## IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

| STATE OF NEW YORK, et al., |
| :--- |
| Plaintiffs, |
| v. |
| UNITED STATES DEPARTMENT |
| OF COMMERCE, et al., |
| Defendants. |
| NEW YORK IMMIGRATION |
| COALITION, et. al., |
| Plaintiffs, |
| v. |
| UNITED STATES DEPARTMENT OF |
| COMMERCE, et. al., |
| Defendants. |

## NOTICE OF FILING OF DEPOSITION DESIGNATIONS FOR CENSUS BUREAU 30(b)(6) VOLUMES ONE AND TWO

Plaintiffs hereby file with the Court the synopsis of deposition excerpts (Exhibit 1) and the deposition excerpts (Exhibit 2) for Census Bureau 30(b)(6) (John Abowd) Volume One that will be offered as substantive evidence, and the synopsis of deposition excerpts (Exhibit 3) and the deposition excerpts (Exhibit 4) for Census Bureau 30(b)(6) (John Abowd) Volume Two that will be offered as substantive evidence.

Respectfully submitted,

By: /s/Dale Ho

| Dale Ho | Andrew Bauer |
| :---: | :---: |
| American Civil Liberties Union Foundation | Arnold \& Porter Kaye Scholer LLP |
| 125 Broad St. | 250 West 55th Street |
| New York, NY 10004 | New York, NY 10019-9710 |
| (212) 549-2693 | (212) 836-7669 |
| dho@aclu.org | Andrew.Bauer@arnoldporter.com |
| Sarah Brannon* | John A. Freedman |
| American Civil Liberties Union Foundation | Arnold \& Porter Kaye Scholer LLP |
| 915 15th Street, NW | 601 Massachusetts Avenue, N.W. |
| Washington, DC 20005-2313 | Washington, DC 20001-3743 |
| 202-675-2337 | (202) 942-5000 |
| sbrannon@aclu.org | John.Freedman@arnoldporter.com |
| * Not admitted in the District of Columbia; practice limited per D.C. App. R. 49(c)(3). |  |
| Perry M. Grossman |  |
| New York Civil Liberties Union Foundation |  |
| 125 Broad St. |  |
| New York, NY 10004 |  |
| (212) 607-3300 601 |  |
| pgrossman@nyclu.org |  |

## BARBARA D. UNDERWOOD

Attorney General of the State of New York
By: /s/ Matthew Colangelo
Matthew Colangelo, Executive Deputy Attorney General
Elena Goldstein, Senior Trial Counsel
Office of the New York State Attorney General
28 Liberty Street
New York, NY 10005
Phone: (212) 416-6057
matthew.colangelo@ag.ny.gov
Attorneys for the State of New York Plaintiffs

## Summary: Census Bureau 30(b)(6) (John Abowd) Vol. 1 (August 29, 2018)

Question sequencing can affect response rates. Tr. 14-15. Citizenship questions on previous surveys were preceded by a question on place of birth (nativity); the 2020 question will not. Tr. 22-23. The Bureau is not aware of cognitive testing of the question without a preceding question on nativity. Tr. 24. The 2020 Census questionnaire will not be field tested. Tr. 26-27.

The Bureau produces redistricting data with total population at the census block level (the "PL 94-171 data file"), which has never contained citizenship data. Tr. 38-40. The Bureau's tabulation of citizen voting-age population (CVAP) is a separate data set, based on ACS data aggregated from 5 consecutive years (" 5 -year ACS estimates"), because 1-year ACS estimates are unreliable for areas with populations less than 65,000 . Tr. at 41-44. Before December 2017, the Bureau never heard from DOJ that existing CVAP data were insufficient. Tr. at 44. Although it is based on the decennial enumeration, P.L. 94-171 data also has margins of error. Tr. at 48-49.

The Bureau will apply data disclosure avoidance to the CVAP tabulation, including "synthetic data noise infusion," where a sensitive characteristic is replaced with a value based on a mathematical model. Tr. at 50-54. As a result, block-level CVAP data based on responses to the citizenship question will still have margins of error. Tr. at 65-71. The Bureau has not yet determined whether CVAP data will be based primarily on responses to the citizenship question on the 2020 Census, or whether CVAP will be included in the P.L. 94-171 data file. Tr. 55-62.

Acting Census Bureau Director Jarmin described using administrative data instead of a citizenship question as "the best way to provide" block-level CVAP data to DOJ, in part because survey respondents sometimes say that they are citizens even though administrative records, which are verified based on legal documents, indicate that they are noncitizens. Tr. 75-92. Around $30 \%$ of noncitizens respond as citizens on the ACS; there is no reason to believe that responses on the census will be more accurate. Tr. 92-96. The Bureau sought a meeting with DOJ to discuss using administrative records instead of a citizenship question, but DOJ refused to meet, which is unusual. Tr. 96-99. The Bureau does not know if CVAP data based on responses to the citizenship question will be any more precise than existing CVAP data. Tr. 100-01.

