>> I'm going to start, yeah. I get the honor of starting out with some basic housekeeping items just to keep us on track. So just as a reminder, we do continue to try to provide as much access as we can to our Program Management Reviews. This is an event where people can watch. We are also being live-casted, and that webcast of it is also recorded and will be available on the Census Bureau's website on the 2020 website. So just be aware of that. 2020 Census. Okay, thanks. I'd also point out that we are mic'd, so even when the mics don't appear to be on because we are being webcasted, there are live mics throughout the room, so just be cognizant of that throughout the day as well. Also I've been asked to remind you and those of you that are speaking or will be asking questions in order to use the mic, you hit the red button to talk, hit the red button. The button will turn red when you hit it. Turn it off when you're done. We can only have a couple of mics on at any given time or the whole thing goes haywire. So please do try to be cognizant of that, and we'll watch for that as well. Also if you are going to ask a question, please do provide your name and affiliation, so that those listening or watching can have that information as well. In addition to being broadcasted internally over our eTV and webcasted, we're also live tweeting during the event. We started this with the last event, so if anybody likes to tweet, we encourage you to do so. Our hashtag is hashtag 2020 Census, so please feel free to do that. And then the last reminder or one of the last reminders I have before I get to pass the floor off for just a second, is that that we do have legal requirements that we must follow. As you can see, we have a large room of people here, many of whom are Census Bureau employees. Many are key stakeholders. We have many people that are interested in participating, but we do have legal requirements that we have to follow when talking with contractors or potential contractors, and Mike Polenski's just going to give us a few words of advice on that.

>> Hello everyone. Since this is open webcast, it's being broadcast and we're all here, we have contractors here, we have government employees here, we have a lot of oversight here, as part of this since it is open, please limit discussions to those that are in attendance, both government and contractors. Limit discussions and questions, and actually ask them during the PMR, okay? And that's to benefit all of those that are not in attendance. Those that are not in attendance can't have those discussions, so just please limit those discussions. If you have questions, if you have issues or if you have comments, bring them up during the actual PMR so that everybody can benefit from that, so that there is no unequal access in a way to any information, okay? So, and that's it.

>> Okay, thanks Mike. A couple of other reminders that many, I don't see anybody here that hasn't been here before, but for those of you that might not have been here before, the restrooms are down the hall and to the right just in case you need to know that. We have emergency exits, so please do note them in case something does occur during the course of the day that we do need to evacuate the building. We will be taking a lunch break at approximately 12 o'clock. That's our plan, depending on how the flow goes. It may be a little bit before that. It may be a little bit after that. We'll adjust the day, and we may shorten the lunch break, depending on how long the morning sessions go. We do encourage questions during the PMR. This is a great opportunity to ask questions of our staff of where we are with the program and to really understand that. We do have a lot of information to convey today, but so due to some time limitations, we may take the question and then follow-up offline. I, in the few PMRs I've been here, I really haven't seen that occur. We've been able to address them, but just note that if we do run

out of time, we may move to that approach. We also have our email, which is always available for you to follow-up with us after, and you know we do follow-up with those Q and A's that do come in offline. And then I did want to remind everyone that our next PMR is currently planned for Friday, July 10th. I wanted to point out one thing about this. One of the things we've gotten some feedback on about the PMRs, which is the length of the PMRs. We know these are very long days that we have. You'll notice this one's a little bit shorter, I think a half hour shorter than some of the previous ones. We're taking a hard look at the agenda and at our planning to see, given everything that's going on, if there's a way we can consolidate some of this into probably a half-day window. And so if you see a time change for the next PMR, that's what it's about. It's a recognition that these are long days in terms of the work we have to do, but they're also taking you away from the work you all need to do. So, if we can find a way to shorten it, we will look at that. Of course the agenda and time length will always be respectful of the material that we need to cover, so we do want to be able to continue to be transparent and to share everything that we have to do. But we don't want to feel as if we're fixed into an all-day event. We want to afford ourselves that flexibility, should that need arise. So for today's agenda, I'm going to do a quick update on the Decennial Census director at staffing, a little bit of an update on our reorganization related to that. We'll then review the current state of the 2020 Census Program. Then the staff will talk at length about our current testing activities, and we have many, many tests underway right now. It's a very exciting time for us. And then we will end the day with a discussion about LUCA. So I know many of you are interested in our local update of Census Addresses Program, and this is a great point in the decade for that early planning and for us to really share with you where we are in that planning process. The organization chart in front of you, which hopefully you have on your slides is just a reminder of our to-be organizational structure. A couple of things related to that, we have made a few changes to the alignment of that organization structure at its' highest level. We didn't really change much except where some of the boxes report to, and so I did want to point that out for you. What we've done is streamlined the internal versus--sort of the internal-facing work versus the external-facing work as we looked at our organizational structure. You'll notice that we have a number of vacant positions, so one thing I should probably say is that I am now the associate director for the Decennial Census Programs. I think I was acting the last time we were here, so I'm happy to share that with you all. I'm also happy to share with you that I'm actively working now. I'm backfilling my old position of the assistant director position. So I'm very hopeful that we'll have someone in place shortly, and we'll be able to move forward with that as well, 'cause the program is moving at a very fast pace, and having the right staff in the right place at the right time, is very critical to our ability to be successful on that. We've also had a number of new managers and staff join the Decennial Directorate since January. You know, I'm trying to look around to see who might have joined that I can point out. I don't think Jessica Graber was here at the last PMR, and she's over on your right-hand side. She's new to us. I think we might have announced her, but I don't think she had started yet. And she's over our Optimizing Self-Response area, our program manager for that. Raphael Corrado's at the table is new since the last PMR. He is not new to Census, having spent, I don't know, 20-some odd years in the Economic Directorate, and he's over our Performance Management and Schedule area right now. I think Sherri was here last time. I'm looking down the table. Who am I--This is the problem when you don't have a list, right? Who am I forgetting? So maybe those are who I see that are new in the rooms. I'll stop with that, but we have had a number of new staff come onboard, and we'll try to get that list out for you all if we can, and we're excited about that. In terms of our reorganization itself, just some quick accomplishments since the last Program Management Review, we have submitted our package, our paperwork to our Human Resources Division. That was done on schedule, so we're very excited about that. We have trained all of the managers, so the GS-14s and above, GS-13s also, I'm not sure. I think it was all the supervisors, 14s and above, on what we call a RACI, the Responsible, Accountable, Consulted and Informed, tables for how we'll operate in our new structure, as well as the Concept of Operations and documents for what the new offices and divisions, as well as our existing offices and divisions will do. This was an important milestone for us, because it meant that we were ready to move into implementation as soon as all of the approvals are in place, and we're still on schedule for that for Spring implementation, so we're excited there. And I think with that, what I get to do now is turn it over to Diedre, who is going to do some updates for us on the 2020 Programs, so thank you all.

>> Thank you Lisa. Good morning everyone. Before I get started, I'd like to ask you in joining me and congratulating Lisa on her promotion to the associate director, Decennial Census.

[Applause]

Lisa and I have only worked together for a few months, but I trust and I know you know that we're in very good hands with her at the head of the Decennial Census, so congratulations Lisa.

>> Thanks Diedre.

>> Okay. The title of my first slide is, 2020 Census, Where Are We Today? Where are we today? As I mentioned, this is a critical year. In 2015, we're planning to conduct five tests. In November of 2014, we conducted a human in the loops simulation. We call that a SIMEX. You heard about that from Stephanie Studds at the last PMR. We just completed our Address Validation Test. That test had two components, a Math Model Validation Test and a Partial-Block Canvassing Test. We're currently conducting the 2015 Optimizing Self-Response Test in Savannah, Georgia and the 2015 Census Test in Maricopa County, Arizona. And in the fall of this year, we'll conduct a 2015 National Content Test. In addition to all this testing, we're going to release our 2020 Census Operational Plan, announcing the major design decisions for the 2020 Census. You'll hear more about that from Ann Wittenauer this morning. We're also going to begin our Core Programmatic Work, such as the local update of Census Addresses. You'll hear about that from Brian Timko. And finally, we're going to continue defining and testing and preparing for the 2016 Census Test and our subsequent tests. In terms of Program Management updates, we have a few. We received our signed apportionment for fiscal year 15. We were relieved when that came through. We presented our 2016 President's budget request in February of this year. And right now, we continue formulating our FY 17 budget. In recognition of the fact that schedule is critical to the success of the 2020 Census, we've assigned an assistant division chief for Schedule and Performance Management. I'm delighted that Raphael is onboard with us. He's the assistant division chief, and sitting next to him is Sherri Thorpe. She's our branch chief responsible for schedule. Over the past few months, we've conducted a thorough review of our 2020 schedule, and we've conducted a logical restructuring of the schedule. When I say that, I think it's important to stress that the content of the schedule has not changed. All of the lines are still in the schedule. However, we've done a careful analysis of the way we

organize our tiers. We have four tiers in the 2020 Census Schedule, and Rafe and Sherri will talk with you about that this morning. Finally, we continue mitigating, monitoring our program level and project level risks. For FY 16, we've added a new risk related to FY 16 funding as we do every year. This risk reads that in order to execute a 2020 Census that reduce cost while maintaining quality, we need to receive the appropriate funding for the entire lifecycle. If FY 16 funding is less than requested, then the Census Bureau may be forced to consider our key design decisions, and we will not be able to benefit as fully from subsequent research. Let's talk now about the status of our Major Cost-Saving Innovation Tracks. As I mentioned, the first one is engineering address canvassing. You'll recall that the goal here is to reduce a nationwide Infield Address Canvassing operation. Instead, we plan to do much of the work that we used to do in the field, in the office, using new technology and new methodology to help identify new housing units and add those to our Master Address File and TIGER Database. Over the past few months, we've been busy in this area. We completed the Address Validation Test with both components, the Math Model Validation Test and the Partial-Block Canvassing Test. We completed our 2020 Census Address Canvassing Business Process models to help model the flow of activities from start to finish in terms of how we implement both in office and Infield Address Canvassing. We've released a request for information on change detection. We are conducting market research to help us identify the available sources, processes, software and related technologies to help detect change on the landscape, both in terms of structures, houses and street center lines, roads. In addition, we've prepared a statement of work for a Geospatial Services Request For Proposal. This RFP will help determine the availability of commercial address and road data to help support a Reengineered Address Canvassing. Looking ahead, we're planning to complete our Summary of Responses to that change detection RFI. We'll release the Geospacial Services RFP. In May of this year, we'll release our Address Validation Test report, identifying our findings from those tests. And finally, we'll develop a 2020 Census Address Canvassing Capability and Solution Requirements. Let's now turn to optimizing self-response. You'll recall that the goal here is to communicate the importance of the 2020 Census to our population, to help generate the largest possible self-response, and to reduce the need to follow-up with those non-responding housing units in the field. Again, we've been busy. We're in the process of conducting the Optimizing Self-Response Test in Savannah, Georgia, that media market. Today, you'll hear from Jesssica Graber, Tasha Boone and Frank McPhillips about the activities we have related to that test, but here are just a few highlights. On February 23rd, we began our Notify Me Campaign. That's where we provided respondents with the opportunity to let us know how they'd like to be contacted when it's time to respond to the Census Test. They could opt for email or text. We began our advertising campaign on February 23rd as well, and it's quite extensive. You'll hear from Tasha about the details. We began Self-Response Data Collection on March 23rd. We sent our first reminder on March 27th, and on March 30th, we did see a bump in the response rates. Census Day was April 1st, and we'll continue with our activities. In regard to the National Content Test, we have submitted the OMB Clearance Package for review, and that's at the department for final approval. On to Brian next, hopefully. We released the Request for Information on both respondent validation. That is to help know is the respondent who they say they are, and also for non-I.D. business processes, to help us with matching and validating addresses that come in. Where are we going next? We'll complete our data collection for the Optimizing Self-Response Test at the end of May by May 31st. We'll continue planning for our National Content Test. We'll evaluate the responses that come in for both of those RFIs related to respondent validation and non-I.D. business processing. We'll begin developing requirements for our 2020 Integrated Communications Contract. And finally in April, we'll release the RFI and Questionnaire Assistance. We're conducting market research to help identify sources that can help provide assistance when respondents call in needing help during a census. Now let's turn to utilizing administrative records. The goal here is to use administrative records, that is information from federal and state governments, in addition to third-party data, data from commercial sources, to help reduce the nonresponse follow-up and to identify vacant units, and to enumerate non-responding housing units. The last PMR you heard from Maryann Chapin, Tom Mulay and a few others about the preliminary results related to the 2014 Census Test. We'll soon be releasing that report. There's four reports actually associated with the 2014 Census Test. Those are going through internal review now. Just a few reminders as to some of our findings from those tests, we found that encouraging people to respond via the internet, we call that our Internet Push Strategy, it does work. We know that Compass, our application that we use on a handheld device to enumerate non-responding follow-up.... non-responding housing units was also very successful. We had very little glitches in the field. And finally, we learned that we can reduce the number of nonresponse follow-up cases through the use of administrative records. Finally, let's talk about Reengineering Field Operations. This is one of our most significant cost drivers and cost-savings categories. The goal here is to really use technology more efficiently, more effectively, to help manage tasks that traditionally have been conducted by humans. We're looking at reducing the Field Management Structure. We're working with the sophisticated Operational Control System to help us manage the workload during nonresponse follow-up, and we're looking at ways to automate training instead of using those stacks of verbatim paper manuals that we have in the past. In terms of what we have going on, we have the 2015 Census Test right now in Maricopa County, Arizona. We opened the local census office in January, January 26th, and we've hired all of the field managers that will working on that test. We began our Self-Response Data Collection, the same as the OSR Test on March 23rd. We sent our Self-Response Reminder on March 27th, and with this test too, we saw a bump after that mailing. Census Day was April 1st. Looking ahead, we'll begin conducting our Nonresponse Follow-up Operation on May 14th, and we're hiring enumerators for all three of our panels right now. Finally, we'll complete our Nonresponse Data Collection by June 23rd of this year. That was a high-level summary of where we stand in terms of our 2020 Census Operations. As I mentioned earlier, you're going to hear about all of these activities as we progress through the day. We'll be happy to answer questions throughout the day as we proceed. Now I'd like to turn it over to Raphael Corrado.

Okay, alright, so if you have any questions about the high level summary, I'd be happy to take them now. Okay, I'm hoping that means it was clear. Alright, and so once again, I am happy to turn it over to Raphael. We call Raphel Rafe in the office if you hear me refer to him as that today. And Rafe's going to tell you about the work we've been doing to restructure our schedule. Thank you.

>> Thank you Deidre. Sherri and I are happy to be here to talk about the various aspects of the 2020 Schedule, Census Schedule this morning. We're really going to talk about four main topics, our Reengineered Schedule Concept. We're going to talk about... We're going to take a closer look at Tiers 1 and 2 and the 2020 Census Life Cycle Chart, and take a glimpse into our next steps. So let's dive into the next chart. We're going to spend a little bit of time on this one. What we're showing here is an example

of our Tiered... the Tiered Scheduled Concept. It's not a complete representation of 2020 Census Program Elements or the timeline. It's just an example, an extract, to show the relationships between the different levels of detail within the Integrated Program Schedule. This chart is notional.

>> Just hang on for second. We seem to be having some technical difficulties. Yeah. We're trying to figure that out.

[Silence]

So they are working on it. We're going to try to start again and see if it, they can fix while we go. I don't know. That's the best we can do. We are on it. Yes. Is that better? Can you hear me? Maybe not. This is why we don't have statisticians play with the microphones. It's just a thought, so, alright. Well why don't we? I don't know if it matters for me, but why don't we do that from-- So--

>> Testing.

>>: Who can hear? Can everyone hear? I hear some feedback.

>> Sound coming out of that.

>> Maybe, I don't know. I'm a statistician. I don't know. I don't want to touch anything.

>> Let's give it a try.

>>: Well let's pick this back up with the chart you have before you. What we're showing here is an example of the tiered structure, Tier Schedule Concept. It's not our complete representation of 2020, but it's just an extract to show the relationships between different levels of details and the Integrated Program Schedule. This chart is notional, so we're going to walk through it a little bit. The Tier Schedule Concept is commonly used structure that serves a number of purposes. It visually separates information, shows lower level schedules in relation to higher ones. It emphasizes important and significant events and activities. It shows driving activities and events, based on lower tiers and related cause-and-effect relationships, and it provides additional means of executive reporting for diverse audiences and various stakeholders. In a nutshell, what we've done here is we've refined our approach to the Tier Schedule Development, better organizing and defining our activities and milestones. We've streamlined and focused our schedule activities to depict levels of importance, make the schedule more understandable and easier to track progress. We've placed a renewed emphasis on managing for fully integrated schedule, putting us in a position to manage our operations and programs more efficiently. To further explain Tier 1, it houses the most significant Program Milestones depicted by red stars, and you'll notice those throughout the materials you have before you. We'll take a look at Tier 1 Milestones in more detail on the next slide. Tier 2 is at the operational level, likely driven by more, by two or more activities from lower level tiers. Tier 2 includes our 34 2020 Census Operations and our Census Tests. A Tier 3 contains sub-operations and components of those 34 2020 Census Operations and Census Tests, which also may be driven by one or more groupings of activities from Tier 4.

