over here.

MR. CARLISLE: Avery Carlisle with the Mortgage Bankers Association. Ms. Oliver, to some extent in the study you talked about underserved markets, and I think you mentioned the prevalence of undocumented or immigrant populations. I'm just wondering about the challenges your study had in identifying that population and any trends you saw in some of the statistics you had; and then, secondly, what are some of the challenges in identifying these individuals in compiling a dataset on them. I understand many do not have a Social Security or some use a (off mike) to be a unique identifier. I'm just wondering if you could talk a little bit about that.

DR. TURNER: Windy, do you want to take a first cut at that?

MS. OLIVER: Sure. Well, you know, with the Patriot Act requirement, there are certain — you know, we can only take a certain customer given that we do have certain specific pieces of data about that individual, but we have been able to, in different studies and different tests that we've run over the last year and a half or so, segment the population enough to understand the performance of their particular group. I'll tell you, it's very promising. And some of the things that we're doing to kind of drill down and focus on different, particular segments in the underserved market, it's showing very positive results. It is tougher. You know, you have the metricular(?) card, you have the laser card, you have different types of identification from the Hispanic perspective that we're seeing today, but we are finding that when we can't identify the customer and a couple of other features of valid information, we're finding that that group perform very well.

MS. LEE: I think from the performance of our study, we did not necessarily identify undocumented or immigrant. We did find particular lists in terms of the impact of alternative data for Hispanic and for African-Americans, but our study specifically did not address immigrant populations. But I think that combined with a local perspective on those areas, as well as the national perspective that Windy provides from her analysis, that we do have some good pictures about what is happening in relationship to immigrant communities. Just in September of this year I was at the Congressional Hispanic Caucus Institute speaking about the issue of financial literacy, and as we know, when you come to the United States, this is a different environment, this is a different country, and it's a different way to capitalize. You don't buy your home outright, as you do in many countries that many of our immigrant families come from, and so from that perspective there is an educational issue that is also critically important to understanding credit savviness and how to be involved in the American credit system.

MR. WIERMANSKI: I am just going to echo what you said about the Congressional Hispanic Caucus Institute. They have studies that they have done relative to mortgage lending and home ownership and what are the challenges. They have had extensive focus groups, and they have reported their studies from 2003 to 2005 and 2006. So I would encourage you to check those out, and there is a lot of good information there to that point.

MS. LEE: We have also supported a pilot project through Asset Builders of America. Bob Wynn is here, and maybe he wants to speak for a few minutes about what his findings have been locally around African American and Hispanic populations.

MR. TURNER: Bob?

MR. WYNN: Thank you very much, Alyssa. I would like to commend everybody here today for taking time out for this particular issue.

As Alyssa mentioned, we had a study through Asset Builders of America which actually is a non-profit in Madison, Wisconsin, and our mission is to provide financial education and wealth-building strategies for low and moderate income youth, families, and communities. In our service to those communities, we happened upon this issue of no credit/low credit scores, in particular with these population groups. So through the support of the Brookings Urban Markets Initiative, we were able to engage in a two-part study, one looking at trying to understand why some of the utilities do not report — most of which do not — and I think you have gone through a lot of the issues that relate to that cost-benefit analysis that the utilities must engage in. We happen to operate in Milwaukee, Wisconsin, where there is a full file reporting utility, and we learned a great deal from them.

The other part of our study, actually, I found to be more interesting and a little bit different than what has been discussed here so far, and that has to do with what I say is the other side of the equation of trying to close this credit scoring gap and that is from the perspective of the consumers. There is quite a bit of disconnect that we found with consumers through a pilot project that we conducted with two study groups. We had 20 African American individuals that opted into the study group, thereby allowing us to look specifically at their credit score with some incentives that we provided for them, and then we had a similar group that was mostly Latino. I will just share with you quickly a few of the things that we learned.

One, of course, is that while the average score was in the mid-500s, I was surprised by how many actually had some in the 400s. So the need is very dire in terms of elevating those scores. Most of them really didn't understand some very basic things in terms of the proper use of credit as well as just some basics about personal finance in terms of net worth and how you begin to build wealth. This is another area that utility companies can help with educating their constituency.

They found that the one-on-one credit education and counseling that we offered to be the most helpful. They were quite enlightened by a number of things that they learned by looking at their own individual credit report. They also found that the insurance segment which we also taught on was just almost a nonexistent component of their understanding. Many of the lower income individuals are operating without the type of insurance that we take for granted, even in some states such as Wisconsin — it doesn't require auto insurance — and this has a tendency to drag people's budgets negatively and then, of course, they incur other problems with respect to credit.

Then, of course, we found that there is a great deal of distrust with the credit industry, credit bureaus in particular. Of course, some of that has to do with just the mystery behind the score and what goes into compiling that score. We want the lower income individuals to have a better understanding of how they can begin to manage and drive their score.

All that being said, we did investigate the report and the score early on in our project and then six months later, and at this point, despite the intensive education, we can't say that there is any change in that score. We do think that that is a short period of time, and we are hopeful of checking the score again in February of 2007 which would be 12 months out, and hopefully we will begin to see some differences there.