The Bureau has indicators that nonresponse rates to the ACS citizenship question among noncitizens are increasing. Tr. 105-35. The Bureau does not think that adding a citizenship question to the Census is a good idea. Tr. 139. The Bureau thinks that the Census questionnaire including a citizenship question has not undergone adequate cognitive testing. Tr . 142-43.

Testing used for planning non-response follow-up (NRFU) efforts to reach households that do not self-respond to the census has not included the citizenship question. Tr. 198-201, 225. There is no evidence that various NRFU methods will be as successful for households that do not respond to the citizenship question, or are as accurate as self-responses. Tr. 251-61. The larger macro-environment, including low unemployment and the political context resulting from the citizenship question, may make it harder to hire enumerators for NRFU. Tr. 314-16.

OMB Standards and Guidelines for Statistical Surveys Section 2.3 requires agencies to balance maximizing data quality while controlling measurement error and minimizing respondent burden and cost; but Secretary Ross's choice of Alternative D (asking a citizenship question and using administrative records) results in lower data quality, has a higher respondent burden and higher cost than Alternative C (using administrative records alone). Tr. 321. Placing a citizenship question on the Census will not facilitate the imputation of citizenship status for people who lack administrative records. Tr. 326-30. The Census Bureau does not believe that the inclusion of the citizenship question on the census is necessary to provide complete and accurate data in response to DOJ's request. Tr. 331.




A P P E A R A N C E
On behalf of New York Immigration
Coalition, CASA De Maryland, American-Arab
Anti-Discrimination Committee, ADC Research
Institute and Make the Road New York:
John Freedman, Esquire
Caroline Kelley, Esquire
ARNOLD \& PORTER
601 Massachusettes Avenue, NW
Washington, D.C. 20001
(202) 942-5316
jon.freedman@arnoldporter.com
caroline.kelly@arnoldporter.com
On behalf of New York Immigration Coalition:
Dale Ho, Esquire
Sarah Brannon, Esquire
AMERICAN CIVIL LIBERTIES UNION
915 15th street, NW
Washington, D.C. 20005
(202) 675-2337
sbrannon@aclu.org
dho@aclu.ora
On behalf of Kravitz Plaintiffs:
Karun Tilak, Esquire
COVINGTON \& BURLINGTON
850 Tenth Street, NW
Washington, D.C. 20001
(202) 662-5458
ktilak@cov.com

On behalf of Los Angeles Unified School District:
Keith Yeomans, Esquire (Telephonically)
DANNIS WOLIVER KELLEY
115 Pine Avenue
Suite 500
Long Beach, California 90802
(562) 366-8500
kyeomans@dwkesq.com

On behalf of LUPE Plaintiffs:
Denise Hulett, Esquire (Telephonically)
MALDEF
$\square$

1016 16th street NW Suite 100
Washington, D.C. 20036
(202) 293-2828
dhuelett@maldef.org

Niyati Shah, Esquire ASIAN AMERICANS ADVANCING JUSTICE
1620 L Street, NW
Suite 1050
Washington, D.C. 20036
(202) 296-2300
nshah@advancingjustice-aajc.org

On behalf of City of San Jose \& Black Alliance for Just Immigration:

Rory Adams, Esquire
MANATT, PHELPS \& PHILLIPS
7 Times Square
New York, New York 10036
(212) 790-4501
radams@manatt.com
Ezra Rosenberg, Esquire
Dorian Spence, Esquire
LAWYERS COMMITTEE FOR CIVIL RIGHTS UNDER LAW
1401 New York Avenue, NW
Suite 400
Washington, D.C. 20005
(202) 662-8345
erosenberg@lawyerscommittee.org
dspence@lawyerscommittee.org

On behalf of state of California:
Gabrielle Boutin, Esquire
R. Matthew Wise

DEPARTMENT OF JUSTICE OFFICE OF THE ATTORNEY GENERAL
1300 I Street
P.O. Box 944255

Sacramento, California 94244 (916) 210-6053
gabrielle.boutin@doj.ca.gov
matthew.wise@doj.ca.gov
On behalf of State of New York:
Danielle Fidler, Esquire
Elena Goldstein, Esquire
Matthew Colangelo, Esquire
Alex Finkelstein, Esquire
ASSISTANT ATTORNEY GENERAL, ENVIRONMENTAL PROTECTION BUREAU
28 Liberty street
New York, New York 10005
(212) 416-8441
danielle.fidler@ag.ny.gov elena.goldstein@ag.ny.gov matthew.colangelo@ag.ny.gov alex.finkelstein@ag.ny.gov