>> Is that better? Seems louder, but... Is that better? Okay. So going back to Tier 3, it contains sub-operations and components of 34 of our 34 2020 Census Operations and our Census Tests. Better? Tier 3 may be driven by one or more groupings of activities from Tier 4. And Tier 4 contains the most detailed schedules and is governed by Schedule Policy and Procedures. Tier 4 includes multi-project and integrative schedules. We're going to continue to employ a Rolling Wave Schedule Development Process. Where near-- term work is fully detailed, and the outer years is planned at a high level and then detailed as we move forward, as the information becomes available. As you notice on the chart, Schedule Integration is both horizontal, across Tier 4 activities and projects, and vertical, depicting relationships with--to higher levels. And a practical example of the Tier Concept can be applied to the Address Validation Test, the yellow bars. You'll notice in Tier 3, the Math Model Validation Test, MMVT, and the Partial-Block Canvassing, PBC, are shown at the Tier 3 level, and the more detailed activities are shown at the Tier 4 level. Again, this chart is notional. All are housed under the Tier 2 activity for conducting the Address Validation Test. At any point in time, we can evaluate and measure program progress with a quick look at the higher levels and drill down into the details at the lower level. Our next slide, we look at the Tier 1 Program Milestones in more detail. We'll continue to follow the best practices for Schedule Management based on the GAO Schedule Assessment Guide. Tier 1 illustrates the entire Program Lifecycle through our stakeholders through a set of significant milestones. These are points in time, events and deliverables. They provide a broad view of our program. We include in Tier 1, key program deliverables such as the Operations Plan and Program Milestones mandated by law, such as 2020 Census Day and the delivery of the Apportionment Counts to the president. These provide program level measurement points driven by details at lower levels. To help us keep our program on track-- they also help us keep the program on track by identifying potential slippage that might impact milestones. So those are Tier 1, the Tier 1 level. Our next slide would be Tier 2. Tier 2 includes the 34 2020 Census Operations and all the tests as I've mentioned. It spans the entire 2020 Census Lifecycle, and it is further decomposed in a Tier 3 sub-operations and subsystems and Tier 4 detailed, team schedules. The schedule I wanted--I would like to note is Integrative and Baseline. The next three slides show an updated 2020 Census Lifecycle Chart, representing phases for Research and Testing, Operational Development Systems Testing and Implementation. You should have a larger version, 11 x 17 version in your packet you can look at. And you've seen this before. This Lifecycle Chart was updated, and will continue to be updated as the program progresses through the decade. It includes information from various tiers in our schedule to represent Program Lifecycle in more detail. We added more detail in the later years and refined some of the planned dates. And we can take a closer look at the purple slide, and we can walk through that a little bit, in a little more detail. You'll notice the Program Level Milestones in Tier 1 are the red stars, such as delivering the 2020 Census Questions to Congress, a legally mandated activity. Decision points and other significant milestones are green stars like opening Regional Census Centers. Research and Testing Milestones and Activities are the blue triangles, and the purple diamonds are the Execution Milestones and Activities. The next slide is the slide for Implementation, and that is it contains more of your activity, but we as an example, we'll deliver Apportionment Counts to the president on December 31st, 2020, which is Tier 1 milestone denoted by the red star. So we try to keep that symbology through the documents. What are our next steps? We're going to continue to refine our Tier 3 as we complete the Preliminary Operations Plan. We're developing Integrative Tier 4 Schedules for the upcoming Census Test and 2020 Census Operations, and we plan to

embed Professional Scheduling staff into each 2020 Census Team to optimize Detailed Schedule Development and Control. We will continue to perform Schedule Monitoring and Statusing on a weekly basis. So that is just a high level, a view of our activities, and I'd like to open it up for any questions that you might have. Yes Ma'am?

>>Trisha Derr from the Office of Inspector General. The schedule is built from the projects up and then the milestones down, is that a fair statement?

>> So the schedule is built. The detailed-level schedules are built on a rolling wave design, so as we find out more information about the operation, what we're testing, where we're going, we build those detailed-level. The higher-level schedules are built out all the way up to 2020, and again as we find out more information, we continue to develop those schedules. So the detailed level schedules drive up to the higher level tier activities. Does that help?

>> What is the source of detail schedules?

>> The source of the detail schedules comes from the teams. It's based on the scope of the work that we are performing at the time. Is that-- Okay.

>> Thank you.

>> Sharon Vannucci, Office of Acquisition Management, within your Master Schedule IMS, do you show the dependencies? For instance all of the systems that you're going to get and enable for CEDCaP and CEDSCI are they linked in your Master Schedule?

>> Raphael Corrado: Yeah, go ahead. You want to--

>> Yes, they will be linked in the schedule. Up until this point, we haven't had a lot of CEDCaP systems, but as we move forward to 2016, those activities will be in the IMS. And so we will be able to of course monitor the schedule on a daily basis.

>> Thank you.

>> Uh huh.

>> Question?

>> Ben Taylor, Office of Management and Budget. I was wondering sort of how risk is, risk in the schedule is sort of incorporated into the structure of how you have the tiers? You know when one thing slips, how does that sort of cascade up and across? And I know that they're sort of-- There could be an internal risk of delays and external risks of delays and a lot of things have to be considered, so I was just wondering? A little bit has to do with the linkages, but also just kind of how, you know, is there, is there padding built in? Is there-- Are they sort of, kind of some prioritization in there or is it sort of something that when something, when a shock happens, a delay, we just sort of look at everything all over again? Is there anything dynamic there?

>> So right now, the-- If you look at this Tier Concept and again it's notional, but it does give you an idea of how the schedule is developed. So the relationships that we currently have, especially at the Tier 4 level, do show us the impact of any delays. What we're going to do moving forward in 2016, is that we are going to include a Risk Analysis in our schedule, so that we can see risk prior to it happening, what activities are actually, potentially could cause us some issues. So we are going to definitely do that moving forward.

>> So would there be almost like a rating on different activities on something that could really cause ripple effects versus something that might be a little bit more isolated?

>> Yes.

>> Okay.

>> Yes, absolutely.

>> How far along are you in building this? Is it-- are you up to date or to what degree have you completed the work?

>> So we have schedules, High-Level Schedules through 2020, and we have built detailed-level schedules up through the NCT Test. We just baselined the NCT Schedules on April 1st. And I would say next week, we are starting the 2016 Schedule Development as well.

>> If you have schedules through 2020, then how come you only want to send what would be the schedule through 2015?

>> Are you talking about Tier 1 and 2 Schedules?

>> Yeah, talking about...

>> So we do have...

>> I'm talking about the Exhibit 300 Business Cases...

>> Oh yes, yes. So Tier 1 and 2, they do come, and those are the High-Level Schedules. We only send the detailed information at this point internally. That will have to be something that Census will look into about any of the detail level information. We have not received that request at this point.

>> It's not a request. It' the standing guidance for OMB to show the...

>> Okay.

>> ...full lifecycle to the extent it can be shown.

>> So we do currently send Tier 1 and Tier 2. We've been doing that on a regular basis. As a matter of fact, we just did that this week.

>> Decennial had shown the schedule through 2016 when the revised schedule was made. Now it's only going to be proposed through 2015. That's why I'm asking the question.

>> Okay.

>> Surely we believe that we have been providing the Tier 1 and Tier 2 Schedules on a regular basis, but we'll look into it. We can talk at the break, see if there's something else that you need that we're not providing.

>> Okay.

>> Diedre: Thank you. Any other questions for Rafe and Trisha?

>> Schedule is really important, so yeah. The lowest level Tier 4 is multi-project, right?

>> Uh huh.

>> So you decide on how to-- Can you all give me like a hands-on, walk me through, and I know it's kind of on the fly, so, but just to give us more of a feel of-- Okay you're meeting with the teams and you have to coordinate their activities, and one team relies on another team's, you know, activities as well, how does that work? What's the mechanism?

>> It is an exercise. What we do is we meet with the teams. At the Tier 3 level, that's the Program Management Level where the ADCs will manage the work. But the Tier 4 is more of the detail level. So we meet with the teams. We find out their detail level activities. We create schedule individually, make sure that the relationships within the individual schedules are solid, then we integrate across all the schedules. And that usually takes us about a week or two. That's the exercise we just performed over the last week. And so once we do those relationships, we fully integrate the schedule all the way up to the Tier 1 level, and then we baseline the schedule.

>> Can you just give me an example of [inaudible]?

>> Oh, let's see. It's so many.

>> Oh yeah, we can look at the... at the, the MMVT and the Partial-Block Canvassing with the Address Validation. So there are some activities down at the Tier 4 level, for instance, when they listed the blocks and QC'd the blocks, that would be down at the very bottom in the Tier 4 activities. So those type of field activities that occurred, those activities were listed within the schedule. We integrated the individual schedules, then we integrated across, and those activities impacted or would show the impact to the Higher-Level Schedules.

>> So a team note has like the date. They need the date of--from the test as line item in the schedule for example?

>> Right. For example, conducting Quality Assurance on or listing blocks, all of that is in the detail level schedule, when they're doing it, the begin date, the finish date, the actual date, the plan date. All of that is in the Tier 4 level schedule, and it is statused every single week.

>> Ben?

>> Could you talk briefly about how schedule and performance are going to be linked going forward? Is that going to be more of a-- Is that going be more of a focus on performance measures?

>> Yes. Part of the reason-- This stack-- Repeat the question, yes. Ben asked if schedule and performance are going to be more closely linked moving forward. This area used to be-- the original plan for the reorganization, this area budget schedule and performance management fell within one assistant division chief area. As we studied the reorganization further, we realized that in order to be effective, in order to be successful, that was going to be too much for one Assistant Division Chief to handle. Therefore, we separated it. We pulled it out. Now, Rafe is in charge of Schedule Performance Measurement. Mike Perez, of course as he has been over the past 20-some years is in charge of budget. We recognize that that we need to link all three of those of course moving forward. In terms of our performance measures, our performance targets, we will be studying the linkages as we progress with development of the schedule and with those measures. Okay, in the interest of time, let's move to the next topic. I'm now happy to introduce Ann Wittenauer. She's going to be presenting an overview of our 2020 Census Operational Plan. In addition, Pat Cantwell will be talking a little bit about the micro-simulator, which we're using to measure our Cost-Quality Trade-Offs in preparation for the release of that operational plan. Ann, over to you.

>> Thank you Diedre. I'm the lead for the team responsible for developing the 2020 Census Operational Plan. Now as you heard at the last Program Management Review, the Operational Plan will be released in October of this year. Much work has been done since I last briefed this audience. At that time in January, I provided a description of the Operational Plan, which is really a set of documents. I talked about the makeup of our team, which is comprised of people from across this agency. I gave you a preliminary list of the operational and support areas that we're envisioning for the next census, and I gave you a few concrete examples with the help of my coworkers about what you can expect to see in the Operational Plan. And we used the local update of Census Addresses, Address Canvassing and Nonresponse Follow-up to help you understand the things that will be included…and the things that won't, because in some cases, our research has not yet begun or in some cases, the research is ongoing. In today's update, I'm going to convey how our work has evolved over the past three months, weaving in several examples from LUCA again. I'll also give you insights into three of our ongoing efforts that have helped us to mature our work. And then I'll turn the microphone over to Pat Cantwell, who'll drill down into the fourth area and perhaps the most important effort, since it pertains to the cost and quality analysis around our preliminary design decision. So in short today, you're going to get a window into this work in progress. Let's get started. Next line. Before giving you a glimpse into our activities of the last

three months, let me provide with this notional timeline a bit of context for those who may be tuning in or joining us today or who might need a refresher. As you heard from Deidre, a week ago, April 1st, we hit the midway point between the 2010 Census and the 2020 Census, and we are now officially closer to 2020 operations and 2020 production than we are to 2010. This operational plan or the first release of it is actually bridging to critical phases in our life cycle. The formal research and test phase which ends September 30th of this year and the operational research and design build work that commences this year and rapidly crescendos in fy16. Most of the research and test work in our life cycle culminates with the preliminary design decision. This is the centerpiece of our operational plan. As Deirdre explained earlier, the preliminary design focuses on four key strategies as I like to think of them, because they are the biggest cost drivers: reengineering address canvassing, optimizing self-response, utilizing administrative records and reengineering field operations. With the combined potential cost savings of approximately $5 billion, these strategies have rightly been the focal points of our research and test work to date, and they will be heavily emphasized in our operational plan. We're going to document everything we know about these design areas, including the results where we have them form our FY15 testing. Bear in mind 3 of the tests this year will directly inform the preliminary design decision, and two of them are occurring right now in Savannah, Georgia, and Maricopa, AZ. But you'll hear much more about them later today. Of course with this first version of the operational plan coming out, a full three years before last decades operational plan, there are things we cannot know at this time about the next census. So the documentation in October will include questions, operational research, and testing activities that are still needed to mature the 2020 census design. To be clear, as you see on the right side of my notinal timeline here, as fiscal year 15 winds down, we have five major activities ahead of us. First as I mentioned, further research to operationalize what we learned during the research and test phase. Systems development and award of contracts for the systems we will use for the census. Preparations for the operational readiness testing that will occur in 2018. Implementation of early operations like LUCA, and you will hear more about that in my presentation and even more this afternoon and lastly, we will be rolling out the management infrastructure and offices that are used for field work. So the two purposes of the operational plan, besides documenting our preliminary design decision, the second is to lay a foundation in the work that is needed in the coming years and to establish a baseline for the 2020 census program. Next slide? Now one last quick refresher, we identified three elements or buckets of work that will be included in the operational plan. They are depicted here, the first component, the 2020 concept of operations or CONOPS for short, it will be the core of the operational plan and the key element of the deliverable in this fall. Within the CONOPS we will describe how we will execute the 2020 census, meaning we will include our plans for implementing the four key designs, implementing the preliminary design decision including the four key design strategies as you heard a minute ago and in the CONOPS we will describe each of the 34 proposed operational and support areas that we've envisioned for the next census. The second bucket within our operational plan scope is to provide supporting documentation and these we all appendices. In January I gave you a few quick examples, such as a detailed 20 life cycle estimate based on the preliminary design decision, that will be included in October. The i.t. architecture, the acquisition strategy for the 2020 census, to name just a few of the planned appendices in the set of documents. The last bucket consists of communication materials and by this I'm referring to info graphics and videos, the types of things that we would need as a program because when we're dealing with something as complex as the decennial census which is truly a program of programs, we will need materials to help us convey to our stakeholder community how we're planning to implement this major undertaking. Next slide. So on to the particulars of today's update. I'll show you how our CONOPS portion has matured and evolved. In January I explained that conops would include a description of each operational or support area, and for each of these 34 areas we're planning to include key decisions: those made, and those still to be made. We will include milestones related to when these decisions are needed for example, if they're build by decisions, we're going to include the research that's been completed to date, and also that which is still required in the coming years. We're going to include information about the cost and quality tradeoffs. What are the changes proposed for 2020 compared to 2010? And lastly, we intend to include a description of the i.t. capabilities that will be needed. All of this is conveyed on the left of this chart and if we're doing a comparison of then versus now or before and after photo, think of this side as the then or the old photo. Now on the right, you see how we have revised and expanded what the CONOPS will contain and this is the now, the new and improved so to speak CONOPS, and the new content includes four things. A comparison of 2010 and 2020. A delineation of what's changed, or are we opting for a tried and true approach to minimize risk or expense, knowledge management. What are the top three findings or lessons learned from the 2010 assessments for each operational or support area. I say top three only because the intent is just to highlight a few items in the CONOPS and then to summarize them within the appendix, otherwise we would have hundreds of recommendations and with our knowledge management database having well over a thousand recommendations we could do away with the database. So, just a few highlights. Policy and legal, are there any considerations on our radar that could effect us positively or negatively and what do we need to do to take them into account? For example, gsa has a policy for reimbursing telephone or cell phone use. There is no government policy on data reimbursement. From a bring your own device perspective, we would need to work this out. Or alternatively is there a legal mandate for the work, a just do it if you will and you'll hear about that with the examples coming up. Risks. What are the top three things, again not the exhaustive list but keep our project managers and operational-- leads awake at night. What are we doing to mitigate them? Next slide. So what does this mean practically speaking? Let me give you a view of what we will use in our conops, we will take LUCA and in our initial write up we include our description as you see here, but the 2020 LUCA program will have many similarities from the 2010 LUCA in that it will provide local, state and tribal governments to review addresses contained in the map tiger database prior to the census. Additionally we hope to streamline many aspects of LUCA , to improve the experience and outcome for the partners and census bureau. In the initial write up we documented decisions and working assumptions made to date for example, LUCA will be simplified over the 2010 program and it will be compatible with the geographic support systems initiative. And address canvassing. In the initial write up, we also cited completed research so for example, the r&d effort, the 2020 r&d staff evaluated old procedures through the LUCA looking back subteam, and conducted a serious of focus groups for former LUCA participants to understand what worked, what didn't, and suggestions participants had for the 2020 LUCA program. The research resulted in 12 recommendations. Now, in terms of proposed additional operational research, one of the things we noted in our first writeup, with these recommendations for LUCA, we are looking at the feasibility of several methodological and technological improvements that need to be evaluated in time for the LUCA program to be executed later in the decade or actually starting in 2017 to be precise. We also documented cost quality. Only our initial thoughts. Much work is still to be done here but we have initial measures such as production rate, in office canvassing rates and the cost of materials compared to 2010. Lastly in the initial write up, we wanted to include a reference to the IT capabilities and we documented the LUCA module for the GUP system will be needed in fy16 and we would need systems to create LUCA materials from both digital and paper, also need indeed fy16. So the point here, this slide shows you what our CONOPS looked like earlier this year for luca and by extension, the 33 other operational and support areas. This is what I call the then slide and on the following couple slides you'll see how our thinking has evolved. Next. The more detailed or expanded conops, does three things. One, it distills differences between 2010 and 2020. Third it high--second, it highlights a few of our project management best practices and third it puts the spotlight on any legal or policy considerations that could or will influence an operation. What do i mean by that? Continuing with LUCA as an example, but I'll address this but very quickly so as not to steal any thunder from the afternoon presentation. Here you see a very brief high level position or comparison LUCA as it looked in 2010 and how it will look in 2020. In this case, we expect it to be streamlined, compatible with GSSI and address canvassing, you also see extracts from the 2020 census program knowledge management database. Again the top three only for the sake of brevity. So what's the key take away from this chart. The points I should say about LUCA are well taken but the bigger point is this. The CONOPS portion of our operational plan will now have more clarity for each of the 34 operational and support areas, anyone who picks up our documentation in October will know where we have innovated, where we change things for the better to make this census a 21st century census, either because of changes in our methodologies or with technology or both, or they'll know that in some cases we determined it's more cost efficient or potentially less risky to have a tried and true approach. Secondly, when we're through this expanded conops, where we're addressing the findings from the last census, to improve upon lessons learned, to avoid pit falls and to help achieve a more efficient and well-managed census. Next slide, please. This slide is another view of the expanded content, another slice at our now, if you will. Again using LUCA as an illustration for what you see from all of the operational areas, we are including the considerations from both legal and policy perspective that must be taken into account, in the case of LUCA, this program is actually mandated legally since 1994 so while we're responsible for implementing the operation, we don't have a choice to do it or not. This is good to know. It's not something we can put on the cost chopping block, if you will. You will also see a couple examples of the risks that we're monitoring. Nothing too unusual here, the importance of testing, the need for help desk support to help local governments comply with our title 13 requirements. What's the point I'm making? It's not the particulars about LUCA per se, though I will commend the project team, they've been very helpful to me and the rest of the operational plan team. The point here is you're getting a window into the ways our CONOPS has matured over the past couple months and while it's good to see evidence that we're applying key tenets of good management to each operation, in this case, risk management, I would say and I'm sure you agree, it's reassuring to know that we're thinking ahead. And we're taking into account the possible game changers or worse, the show stoppers and we're taking steps to mitigate them where we can for each and every operation or support area plan for the 2020 census. So moving on to the next slide. One last example of the expanded CONOPS, obviously, schedule, as we all were talking a few minutes ago, must be included in any baseline and we always intended to document the key milestones as indicated by the gray shading and the and circle, not to mention that one of our appendices will be a pictorial represention of the high-level 2020 census program schedule. Go team! But now, we have expanded the project-level milestone information within the CONOPS and I'm going to show the entire operation, not just the relevant milestones for the early research and test work, or the upcoming operational work. As an interesting side note, you see LUCA, one of the earliest operations, has an implementation beginning in 2017, which might be abit of an eye-opener for those who are new to the Census. 2020 census production actually begins three year before 2020. Can you see how with the more detail conops and operational plan this documentation will play a very vital role in communicating both externally and internally, timing at a high level for all of operational and support areas and given the very great degree of integration, needed to successfully implement the census, this information will be very, very useful. So before we move on, let me recap the point of these slides again with broad brush strokes, I've given you insight into the way we progressed with the CONOPS, using one operation, LUCA, to illustrate the iterative nature of our work by adding comparisons to the 2020. By including key knowledge management recommendations, top risks, policy and legal considerations and a broader summary review of the milestones within each operation. The CONOPS portion of our operational plan has become stronger and rest assured, if you're hungry for more on LUCA, my colleague Brian Timko has plenty more of that this afternoon. Next slide.