Going forward, I hope that we can engage in more roundtables such as this one. As Michael mentioned, we were involved with helping to facilitate the first where we found that a lot of industry people need to get together because this is an inter-industry issue that has many challenges. We hope that we can engage a utility in the Wisconsin area to actually commit to converting from non-reporting to full file reporting, and that is one of the objectives that we have going forward. We hope to do more cross-education between us as service providers as well as the constituency that we serve because we have learned a great deal in terms of how that constituency operates. One example is, unfortunately, we find that a number of parents actually put the bills in the names of their children because maybe their credit is already tapped out or they are trying to avoid another phenomenon that we did not know existed and that is that some of the lower income people actually are charged a deposit before the utilities are allowed to be turned on because of the negative credit scores.

So there is a lot more that needs to be done on both sides. I am glad that the industry is beginning to look at this. We do need to, I think, make the case stronger so that, as Ms. Squires (?) mentioned, the utilities are more inspired to engage in changing the status quo from non-reporting to reporting. But also, I hope that this industry of all you who represent some parts of the credit industry can give more attention to the education side as well because I don’t think we can ever mainstream as many of the people as we might potentially unless we have those consumers behaving in such ways as going to help them to elevate their own scores.

Thank you.

MR. TURNER: Thanks, Bob.

The PPAD study is available today, is it?

MS. LEE: Yes, the PPAD study is published today.

[off mic comment]

MS. LEE: It will be published online this week.

MR. TURNER: I just wanted to add very quickly as well to Alyssa is suggesting that we correctly have not looked at the immigrant issue in this study in the publication. However, we have done a data append to the nine million odd credit files with alternative scores that we received from TransUnion. We worked with Axiom Corporation and did a data append to do socio-demographic analysis. In the segmentation analysis, we were able to look at things like nation of origin where identified as well as native tongue. And so, looking at Spanish speakers and folks who have a nation of origin other than the United States, we were able to get some proxy indices for the immigrant community, and the data is very consistent and promising for the immigrant community as the non-immigrant community in terms of the risk profile. It is a fast growing market that is relatively untapped and has great potential.

One other thing to echo on Bob's points, I know a lot of this is about credit access, but when we are talking about the impact on score distribution for the thin-file unscorable population, we are not just talking about credit access; we are talking about life chances really. Credit scores are used, as most of you are aware, for a host of other reasons beyond just credit decision-making.

They are used for employment decision-making. I am married to an immigrant. My wife is from Sri Lanka, and she has been asked for permission to access her credit report, and she is a physician. They are asking her whether she can get a credit card, and she has no credit history in the United States. Even if she has been a practicing hematologist for 13 years, she may not be able to get employment with certain pharmaceutical companies merely because she can't get a credit card.

So this again shows the diversity of the population impacted and gets to the immigrant issue and also to Bob's issue that credit score is also used for renting an apartment, for determining whether or not you will be extended certain types of insurance policy instruments and what premium you will be paying. This has an impact that goes far beyond whether or not an individual will be able to get a credit card. It gets into home ownership, starting a small business, and other types of loan instruments. This is a profound, profound topic that impacts the lives and life chances of millions of people everyday.

With that, next question, please to the gentleman in the middle — I am sorry, in the back.

QUESTIONER: My name is Mark Procock (?). I am an economist with the Treasury Department.

My question is on the mortgage side and on mortgage lending. We have seen in the paper, especially with the change of the Capitol Hill parties there, of the interest of consumers who are given products that might not be appropriate, the suitability question.

I guess I have two questions. One is we have talked about this distribution of credit scores, of those who don't have a credit score versus others. It is hard for me to believe that those who don't have a credit score, that they have the same financial savvy distribution as those who have a credit score as there are ways to build credit. So my question is: One, what is that distribution of financial savviness?

And two, if it is not very good — this sounds to me at least for purchasing a mortgage that it is almost like tossing people into the ocean without teaching them how to fend off the sharks — how do you give them financial savviness? If we are going to give credit scores to 60 million people, how do we also ensure that they are educated on what products maybe aren't suitable or how do we educate them? It seems like this should also be part of the question or part of the answer when we are giving credit scores.

MR. TURNER: I am actually going to defer to Windy if you want to talk to talk from a lender's perspective, but I would also encourage other lenders in the audience who may want to chime in. In particular mortgage lenders — I know there are a few of you out there — please feel free to speak up.

MS. OLIVER: Well, we are currently not using this data from a mortgage perspective. Today, we are looking to use this data more so from a retail card, a bank card perspective, not within mortgages yet. We need to know more before we cross that bridge. But you are correct to say that.

What we have is that there are segments, as in the regular U.S. population, within this particular customer group that will perform well and that will be profitable. What we want to do is find a way to better credit-qualify customers. Within that credit-qualification, there will be some customers just as a regular customer that walks through the door today with a thick file that will not qualify because of some of this data. When we look at the distribution, I don't think we have enough research yet to say exactly how when you look at the total universe of customers after the utilities start to report, what that complete distribution will look like, but what I can say from the studies that we have conducted and from this study is we have found there to be groups that are very profitable and segments that are very profitable when this data is reported.

MR. TURNER: Dan Goldfarb (?)?

QUESTIONER: Hi, Dan Goldfarb from Bank of America.

Actually, we do today use alternative data in the mortgage arena. I hail from the Consumer Real Estate section within Bank of America, and we share your concern. When we do use the alternative data, we only make it available to those products that are conforming and fully amortized, so the easier product to understand. We shy away from some of the products I think you may have been reading about.

MR. TURNER: Anybody else want to add on to that particular question?

Bill?

QUESTIONER: I am Bill Binzel with the National Foundation for Credit Counseling.

Perhaps, I think you raise a very good question, but there is a model out there that might be beneficial, and that is under reverse mortgage the HECM lending, that in order to qualify for reverse mortgage, there is a requirement that the individual, the borrower, go through counseling, go through an education process so that he or she fully understands what the reverse mortgage is about and what the potential consequences of the reverse mortgage are. When the requirement was put into place, the thought was this was a new product, people were unfamiliar with it, and there was an educational need for it.

I think this just points out the one area where the Financial Literacy Education Commission is working. Perhaps as we are tapping into new segments, new sectors of the economy that have not had access to credit before, that there be an education requirement or an education component, probably is a better way to say that, and that is a part of the lending activity. That is something the NFCC is working very actively with a number of entities to try to help implement and to bring about.

MS. OLIVER: A lot of the things that we recognize as well — I am sorry — one of the things that we recognize on the financial literacy piece is in the pilots that we have conducted — and we have conducted the pilots with several of our larger clients. In the pilots, we provided financial literacy. We have created an entire financial literacy program for this particular type of customer. So in our test groups, in our test segments, we provided that literacy to part of the group and not to the second part of the group, and we found that the financial literacy has a huge impact. That is something that we know that we need to continue to do in order to make this segment profitable.

We are just not trying to book them and make them a customer for six months or twelve months. We would like to grow with them through our products, starting with some of our products that are not at a higher credit line and advancing them eventually, hopefully, to our mortgage products and other types of products that we do offer.

MS. LEE: I will just say one more thing on that issue. There are curricula that have been developed and are currently in use to begin this financial education at the elementary school level and higher. I think as we have added this piece to our life skills in terms of understanding how to live a life, that just like your economic segment or your social studies segment, that this segment is something that is going to be critically important as part of our educational system to help provide the financial stability and the education that is critically important to move forward.

MR. TURNER: Bob, did you want to add something?

MR. WYNN: Sure; I won't be as long-winded. Basically, I just really want to emphasize the importance of educating the educators. So it really piggybacks off what you are saying as well, that in addition to direct education, always identify key persons that are deeply embedded into the grassroots part of the community and really work with some of those — what I call — education intermediaries to be sure they truly have the expertise to counsel on some of the more complex issues and challenges that this population faces.

MR. TURNER: Thanks; in the middle.

QUESTIONER: This report does a terrific job of identifying the potential for utility and telecom lines to be reported. I am curious if there is any thought from the panelists or other people in the audience about trade lines with potential being added beyond utility and telecom.

Who would like to take a first stab at that?

MR. TURNER: We looked at this issue in our first, in the 80I Phase I, and I will do a plug for our web site for those of you who want to access this study. It is freely available as all of our studies are at www.infopolicy.org. We were concerned about again increasing credit access and improving the lives and life chances of this 35 to 54 million segment. We wanted to know which in the universe of alternative data had the most promise for the near term, and that is sort of a squishy variable. I know economists don't like that.

But we developed an analytical framework around promise, and we had three criteria. The criteria were cash-like versus credit-like, coverage, and concentration. So there is a nice alliteration for you.

Cash-like versus credit-like: Well, what is alternative data being used to predict? There are varying models — response to a credit card offer, bankruptcy default, et cetera. Generally, we were looking at a generic scoring model, so probability of default at 90 plus days. We felt that the more credit-like the alternative data, the higher, the more predictive it would likely be of credit behavior, credit risk, and credit capacity. We looked at a whole universe of alternative data sets and scored them at were they more credit-like or cash-like kind of crudely, and that is basically do you get a good or service at the point of sale or do you get a good or service prior to making a payment. You think of let us say a telephone bill where you actually use your wireless phone for a month before you have to make a payment, and then you may have 21 or 30 days beyond that. That is a form of credit as opposed to let us say a stored value card or remittance payment where actually it is cash.

Now, concentration: We were looking at from the data furnisher's perspective. Is the market highly fragmented or is it very concentrated? This matters in terms of practical reality in gathering this data and bringing it online. Here, think of, for example, the telecommunications industry which is very highly concentrated versus let us say rental data which many landlords are just individuals who are renting an apartment above their garage and have very little incentive to report.

Then finally, the coverage: Well, how likely are individuals in this population to have these trade lines or to have some sort of credit activity in these alternative data sets? Here again think of wire line telecommunications which has a very high penetration rate across segments versus remittance cards or stored value cards.

We ranked them. Basically, with those three criteria, the two sets that were the most promising for the near term were utility, what we call energy utility: gas, electric, water, and the like, and telecommunications: wired and wireless, and that is what we modeled. Now, that is not to say that these other data sets aren't useful. They may be very useful. They may be even more predictive than telecoms and utility. We don't really know. That is really a path to folks like Chet and Clark to determine. But that was really the result of our analysis.