This slide may look familiar to those who participated in our January PMR or who got the materials online after the fact. Why am I sharing it again today? It has changed, yes, slightly since January but what's important about it for today's update is that it gives you a view of the breadth of the 2020 Census program as we know it today. This chart shows all of the operational and support areas currently in scope for the 2020 census, and yes, there are still 34. In terms of the operational plan, specifically, I'm happy to say we now have a new initial narratives for each of these 34 areas. Additionally, we also have initial write-ups for the 4 key design areas, as well as several key appendices.So using my "then" vs. "now" comparison, in January we had a table of contents, and now we have initial documentation for 41 sections, albeit rough drafts, and predecisional,and in varying stages of maturity, but the operational plan is under development. We set internal deadlines for ourselves, and like our schedule counterparts, are following in our case, a sort of rolling wave approach, progressively elaborating the narratives as we get more information from the tests and other ongoing work. So by February 27th, we wanted rough drafts for 28 of the 41 sections. Now, we're working toward the deadline of the end of April, when we'll get submissions for the balance of the operations, 13 plus additional appendices, and in May we'll continue to mature and refine our work, working towards another internal deadline at the end of June.

So what I've described to you is an iterative process of steadily developing, reviewing and refining our initial documentation. And I'm proud to say we did meet that February 27th internal deadline. I fully anticipate you're going to hear more good news at our next PMR. This is truly the work of many hands: people throughout Decennial, Field, Information Technology, Research and Methodology and Communications Directorates, most of whom you won't see at this table anytime soon, but who are onboard and working to delivering a solid operational plan come October. So, you might ask, what else has the operational plan team been up to? What other work have we been doing? Let me shed a little light in the next few slides. With this slide you get a glimpse into one of our ongoing efforts intended to inform the preliminary design decision, and to help us mature it over the next few years: the 2020 Census Research Workshops, an initiative I would say has organically emerged from conversations among our senior survey methodologists. We've had four to date, and these are for Census Bureau staff only. They are meant in the simplest and purest terms to help us communicate findings, spark ideas, challenge each other, and generally encourage dialogue. Let's take a closer look at one. On March 23rd, we pulled 20-30 people together for our optimizing self-response workshop. We had a heavy mix of people from the Decennial and Research and Methodology Directorates, and you can see the agenda on the right. We talked about the work related to partnerships, advertising, contact strategies, as well as the use of the internet as a self-response mode, real-time Non-ID processing, and the 2015 Census Test work. How did this help? Let me give you one example, using a project I'm familiar with: 2020 Questionnaire Assistance. This operation is one of several supporting our key design strategy to optimize self-response, which as Deirdre mentioned, we have the potential upwards of 500 million dollars. Now Census Questionnaire Assistance, or CQA for short, this operation is preparing a Request for Information that will be released later in April, if our timing is on target, and will list some 35 capabilities that we'll be looking for industry to provide for the 2020 Census: everything from infrastructure, contact center technology, agents, contact center performance management and so forth. It was very helpful for our CQA team lead to hear at the end of March what I would call a sort of holistic presentation on optimizing self-response- all about the testing efforts to date, and the advertising, and in this way we could validate the right set of capabilities for the soon to be released request for information. And of particular note we found valuable the discussion about a potential work load driver for CQA, triggered by the use of realtime non-i.d. processing in2020 which is a different challenge than we had with this CQA operation in 2010. And as a quick aside, CQA, we're calling it CQA this time, not TQA, because of the other channels that will be part of the scope such as web chat and therefore it's not appropriate to just call it telephone questionnaire assistance but as you know, questionnaire assistance, QA that acronym has been taken so we've added the c, hence CQA, now that aside, these workshops while still evolving themselves, they were a success, status was communicated, ideas and thoughts were exchanged. We intend to do more of these to inform the balance of the operational research and to share ideas, to foster more the dialogue and communication needed to mature our census design. So next slide, please? Here's another window into work done by our team. Early content review sessions: we've had four to date in February and March and a fifth and sixth are in the works for April and early May. These are closed-door sessions, they serve as murder boards, of a sort, only a hair friendlier, and they usually last a good four hours - any longer, I'd be run out of town - and let me give you a closer look at one of them as an example of to give you a glimpse of what these sessions consisted of. On

March 20th we sat down and had what I call IT day. We looked for --well, I'm getting tongue tied--for three hours we covered six topics, service center, IT infrastructure - these two portions are part of the CONOPS, we talked about CEDCaP, we talked about CEDSCI, which admittedly was more of an introduction since it is so new, we talked about the I.T. enterprise architecture and we talked about THE I.T. life cycle cost estimates that we need to weave into our life cycle - 2020 life cycle cost estimates for the preliminary design. And sitting together at the table and around the room were our chief information officer, deputy chief information officer, I.T. program managers and project managers all sitting down for an intensive dialogue with decennial leadership, field leadership and other partnering directorates participating as well. We walk through the early iterations and engaged in some rather intensive, lively discussions. As a couple of examples, during our I.T. day, we were able to discuss and exchange information about the following sorts of things. Ownership, and accountability, timing of capabilities, user acceptance, differences in data collection between 2010 and 2020. And documenting, documenting, documenting, we had folks on the keyboard capturing action items, comments, questions and then handing those back to the contributing authors within two to three business days. Clearly you can see we are applying a rigor to this work, and being proactive about the deliverables due at the end of this fiscal year. But to me the most exciting and important thing about these early content review sessions is, they're promoting integration, integration with a capital I, pulling together the partnering areas needed for the census, not to mention the 34 operational and support areas and facilitating the exchange of information, clarifying roles and responsibilities, and providing constructive feedback. All of these things are essential if we are to effect a successful decennial census in 2020. Next window. In this slide, you see another ongoing effort as I referenced with the LUCA example, each of our operational and support areas has cataloged the decisions and the assumptions their teams have made to date and the decisions that are still needed. Our operational plan team and the leadership group realized very quickly after sitting through a second content review, back in early February, that we had to get our arms around the mounting stack of decisions piling up faster than those February snows. Our answer was decision analysis and support, and what do I mean by this? First , we're going to document the decisions made for the 2020 census design by each operational area and then we will validate them. We're going catalog log decisions as preliminary, final or future. Where decisions are still needed, we're going to prioritize them. For example, do they inform the system requirements work needed by the end of this year? -- Do they have major cost quality impacts ? Or are they in support of major acquisitions, those major ones within the next 12 months? We're going to prioritize recommendations for leadership and give them this information within the time frame needed. We will leverage our existing governance and change management processes and then record all of this within the operational plan and thus laying in a baseline for the program that we can use to plan, implement, monitor and control the actual Census. Now this is a work in progress, and we're currently in the midst of working through the mechanics of this process, let me give you briefly examples of the decision work and how it will help us to communicate and better manage upcoming activities. So from field infrastructure. Here are a couple preliminary decisions needed by the end of this calendar year. What will be the automated decennial employee training approach for the 2020 census? We need to know that in

December of this year. What will be the preliminary number of local census offices needed for the 2020 census. Again, that's needed in December of this year. What are the business requirements for the six regional census centers needed for the 2020 census, to include staffing estimates, updated budget models and space requirements, again, not December, but soon thereafter in January. An example of a final decision, this one from address canvassing, we will implement a reengineered address canvassing and then a future decision, this one from our paper processing operation, will paper data capture via contingency for internet self-response and the use of hand -helds and the nonresponse followup operation, and if so how will we do this? Next slide, so I've saved what I call the best for last, perhaps the most important window into our work. As you heard earlier, the goal of our design for the 2020 census is to conduct the next census at a lower cost per housing unit adjusted for inflation, than the 2010 census, and maintain high quality results. I'm happy to say we now have a five -member team focusing exclusively on quality metrics and using the microsimulator. I will turn the presentation over now to my colleague, Pat Cantwell, who will discuss in detail the modeling and analysis supporting our cost quality trade off work.

>> Thank you, Ann, good morning, all. While they're putting up the slides, let me say I have two topics to cover. This is evaluating costs and quality and secondly, the microsimulator itself. Now of course, the microsimulator is focused mainly on cost and quality, although we will measure a number of other things. So, about 2/3rds of what I present will be on the microsimulator. So on the next slide. Let's talk about evaluating costs and quality. What we would really like to be able to do is to say, suppose we have several competing design options: how do we compare them? It would be nice to have one number, one measure of quality which compares all of these design options. Same thing with cost. And this number, would have--would incorporate the down stream effects, these effects we use as term down stream, for example, you have the first operation and how does that effect the second and third operations, and how do you first two, subsequent operations so that's what they like to have but be more realistic, it's not so simple measuring cost or quality, because everybody knows, both difficult to measure, and again it's not just one way to do it, there are many, many methods so first we have to identify appropriate metrics, on the next slide, let me start with quality. Measuring quality, I think of it with three different aspects, the first, what's the characteristic and level of aggregation that you're interested in. We know at the total count of the population of the United States is very important number. But so are the numbers for each of the 50 states in the district of columbia and puerto rico as well as smaller geographic levels. Beyond that we know there are demographic groups that are important for example, we have to have accurate numbers for race categories for hispanic and nonhispanic for various age groups. Well, after we have all these various metrics how do we combine them, we might have dozens, hundreds or a thousand metrics. How do we put together say 51 state estimates including District of Columbia, well this, is something that's not new, the Census Bureau worked at this for many years and there's much in the literature, statistical and demographic so that's not a problem in itself. The third aspect is the standard of comparison. What do we compare our results to? What's our proxy for the truth? And there's no one perfect method. For a lot of our work we use the

2010 census because we have a lot of data on various operations and paradata as well. But the census itself as we know has some areas in it between omissions, erroneous enumerations and other features. On the next slide, let's talk about cost. Whatever we do trying to measure cost, it has to be compatible with the Census Bureau's cost model and the cost estimates that they're producing. Now for some of the operations, we can work with rough measures, for example, let's talk about the use of administrative records in the nonresponse followup operation. As a first order, rough measure, we can use work load, otherwise one design might produce a certain work load, for NRFU, and the second one using more administrative records might produce a smaller work load. Course of we know that every case doesn't cost the same so we want may weight these by how much the cases cost in different areas of the country or whatever. We may start looking at more detail such as what are the number of visits, after all a case is a case and if we look at stopping rules in nonresponse follow ups, the number of visits is important, so as can you see we have more and more data we have to look through. Combining a cross operations, it's more difficult for example, trying to compare measures of cost, quality, something like address canvassing, and nonresponse follow up. Dollars is always a good bottom line when you talk about cost, of course dollars are hard to obtain at some points. There are other measures we can put into the cost model, usually based upon productivity for example, the number of cases per hour, the number of miles driven per case, some of these, are numbers we can try to estimate. So on the next slide, just summarizing for costs and quality are trying to measure costs and quality, first of all we have to determine appropriate metrics and there's no--no shortage of the number of metrics. It's a matter of narrowing the list and specifically though, which ones will answer the questions we have to have answered. Also which one can we measure accurately. Now I will talk a little about two approaches we are using to measure cost and quality, I think of them as analyzing those opponents one at a time versus analyzing from beginning to end and rather than defining it right here, it will be easier to show you in one of the subsequent slides. >> Okay, so let's talk about the microsimulator, this was a project that was originally directed by Dr. Tom Lewis who put it on good firm footing. So what is a microsimulator? A simulator is just a computer program that can run scenarios or options as we specify, --while introducing randomness appropriately-- randomness which is realistic and reflects the operations that we're dealing with. Micro - I use this because we start at the level of the address or the housing unit- the person - the lowest level that we can get and work with- as opposed to another simulator, which could work, with something like counties, block groups or tracts. The important thing is, it allows us to run through the scenarios many times - many iterations in the simulation, so instead of just seeing an average result, we can look at a distribution of results. So we can say, 80% of the results are above some value or below some value: whatever the metric might be. In those 20% beyond the value, is that something we can live with, or is it too much of a risk? The next slide, the primary purpose of this microsimulator is to provide this information for the cost-quality trade-off. It's not the only thing we try to measure in this, but that's the first purpose. So we'll use it to shape the design decision that Ann's been talking about in this operational plan for 2020 Census. It replaces our prior efforts on lifecycle analysis by allowing us to build options from various activities and then try to assess the trade-offs. So let's look at some of the benefits of a microsimulator on the next slide. First of all it allows us to simulate actions or decisions…And then we can track it through a series-- so let me give you a picture. Don't worry if you can't see the small print - I can't read it either. Think of each of these diamonds as a decision point or action, so for example, the very top diamond might represent whether or not a housing unit responds via the internet or not. So the left hand path might say yes it responds by the internet, the right hand path maybe it doesn't respond and if it doesn't, then we have other options perhaps responds by mail or not, and of course we can incorporate options as we want. Each decision point, there are two or more possible paths. And the probability for each path is determined by a statistical model. This is based upon data that available are to us such as from the last census perhaps administrative records from the American Community Survey or other sources, I want to mention that much of this modeling has done been by David Brown at the center for economic studies. So can you see a picture right there, now actually, as you can imagine, the number of actions gets very and long and large, so you can see the next slide, this is the picture from something we've been putting together which just reflects decision many decision points and many resulting possibilities. So let's continue with the benefits of the microsimulator. The next slide. We can combine a string of activities into one complete scenario or design option. I'll give you an example. On the next slide, I'm going to talk about three particular components: address canvassing, self-response, and the use or non-use of administrative records. And I'm just going to keep it simple here: we'll just look at three options: according to what percentage of the work we'll do in the field versus what percentage of the work in the office so these three options you see here, 100% in-field, 40% in field, or 20% in field. Self-response, okay, both of these will allow the internet in the mail but then the question is, do we have a household to respond without a valid i.d.? So option one says, non i.d. processing is not allowed, option two, it is allowed. And the third component use or non-use of administrative records and these near prior meetings and all three of these will allow the use of administrative records to identify vacant units, but the first one says let's do it for vacants only. For option two, which we call the hybrid approach, suppose we allow the use of administrative records for occupied units but only after we try at least one visit, exactly one visit, and for the third one, the third approach, the full approach, we will use administrative record if they're deemed to be good, even before a visit. On the next slide, you see how we build a scenario, so from each of the three components, we select an option, for this particular Scenario A, suppose we select the option of 20% in the field, 80% in the office, for self-response - we allow non_ID processing and for Ad-Recs we use the hybrid approach, we built a scenario. So you look at the next slide, benefits of microsimulator, it allows us to compare two or more scenarios, so now continuing, I'm going to build a second scenario, right below, and the next slide, you'll see the top half is the scenario we just built called the hybrid approach, i call it hybrid because I'm focusing on the administrative records, I will build a second approach, scenario b and we're going to use the same thing for address canvassing, the same, we will allow a non-i.d. processing and we will select a different option for administrative records. So if you look at the title of this slide, analyzing components one at a time, I refer to this because we're really talking about the use of administrative records if we can hold everything else fixed. The idea of all other things being equal, which in real life they never are. But here we're trying to keep as much as possible fixed while we look at the administrative records component but still, bring down what happened before you get into administrative records. So here we can compare the hybrid approach verses the full approach. Now the next slide, titled analyzing from beginning to end, there's no reason why we have to fix the others. And realistically we may want to change some of the options we're comparing so for instance I built a new scenario c, I call it the conservative approach because I will pick the conservative option from each of these three. I will pick the 100% canvassing in the field, I will not allow non-i.d. processing and we're going to allow administrative records but used only for vacants, so scenario c conservative approach, versus scenario b which you've already seen above which is more aggressive, so I can compare two different options that don't fix anything in particular….The fourth and fifth bullets we can observe the tradeoff between cost and quality, or as I said it, we can measure other characteristics as well. In the fifth we can capture the randomness starting at the household level, our address level and see how this produces eight different aggregate results. On the next slide, again, please ignore the small writing, just the important point is to look at the results where each dot represents one iteration of the simulator. So for example, I just have a green option and an orange option, they don't mean anything. This is just made up data, so the green option if you can see clearly, not quite sure if you can see is more to the left, the orange option more to the right and if we have an x-axis that measures quality, a y-axis that measures cost, each dot representing one iteration, so we have 30 simulations of each of the two options, the green and the orange, what one can see from this is that the orange option tends to produce higher quality, not for every iteration but tends to in its distribution. Cost on the y-axis is not so clear, there's much more overlap here, so it gives you an idea of what could happen between two closely competing options. Now being realistic, let's look at the limitations of a microsimulator. First of all results are only as good as the models and the input data, this is true of any statistical model of course and we always say this but we have to go in realizing this. Second, the results rely on the validity of the assumptions. Third, it takes time to develop, to test and to program all these underlying models in all these scenarios. Because there's a lot of complex work going into this. Fourth, the computing time to run the simulation, at least to this point, can be quite long. So we're working on this, trying to bring it down to shorter time lengths. Okay, I'm going to talk about benefits of this particular microsimulator, and I'll go on to the next slide which is number one, building scenarios graphically, so first of all, we wouldn't want to build a new scenario, especially when we have one to start with, and there's the picture over to the right. Suppose you look at the lower right hand green diamond and we want to take that diamond and say, I want to add or insert one or two additional options. What we do is we deal graphically, all this is on a graphical interface, we deal graphically and insert the new options there. And the python code is generated automatically underneath. So we don't have to change the code ourselves, so this is simpler to build and change and also increases the coding accuracy because instead of looking at inserting the code and making sure everything's working properly, we can see how it looks right in fronts of us on the graphical interface. The second one, we can change the input parameters very easily and for example, in our models in our work, we produce probability, so for example, so for each different housing unit, we have a probability that the unit responds via the internet or that it has good administrative records. Now suppose over all the housing units in the entire country the internet response based upon inputs is say 50%. We want to see what happens if we increase it out to 55%. It's very easy just to add that five%, making sure we don't go over a hundred in the models but to add that five% into the probability and in fact we can do it for a subset of the models, so for instance we say, let's suppose the internet response is increased by 10% in just say urban areas we can do that very easily. And we can see the results. The third we can explore the results visually and it's easy to work with our dashboard once we have the different aggregates that we want and characteristics we want and programs we can pick out what we want so there are 51 estates in there including dc, we can put a check on all your states that we want to see and look at their results together. We can look at them separately or look at them separately and say which housing unit to use with administrative records and which ones didn't and look at average cost and quality. So on the next slide, we have to develop two major activities, the self-response activities, and the use or nonuse of administrative records also for some parts, numbers of visits we're working on address canvassing partly done in one of our codings and we're working on it in the others. And I say in one of our codings in the third bullet we're programming this in two different languages and we have the iterations part of it we have the python in SAS and this is verification into mitigating any risk so finally, let me summarize by saying this year we're working with a micro simulator to help us evaluate or assess the cost, quality and other characteristics of the census operations. Beyond this fiscal year, we want to add other operations, refine the models and look at other options. And finally we would like to share this software with other parts of the bureau as they're interested and whatever they can use in this. So I'm going to turn it back over to Ann. Thank you.