I know other folks, and I don't know if anyone from FICA is here or, Michael Nathans, if you want to talk about some of the data that you put in your model, but there are models that have been built that use alternative data that aren't just telecoms and utility and that look at payday data and the like. Michael, did you want to talk a little or no?

MS. LEE: I was just going to say that one of the critical issues here, before Michael starts talking, from our perspective is how to create the most influence with the use of alternative data. There are top-down systems, and there are bottom-up systems. When you are talking about the three Cs that Michael articulated, he is really talking about what type of data can be brought into an existing system that won't require that lender at the end of the day to change their whole entire way of doing work, and that is sort of the direction where you clearly going to make the most impact. It is not necessarily the only place.

So, Michael?

MR. NATHANS: Michael Nathans from PRBC, and I guess I am going to get a chance to talk a little bit later today.

What I would really like to do is circle back to you the questions that you raised about, the gentleman from the Treasury, because it was really about four questions rolled into one. One was about education. One was about the suitability or the types of loan products, mortgage products that are being offered to consumers today. It tends to also talk about and your question raised the use of alternative credit data in those lending decisions. Your question sort of implied that the ability of a consumer really to continue to make payments on an adjustable rate mortgage that all of a sudden rises might somehow be connected to their credit worthiness and the use of this alternative credit data which I don't' think should be confused.

I think that education is extremely important, but I think that it is important also to understand that lenders such as Fannie Mae, Freddie Mac, FHA have long used alternative credit data, particularly rent and utility bills, in a formula that has been in existence for a long time. In the mortgage lender, which is where PRBC focused first, if you have no credit history but have paid your rent and other utility-like bills like cable, electric, and phone on time consecutively for 12 months, you could qualify for a mortgage that Fannie Mae, Freddie Mac would buy or FHA would insure. So the use of this data, this alternative credit data, has been very widespread. Well, I won't say widespread, but there have been guidelines by the GSE and the FHA for the use of data for a long time. The actual use of the data by lenders has not been as great because the data is hard to get and it takes a lot of effort to get it which is why we went into business to streamline that. I will talk about that later.

I understand and I think a lot of us understand that the mortgage industry uses this data today, particularly for consumers that don't have a credit history, but there is not a lot of use of the data in other verticals, for example like credit cards, that we know of. So I was very interested to hear Windy say that GE does use the data. I would be very interested and I think all of us would be interested to hear, knowing how the mortgage market uses the data, how does the credit card issuer use this data.

MS. OLIVER: How do we use the data?

MR. NATHANS: Yes.

MS. OLIVER: Basically, we use the data for the different customer groups that we talked about. Right now, we are really just using this data for the no-hits, thin-filed, and unscorable population. We are not using this data right now within our thick-file or established bill segment because we are still learning about it in the underserved segments. Basically, what we are doing is we have developed strategies that we are testing with the use of this data coupled with some demographic data and other internal models that we have built to determine the credit worthiness of these customers.

When you ask how do we use it more specifically, what are you looking for?

MR. NATHANS: Your underwriting guidelines, for example, in the mortgage industry, you need rent plus three other utility-type trades paid on time consecutively for 12 months. So do you use does the consumer have to have a rent trade line? Do they have to have just one utility credit trade line? Can they pay it on time for just six months? But not giving away your secrets also.

MS. OLIVER: Yes, it is a little bit more. You know I really can't. We would have to pull out something. We would have to go pretty deep to understand our model. But we do pull that data in, we do couple that data with some demographic profile data as well, and we combine that and we blend that to determine whether or not we approve the customer. Length of time, of course, is included. The different types of trades, depending on what type of alternative data or demographic data that we are using, are weighted differently. We are testing those models and those strategies.

MS. LEE: Could I just pick up on one point?

MS. OLIVER: It is automated as well, so when you think about a mortgage and you think about you need three of this for X number of years and that sort of thing. All of the tests that we are doing are real-time decisions that are made where we are dealing with the retailer when they apply in the store while they are standing there. So it is all automated.

MS. LEE: I just wanted to pick up on one point that Windy made which is at GE, currently, they are not using alternative data for scoring the traditional thick-file. But as Chet alluded to and our study has alluded to, we believe that the promise of alternative data is not just for thin-file and no credit score consumers, but it is also a promise that will help to continue to build your thick file in the direction that your file is currently going.

MS. OLIVER: We agree with that. We agree with that as well.

MS. LEE: Sure, absolutely.

MS. OLIVER: We haven't tested to have those results, but we feel strongly that eventually we would look to use this data with thick-files. We haven't determined or built any models or worked with any vendors or partners to build the type of model that we would like to test because we think with a thick-file — I think as Chet alluded to earlier — you would weigh this type of data a little bit differently with a customer that has a thick established bureau and you are bringing in the utility data. So it is a balancing act there when you utilize this data with that segment.

MR. WIERMANSKI: Let me just say it is entirely possible that that could have an equalizing effect. When you look at the home to pricing data on mortgage lending that is published every year, that the inclusion of alternative data could help potentially to lower the price for certain groups and certain cuts of the data so that you see some benefit there as well. So that is entirely possible.