>> Thank you Pat. So to wrap up the update on the operational plan, using LUCA as an example, you learned how the CONOPS portion of our operational plan has matured and expanded. You learned about workshops and review sessions intended to communicate information and insure a quality deliverable in October. You heard about our work to inventory and document the decisions that support our preliminary census design and to provide proper visibility--there I go again,--proper visibility for our leadership on the decisions needed and within the next 12 months, and lastly, thanks to Pat, you heard about the critical efforts under way to support our cost quality analysis. Looking ahead for the next few months, there will be more work on the decisions task and at least two or more early review sessions, farther downstream on September 30th of 2015, we will baseline version one of the 2020 census operational plan and then we'll brief it here at the October program management review. In subsequent years we will be updating this operational plan since not all research questions can be answered by September of this year nor can all the related decisions be made by that time. In fact it's important to note that the final version of the operational plan won't be released most likely until after the apportionment and redistricting counts have been released. To reflect, and not just what we planned but what we actually did for the 2020 census, which means we will be handing a lot--handling a lot of revisions by change management and governance, in keeping you our stakeholders informed along the way. After this morning's window into our work, i hope that you are assured we are taking our work very seriously. And applying appropriate rigor to

the operational plan and it's centerpiece, the preliminary design decision, the associated CONOPS and supporting materials, our documentation albeit decisional and a work in progress is taking shape. More importantly to my way of thinking, this work highlights the integration, integration with the capital I that's underway, we are bringing together people, research, results and ideas to make not only our documentation the operational plan the success but the next census as well. Are there any questions? Dan?

>> Dan Cork, National Research Council, I have a battery from all of the speakers this morning, I have picky points and things that caught my eye. First picky point you raised LUCA, and I know we will talk later on, little verbs are important and the short form description of LUCA, the thing that carried over to the CONOPS, it makes reference to a local government's reviewing address list and and that's it. I'd lobby in for adding something active than just the passive review to review and update and review and suggest corrections. Further picky point it mentions on the policy and legal considerations it has to conform with what's in the law, the address improvement act, it has to conform with the appeals process thats set up offline that's anticipated by the law and whether that's on a separate calendar. The master schedule here lists a one time november 16 OMB clearance for 2020 LUCA as a whole, does that anticipate specification of the appeals process at that time, too?

>> Your points are well-noted, dan.

>> On the life cycle chart relatively few of the things have beginnings and end dates specified. Those that do, are a bit interesting, one seems to be a little misalignment, on page two determining regional service centers, maybe that's an 18 month activity, I think it's supposed to be an eight month. It's if it's going from 1017 to 1017, the starting point should be october 16 or--yeah? Yeah?

>> I just want to clarify Dan you're currently talking about the reengineered schedule tiered concept slide? Or a different slide? I'm on page two of the large slide. Upper left corner, this says 1016 as the start date, peg two what looks to be the start of fy16 which would be 10/15, wouldn't it? >> it has a beginning date of 1015 and 1016 which will be the eight month process but that looks to be spanning more than a year. >> yes.

>> I see what you're saying. We will take a look at that, thank you. >> Even with that, just the realism. Obviously a nab of parameters about the number of regional centers and number of regional offices still has to be sorted out but this schedule suggests an eight month process for determining locations for the relatively fewer number of fewer number of regional centers later opening RCCs is a more compressed time frame for the hopefully not 500, but still larger number of local offices which is a six month location process, signed leases and opening three months after that process, is that realistic is that factoring in additional horse power or whatever needed that the regional versus local?

>> Great points, and we're happy to talk about them and I think it would be easiest to talk about that at a later point with the detailed schedule and what pulling out is the schedule anytime we take a schedule and condense it into a graphical illustration and the points are good and look at them and see how they convey things a bit more clearly but the schedule that's passed out of this version is really meant to provide--it's not meant to be the working schedule, it's meant to be an illustrative schedule of the key areas that we work through but these are very, very valid points.

>> and I just raise it as just a picky point, again, specifying a smaller number of sites taking longer than a larger number of sites struck me as odd. So like the 10/17 refinement of estimate work load and 2017 that's on page two, is that--that's basically fine tuning the top level, what can you do in the office, what you can do in field in 2020 as oppose to in 2007? Okay. For pat on the microsimulator, let's talk about how cost factors into the model. It's a fixed cost and associated something like a contact attempt, for a mailing, sort of discounting or second mailing or second contact attempts? Is that allowed to vary by geography or allowed to vary more randomly?

>> You heard the question, this is allowed to vary all the way down to the housing unit. Of course, different housing units have different probabilities based upon their models so for one housing unit it may be very, very likely they will respond a certain way, perhaps but based upon the characteristics and other variables that go into the model. But it can vary all the way down to the housing unit level.

>> So the cost could vary by the propensity to respond? >> Sure. Yes. >> Brian, Office of Management and Budget, to pick up on the microsimulator path, I think Tom is in the back, too, so this is really cool. Glad to see you are doing this. It sounds like there's a lot of flexibility in this and I guess I wanted to probe that further to see, so, you noted very well, that you know there's assumptions that are built into the model especially like relationship, thinking of relationships among activities, now there are some things that are naturally related to people don't you know respond by internet, then you know we can send paper reminders so there's natural connections here but there's less connections here between how good is our address canvassing does that impact upon self-response. And so I didn't know if you have built into this so that can you look at just parameters for those kinds of things or are you hard coating relationships or I'll turn this off and you can respond, pat. >> yes, thank you. What we're doing is to bring out a good point for example, address canvassing if a certain unit happened to be missed on the master address, according to our simulation, if the unit is missed in the address canvassing and then it is--it cannot receive a mail -out and so if it's--if it's not on the list in this the first place , and that block is not in the in-field canvassing but we may capture it in the in-office canvassing and with both, it could not receive a mail out, and the point's a good one so a lot of this is difficult, because some things are fairly straight forward, if this happens, this has to happen or this happens and we have to assign a probability, for other cases it's difficult, for example, the end office address canvassing, how do we assess different

probabilities and how will that happen with that and this is going through discussions and working with experts here to try to assign probabilities for the models.

>> so pat,--this is Tom Lewis maybe I'll make an additional comment. Another feature, let's say advantage of the microsimulator and the agent-based model is that you endow the agent in this case, the households with attributes including probabilities of responding and all those other things and that induces these joint distributions that you might otherwise have to sort of sit there and think about how to make those relations and so you make them at the microlevel and make them again with a different set of things and those induce what you're asking, how do you get joint relations and you get them by having it build up from the smallest molar unit and that's not magically correct but at least you get to discuss it at that level.

>> Right and that's key here in terms of understanding because in terms of understanding, you've had even with a couple hundred years plus of experience doing decennial censuses, we don't have a lot of experimental manipulations in the test you're doing on all the different possible combinations here and what and the relationships are among some of these different characteristics. So being able to talk about those or model those or just at least do some sensitivity analysis around some of these things I think, and be able to talk about how confident we are what-- --examining or the assumptions, not just simply saying, well we had to assume this and we actually have, you know, this is--this is Tom and Ron's best guess and that's better than most, but,

>>maybe I agree and one more quick comment and I'll stop but as with microsimulator used for disease spread and disease control, in fact very popular now with ebola and especially very visually attractive visual output and you have to keep reminding yourself not to reify this that it really isn't the truth but you're at least trying to study implications of assumptions.

>> I'd like to see if there's one more question and then we'll move forward with our break to keep on schedule. Trisha?

>> I have kind of a level high question, I think and thank you for the presentations I like the concrete examples always kind of help picture things--each of these group areas, would you call those a goal? And if so, is that a goal that's attached to preliminary decision, milestone? Are there other goals with the--with each of the milestones? And…

>> okay, yeah. I can try to answer that, the estimated five billion dollars in savings was based on preliminary life cycle cost estimates that we prepared as part of our outyear budget estimates, those estimates were based on a number of inputs, variables, parameters, using experience from the 2010 census or what we knew from that testing had already occurred and what we knew from expert opinion within the office. As we conduct each test, we're building on and refining our parameters, to revise our life cycle cost estimates. When we release the 2020 census operational plan at the start of the next fiscal year, those numbers will be revised, however, we are moving forward, using that as our baseline estimate.

(inaudible)

>> Remember when we talked about the path to the 2020 census division and we outlined the assumptions we used to build our program moving forward, those same assumptions were built into the life cycle cost estimates, we had key questions that we discussed during the October PMR, we've been working to answer key questions over the past few months and flush those out as parts of the CONOPS or part of the plan and all that's am coming together to not only refine the concept of operation but the life cycle cost estimates.

>> Let me try to pause for a second and try to take the same approach with the information in a way. When we set out a few years ago for the initial--a few years ago for the initial planning of the 2020 census and really sat down and said,--to answer the question, we were charged with a directive to find a way to take the 2020 census at a reduced cost, and sat down and said what do we need to do from a design perspective and that design perspective is what drove those initial life cycle cost estimates so the first iteration that we put out and then the second iteration we put out last year of the life cycle cost estimate, which gave us the estimated five billion dollars in those key areas and from there we built our research and testing around it and modified research and testing alignment so we could prove in, validate or determine what the methodological approaches would be to further refine it. And so as we move closer with the preliminary document, the operational plan that we're releasing the end ofthis year, we're developing by the end of this year and will be seen early next fiscal year, that lays the foundation for how we're incorporating all of that research and testing, around the ideas for the design that we had to bring it in line with the cost savings that is we felt we needed to achieve and we could achieve. Does that help in terms of the nature.

>> yeah, so those numbers will vary, right? Next PMR--well, you know based on this test ... Okay? >> So we've rerun the preliminary life cycle cost estimate a couple of times. We did it the first time we released that information, we reran it a second time. The rerun we most recently did was to realign and you might remember the evolution of this, when burton first shared sort of how we thought and what the high level items would be that we're looking at, that there were nine areas that wire looking at like a-g or something like that on a spreadsheet. When we redid it we took all those ideas. There's over a hundred parameters and took those ideas and put them into the innovation ideas where they applied and some could cut across areas and they were slight changes although the numbers came out pretty consistent. And it was rounding error when you looked at it. When we redo it the next time it will be based on information that we learn and we're already learning things. For example, and--this is an illustrative example, I have don't something real in front of me, but for example, should we say we can do, 25% address canvassing, and we want to do 25% in-field address canvassing, the estimate i believe we had in one of the initial runs was 20%, so that would vary that projected cost savings, but we might find in the '15 test that we're running in Maricopa, that we have more productivity through the use of MOJO, our enhancedoperational control system that we're estimating, so the net impact will vary and the numbers that come out will vary.

>> Okay, in the interest of time i would like to take a break now. Let's reconvene--I'm looking at three clocks, so I will look at my phone, 10:58, let's get back together at 11:15 and we will move forward with the next set of presentations. Thank you.

>> Welcome back everyone. I'm going to start with a quick reminder and I'm using myself as a test to speak directly into the microphones as you're speaking to speak slowly and clearly and I think that will help with the technology issues we were struggling with before. Now Mary Bucci is giving me the thumbs up in the back… We're about to start our presentations related to the 2015 Census testing activities, as I'm sure you have figured out by now, 2015 is a busy year for us, we were very ambitious planning five tests for 2015, as I mentioned earlier we've already conducted a simulation exercise in relation to reengineering our field operations, we completed the address validation test in February: two components that were instrumental in reengineering address canvassing. As we progress this morning, you're going to hear about our other tests, but before we go there I'd like to remind you of the purpose and the timeline for these tests. As Ann mentioned, we're focusing significant efforts on reaching the conclusion of our 2020 census operational plan. The preliminary plan design decisions related to cost savings innovation areas and core programmatic work. In terms of the address validation test, that had 2 components: the math model validation test was really used to inform the performance of both our models and methods that we're planning to determine our in-field and in office address canvassing workloads. In regard to the pate block canvassing test, we were analyzing whether or not we could use aerial imagery to help us determine portions of blocks that we could in-field canvass as opposed to going around the whole block. You heard about these before. Come the next PMR, we will have detailed results to share with you and so we're not going to focus on that test today. We talked about the optimizing self-response test and we're continuing to test our Notify Me option, and non-i.d. response allowing people to respond without a unique census identification code, to determine if we can optimize self-response and internet self-response rates that way. As part of the can optimizing self-response tests, we're researching how advertising, outreach, promotion and partnerships can engage and motivate respondents to respond. As part of our utilizing administrative records and the 2015 census test, we're researching the use of those records and third party data on to help reduce the nonresponse follow up work load. And finally as part of reengineering field operations and the 2015 census testing in Maricopa County we're testing the use of technology to help manage those tests that were traditionally performed by humans. That operational control system to help delineate the action and order of going to nonresponding households. And again, we're revisiting our field management structure as part of this process. Next slide please. We've seen this timeline before, we presented it at the past two PMRS, this is the 2015 census testing timeline. We kicked it off in September with the address validation test, April first was our census day for both the OSR test and the 2015 census test and then we'll conclude this year with the national content test and Maryann and Jenny are providing information about both these tests for now and we'll turn it over to them and the end. Now I'd like to introduce Maryann Chapin to report the status of the 2015 census test. >> Good morning I'm here ready to report the status of the 2015 census test. Readiness and implementation activities are well underway. In the up coming slides we'll share our progress toward a 2015 census test. Specifically we'll review the objectives of the test, refresh everyone's memory nt site test specifics and review key milestones. We will share up dates on the readiness of our field management and efforts to recruit and hire the staff, excuse me who will perform the data collection and finally

we will update you on the readiness to conduct nonresponse follow up, information follow up and bring your own device testing. Our focus for the 2015 census test is on testing innovations and collecting data that will inform preliminary design decisions for the 2020 census. In the 2015 census test, we will test the reengineering of roles, responsibilities, and infrastructure for conducting field data collection. We will test the feasibility of fully utilizing the advantages of planned automation and available realtime data to transform the efficiency and effectiveness of our data collection operations. We will further our exploration of using data about our households that has already been provided to the government or that is available through third party data to reduce the nonresponse follow up work load and increase the overall nonresponse follow up productivity through the use of administrative records, field reengineering and adaptive design. We will test the operational implementation of bring your own device as an option for our enumerators and we will use focus groups to explore the reactions to our contact methods to administrative records use, privacy and confidentiality concerns and how we might address those concerns.

As a reminder, the 2015 census test will be conducted in Maricopa County Arizona. It was selected for three reasons, high population of Hispanic and diversity population, mobility, in that could it have high transient and vacancy rates and the close proximity of urban and suburban areas. Having these characteristics in a test site will allow us to more fully understand the impact of methods to assign and manage staff as well as allowing us to test the quality of administrative records with such a diverse population. The sample blocks, groups for the tests were identified based on the diversity of socioeconomic characteristics, the block groups in central Maricopa shown in blue were selected for their high concentrations of both vacant housing units and Hispanic populations. The block groups that are located in the cities of Chandler and Mesa shown in yellow and pink respectively were identified as areas that had higher 2010 census response rates and tend to have lower mobility. And the block groups in the outer ring or northern border of Maricopa county shown in green were selected to allow us to test in more remote locations. The Maricopa census test includes approximately 165,000 addresses. Approximately 161,000 of those addresses are in the initial self-response universe and another approximately 4500 addresses are included for the bring your own device testing. The bring your own addresses were not included in the initial self-response universe and these will be sent an advance letter about possible contact during the bring your own device component of the test. I would like to stress that the focus of this 2015 Census Test is on nonresponse followup and methods and technologies to reduce the work load and increase the efficiency and effectiveness of conducting the nonresponse follow up operation. To that end, the initial universe and the opportunity to self-respond using the internet push strategy, enable us to get to the nonresponding universe. As of yesterday, our self-response rate in Maricopa county was 29.73%. The nonresponse follow up sample sizes reflect self-response rates, subsampling and administrative record identification removal before nonresponse follow up starts. The 20,000 addresses is a target and the actual sample size in each of the panels may be lower or higher. So there are three panels in the 2015 Census test: a control panel and two experimental panels. One being the full removal panel and the other being the hybrid removal panel. The control panel will employ similar nonresponse followup procedures to those used in the 2010 census, work will be managed out of the local census office using a system and approach that again is similar to that that was used in the 2010 census. The full removal panel implements an adaptive design context strategy and will reduce the initial nonresponse follow up workload to exclude any addresses identified as vacant or occupied based on administrative records. Remaining nonresponse cases will be visited at least once. In the hybrid removal panel, the initial nonresponse follow up work load will be reduced to exclude any addresses identified as vacant using records prior to any contact attempts being made. For all remaining addresses, enumerators will make one personal visit, after that initial attempt, the nonresponse follow up work load will be further reduced to remove any addresses that could be enumerated using administrative records. The cases that still remain after the records removal will receive at least one additional contact attempt. The work of the experimental panels will be controlled and managed out of the area operations support center in The Denver regional office using the enhanced operational control system or MOJO. All data collection will be automated using the COMPASS application on a hand held device. Seen on this slide some are of the key milestones associated with the 2015 census test. Those shown with a check mark are complete, those shown with an open circle are upcoming activities. You can see that the initial mailing and the mailing of the two reminder post cards has occurred. Self-response is underway as mentioned earlier, and the mailing of the final reminder and the paper questionnaire is scheduled for later this week. And all systems are nearing readiness. And as an update I can tell you that a check mark can now be placed next to the recruiting line. We have stopped our recruiting efforts as of earlier this week. The message on the recruiting hot line has been updated to say thank you but that we are no longer accepting applications. In the field data collection for the nonresponse followup is scheduled is scheduled from May 15th through June 23rd.