MR. TURNER: I know Dana wanted to add something.

MR. GOLDFARB: [off mic] Again from Bank of America's perspective, in the credit card arena, we too have been using alternative data, but frankly the type of data that we have had more experience with I wouldn't classify as alternative data; it is relationship data. At Bank of America, we have a very broad concept and we have lots of different products and services. Knowing something about the extensive relationships we have with our customers has proven to help allow us to penetrate the thin-file and no hit type customers. When you marry that with some of the additional data that we are talking about today like the telecoms and utility data that is available and we build that into our targeting models, then we actually build statistics. If the statistics say through our thin-file model that that data is predictive, then we add it in. If it increases our paths, we will use that to make cuts.

What we do, for instance, then to build on what you were saying is we send our credit cards through primarily a direct mail channel. We send out direct mail. So picture yourself now; you are a customer; you are a prospect; you have never even had the thought that you might be credit worthy because you have never gone down that path before. Now in leveraging something that we know about the customer, combining it with data that we know from the credit bureaus and from the telecoms and so forth, we can approach them with pre-approved credit card offers to minorities and to the underserved credit arena and make a much better decisions.

That is promotion. That is something that these folks will remember, and that creates loyalty, and it is something that we have had to learn. That is one of the reasons why we are so excited about this project, this data, and what we can do with it.

MS. OLIVER: That is the exact same thing that we are doing. That is the exact same thing that we are doing.

MR. TURNER: In the middle, yes, you.

QUESTIONER: I am Charles Lowry with the Center for Responsible Lending.

I just wanted to pick up on a few points, Michael, and one thing I just want to speak on from our organization's vantage point is we think payday lending is a bad extension of this process. I am not sure if there are any representatives of the payday industry here, and we can talk about that further.

But I guess I just wanted to say that in relationship to what Bob said and what Ms. Squires said and, Alyssa, what you said and also what Windy said, I think there is a clear sense that the industry looks at this part of the population, and you mentioned there is a profit and it is the last frontier. But I think what Bob is mentioning that is maybe understated here, maybe not, is the need for education. In one of the payday stories we did, one of the credit union officials said that payday lending was like putting the customer in the ring with Mike Tyson — that sure, it was a fight, but it was going to have an ugly, ugly result at the end. I think that scenario for me is like taking this population which we know has certain characteristics and uses certain types of alternative financial products, and sort of pushing them to make a profit from them without really focusing on the education that they really need.

We talk and we sort of pay lip service, I think, nationwide to the issue of financial literacy, and we talk about always putting in the schools, and yet it never seems to catch up to where the industry and profit is going. A case in point is the Pentagon study and the recent 36 percent cap for military members because of the young inexperienced military person that gets ripped off by the payday lending industry and others.

So I think as we talk about payday lenders, rent to own stores, et cetera, as the lady here mentioned, the expansion of the usage of this data has to be really carefully thought out and the education of those persons that we are looking at, like the gentleman from the Treasury said, I don't want to see those people thrown in the water without a safety net, without a life raft, and just thrown to the sharks. I think that is a really key point that as this moves forward cannot be underestimated.

MR. ABRAHAMS: I would like to add one thing to what you stated. It is important because whether consumers know it or not, if they do not have traditional credit but if they are using utility, power, electric, and gas, if they don't pay their bills on time, they are going to end up in the credit bureau anyway. That data is going to then be reported to a collection agency. So it is important to your point to educate consumers that there is a right way to build your credit profile and a long way. The long way is to not pay your utility bills, and you are going to find your way into a credit bureau whether you like it or not; the other would be to responsibly go out and acquire credit. From my perspective, wouldn't it be wonderful if utility companies were reporting all that positive data so consumers can start on the right foot building their credit by using their good payment profile getting into the credit bureau versus the negative?

MS. OLIVER: I want to jump in here with one of the things that I have stated, I guess, several times here. An important piece of the program that we are developing for this market is financial literacy, and we have developed financial literacy for these customers. Any time we mail to the customer, any time we approve the customer, we have different a different type of financial literacy that we continue to educate this customer with.

As I stated earlier, we are not looking just to approve a customer and make a quick profit. We are looking to create a customer that is going to be loyal to our brand for life. I remember the first credit card that I was offered. I still have it today. Those are the type of customers that we are looking to develop and bring along with the initiatives that we have in place today.

At GE, we understand the importance of financial literacy and educating this group of customers where they currently today do not have credit. That is why in all the pilots and tests that we have conducted, we have tested the literacy and we have tested different types of literacy. We found some that weren't and some in terms of delinquency. We have had focus groups, focus studies with the folks that we have approved to determine what type of financial literacy worked for you. So that is something that is a huge part of this initiative for us as we move forward.

We are not looking at using data from payday lending. That is a little bit more risky than we are looking to go with alternative data. So that is not anything that we are thinking of at all. The type of data that we are talking about in this particular study and that we are looking to move forward with is more along the lines of telecom, utilities, and that is where we are right now.

MR. TURNER: I would just like to add something because I think I detected a hint of a myth I would like to dispel which is this myth that this is all about easy credit. We are not talking about providing lenders with more data to do automated underwriting so they can extend easy credit and people can put themselves over their heads in debt. Our study bears that out incidentally.

What we see is when we compare our thin-file population with the alternative data trades versus the validation sample which is a randomly selected, representative sample nationally of thin-file as well with no alternative data trades, they are able to access credit at four times the rate but they only carry half the balance. That indicates that when they are getting credit, they are using that credit responsibly. They are not going out and buying expensive consumer durables and overextending themselves and maxing out their cards right away. That is just not true, and that is consistent with the risk profile that we see in that the thin-file unscorable population but for the super prime component has a comparable risk file with the general sample. We wouldn't expect, based upon that, higher rates of insolvency or over-extension for that population and for the general population.

I would just like to state that clearly, that this is not about enabling people to over-extend themselves. That is just not true. Basically, more information enables for a better ability to distinguish between high and low risk and then match the credit offer with credit capacity, credit risk, and credit worthiness, not to give people who can't afford limitless credit cards, limitless credit cards.

So, please, someone new, hold on one second, the woman in the front.

QUESTIONER: Hi, I am Rebecca Keene (?) from the Federal Trade Commission.

You bring up a point that I wanted to follow up on which is a lot of the questions seems to suggest or indicate that the thin to no file population has in general higher risk, but when we started this discussion, there was an identification that this population has a similar risk distribution as the thick or the more robust file population. I wonder and I think it might be helpful for the discussion to hear more about how you determined that this thin to no file population had that distribution and fleshed that out.

MR. TURNER: Sure; well, we had a sample of nine million credit files over a one-year observation period, and we basically looked at the distribution of credit scores for the thin-file population with one or more alternative data trades versus the thin-file population with no alternative data trades, and we also then compared the analytical sample, the whole nine million sample — that is the general thin and thick together — versus the validation sample which was about two million. According to the credit score distribution — we did it by 10 points which is very granular — it is a comparable distribution. So that is basically how we can compare the risk profile with the two populations.

Again, the significant difference was on the super prime, there were very few or almost no thin and unscorable at 850, for example.

QUESTIONER: At the same time, did you look at a demographic or try to get an understanding of what constitutes the thin to no file population?

MR. TURNER: Yes, we did do socio-demographic analysis. We looked at variables to include age, income, range, ethnicity, gender.

I was very glad that Windy made this point, one of the findings that we didn't expect. We expected that younger Americans would be thin-file because they haven't really built much of a credit history, but what we found was that the 66-plus group had a significant number of thin-file, and we attributed this to the widow or widower effect in divorce because when we are looking at alternative trades, for instance, frequently the head of the household particularly for earlier generations may have been the man; the man dies; and the spouse now has no credit history. So I think Windy has found that on her own in GE's analysis, and that was a surprise finding for us, but it is an important one.

But yes, and then all those results are in the study, and I would be happy to talk with you about those at length offline.

The woman behind Michael.

QUESTIONER: Annetta Bilge (?) from HSBC.

I would like to raise something different. HSBC has been trying to test multiple sources for the last year and a half, two years. When it comes to internal cost-benefit analysis, we have to mention that alternative data sources are very expensive. Therefore, it is a vicious circle. We want to extend credit. We want to use alternative data sources as much as possible. Yet, to conduct a test or to actually put it in a production-like environment, the cost of that test is fairly high. So for those of us that want to promote the data internally within such big companies as HSBC, it is an additional struggle.

I hope, and maybe the panel can address this, that with time the data is becoming less and less expensive, making it easier for lenders to use the appropriately for the right products with the right education costs on top for the benefit of the consumer. Thank you.

MR. TURNER: You are learning.

[Laughter.]

QUESTIONER: Simon Firestone (?) with Freddie Mac.

Just a quick question, has anyone done studies of the effect of allowing utilities and telecoms to report their own receivables?

MR. TURNER: Yes, actually. I don't know if, Chet, do you want to talk about the Nicor Gas Study or do you want me to talk on that?

MR. WIERMANSKI: Why don't you talk about it because you are a little bit more familiar with it?

MR. TURNER: In our first study, we cited a study that TransUnion provided us. Nicor Gas began fully reported to TransUnion, and they tracked the impact it had on receivables. After one year of fully reported to TU, they experienced a 20 percent reduction in delinquencies and defaults, and that is a very powerful business case. Now in the world of research, it is an anecdote.

We tried to get at this a little more through the PPAD survey. Maybe, Bob, you will want to speak on the results with that. At the PPAD summit last year, we had Verizon come talk. Whereas they were less willing to share the specific numbers about the impact on receivables, what they did suggest was they were encouraged enough that they went from a small pilot in Virginia of reporting to one bureau of about three million land lines to within a few months, they ramped that up to seven. Then within nine months, they were over 20 million land line accounts being fully reported to all three bureaus.

Similarly, WI Energy, the Milwaukee-based utility, also less willing than Nicor to provide specific data, said that they were very encouraged by the impact that fully reporting to TU again, I believe, had upon receivables.