We are pleased to announce we are well on our way to have the management structure and staff in place to complete the data collection for the 2015 census test. For the experimental panels the area operation support center is up and running in the Denver regional office. We have selected all 16 local supervisors of operations and selection of enumerators is under way. The enumerators have begun to report to the 12 designated post offices for fingerprinting, swearing in and having their photo taken for their id. For the control panel, the local census office in Maricopa county opened on January 26th. We have selected all sixth of our field operations supervisors and selected most of our crew leaders and crew leader assistants. In addition we have begun the selection of the enumerators for the control panel. Training on the operational control system that is similar to what was use indeed 2010 for the local census office staff is occurring this week with training for the field operation supervisors scheduled for next week. The 700 hand held devices that the enumerators will use for data collection have arrived in the local census office. And as i mentioned on the previous slide, the recruiting of enumerators has concluded - we did exceed our overall recruiting goals in the Maricopa recruiting site.

We have taken a number of steps to insure our readiness for conducting our nonresponse follow up. We have completed the first round of user acceptance testing on March 20th. The user acceptance testing tested the capabilities of the COMPASS, data collection application that will be resident on the hand held device as well as integration with key systems. Issues were identified, documented, resolved and retested. A second acceptance test is planned for April 15-21. We have conducted two dry runs for the onboarding process to work through all of the steps and system integration that will occur during selection, hiring and training of enumerators. The training materials for the control panel have been sent to print and everything is set for an on-time delivery. The automated delivery for the experimental panels has been dry run and is ready to go. So at this point we like to take a pause and actually show you an excerpt from one of our training modules.

[low audio]--video: welcome to module five, the prior modules gave you a detailed picture of the security and confidentiality of the census, you also reviewed basic census procedures. As indicated all along, you will follow scripts for most of your work. Before we can begin to introduce you to those scripts and how you will work with them, we have to introduce you to the smart phone you will be using that contains them. >> by the end of this module, you will be able to explain how to use the features in COMPASS which is an acronym for census operations mobile platform for adaptive services and solutions. >> Explain how to access case management information. >> and summarize the features of the comp as map's applications. >> knowing these things will help you conduct your job more effectively and efficiently. >> this module will take approximately 35 minutes to complete. [music] >> Excuse me I was synching my smart phone. Synching is the process used to exchange data with the secure census database. It happens automatically but i make it a point to synch my phone occasionally especially in areas where data connectivity is poor to make sure all data are transmitted. >> Now we can begin. >> up to now, we've given you an overview of why and how you conduct the census. Before you go more deeply into these and other topics, we have to introduce you to the tool you will use. Most of your work will be conducted on your smart phone. Your smart phone provides you with your active case list for the day, the script you use for your interviews, housing and respondent information, maps that help you navigate your route, access to pay roll, ability to enter your work availability, access to job aids and other useful materials, and access to your supervisor. Knowing how to use your smart phone is critical to your work.

>> After you log on to your phone, you will find the main application you can use, COMPASS. It stands for the Census operations mobile platform for adaptive services and solutions. This is the COMPASS log in screen - after logging into COMPASS, the dashboard is the first screen you see . These have a red background, this indicates that the compass application is in training mode. When you use the live you see application for enumeration if it will have a blue background. >>

When you tap the COMPASS icon, it will display the application's login screen. Enter your user name and password to log in. After you log-in a dashboard screen will display. You have three options to select from the COMPASS dashboard, case list, time and expense and work availability.

>> That gives you a flavor of what our automated training modules are going to look like. I'll now move on to readiness for conducting evaluation followup. During July and August, enumerators specially trained on reinterviewing techniques will conduct the evaluation followup operation. The two major objectives of the evaluation follow up test are to obtain the most accurate status of the housing unit on census day, and to identify people associated with the occupied housing unit during the calendar year as well as their timing of association with that housing unit, in an attempt to understand and resolve where we have discrepancies. This will help determine the most accurate roster and status for our census day. The follow up sample will consist of 5000 cases subsampled from the follow up control panel where housing unit information collected during our interview, differs or conflicts with administrative records information that we have for that housing unit. Training for the evaluation followup enumerators will begin in early July and we will collect data collection in mid-July through the early August time frame. As with nonresponse follow up, in advance of going to production, we will conduct user acceptance testing, the user acceptance testing for the evaluation follow up is scheduled for April 29th through May 12th. Finally, also conducted as an additional nonresponse follow up data collection activity, we will test bring your own device. Associated with bring your own device, the Census Bureau has performed a risk assessment, that the inputs to the risk assessment included acceptable use policy, and securing the application and data using the software development kit. In addition, penetration testing will be performed in support of the 2016 census test. Testing is occurring

with the COMPASS application on both government furnished equipment as well as bring your own device. We will conduct the testing for bring your own device between June 15 and June 27th. Prior to that we are planning a project to work on the device to work through and nail down the steps necessary to insure that everything will work. Enumerators will be recruited from those who have participated in the nonresponse follow up control panel and who have a mobile device that meets the operating system specifications for the iOS and android platforms. And the enumerators will use their own device for this data collection. This is a technical implementation, in other words, the data collected on the device is not driving the test. The driver is the process for utilizing someone's personally owned device. The objectives of this test include the design, development, deployment and support of secure software solutions that can be installed on an employee's personally owned mobile device, conducting interviews with respondents using the enumerator- owned mobile device and capturing lessons learned for future operations, including focus groups with a subset of respondents, questionnaire for enumerators, and collection of feedback from the local census office staff. The feedback from the enumerators and the local Census office will be used to shape nonresponse follow up duties using our own device in our future census tests.

>> let's pause for a minute and ask if there are any questions for Maryann please. Trisha? >>

[inaudible question from audience] >> --

with the results of this comparison. >> This test is going to be key to helping us get to the point where at the end of this fiscal year we hope to make decisions yes or no with regard to our ability to use administrative records for one, the identification of vacants and two our ability to use administrative records for the enumeration of nonresponding households. So this is another data point that we'll have in addition to what we have from our earlier test to inform that decision. >> is there some kind of threshold, you don't have to tell me what it is but how-- when the decision is based on some percentage of correctness I assume, or is there some kind of refinement that can be made in the models or in the decision-based approach or the rule-based approach?

I expect that we'll continue to refine our process, even beyond the completion of the 2015 Census Test., as it relates to what ultimately is implemented as the approach assuming that our decision is that we will use administrative records. And we'll continue to refine that approach as we near 2020 in terms of not only the method that we use for administrative records, but also the sources of information that we'll also use that form our administrative records data set.

>>I agree with everything Maryann has said, and I want to add a further clarification to that. For me, one of the key points coming out of the 2015 Test in terms of comparison are really the two experimental panels and the differences we're making - they're the extremes. We have the hybrid approach, which is using a variety of techniques, and then we have the full administrative panel. So we're really looking to understand the differences between a full administrative removal versus some sort of hybrid approach. And that's a key documentation and a key lesson for us coming out of this particular comparison.

>>Is it too much to ask in this venue, which it could be, but when you decide to remove a case because of administrative records- there's a match, to what degree is that match contingent on?
>>You're getting into the question of what do we mean when we say good administrative records and how are we making determinations, and I think that's a much longer conversation, which we're happy to

do, but it may be more than what we have time for today. This presentation is really meant to give us a high-level picture of where we are with the test, and where we're going, having a broader discussion on utilizing administrative records and commercial data as well as the decisions behind that use is certainly something we can undertake.

>>I struggle every day to try to figure this out, so I gave it a shot.

>>Any other questions for Maryann? Dan?

>> The BYOD panel - is it going on at the same time as the NRFU followup, or staggered in time?

>>The BYOD testing will overlap with the nonresponse followup operation by approximately two weeks.

>>I missed that, but the content that's going to be done on the enumerator-provided devices is just a regular interview?

>>We'll be using the COMPASS application, just as we are for the main nonresponse followup.

>>Thank you. I'd like to move now to the presentation related to the 2015 National Content Test, and Jenny Kim will be sharing that information with us this morning.

>>Thank you, Deirdre. Good morning. We're excited to update you on our ongoing work as we prepare for the 2015 National Contest Test, which you've heard referred to as NCT. That will begin later this year. When we met with you in January, we shared a detailed look at the test, which included key content areas to be tested, the layout of our example questionnaire design, and the different approaches for contact strategies. We've been busy over the last couple of months with our qualitative research efforts and refining our question design, as well as developing our data collection instruments and reviewing comments from the public about our test plans. So in today's session, we'll provide you updates on these recent activities and won't go into detail about the information that was share in January. However I want to remind that you all this information is available online. I will begin with a quick refresher on the NCT overview, it's important to keep in mind that the NCT will be our primary opportunity to test our content strategies prior to making decisions about the 2020 content. NCT will be a self-response test, we will use a nationally represented sample of approximately 1.2 million households. We will test our key content areas related to race and Hispanic origin and relationship and within household coverage. We will deploy various contact strategies to optimize self-response and the NCT will include a reinterview operation of approximately 100,000 cases. As can you see in the timeline of this slide, we will begin operations in late summer of this year with the census day of September first and the data collection is scheduled to be completed by the end of November. As a reminder the NCT will be--will be testing three key content areas. So can you see here the race and Hispanic origin questions will focus on our several key dimensions for the questionnaire format looking at separate versus the combined approach and looking at ways to tabulate data for respondents of the middle eastern, north African and Arab heritage and also known as MENA, and also wording of istructions and terminology to optimize detail reporting as well as improving respondents understanding that more than one group may be selected and web-based technology to enhance question design and optimize reporting of detailed racial ethnic groups. The relationship question will examine the most effective way to gather information on relationship among household members. We'll be comparing the 2010 relationship response categories with a new relationship

category that expand a husband or wife and unmarried partners to distinguish between same sex and opposite sex relationships. So within-household coverage question will examine the most effective way to help respondents provide the most effective household roster. We'll be testing the rule based approach and question based approach in which the respondents are not shown the residence-rule instructions, and are asked to create an initial roster and subsequently guided by additional questions to identify potentially missing people. Another thing I should point out is that in addition to testing the key content areas we will continue testing our various contact strategies to optimize self-response, particularly via the internet, as can you see on this table here, we have different panels that will test the timing of the reminders, the delivery of the paper questionnaires at various points in the response process, ways to further encourage self-response even after the questionnaire mailing and will also be looking at the impact of sending a post card at the first mailing instead of a letter as you can see in the panel 7, not sending a mail questionnaire at all, panel eight, and using e-mail to supplement postal mail. We shared at our last PMR that the Federal Register Pre-Submission had been published and we were in a 60 day public comment period, during this time, we inform national advisory committee members, stakeholders, researchers and community leaders about the release of the notice. In addition we share this message during public briefings and meetings, this efforts helped garner a large volume of feedback from the public. We receive 4,550 submissions from our test plans. The submissions came in from all over the country, individuals, organizations and people who collaborated together to subcommit comments on the NCT plans these submissions generally were comprised of one or two comments about the test but many of these were multipage letters with several comments on different aspects of the test. So in total--excuse me--that's my cue, in total we received 13,116 comments. So all of these were reviewed by Census Bureau experts and categorized into topics and responses were drafted to address each of these comments and have been included in the OMB package that's under review.

Let's turn--look at the types of comments we received. Within the submissions that we received, all about one focused primarily on race and origin, or testing a new categories for MENA respondents. Now looking at these comments, the vast majority of the 13,000 + comments were related to testing the MENA category, the largest set of these comments express strong support for testing a MENA category and why these data are critical for the MENA community. Another set of comments, express strong disagreement with the classification of MENA as white. As you're aware, this is how MENA responses are currently classified in federal statistics on race. Another set of comments advised that the MENA population is racially diverse. Other comments related to race and ethnicity include a concern that this aggregated data for native Hawaiians and other pacific islanders will not be published as well as comments about the retention of detail check boxes for Asians and pacific islanders and the quality of data detailed for Hispanic groups. A major concern for some members of the Asian and pacific islander communities was in which the detail groups can respond and how they can be tabulated and some members of Hispanic community stress the importance of how the redesigned race and ethnicity questions must not diminish the quality of data for Hispanic detail groups. A number of comments express support for the combined question approach. Now the majority of the comments about the relationship question, express support for the same-sex relationship response categories, and the comments about the in-household coverage are testing the question beyond the internet instrument.

Most of the comments related to the web based collection and contact strategies was insuring the Census Bureau develop a strong mobile platform, comments related to the sample design mainly advise that we oversample various population groups and comments related to language assistance included providing assistance and additional languages and multiple languages as well as including Asian languages and the contact strategies and insuring high quality translations.

In summarizing our recent accomplishments, we have reviewed and provided responses to the public comments and they're included in the OMB packet that has been provided to the Department of Commerce in preparation for delivering the test plans for OMB clearance we have conducted quality of research on the question or content and we're currently reviewing and applying the findings to the questionnaires. We have continued the refinement of question designs as well as development of the data collection instruments. In the coming months we'll be completing the development of the data collection instruments, with the three types of instruments. With the internet instrument, we're currently conducting a walk-through of the instrument specification to make sure our programmers understand the content variations tested. We will conduct usability testing in July and on target for deployment in August. The reinterview instrument one for race and origin and the other for the coverage question, we have completed the walk through of the ininstrument specifications and the programming is underway. We are on target for deployment in September. The paper questionnaire we're conducting the final walk-through of questionnaires and we're on target for deployment in August as well. The complex sample design research is underway and tentatively scheduled to be completed in June. The print contract we have a target award date in May, and we're currently working with the US government printing office to create the contract. And last but not least, we will be conducting the systems testing that are aligned with the instrument development schedule. We're excited that the plans for the NCT are progessing forward and and we hope this briefing has given you a good look of the updates in our steps going forward. Thank you.

>> thank you jenny. Any questions? Okay, then we're right on time for our lunch break at noon. I would like to invite you if you haven't been here before, we have a cafeteria and a small cafe in the blue section, as you walk out of this room and down the hallway, take a left and the cafe and cafeteria are right there. And we'll see you back here at 1:00 o'clock. Thank you.

>>Good afternoon. Welcome back, we're ready to get started with the afternoon portion of the presentation. We're going to continue focusing on our 2015 testing activities, and more specifically related to our optimizing self response test that's occurring now in the Savannah, Georgia media market. I'd like to begin by introducing Jessica Graber, the Assistant Division Chief for self- response, language and content within the Decennial Management Division and she's going to provide a high-level update on the test.

>>Good afternoon, thank you for joining us after lunch. This afternoon I'd like to give you an update and another of our current census tests, the 2015 optimizing self-response test. Next slide. When we speak about optimizing self-response we're referring to plans activities and methods that in combination will generate the largest possible self-response to the census, and as a result reduce the number of housing units we need to contact as part of the non-response followup effort. For the 2020 census we're planning a three-tiered strategy to promote self-response, including a robust communications campaign, direct outreach to housing units through multiple channels and offering respondents several ways to complete the census. Our goal is to meet or exceed the self-response rate seen in 2010. However we recognize that the internet option will not be feasible or preferable to all housing units orcommunities, and therefore we are also promoting response through other more traditional modes by mailing paper questionnaires, and conducting telephone interviews with respondents who call our telephone center.

Next slide please. The design of the 2015 optimizing self-response test was informed by what we learned from previous census tests. The 2014 census test demonstrated that housing units responded to our request to complete the survey online when contacted with what we're calling our internet push strategy. This approach included a series of four contacts beginning with the letter inviting the household to complete the census test online using a web address included in the letter.

Non-responding housing units were prompted two additional times with postcard reminders providing the same website information. As a last attempt to gain cooperation, the paper questionnaire was mailed to the home. The 2015 Census test is providing an opportunity to more fully test this approach. The 2014 census test also included an invitation for housing units to sign up in advance and be notified either by text message or email when the survey was available online. This test provided useful experience to understand the technical and operational requirements associated with implementing this type of design. The response to notify me in 2014 was low, with only three percent housing units registering to receive notifications.

One factor contributing to this response may have been that the only opportunity to hear about this offer was through a single postcard mailing. We did find however, the survey response rate for those who did pre-register was very high at 97%. Therefore for the 2015 OSR test, we wanted to understand if additional promotion would increase overall response to the early announcement offer and the census test. And lastly the 2015 OSR test is providing the opportunity to better understand response rate when is housing units respond without a census id. During the 2014 census test, all non i.d. submissions were processed after the fact and all cases where the response could not be matched to the master address file were considered nonrespondents. In the 2015 OSR test, we were conducting realtime matching and providing additional tools to respondents to assist in the matching process, these is referred to as realtime noni.d. processing.

Next please, so based on what we've learned in 2014 and earlier tests, the purpose of the OSR test is to continue and improve upon what has been successful in the past. In the 2015 OSR test, we are testing a comprehensive advertising and communications campaign that uses both traditional advertising methods as well as targeted digital advertising. We will examine the rates of response to both an early announcement offer and the Census Test itself in light of this integrated communications and outreach campaign. We also work to improve the online experience for respondents by providing an internet questionnaire that is optimized for mobile devices, and providing realtime noni.d. processing for housing units who don't have a census id. I want to note that this test is focusing on self-response and therefore we are not conducting a traditional nonresponse traditional follow up effort.

Next slide please? The 2015 OSR test is occurring in the Savannah Georgia media market, which includes 20 counties in Georgia and South Carolina. All housing units in the media market may be exposed to the traditional advertising outreach, and a subset will receive targeted digital communications. They were based on several criteria and first it's a medium sized media market, its population is racially and ethnically diverse, includes households with a variety of levels of internet access and use. And offers a mixture of address types from city style addresses to rural route designations. Activities in Savannah began in February of this year and data collection will continue through the end of May. Census Day was April 1.

Next slide please, the Savannah media market covers 400,000 households and the OSR test includes multiple test panels drawn from within that area. The digital advertising panels will reach approximately 330,000 housing units and autodial telephone messages will be made to 60,000 housing units. You will hear more about these activities in a upcoming presentation, we have three mail panels that include 90,000 sampled housing units will be contacted using the internet push strategy with a letter, two post cards and a paper questionnaire. One of these mail panels is testing the announcement offer. A post card was mailed to approximately 30,000 housing units, these housing units as well as others not sampled may have been exposed to the media related to the notify me campaign. The post card proceeds the invitation letter that is part of the internet push strategy. If a housing unit chose to be notified and provided an e-mail address or cell phone number, they did not receive a letter of invitation or any reminder post cards. Instead, those messages were sent using the stated preferred method, e-mail or test message. Housing units that did not respond to the notify me offer are being contacted using the standard internet push model. The two mail panels differ only by whether their initial letters include a census i.d. or not. Both will receive the internet push contact approach.