So we know that it matters. What we don't know yet is — and we are hoping to get at this and we are going to talk more about this late — there is an education component there as well, what we call customer education. We think that those utility companies that reported fully and communicated clearly to their customers the benefits of positive and full-file reporting experienced more lift than those that either didn't communicate at all — and surprisingly, there were some that reported and didn't tell their customers — or that put in a statement stuffer for a month or two and really didn't emphasize the benefits but possibly even emphasized the consequences of failing to pay your utility bill. We need to understand more about what works in terms of customer education to get that lift because it is part of making a business case to data furnishers. They need to be compelled to report if we are going to have an environment of pervasive reporting. This is part of the challenge ahead. That is an excellent question.

Bob, please.

MR. WYNN: It actually brings up a particular point. No, we were not able to drill down at that level with WI Energy. However, through newspaper reports and other informal information, it is very clear that their charge-offs are quite high, and it is the case with many utilities. So there is also a business case from the perspective because I suppose that we underwrite those charge-offs.

MR. TURNER: Further questions from the audience? One more and then Michael, I promise. The gentleman in the back?

QUESTIONER: I am Dan Garr (?) with the Federal Reserve Board.

I have a question about the relationship on the lender side. We know that credit scores do a good job of identifying the probability of delinquency, but delinquency doesn't necessarily identify costs to a lender because it doesn't get to the point of default. Obviously, depending on what kind of credit is being issued, that is going to affect for a lender whether or not they have higher costs based on how much delinquency there is, whether an account is 90 days delinquent or 180 days delinquent or whether there is going to be default that occurs. At some point, to what extent are lenders needing to be educated about using the tools that you have for providing credit to individuals and pricing that credit differently when the score itself doesn't reflect the probability of repayment or even the profitability of the line but only maybe the relative flow of when that payment occurs, maybe sometimes delinquent, maybe sometimes not but not at all defaulting?

MS. OLIVER: We have conducted profitability analysis as well. We have been booking these accounts for about a year and a half. So we have a pretty good history from a performance standpoint, not just from a delinquency standpoint but from a loss and write-off standpoint as well.

As I have indicated earlier, we found segments of these customers that are very profitable to us, and that is outside of just a delinquency standpoint. From a loss perspective, we are seeing these customers perform in line with some of the customers that we would book normally in our traditional underwriting strategies.

QUESTIONER: [off mic] Are you talking about the customers that you give the same rates to?

MS. OLIVER: Yes.

QUESTIONER: [off mic] As opposed to in some cases where you score someone and then you wind up giving him a higher cost loan? Even the default is created within the delinquency, the rate of return on that whole line of business might still be higher based on volume and the retainment of most of the costs.

MS. OLIVER: The test that we had was not based on a risk-based pricing, so to speak. Basically, these customers that we approved were approved along the lines of a regular strategy that wasn't necessarily risk-based. So, therefore, if you applied for credit or we sent out an invitation to you to apply to us, the terms that we provided to you or the terms that we provided to a customer that was in a normal straight line APR type of standard customer, not necessarily a risk-based pricing program.

QUESTIONER: What would be the likelihood then that lenders using alternative sources for data are going to be along Windy's line and using their traditional product versus those that use higher cost products? I mean I am not on North Carolina yet, but what is that likelihood do you think?

MR. TURNER: I think I am going to have to defer to a lender to talk about that, please.

QUESTIONER: Hi, I am Keith Kreiger with JPMorgan Chase. So I am a lender and have also been involved with modeling for the last 15 years. Sir, I would like to quickly address a couple of your questions.

The first one was regarding what type of outcome are we using the data to predict, and it is very typical in the modeling world that we pay a lot of attention to the particulars of the predictors. And so, if we can distinguish between them in predictive information, we will distinguish between 30-day delinquency and 60-day delinquency, and charge-off.

Likewise, when we are modeling outcomes, and this is not just for JPMorgan Chase. This is throughout the industry. We are typically very careful about exactly what outcome we are modeling, so that we will know what we are trying to predict with the data and we won't confuse ourselves into thinking we are predicting charge-off when we are really predicting 30-day delinquency. That is really standard in the industry.

Your second question was about, just the last one?

QUESTIONER: That was a fine one, but I am looking at you and some of the others who are larger financial service providers as opposed to individuals in niche markets who are more likely to do risk-based pricing or have a single product that is a risk-based pricing product.

QUESTIONER: Your second question was about risk-based pricing. We are at Chase like some of the others who are looking into using alternative data. The question is: Are we looking to use alternative data to find new people to give high interest rates to or are we looking for better tools to be treating them like everybody else? I am sure I speak for all of the lenders. We are looking for better tools to treat them like everybody else, but that also includes amongst all of our applicants including new people that we can identify to the degree to which we can estimate relative risk amongst them, the more sophisticated among us lenders will use risk-based pricing but, like I said, on newly qualified people, no differently than on the existing population.

MR. TURNER: Any other questions? If not, Michael? I am kidding. I am sorry.

MR. NATHANS: Thank you. I really want to echo, Charles, your feelings about payday lenders. Since we apparently are the only credit bureau accepting payday loan data and positive payday loan data, we looked at it very carefully before we decided to do it. We had great reservations about doing it. The fact is even though we are for profit, we are supported by grants from the Ford Foundation and other consumer advocacy groups, and we consulted with them before going ahead and taking the data and decided to take it on the basis where we would not score it. So a consumer cannot take out a payday loan and raise their score with us by virtue of taking the loan out.

We do show the loans in a separate section of our reports to show that a consumer is willing and able to pay these high interest rate loans back on time, so that they can graduate to more affordable forms of credit when a lender sees if they can afford to pay this back and they are using the money to meet their other financial obligations, hopefully that will be a green flag along with other bill payment data in our database that a lender can use to make a judgment to give that consumer an opportunity and access which they don't seem to have today to lower cost forms of credit.

Our program with the payday lenders requires the consumer in the bulk of the stores that we deal with to opt in. So the payday lender hands out a brochure about PRBC with a tear-off form which is an opt-in portion of the form but leaves the consumer with information about how to add other bill payments to their file at PRBC. So they are not just having their payday loan show up in PRBC's database but they get their rent and their utilities and all the other bills that they pay that don't get reported. They can build a full file with a score, so a lender has more than just a payday loan payback to go on when they access the consumer's file.

But I agree with you. These high cost loans that consumers are using because they don't feel that they have access to other alternatives and they need the money, we need to find a solution to help migrate consumers out of that situation. We think that helping them show that they are credit-worthy and paying their payday loan back as well as their other bills back on time that don't get reported to the other credit bureaus is an important step in that direction.

MR. TURNER: Charles, I would like to also respond to that question as well.

Last year after I testified before Congress on this issue, I received two phone calls from two different trade associations of payday lenders wanting to participate in the analysis and wanting to be able to include their data in either research-grade scoring models and research credit reports or in the actual files somehow to facilitate a relationship with one or more of the bureaus. As a social scientist, I said then and I will say now if payday loan data is predictive in a scoring model and can help individuals access affordable mainstream credit as an alternative to a payday loan, I don't see any reason not to report it.

Now we excluded this from our analysis precisely because it is such a radioactive and polarizing issue. But again from a strictly social scientific perspective, if it can yield benefits to the folks that you are trying to help, apart from normative concerns that one may harbor about the practice and I harbor those, I don't see any reason why it shouldn't be reported.

MR. WIERMANSKI: Let me just say that I agree with you, Michael. We have talked about this before. I just think that it really is important. I just think that the consumer financial services arena is on a very slippery slope. You can talk about overdraft loans or what they call overdraft protection. You can talk about credit cards and your 12 solicitations you get per day. I mean I just think it is an area that we have to be serious about when sometimes the profit of our capitalist society that generates these types of businesses to raise their head and to make money and then to become legitimized by their workings with state legislatures and also if they affiliate with an organization like yours, Michael, or also if you include them in studies.

I just think there is a concern there. I do understand that as a social scientist. As an attorney with the center and in our research, I just think these products often are not helpful, and I guess ways that they can further legitimize themselves are a concern to us.

MR. TURNER: I understand.

The professor who began, I think, has the last question, and we will conclude.

QUESTIONER: I understand what you are talking about is not just for low and moderate income persons and I know it is not just for mortgage loans, but I guess I would like the panel's opinion as to what extent the Community Reinvestment Act, Fair Housing Act, and other fair lending rules have encouraged people to think about all this stuff. Or is this simply a market-driven phenomenon where entrepreneurs are out there trying to find more customers?

MR. ABRAHAMS: Michael, can I take that?

MR. TURNER: Please, Clark.

MR. ABRAHAMS: Yes, I would just like to say I was thinking about returning to the HSBC representative's comment about a business case, and I think you have to look at the whole picture. When you are CRA, when you look at fair lending exposures, I think to justify, you really have to coalesce a group within an organization to really find what alternative data is worth to you. What is the power to know about it worth to you?

I spoke on measuring return on compliance recently last week, rather last month in New York, and the idea is that just take fair lending and think of pricing. If it is a 300 basis points difference between let us say 3,000 borrowers, that could amount on a monthly payment deferential of about $25 million. If you are the subject of a class action lawsuit on that, the Wharton study says that the market impact on your good name and reputation, the costs of funds, et cetera is about four to five times the loss impact from an operational risk standpoint. So you are talking about $125 million.

We need to begin to look at all the aspects and the likelihoods here to make an appropriate case. I like your tie-in. In fact, CRA credits for loans that are made with alternative data, I think you know, are another aspect. I think we need to coalesce and pull all of this together in order to make that business case for HSBC and others. I don't know if that addresses your question specifically, but I think that is right on point and a great way to hearken back to this need to make that business case to make it happen.

MR. TURNER: With that, I would like to first thank the panelists for taking the time and providing us with some really terrific information and a lot to think about.

Also, I would like to thank the Brookings Urban Markets Initiative and some folks, Hida Reese and Alyssa and Brian Nagendra. Am I missing anybody?

MS. LEE: Lindsay Clark.

MR. TURNER: Lindsay Clark who did a bang-up job on everything behind the scenes in making this event possible. So thank you very much for your effort.

Thank you all for coming today and making this event the powerful and insightful event that I had hoped it would be. Thank you very much.

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