Next slide, please. Our over arching goal is to promote self-response. Ideally, this would be via internet, but other self-response options are being offered as well. I've already talked about our mobile optimized internet option and the mailing of paper questionnaires as the final contact attempt, I now want to highlight our options for telephone response. While this mode of administration requires contact with an interviewer, in general it is less costly than sending an interviewer in person to a housing unit. For the 2015 OSR test, we stood up a census questionnaire assistance operation run out of a census bureau telephone context centers, respondents are provided with a toll- free number to call if they have questions about the survey, the telephone number is available on the mailed materials but is not widely advertised as part of the communications campaign. Callers can ask questions about the survey, and confirm its legitimacy, and complete the survey over the telephone with a trained interviewer.

The next slide please, to further promote self-response, the OSR test is supporting survey administration in multiple languages based on the prevalence of languages spoken in the Savannah test area. The internet and paper questionnaire are also available in English and Spanish and telephone interviewing is available in English, Spanish and four additional languages, Vietnamese, Chinese, German and Korean. We will also conduct focus groups with nonrespondents to confirm their decision to not participate in the OSR test.

Next slide, please. Here are some key dates from the OSR test. Notify Me sign up was available from February 23 to March 22, data collection began to March 23rd with an April first census day, internet collection will end on May 31st.

Next slide. So how is the test progressing? Well, it's too early to look at data collection period to have detailed results. We can look at the outcome of our early announcement offer. During the sign up period, we receive more than 1900 requests to be notified when the survey was available. The large majority of these opted for e-mail notification. Within the designated media market, just over 1200 requests for notification were received, geocoded and removed from subsequent mailings to nonresponders. Of those cases, less of half had received the initial postcard invitiation and 75% completed their Census survey.

Our next two presenters will provide more detailed information on specific components of the 2015 self-response test. Thank you for your time.

Next slide. >> Thank you Jessica, any questions related to the optimizing self-response test to start?

Trisha? >> when you choose a test site, you chose Phoenix because it had a mix of things and of course it's not necessarily representative of the entire country, but you must use it, right to project to some degree and now in Savannah--certain cultural reasons of choosing Savannah. Could you say how useful these sites are?

The sites are very useful. Without the sites we wouldn't have any tests. In all seriousness, a lot of thought goes into site selection and there's a lot of parameters we use to help us design the tests, around the research goals: what it is we need to look at. So for this year, the key things we wanted to work on were the use of the enhanced operational control system, potential use of administrative records, and for that we needed an area that had various characteristics. We needed the mobile population, we need to have a high vacancy rate, so we could look at how well administrative records help us remove vacant housing units. We needed a variety of response rate patterns, and the Maricopa area provided those characteristics for us. Within the optimizing self-response test, our focus really was on ways we can engage and motivate the public to respond, preferably using the internet, and so what did we need to have in order to make those decisions? We needed to ensure we had different levels of internet availability, internet penetration, that that was in existence. We needed to have a variety of populations. One of the things we didn't say, which was a factor for us, was this particular area has a large college-age population, and we know the college-age students are a group that we have challenges in counting in censuses, but they might be able or more likely to respond via smartphone or tablet. So we were looking for something like that. We also knew with this particular test that we wanted to be able to do some early research in advance of the award of our communications contract, which will happen next year, and in order to do that, we needed an area that was, I don't want to use the word "isolated", but I'm struggling with another word, so put it in quotes. Isolated enough that we could do some work within it without bleeding into other areas. And we needed an area large enough to allow us to get the statistical accuracy within the data, but small enough that we could manage within the constraints that we had to run a test. So those are the factors for this year that went into site selection. Other things that play into some of the decisions that we make, just as you said, no one site represents all of the nation. But that's why we try to scatter our testing throughout the nation over the years that we do it, so that we can reach different demographic groups, use different regional offices, try different procedures in different places and continue to refine and build off them. So each site, each test is extremely useful, and each site is selected for a variety of reasons. We do use the input from it to help inform what we're doing, but by no means do we think it’s representative of the entire country.

But you can check off, like Savannah, like Augusta Georgia, like a place in Oklahoma?
I don't look at it as checking off on it, the way I think about it when we're looking for site selection, we're looking to find our tests, really goes back to the research questions, the problems we're trying to solve or identify. What is it we're trying to get out of this test, what are the goals we're trying to do, and does a particular geographic area enable us to refine those challenges or problems?

So I wouldn't say if we've been to Savannah once we'll never back to savannah because i don't think that's what we're looking to is we're not looking to say, oh we went to this major city or that major city but we're looking to say here are the problems we want to work on, here are the challenges we see with what we're doing. We need field work on it and this area meets those characteristics.

>> Dan? >> Just a quick thing tangentially related. And i apologize if it got mentioned last time. The choice of German is one of the languages is that a known group in the particular area? Is that one of the reasons why behind--

>> So all language support decisions were made based on the current prevalence of that language group in the area, so yes. We can get the precise numbers and provide them to you. >> so an analysis was done using ACS data, American Community Survey to determine the top languages based

on the same thresholds we would have used in 2010 and that's how the language support was determined.

>> Okay, thank you, let's move now to Tasha's presentation related to communication, advertising and partnership work that's in Savannah right now. >> So good afternoon. I will give you a few highlights about the 2015 Census Test communication activities and I hope before you came in that you saw the table outside, they had a number of examples of some of the ads for the 2015 census test, this presentation is largely very visual, so, although I have a lot of slides, I think I'll move through them fairly quickly. So next slide. These are the topics that I'll cover today so although it does seem like a whole lot, I'll move through them. Next slide. >> Much has changed since the launch of the 2010 integrated communications campaign in technology, in communications, this has given rise to digital advertising so this is one example of what we plan on testing in this site. Jessica has already talked a little bit about this and I'm going to cover some examples. So our goals for this test are to support the insights for the 2020 communications census goals. We want to increase opportunities, to engage our hard to count populations, we want to increase self-response to reduce the nonresponse follow up and related costs and of course, we want to test our communication activities to inform our 2020 communications campaign, the objectives for this particular component of the task is to implement a comprehensive and integrated communications program in the Savannah market test. By supporting the OSR test with response, preregistration to notify me to notify self-response especially online and then to answer communications research questions regarding use and impact of microtargeted digital advertising.

Next slide. So our main research question that we want to answer for this component of the test are what are the effects of the integrated and combining digital advertising and micro targeted ads. With our other traditional communication activities such as mailing our post cards, letters, media, coverage, phone calls, and as well as outreach and promotion activities. Specifically the way we want to do this, we want to explore internet and self-response rates, and internet and self-response rates of specific social demographic groups, internet and self-response rates of housing units targeted by specific mail out strategies as well as preregistration rates. Next slide, I won't spend a lot of time on this, Jessica already covered this, but we do want to focus on influence and phone calls to test this, we didn't this do in 2010 so we want to insure that using these phone call which is are key notable people in the test market area to actually make phone calls to, robo-calls to the residence to tell them about the importance of participating in the test. Next slide. Here's our timeline that covers all the activities and the planning for the communications campaign, I'll draw your attention to the fact that the with the activities began with notify me in February and the campaign for communications will run through the end of May. Partnership, a lot of activity has been happening in a very small amount of time. We had two partnership staff in the local area that worked hard to garner over 280 partnership engagements. These are partners within the test market area who did a lot of work in helping us with events, the Census has been working with these folks as well as others to really use local resources for this test. We've used some space at Savannah Tech, we've had volunteers to help with these events, we have hired three local photographers as well as video crews and done focus group testing using the facilities in that market. So we tried to utilize a lot of local resources and bring some additional economy to the area. In addition, some of the things that we have put together and developed for the partners to utilize is a couple of activities called testimonials and champions program. These are really some great videos that we pull together to really highlight real local people in the test market to give their story or why they feel like participating in the census test, and not only important to them but also important to the community.

Here's one of the videos we are going to show. [speaking spanish] [continues speaking spanish] >> (23:17)

Thank you chuck, you got this because I have a couple more of these. [laughter] he's sweating hard over there but he's doing a great job. Thank you chuck. So that's one example of the videos that we have and it cuts across as we were saying, other people in the test marketing--like I said chuck. --so these videos are in English and in Spanish and as you saw that was an example of one of our Spanish ads, videos. All right.

Next slide, number nine. There we go, we are back in business. Partnership, so we had a lot of different local events in that area. Including the notify me which actually launched --I think it was February 23rd and then we had a kickoff event as well as we just had our Census Day event which was last week. Where some of our folks here actually participated, our director, Lisa actually went down and participated, and Jeannie and a few others did a lot of events to help kickoff and we had a lot of participation from the local area. Next slide. So we want to help our partners as much as possible in their outreach to the test market, the population in a test market, so one of the things we've done is create a tool kit that's available online and partners and others can go and download the information and some of the things that include--I won't go over all of them, but it does include information that's geared towards and targeted toward the various communities, it has faqs to help answer questions about what the census test is, and other examples to show why it's important.

Okay, next slide. So the next couple of slides are just examples of some of the outreach materials that are being used throughout the test market area and these are examples of posters that were created and these are used to be put up in various locations throughout the test sites. These locations are in areas.

>> these are examples of outreach materials, a couple of these I want to call to your attention, some of you in these first two rows will have a push card, the push card, then you also have a book mark, and these are two examples of our--our outreach activities that we have that we're actually trying that's a little bit different than what we've done in the past. So we're testing this to see how well it works. So the push card partners use these to pass out to the folks in the local community and on the front it has some images as well as main message points on the back, it has much more information in a more visual pleasing way and key points about the census test. Then our book mark, I want to draw your attention to on the screen here, there are three red circles. And on the book mark you see that these are some additional ways that we are also testing on how people can engage with the census. So one of them is, obviously #we count 2015 that people can tweet out in addition we have where you can text, we count to 55000. And you text that and what you will receive is a link that will take you so that can you fill out the census task. Also we have the QFR code, down here, so using your smart phone, if you have an app, you can take a picture of this and this will also take you to a link to help you fill out the test, so we're testing these, we are seeing some results, and we are analyzing them and hopefully these will be incorporated in our future activities for the upcoming 2020 census.

Okay, next slide. Road tour. So this is on a smaller scale than what we did for the 2010 Census campaign, but we have two partnership specialists in the area who are using two vehicles that we utilized through GSA, and it has car signage on it, and these are designed to fit the themes of all the other materials that we have developed for the campaign and these partnership specialists are actually equipped with iPads, so as they move around from event to event, they have iPads and they can help people actually fill out their census test right there live doing these events, so this is another area where we are actually testing to see how this works.

So I've already talked about the three major events in the market although there are lots of things going on throughout the entire campaign, some of the coverage that we actually received from the media which is really playing an additional role in helping to insure that people are aware of what the census test is all about and why it's important to communicate and participate in it, and some of the coverage that we received up to last week, which is approximately 1,068 media mentions and articles.

Next slide. This is our web site for those of you who have not seen it already, and this is where you can go and get additional information and learn about the 2015 Census Test and to date we've had about 18,000 unique visitors to this site. The next couple of slides are going to go through some of our social media, this is our--this slide shows our social media hub where we have a lot of social media activities going on right here where residents as well as our partners, can interact here, they can share their experience in participating in the census test, this is something different than we've done before so we're testing this to see how it works. We've had a lot of activity going on here in this social media site.

The next slide, just illustrates and shows where we have our--where people can upload pictures to the impage gallery as well as share their photos here and they can pledge to participate in the census test and #gallery. And then the next slide actually just illustrates where we provided content to partners that they can utilize and post, or in their Facebook accounts as well as to tweet out.

And the last slide which is the sneak in here, so I hope our director and lisa are okay with this. Actually a couple pictures that were tweeted out during the events and they were put up on our Instagram site and they've been part of a couple of the blogs that our Director did from our kickoff event in March as well as Census Day event and these picture have been included in the blogs, and those blogs have been able to encourage and show things that are happening in the Census Test site. To date we've had over 500 used on the blogs and the great thing about this is that people go here, they read the information but then they also move on to other census content. So they might click on the link and actually move to census.gov and so they can get more information not only about other census activities, but also about our 2015 test.

All right, moving on to paid advertising. So for paid advertising for this test, we have digital television, across broadcast and cable, as well as radio, print and out of home. Next slide. So digital advertising I am sure many of you are familiar with digital advertising now, it's the ads you see that pop up on digital web sites that you might be on. As mentioned before, it is it is main component that we're testing across this communications campaign. What was discussed in the last PMR is that there's several benefits to the digital advertising and the overall thing is we hope to continue to use this as an opportunity to engage folks who are participating in this census.

Next slide. So we will have digital ads or have digital ads across any platform and they're designed for consumption by the mass audience. Our microtargeted digital advertising refers to online ads and any platform that are designed for specific populations in terms of messaging, language and placement. So while we can use microtargeted digital advertising for any audience, we especially are aiming to reach those audiences that are hard to count and have historically lower self-response rates. So we're defining digital microadvertising use these four main types, demographic, behavior, geographic and contextural.

Moving on to the next slide. A quick overview of our digital ads, they run from February 23-the end of May, we have digital advertising for both the pre-market and online. Mobilization ads and awareness ads.

Next slide. This is an example of one of the digital advertising, this is a display ad. The web site here is called the bump, it is for new and expecting parents and it encouraged this advertisement encourages them to count all members of the household. As you know children are among some of our population that are often missed and not counted or included. You can see the green arrow that shows the digital ad.

Next slide, broadcast TV media buy, we have three spots that we've created, three advertisement, three advertisements that will run on our television ad, television, we have a 60 second, a 30 second, and a 15 second. They have the heaviest rotation in the first two weeks and then less in the last few weeks, and the 60 second, we get the get at bump the beginning and more at the tail end of the campaign and then the 15 second spots were deployed through the final two weeks and those are more oriented deadline messaging like hurry up, do it today, you know.

All right, moving on to the next slide. Here are examples of the broadcast television programming that our ads will run on. It's across the five major networks and they're over 68 programs, that the advertisements will appear on. Give you a minute to digest that to see if you see your favorite programming on that. And I know a lot of folks are NCSI fans. Myself I'm a Scandal fan. Anyway, moving on. That's probably too much information. The overview of the cable TV media buy, again it's the 60 second, 30 second, and 15 second spots. Again, same rotation they will run it.

Go to the next slide where you can see--here's examples of the cable television networks that the ads will show on, it's across 20 definite cable channels. All right, so you want to see an ad? Television ad? Chuck?

[music] >> my census my job, my census my roads, [speaking spanish] >> the US census is vital to your community and its future, population counts are used to determine our political representation and resources for transportation needs, schools, health services, new business development, emergency preparedness and so much more. And now, the census bureau has chosen our community to prepare for the next census in 2020. Just fill out the test census online, it's quick, easy and safe to stand up and be counted. >> my census, my business. >> my community. >> my future. >> we all count. So go online to census.gov/2015 and complete yours today. It's vital to our future. >>

Okay, thank you. So we have three different versions. That one is called My Census, but we have three different versions so if you're ever in the test market, before the end of May, you might see one of those.

All right, so next slide. So the next is an overview of the radio media buy. The radio stations were selected based on costs, demographics and listeners and input from our Atlanta regional office. We have ads that run in English and Spanish and they're also across 60 seconds, 30 seconds and 15 seconds. We also have live read ads, where the radio host will actually read something live about participating in the census test. So these are across African -American, general market and Hispanic. The next slide gives you a listing of all 14-radio stations that are in the test market that the ads will appear on. And there's one in Spanish.

Let's listen to one of the radio ads. >> hey, Mike I'll have a cup of coffee,. >> sure thing Jim what's going on. >> Went to the library and completed by test census online. >> Census didn't you know you could do that online. Isn't that 2020? >> I'm talking about the 2015 test, we've been selected to lead the way in 2020, just us, doing it online will save America lots of money and help get everyone counted, it's safe, secure and really easy. My nephew did his on his smart phone. >> I like not having to mail a paper form and saving money's good but what's the big deal about getting counted? >> You know that new school, or grocery store, those were put there because the census showed we need 'em and Dr. Peters at the clinic said the census is a big deal for healthcare. >> Sold, I'll do it! >> Don't wait - do it today. Complete the census .gov/2015, that's census.gov/2015.

>> okay, that's just one example of our radio ads, moving on, chuck will catch up with the slides, I will give a quick overview of our print media buy, we have print placements, largely concentrated at the beginning of the campaign and at the end of the campaign, the ads run as full page ads and our placements are across eight different print outlets and these are the general market and African American and Hispanic.

Moving on to the next slide. These are examples of our print ads. The two of the outside and to the left and the right are actually full page example of the ads and you can see that one of those is targeted to the actual geographic area or how they refer to it. We are the low country. And this has been changed depending on where in the market that it's actually running. In the middle is an advertorial, and that is an ad with an article taken--that talks about how important participating in the census test is.

The next slide, two slides will cover our out of home media buy so the out of home ads are if this test are just targeted for the billboards, on billboards come in a variety of different sizes and mostly these billboards show up in rural areas, so along those long highways, Chuck and I were talking before the beginning of this and he was talking about--hope you don't mind me sharing this-thanksgiving, he said he was driving back and he was passing through that area and going up 95, he saw one of the big huge billboards and he said it was very visually captivating. So I think we've done a pretty good job with these.

Moving on, this is an example of some of those visually captivating billboard ads.

Next slide. Campaign tracking and analysis. It's really important for this test, for us to ensure we collect data around the communication activities, so we conduct analysis and observe what is working and what is not working depending on the behaviors of actual participants who are interacting with the campaign in responding. For example, a particular ad or social media is not performing very well, then we can remove it or switch it out for something else. This is realtime optimization, for example, one of the recent things we've done is dropped the facebook exchange ad because it wasn't performing that well. So this is one of the things being done realtime and hopefully be able to really optimize our programming for it next the time around. We're collecting this data via our customer experience management dashboard, and we will continue to review this data to help us plan smarter.

And my final slide is touching on the 2020 integrated communications contract. In October last year we released our request for information, and we received our responses end of month back, a total of 32, 19 of them were from small businesses and 13 were from large businesses and we're currently in the process of reviewing those RFI responses and we will be starting to draft our requirements for the request for proposal that will go out. We anticipate having the contract award, at least one year earlier than was done for the 2010 census program, part of the requirements that we're collecting as we're making sure that not only do we use the information from the RFI but also talk to folks internally and get requirements from them and talk to folks externally as well as information from the 2014 test and information from the 2015 test and of course go back to our lessons learned that we had from the 2010 campaign. >> And that concludes my presentation. thank you very much. That was fun, right? >> thank you chuck for keeping up with the slides.

Any questions for tasha this afternoon? >> okay, dan, go ahead. >> Just a quick thing. Traditional partners from 2010 and the previous programs, do have you any sense of people who were particularly involved in 2010 coming back and re-uping for the 2015 test. And then particularly, the radio ad mentioned going to the library to fill it out. I'm curious with a partnership whether there's an active role or something like that functioning as a questionnaire assistance center or something like that, instructions to fill out the form.

>> So to answer your first part of the question is that partners have been very involved in this test. We actually in the 2010 campaign had a history of partnerships, and many of those partnerships we've continued to engage since 2010. We have an evergreen partnership program so that we will try to continue to engage with partners as much as possible. This has not only been happening at headquarters, and happening in the regional offices, so many stayed connected with the various partners we've had onboard. We started a data dissemination program, so one of the things the partners wanted was ensure to that we came back and gave them data so that has been extremely useful in maintaining those partnerships, yes the partners for the 2015 tests have been very engaged, they did help with in helping us secure some of the spaces, including the library so they can serve as you're calling them as a "be counted" site where they can go in and use the internet to actually participate online.

>>And then just a follow--so was there any formal school involvement in the 15 test, anything like the census and schools type of thing? The bookmobile stops and going into libraries and whether there's a specific flyer or what not passed out in schools, as another traditional venue.

>> Kendall Johnson will help me out here. >> Hi, Kendall Johnson, customer liaison and marketing services office for the 2015 tests, census test, we did not do a specific census and schools type activity but like the partnership program, it became an evergreen program after the 2010 census, it did so well in 2000, so well in 2010 so we have a statistics and schools program. We're developing collateral activities for the teachers to use in the classrooms, and it is growing and we are in the process of trying to finalize everything so we can launch it hopefully in the next year.

>> Yeah, I was interested in the on the spot, entering that response on the iPad, and that's pretty new, and I haven't heard anything like that before, in fact, in 2010, I know having looked at enumeration on the Indian reservations, especially the big ones, they often said it would be so much more efficient if people could--so many community events that the residents attend and something like that, would have worked very well, so I don't know how serious the bureau is about this but I'm interest in hearing about that. Also you're testing a lot of things, so ferreting out what's working, social media, yes, I can see how that would--can you see how it was performing, some of the things like billboards, not my favorite thing in the world but billboards are pretty cheap, I would imagine so why not kind of thing. TV ads more expensive. Do you have something on the questionnaire that says like I often see when I buy a product, you know did I see this on radio newspaper, TV, did I hear about it from friend, a disciplinary see about it on the census questionnaire and i often wonder why not, do they not collect that data and alsoly the thing third is do where you your get phone numbers, is it there some tie-in to request you see--is there paradata associate wide that, did person the pick up, did they up as hang soon as they saw it was a somebody there, you know response, time lapse…

>>>So--I'll try to answer a couple of these and then i see that Lisa is prompt and ready for maybe jumping in, I'll start with the last one regarding the phone calls, robo calls, we have access to phobe numbers and yes, making phone calls, so we don't have the data yet so at the end of the test, we'll

have that information available to for you so we're hoping that's successful and that's quite useful and if so, that we can continue doing that. Regarding the ads in particular for the billboards, yes, they may not be as expensive and they're not as expensive, obviously, as television, but they do have a good place. The whole great thing about having the integrated communications campaign and having a robust advertising program as well is that there are many different outlets that can you utilize, so that what we want to be able to do is really surround people with messages no matter where they are, where they work, where they play, you know, where they might do other things so the whole point is to make sure that if they're traveling to and from work, traveling along the highway, that they will be able to interact and see various ads or hear them on the radio. So, maybe not everybody will see the rule but ads for the out of home but in this particular market, it was important to insure that we had signage along the rural areas and that's why a lot of these outer home placements were. So.

>> so what was your first question? >> oh okay, gotchaa. >> but you also asked a question about whether or not we're getting information about how they saw it. And for respondents who do respond to the Savannah test, there is an additional screen at the end that does ask for additional information - at the end of that test, but you ask about the ipads linking back to the 2010 experience where in these areas this would be a great opportunity. Frank will talk in a few minutes about noni.d. processing and our ability to do non i.d. processing with the use of internet and technology would allow to make the Census mobile and if asked if the census is committed to doing that and this is what we're doing. We're investing a lot in it, to make us mobile and bring technology to who may not have it. So imagine we're in remote Alaska and a town comes together for what we did as a kickoff event so we can let everyone there, be stand up and be counted right there and right then, and Frank is going to talk about non i.d. just to give them another plug for that as well.

>> thanks. >> I had a question about the first bilingual YouTube clip, I noticed that the gentleman in the explanation that the data was not being shared with the government and I understand of course that you know it's not production data and this purpose isn't to actually capture like the individuals data and I understand why because a lot of undocumented citizen are hesitant about sharing information. Are you concerned though with using like a strategy like that or a language like that that it may confuse people since it's coming from census and that is the government, or maybe cause the legitimacy of the test, or even down the line and I'm not sure how big of a line this would be what to say, well, okay I did that because that wasn't sure with the government but come, 2020 this will be shared. So you know I maybe I shouldn't do this because they're not giving me those same disclaimers now, like once it's actually production time?

>> so one of the great things about this is that it is a test and so, with these messages we can test and see how they work and how people are receptive to it, and then we can determine and analyze whether we feel like they're going to work and move forward. Another good thing about it is before we went into market and developed these ads and these videos that we did focus groups and we did research testing and we talk to residents in the test market area and try to understand better about what would resonate with those communities and what they felt like would be good messaging so we had messaging to try out on them and so we got this feedback and that's what we use to help us as part of the development of the ads and the messages for these videos.

>> Thank you in the interest of time I would like to move to Frank's presentation, just a reminder we are conducting non-i.d. processing for the first time as part of the 2020 census, we've never done this before. We are the first country to tests this methodology and so far we've had great

success rates. In 2014 we conducted batch processing, this time we're conducting realtime processing, so keep that in mind as frank goes through his presentation today.

>> So one of the things we want to do is show you the realtime functionality and we do that at the end of the present ages, but I wanted to add value to the presentation, so I thought I would give you other work that's going on related to other challenges we have. So on the second slide, I will try to operate this, here's what will cover today, i will go over a comparison of how we do noni.d. versus tackling it for 2020, and some of the other work that's related to realtime and if we go to using realtime and then promoting no ni.d. response through the internet, then we need to think about preparing for the work load volume, other related work, we want to talk about field verification is an operation that, you know following non i.d. in that there are certain cases that if we don't match to our inventory that we are assigned to a block, we have to be sure that they exist on the ground, so verification was the traditional method for doing that kind of work, we're trying to do office space validation, too, so I will talk more about that; other related topic and responded validation so if we do get an increase of noni.d. and self-response, we want to validate that these folks validate that they are who they say they are and I want to talk about that and give you a little roadmap of where we've been and where we're headed in terms of getting to 2020 and as I said we'll do the demo for you. So this slide is just intended to be sort of high level graphic again and this is around the differences between 2020 things I want to point out, having the internet, that's kind of opened new avenues for non i.d. response and so we expect a larger workload, and the second item, workload volume, we know it will be big, we just don't know how much, and this test in Savannah is probably our first and best indication of that work load volume, we did non i.d. processing as was mentioned in 2014, but that was primarily sample based, most of the non-i.d. responses were prompted by mailings and efforts to get it in the first place. So this test is actually where we're seeing a much larger volume of non-i.d. response that's prompted by the advertising, all the efforts our colleagues in communications and promotions. So, that work load volume, you know that's--that's part of the work that we're trying to do, and look at it and talk more about the modeling in a minute here. Another component to call out, the processing as was mentioned, you know this is the first time we're doing realtime. It gives us a new way to tackle non-i.d. and we feel like helps us be more effective because during response we can actually use those results and follow up with the respondent and get further information whereas when we do it in batch, after the fact we don't have that opportunity with the respondent , so that's a big difference. And so finally in terms of source data for validation, before it was really just matching the addresses back to our frame and so forth, now, we're looking at not only administrative records to help enhance the data which I described in earlier presentations, but also as a means to do that respondent validation that we talked about. So in terms of the non-i.d. processing work load modeling, I want to give you an idea of the variables that have gone into the work load modeling so far, and then where we're headed with it, and a lot of this work was done primarily to prepare for this test, we want to see what the concurrent users were likely to be based on a number of factors and that way they could plan the i.t. infrastructure to support it. So we looked at things like, you know how long it takes, you know, this is from literature and previous studies and things how long does it take for a respondent to pass the word to another respondent and sort of promote that they've participated in this test. You know we look at things like return rate and historic data from previous censuses and so forth, so we can use that to model what we can anticipate happening in the future. Factors like average response time so we have-- the national census test in 2012 and then we have 2014 data as well and ACS and so forth where we look at time of interview, and ACS is a point of view and you can look at comparable components and look at data points there. We also look at other countries, survey data and so forth. So trying to pull in a lot of different factors into this modeling and the rate we came up with, I should say, the estimated peek of concurrent users for this test is conservatively estimated at 2000 concurrent users, and that was just saying, everybody told everybody and everybody was

really a great citizen and participated, so it was planning for that, you know you call it best case scenario and worst case in terms of infrastructure and trying to support all that. And so we built the system based on the system that was well prepared for the volume that we're likely to get and as a result, had smooth processing. We want to work on things like external demand models we're looking at occurring the promotions, they can cause spikes in the response if you have a mail out, if have you a particularly good event, things like that where maybe they gather folks in a meeting and we can respond at the same time so we want to make sure we are ready for those events and this is the modeling can do to do that sort of thing. And then I want to mention that we're looking at the non-i.d. response data itself, particularly from this test, in Savannah as a mentioned, we're going to get a lot more responses as I call it spontaneous non-i.d. responses, not those we prompt through some mailing but just the advertising and somebody on the spot maybe waiting in line to use that QR code and go ahead and respond. Well we will have a good volume of those and we can look at--from certain neighborhoods and cross compare that to not only promotional efforts but if there are characteristics that say this person is more likely to be a noni.d. respondent. There's more work to do there, but we're excited to have that opportunity starting this test. So again that feeds in to how we prepare for non-ID.

So in terms of other related work, I want to mention around realtime processing, I mentioned briefly reducing our field verification work load. This is when we don't match to our Census inventory and we assign something to a census block, we don't assume that it exists, we have to confirm it's on the ground so previously we had to do this with field work, now, because of the ready availability of online geographic references, you have local governments that have developed detailed geographic information systems, assessor data that's online, you know google earth, there's many tools now that are available that allow us to do sort of a virtual verification instead of having to send somebody to the field, so we are working with both 2014 noni.d. responses as well as the current test. We'll get any of the cases that kind of fell into that eligible list of the verification work load and we will try to office verify them and see how far we get. The work we're doing now prepares us for these next effort and the plan is by 2016 the spring test that we would do it concurrent with the operations. So, this would allow us to simulate a 2020 environment where we're trying to reduce the number of cases are going in the field and those would be a case type for the nonresponse follow up. So anything we can take off their hands before hand is great in our goal and the goal that I've set at 75% of the cases and see that we'll be able to report on that next time.

In terms of respondent validation, another related item, again, this is really, you know determining some sort of certainty that the non-i.d. respondent is who they claim to be. So, this is a challenging task. We have of course, one challenge in the fact that title 13 constrains us from taking that data and providing it to a third party, and you have validation services that allow you to provide data elements on a person and get some sort of verification but we have to find other ways to do that with vendors and why have to ask them to create a contained space and contain that title data and we would like to see if we can do that fair amount of that in-house as well, and we certainly have extensive experience with our own inventory of administrative records so we are looking at things like taking name, date of birth and address as sort of key match elements and then hitting them up again against a composite of that administrative records data that we have. So this would be date of birth information from the social security administration, IRS data and some combination of other files and I did include a slide that has those if you're interested. I will flip through those.

But the idea being how much we want to do, what proportion of these non-i.d. respondents we could find in this sets of adreds. We also recognize, though, that there are some folks that are not well-represented in adreds, and so that's another challenge, what is the other thread we pursue here, how do we make up that gap?

So that work's getting going over the last year, we've talked a little bit about an RFI that we did, to engage industry and to learn more about this challenge, how industry goes about tackling this, we have discussed with other groups along the lines of what's called the national strategy for trusted identities in cyberspace and the idea is to create an identity ecosystem , essentially a set of credentials you can use for a number of different purposes and so, if this infrastructure continues to evolve, and exists in 2020 on a greater scale, it's something we can tap into and that will be exciting so we will keep tabs on that but as that's still--you know maturing then we have to pursue other threads as well.

So there's quite a bit of work here, but it's a whole new facet of non-i.d. and certainly very interesting to me to get to pursue it. I described a little bit about the internal work. I did want to show you very quickly the source data that we're using for internal comparisons for responding, validation and again, once we have those figures from matching non-i.d. cases in 2015, OSR test cases against this frame, will have indication of what our internal solution can provide and where the gap is and what further work is ahead.

So future work on that, other things we can do, I kind of described there are ways where we work with third parties where you have to create a secure space and so forth and part of that is exploring the you know the cost of that, certainly and there is another option over and above pursuing RFI, it's challenge.gov, it's a way to say here's this challenge we have, and you know, it's something--it's a site that's really sort of monitored by even smaller groups, not just the heavy hitters that bid for lots of contracts on fed bizops, so it's a way at getting at these that are innovators and solve this problem in a different way, than maybe the larger companies like an Experian or you know one of the major data management vendors would tackle it.

I think we also have to look at assessing respondent attitudes. I mean, when you have to validate your i.d. because there's something this it for you, like you're signing up and access a to system that will give you some data that's very important to you, you have more motivation to jump through hoops if you will. So for example, social security administration has a setup that if you want to see your benefits, and your benefits statements online, can you go through some authentication questions, and information--and knowledge based responses. You should only--you should be the only ones that knows those about you so it might present to you, which are the four of your mortgage companies. And that might work for them but I don't than somebody responding to the census will be quite as motivated or maybe not feel weird about doing that or why are you asking me, that shouldn't be a question you ask when I'm trying to be a good citizen.

So we have to figure out a way to package this and make it more palatable for joe citizen so that we're saying to them we want you to account for yourself in this community. So that's work we can do through--we have our cognitive testing group, we have usability, staff that are accustomed to working with folks and kind of drawing out of them, what's your comfort level. We have test panels that we can use, folks that are opt-in to be in a study and it's a study that we can reach out to and say, hey, you know how did you feel when we put you through the series of steps to make you validate your i.d. so we have time to solve this problem. Confident we have the tools in place, but we need to figure out what the right combination is.

And something else I thought we should mention, is this a recent development and it's a group called Jason and for those not familiar with it, it's a that group traditionally it was more involved in technology, science advising of the U.S. government and a lot of military focus, but more recently they've sort of reached out to other areas and we're going to take advantage of an invitation, I guess that we've gotten to pose this problem to them and see what ideas they can up come with around this. So again, try just to pursue as many facets as we can to solve this problem.

So finally the roadmap to get to 2020. I described some of these, we've just been trying to a follow an iterative process. In 2013 it was all about 'can we use administrative records to data help us get a better address in the pipeline for matching the process'. In 2014, it was with an internet self-response instrument. Can we present an address collection screen that's intuitive, that gets us an address in the way that we need it to be organized and parsed out so we can more successfully process it. And, you know not chase away respondents because it's burdensome in the current test. It's about realtime processing, you know promoting and self-response, then can we through noni.d. processing in realtime, quickly turn these folks around and then using that initial stage respondent of validation I was describing to you, the internal solution use our own internal it composite of adrecs and in 16 we're hoping fully I should say to be in the cloud for noni.d. implementation so this is instead of using our own internal hardware and so forth, putting of all this functionality into the cloud and that allows us to evaluate scaling up to a 2020 level operation, this is important work to get done early so we can learn from it and get involved.

So then we continue with other respondent validation pieces and then I described earlier, the office validation piece. We're doing that of more an analysis now, the reduction of field verification workload, by '16 we should be able to do it concurrently with data collection and that way, again, NRFU is on the tail of self-response. We let self-response occur for a while so if can we knock out a bunch of these verification cases in the office before NFRU starts, then they'll know they only have a fraction of the work load that will help us and go verify these addresses. And then in 17 and 18, that's getting down to we think we have all of our pieces in place, let's just make it's sure functional for 2020.
So that's the overview and just thought that would be helpful in terms of, you know why are you guys do realtime thing, you know? So, that's sort of the longer term view, so now we're to going switch over, I've asked chuck and mike to do the driving and we will pull up the internet self-response, and I should say, they will demonstrate while I narrate.

The address collection piece I described, this where is we present back the address to the respondent and tidied it up and made it ready for processing and it serves two purposes. First it allows them to see the address that we've keyed in so that we can move forward with- that they haven't forgotten some address element some apartment designation and also , it allows us to show it to them in a way it's going to move forward, so it might add, it might change the word street to ST, that kind of thing, presenting to them a similar user experience online and typed in your address and they present it back to and you this is where will we make this package back to you, is that okay?

That's the same experience you will see here and then after the address is confirmed, then they get the opportunity to--well we take that address and we match it against the frame. In the event it doesn't match, we can actually ask them to make corrections again just to confirm we have a good address and failing then that they can move forward and they will--we will present a map interface to them and they can locate themselves on the map. So let's walk through that.

Michael will start here by pulling up the self-response establishment. This is where people would land if they, you know typed in the url or did the qr code or what have you and the first thing they see, did you get an id, if so, type it in here. If they don't, there's the option to click here because they do not a have user id. So one of the things we ask, somebody provide an e-mail address, this allows us to give them a pin if they can't finish an interview the during one session and they want come to back to it and there are check boxes and I don't have an e-mail address I want to provide, so, you know, they can get past this screen so can you go either way.

And then there is something called called capcha, to confirm the person is a person, not an automated attack on our system it's so a string they type to make sure the person who who they say they are, and then they start the i.d. response and it confirms the pin again.

So, so we will move on to an address, so you'll notice that we have it split between pieces different and components of an address and that's important because that assures us that separating where the house number and the suffixes and prefixes and everything that goes with that and the street name in a place like DC, and you have southwest, northwest, different designators that goes with the street name and not with the unit and designation apartment the number or address number. So breaking into pieces make sure we have a better shot at processing it correctly.

So go ahead and press next, Michael. So this is the standardization piece, presenting back to them, re you okay with me using this address and this looks the same, so yes, so in this case Michael provided an address that didn't the match the frame. We are sending it back. We aren't able to match it can you review it, it's fine if it's a good address, but we haven't made any error, but yes, that's my address. And because we don't have it in the frame, but we think we know where it is, we have been able to assign it to a census block, we're presenting that block as that a highlighted area in the map and ask them to confirm. They can say, yep that's correct and move on or select elsewhere in the block, so in this case, Michael why don't you say it's across the street.

>> so, it just prompts them further, okay? Are you yep, sure? I like it and I see my pointer i think my house is so i feel good about that. And I'm to going press next. And some of you may have notice there's a little get out of jail box if you're not comfortable with the map, you can locate it and move on. That way I don't lose respondents we're not pricing extra respondent burden and they can start the interview. So there are different zoom levels. For example if we don't derive a block use an address range we zip out to the level, and we ask them to pan out and zoom and so forth so we're hoping to learn how successful people are doing that. And it's going to be interesting to see--we're finding quite a few people are comfortable with the map data so I'm looking forward to seeing the end results and checking the work to make sure they geocoded themselves, too. It's so it's another piece, another thing that could help with us with work that has to be done for the census and we will decide if it's a good idea to do it on the future test and census, or tests. That concludes my presentation. Are there any questions.

>> thank you for your presentation, I think when you hear frank speak he's committed with his work and he loves this is non-i.d. processing and and he's dedicated to it. How's everyone feeling. Could we use a five minute break? Okay? And we'll start with the local update of census addresses.

Now I'm happy to introduce Brian Timko, Brian works in our geography division. He's going to be presenting about the local update of census addresses. Brian and I started our careers at the Census Bureau around the same time back in the nineteen nineties and one of the first projects that we both worked on was the first go-around of the local update of census addresses, so I can confirm that he's well experienced and has been working on this project for how many years? Almost 20 years. So I'll turn it over to Brian.

Thank you Deirdre. LUCA has been mentioned by several presenters today, and so this is my opportunity to provide a deeper dive into the research that we've been doing and the work surrounding the program. So I'll begin with just briefly background and already covered some of it, and talk about the LUCA improvement research project with that has happened over the last couple of years and discuss the 12 LUCA improvement recommendations, and then get into the current activities and next steps as we move away from research and into implementing the LUCA program.

So as a result of perceived under counts in the 1980 and 1990 censuses, Congress passed Public Law 103-430 I'm which was known as the address list Improvement Act of 1994, and that provided an opportunity for governments to review and comment on the address list used to conduct the decennial census prior to the census. Registered LUCA participants will be required to sign under Title 13 that receive address materials provide updates to them and then when the program is over destroy the materials.

So the first opportunity to participate in LUCA, as Deirdre mentioned is actually the LUCA 98-99 program and it was fairly straightforward in a sense that participants would receive an address list, an address count list, which was the count of addresses in each block and we provide an opportunity for them to comment, provide updates on not only the address list but actually address count lists, so they could challenge how many addresses we had in each block and then the block canvassing operations & LUCA 98 field verification operations were used to validate these addresses and the block challenges.

In 2010, based on feedback from the 2000 census and 2000 LUCA program, we expanded participation for LUCA & provided three different options: they were cleverly named option one, option 2 and option 3 option 1 was very similar to LUCA 98 in that we provide your address are your address in a title 13 environment you comment, review and comment on the addresses option 2, was a title 13 option where they receive their addresses but instead of commenting on our address list they would provide their list to residential addresses to us, in a predefined format. And then option three was a non-title 13 option where they did not receive our addresses, they received an address count list and they provided us with their--their list of residential addresses. But they couldn't file an appeal because they couldn't see our addresses in a title 13 environment and all LUCA 2010 records are validated in the canvassing operation.

And a couple other changes from LUCA 98 to 2010, was that in 2010 states were invited to participate for the first time, and the review time was increased from 90 days to 120 days, based on feedback. And for your reference, 79% of our LUCA participants in 2010 chose Option 1, and 13% chose option two, and option three was eight% of our participants so the large majority of people chose option one.

So a couple slides comparing the data from LUCA 98, and 2010 LUCA, in 2010 LUCA the program provided over six times as many addresses than the 2010 LUCA program. This was expected because we were asking for their full address list and the burden of matching the addresses was placed on the Census Bureau. The 2010 census LUCA program provided nearly twice as many new census addresses. These are addresses that didn't match in the addresses that we have. And in the big kind of moment for us was realizing that 2000 census program provided more new to census, enumerated records than the 2010 program and I'll get to the next slide which kind of summarizes that more might not be better philosophy.

So on the left column it's the LUCA 98 numbers and on the right column it's the 2010 numbers, I won't go through this whole stable but there's three rows that I think will stand out. One is the first row, where LUCA 98 participants provided 6.2 million addresses verses 41 million addresses from LUCA 2010. The third row down is--the third and fourth row down really stand out. It's 5.3 million new addresses added to the math from LUCA in 98, verses 9 million addresses now. Those are addresses that came in that didn't match anything we had and then the fourth row of those new addresses added to the math, 3.4 million were enumerated in the census and were found in the a sense good, census addresses that we could enumerate and in LUCA 2010, 2.9 million so we processed and work with a lot more records in 2010 but came out with fewer new to census addresses.

So we designed program research two years ago, around trying to figure out ways to improve the program for both participants and for the Census Bureau so we received fewer bad kind of LUCA records and made it easier for participants. So, we graded four subteams that we design the research around and each subteam, there were three different divisions that headed up the subteams, two of them were headed up by a staff from geography division, one was from decennial management division , the other was from field division. So it was a multi divisional effort going. So our first subteam was looking back at 2010 subteam where we look back at our assessments, surveys, lessons learned and try to mine the information and make sure we didn't lose the information out of those documents and part of that was the knowledge management database that was referenced earlier today.

The Geographic Support System Initiative's impact on LUCA - I will digress a bit here because some of you are aware of the GSS-I program, others are not. The GSS-I program supports the 2020 census by providing a process to continuously update address and spatial data from tribal state and local governments throughout the decade and support of a reengineered address canvassing program so we received--just over a thousand address and spatial files from--address and spatial files from over a thousand partners at this time. So we're processing a lot of data and we're asking for it in their native format so we're seeing for the first time we're seeing what partners have stored in their native format so it's eye opening to us as far as seeing how they store the data and how they would do LUCA with their data.

We had the reengineered address canvassing impact on LUCA, this is research we're doing to figure out how do we validate addresses, LUCA addresses if we don't have address canvassing to fall back on? And a lot of this research is--stems around an in-office validation, we're working with Frank's non-i.d. team right now to figure out the best methods for validating records and then our last team, last research team was a focus group subteam where we went out and conducted seven focus groups across the country with our partner governments to test our ideas with them and to see how it played out in the landscape and made sure we weren't doing anything that upset our partners.

So we came out with 12 primary recommendations and I'll go through these briefly, some of them briefly, some of them in more detail. The first recommendation was to continue the 2010 census LUCA program improvements that were successful, the 120 day review period was a really good review period, providing a six month advance notice to our invitation mailing helped as well and then providing different media types they could use to review our maps. And then continuing state participation with LUCA, the first recommendation changing LUCA was to eliminate the full address list options that were available in 2010 LUCA, this will reduce the number of deleted LUCA records and field verification activities and reduce the burden and cost of the processing addresses and address validation and this is something we weren't sure would go over well with our partners but after talking to them in the focus groups, they were really confused by these options. They're not engaging on a daily basis so they don't see our data all the time so when we come at them with a letter they're has all these different options they weren't sure which was best for them so they really have their basic message to us was make it easier on us, make it simpler.

And that goes to the next recommendation which is reduce the complexity of the LUCA program. We were told several times that it was too complicated, part of that was the options, part of that was how we write our letters and develop our materials, we were told directly we don't care about public law 103430 in our letters it's not interested in and it's not something I can take to our budgeting officials to get money approved to do this program for us. So they just--they want something--they want to know how does it benefit them and benefit the Census Bureau and so we're taking those lessons to try and make the program simpler.

Include census housing unit coordinated in the census address list and allow partners to provide housing coordinates back to us. This is a lot of coordinates back that locate the housing units on local government materials and it's really--it makes it much easier for us to overlay them and match it with ours and see where we're missing data. They can do the same thing with if we provide them with the structure coordinates so this is something that they're really interested in.

Provide ungeocoded post office delivery sequence file records to our state ask county partners, and this was one of the big kind of pluses from 2010 LUCA is that we were able to geocode a lot of addresses so we get addresses from the delivery sequence file from the post office twice a decade and twice a year with it not being very much and twice a year and they're geocoded to state and county. We have to get them down to the tract and block level and in some case fist we don't have the roads or the road names or address ranges in our database we can't geocode it below the county level. So one of the things we could do in LUCA is provide these addresses to state and county partners and it will help them focus their review if we're missing street its might be a new area, and it focuses their review to maybe areas where there's new growth.

So provide the address list in a more standard format. We provided the address list and a pipe delimited text format, and not the most--I'm seeing grins, not the most intuitive format to provide data in, and we were afraid there's commas in the address list, but we wanted to do a comma limited format and turns out that 42% of our help desk calls are because of the formatting of the address so this is a no brainer suggestions which is to provide it in a more standard format.

Conduct an in-office validation of LUCAs submitted addresses and this came out of the office subteam, that what we want to do is determine if we can validate addresses using assessor sites, using local data, using the internet and we found in a lot of cases we can't, we're still redefining how to do this but the research shows that can you do this, there's enough information out there, now that we don't have to you know walk every street to validate addresses.

Utilize GSS-I data and tools to validate submissions- this, is another no brainer suggestion and we're building tools right now in a sense what would in a sense help process LUCA data for the GSS-I, to bring in local data to evaluate it to determine if it's valid or not and it would be silly not to use these tools and in addition, we're getting millions of address records that contain use types, a lot of governments maintain use types in their address fields whether it's residential or nonresidential especially for emergency services purposes we're able to find out if this address represents a fire hydrant or a mile marker or something and these are addresses we got in LUCA that we didn't know we were getting in LUCA, and it looks like 101 main street but it happens to represent something that's not a residential unit so there's addresses and looking for what ended up being fire hydrants and mile markers so having this massive GSS-I database of tens of millions of records tell allow us to match against those to make sure we're getting residential addresses.

Encourage governments at the lowest level to work with higher governments to consolidate missions. We worked on this in 2010 and we want to improve on it in 2020. Smaller governments or local governments don't have the resources to do LUCA, to match addresses with GIS systems and so we're encouraging governments, townships, small towns to work with their county or regional planning areas to consolidate a submission. It insures we have the right coverage.

Eliminate the block count challenge. This was something that was a an artifact of the 1998 LUCA program where partners could challenge the block count and it would trigger us to go back out into the field in the LUCA 98 verification operation to validate that to make sure that our block out was right or the local block count was right. At 2010 we still had this, they were allowed to challenge the block count. We were went to every block anyway, so there wasn't much of a purpose to do this for the 2010 LUCA program, so we're proposing eliminating the Block Count Challenge list, for these purposes because we don't want to--we don't want to have to trigger a lot of blocks to go out into field verification because we want to limit the amount of time we spend in the field.

Eliminate the use of asterisk designations for multiunit submitted without designations so because we're going out into the field and doing a hundred percent canvassing operation if they had a multiunit structure but didn't know the unit designator so they didn't know if it was an apartment abc or 1,2, three, they could give us the basic street address and say asterisk one-10 if there were 10 units because we're not going out to a full hundred% address canvassing operation and we don't have the luxury of accepting that, so we will have the unit structure or units designators that we can mail to.

And the last recommendation is encourage LUCA participants to identify addresses used for mailing location or both. This is another recommendation coming from out from the GSS-I program, a lot of address lists are being developed for e911 purposes that may work for locating an address but not for delivering mail to that address, so what we want to do is provide the opportunity for our partners to tell us how this address is used so that we can determine how we use the address to enumerate that housing unit.

>>**18:00** so moving on to our current activities and next steps we're currently doing a lot of work with the in-office validation procedures and processes and tool development. We're doing work with a non-i.d. team with Frank and staff at our national processing center to develop a methodology behind validating addresses in an office environment. We're going to do larger testing with a 2017 test and using data out of that test. And we wanted to find the relationship between administrative records and LUCA validation to see if we can use

administrative records to help validate LUCA records as well and we wanted to find the addressing canvassing and LUCA, taking into consideration the timing of LUCA, and there's timing of research going on with the in-office address canvassing vs. in-field canvassing and to validate LUCA records.

We want to determine the feasibility for several technical recommendations for 2020 LUCA as well. The use of background imagery on paper maps that partners out in our focus groups like the idea of having just a light imagery and we have to research if this something we can feasibly do, the ability to provide structural locations with LUCA materials is something we want to do. We have to research the best ways to do that.

And the feasibility of web based registration, it seems simple but with the title 13 implications, it's more complicated. We have a geographic partnership software known as GUPS, that they can use for free to do their LUCA review. Determine the feasibility of using areas where we have planned fields activities this, is--is it cheaper or cost modeling, is it cheaper if we're going out in the field to send the LUCA in the field or cheaper to send it more accurate to send it in an in-office validation procedure and we want to work with OMB, the call of OMB yesterday to work with the appeals office set up. We started far too late last decennial and this is something we want to do earlier and more often to make sure we have our ducks in a row when it comes to the appeals process.

Last but not least we want to determine the relationship of late-decade GSS-I and LUCA, we want to make sure there's no way to confuse the two and make sure they have the differences between the programs and how both can benefit them. And that's it. Any questions?

>>Thank you, Brian. Oh, sorry, Trisha has a question.

>> okay, I guess the LUCA work you're doing here and a lot of it sounds, makes a lot of sense and then there was a test, right? This year validating the math model and can you--have you--are those connected any way, it seems like they should be and I was just curious as to what did LUCA learn and what did the test learn, you know what kind of cross over is there? They're both geographic so I figured--

>> I can take this one right here. Both programs ultimately are designed to improve the quality of our master address file, to insure that we have an accurate frame to use when we do mailings, when we do our data processing and our data tabulation. The math model validation test was really meant to study our new methodologies and the statistical models that we're using to help inform our reengineered address canvassing plan where we conduct in-office work and where we conduct in-field work. LUCA is meant as another opportunity to supplement the address list mandated by law of course, working hand in hand with the local government. So two different programs both with the same intent ultimately.

>> So LUCA participation might be input into a model that determines address canvassing, levels of address canvassing?

>> I think more so the participation in the geographic support system initiative would inform the models. The addresses that are contributed as part of both GSS-I and LUCA, will contribute to complete coverage within the master address file.

>> I'm just curious, too, is the in-office validation and the change detection how are they related? Are they manually done? You know, viewing a screen? Are they automated?

>> they are linked because we will use aerial imagery where we can conduct in-office research and where we should send people out in the field to validate address where is we believe there are problems or also aerial imagery to help us detect change, where do we think there may be housing units that they were not in the last vintage of that imagery. In the past, we have conducted more manual reviews. This RFI related to change detection can help us determine if we can move forward with more automated approaches to using imagery.

>> And finally, are you happy with the level of LUCA at this point. I mean leading up to 2010, there was talk of a rolling LUCA and so on.

>> So the concept of rolling LUCA is really the geographic support system initiative and Brian mentioned we ingested over thousand partner files to date and we've been studying our ingest of that data tag and processing of that data. And I believe that at this point in the decade we would have liked to have been further along but those efforts were curtailed because of budget limitations in the past few years. But moving forward, yes, we are thrilled that people are participating in the GSS-I, and we hope that those people by the time we get to LUCA will not feel the need to have to spend the time scouring our address list and that they'll have confidence that by working together they're in a good shape here at the census bureau. Any other questions? Dan?

>> Just in terms of in-office techniques and in-office validation, it's been a while since I heard, has there been any work done with the address or housing file that comes off as a byproduct basically of the administrative records composite generation and the person-level coming with the administrative data set by the persons but they're also geographic information associated with that, that many of them geocode and many of them don't geocode. Just in terms of checking whether some of these strange addresses you got in LUCA show up in some other-- some other database somewhere just to get some sense of--

>> We did some initial matching of LUCA records from 2010 to the administrative records database which is we had the private files and IRS data and it had some initial numbers that told us that it wasn't going to be as easy as we thought and we're hoping to see that our good LUCA address is match to a high rate and our bad LUCA records matched to a low rate and we didn't see that, as the numbers weren't as positive as we hoped they would be. So we want to do more research on the administrative records on how to use them, we haven't looked into the person level data. I know Frank, if you want to speak to the work you want to do for LUCA we get basic level street address with the block.

>> So I can talk about the person-level data in terms of doing the address enhancement piece for the respondent addresses but I thought maybe Dan, you were talking about some work that was done around 2010, where maybe there was a parcel data or other like geographic data associated with person data in ad-rec files.

>> So in terms of processing any of the number of federal administrative record databases, there's person record which is you link and come up with a composite that you can--do your

respondent validation and other things against but there's also compilation of address lists attached to those records, and commercial records and store fronts, home businesses, whatever being lumped in and being indistinguishable or whatever, just for personal address hygiene for any sort of reason just to see if there's a record that you can't geocode or what not, but it does show up for some reason and some way from this data record source, just, you know just to ferret out clues from where it might come from.

>> Brian mention in his presentation that we will be studying the comparison of administrative records for address submissions, as we investigate our use of administrative records further and further, we are realizing the potential to partner within the agency so the composite files that our center for administrative records and research applications are using should be the same files we use in geography that should be the same files we're using in the decennial management division and statistical analysis so that research continues and we will see how we can use one file for multiple operations.

>> the special case of administrator data resource, the delivery sequence file, the idea of providing the uncoded dsf address is a potentially cool one. It's interesting, it's interesting but, is that linked to the idea of trying to get them to provide location information back? Are you trying to solicit what the right geocodes might be or just trying to head off, don't bother me sending in this address again because we don't know what to do with it.

>> No, our whole goal is to get them to geocode this address for us and by default it helps focus on the review where there's areas missing features in TIGER.

>> Any other questions for Brian? >>Thank you Brian. I'd now like to move into the wrap up. I won't spend a lot of time reviewing what you heard today. I know everyone was very engaged and you have copies of the presentation…but I would like to thank you for your attendance today, those in the room, and those watching via eTV. We value your feedback, not only on days that we're together at the PMR, but on real, what we call work days. In upcoming PMRs you're going to hear more on how we're moving from our small-scale, individual tests to our integrated, larger-scale tests, and then finally to our end-to-end operational readiness test in 2018. I think you can see we're applying the learnings from one test to another, and we're thinking about how these findings relate to the 2020 census. I would also like to thank all of our presenters for their efforts preparing for today. And to remind everyone, the next PMR is scheduled for Friday, July 10^{th} and we hope to see you then. Thank you.