On behalf of Defendants:
Stephen Ehrlich, Esquire Carlotta Wells, Esquire U.S. DEPARTMENT OF JUSTICE ZO ivassachusetis Avenue Washington, D.C. 20530 (202) 305-9802 stephen.ehrlich@usdoj.gov carlotta.wells@usdoj.gov


Veritext Legal Solutions
215-241-1000 ~ 610-434-8588 ~ 302-571-0510 ~ 202-803-8830

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P R O C E E D I N G S
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WHEREUPON,

VIDEOGRAPHER: Good morning. We're going on the record at 9:06 a.m. on Wednesday August 29, 2018. Please note that the microphones are sensitive and may pick up whispering and private conversations. Please turn off all cell phones and place them away from the microphones, as they can interfere with the deposition audio. Audio and video recording will continue to take place unless all parties agree to go off the record.

This is Media Unit 1 of the video recorded deposition of Dr. John Abowd taken by counsel for the plaintiff in the matter of the New York Immigration Coalition, et al., v. United states Department of Commerce, et al. This case is filed in the U.S. District Court of the Southern District of New York. This deposition is being held at the law offices of Arnold \& Porter located at 601 Massachusetts Avenue Northwest, Washington, D.C. 20001.

My name is Dan Reidy from the firm
Veritext Legal Solutions, and I'm the videographer. The court reporter is Karen Jorgenson from the firm Veritext Legal Solutions.

I am not authorized to administer an oath. I am not related to any party in this action, nor am I financially interested in the outcome.

Also, counsels' appearances will be noted on the stenographic record rather than orally at this time.

Will the court reporter please swear in the witness?

> DR. JOHN ABOWD,
called as a witness, and having been first duly sworn, was examined and testified as follows:

THE WITNESS: I do.
EXAMINATION BY MR. HO:
Q Dr. Abowd, before we get started, I just want to confirm something on the record with your counsel.

MR. HO: And that is that after 6:00 p.m. last night, plaintiffs' counsel received a 77-page extended white paper analyzing, among other things, the effect of adding a citizenship question on data quality and response dates. That white paper was dated August 6, 2018. We also received 29 documents that apparently went through the Title 13 DRV review process last week and those 29 documents were deemed nonconfidential.

We received these documents after 6:00 p.m. last night.

Is that your understanding, also, Stephen?

MR. EHRLICH: I don't have that email in front of me, but $I$ believe it was yesterday evening.

MR. HO: Okay. We have not had adequate time to review those documents in order to prepare for today's deposition. So we'd just like to ask for your consent to keep today's deposition open past today in order for -- for the limited purposes of questioning Dr. Abowd about the
documents that were produced last night.
MR. EHRLICH: We're not going to consent to that at this time.

MR. HO: Oh.
MR. EHRLICH: We can see how we go, and if you have questions, you can ask Dr. Abowd about this. We can see where we are at the end of the day. I don't anticipate more than seven hours being needed.

MR. HO: We can't ask questions about those documents because we haven't had adequate time to review them, so --

MR. EHRLICH: You can ask questions generally about the topics and things like that. We can see where we land at the end of the day.

MR. HO: So the record is clear, you're not consenting to permit us to depose Dr. Abowd about the documents that were produced last night after 6:00 p.m. after today; is that correct?

MR. EHRLICH: We're not consenting to further time right now, correct.

MR. HO: I didn't ask about further time.

My question was about the date. You're not consenting to permit us to depose Dr. Abowd about the documents that were produced after 6:00 p.m. yesterday, correct?

MR. EHRLICH: We sent them to you, and you're free to use them today. We're not consenting to more than seven hours.

MR. HO: My question wasn't about the length of deposition. My question was about whether or not we could continue the deposition after today, and your position is you're not going to consent to us deposing Dr. Abowd after today about documents that you produced after the close of business last night; is that right?

MR. EHRLICH: Correct.
BY MR. HO:
Q Dr. Abowd, could you state your name and spell it for the record?

A My name is John Abowd; J-O-H-N, $A-B-O-W-D$.

Q Thank you.
Dr. Abowd, my name is Dale Ho, and I
represent the New York Immigration Coalition plaintiffs in the case in the Southern District of New York.

Before we start today, $I$ just want to go over a few ground rules of today's deposition; is that okay?

A Yes.
Q You understand that you're under oath, under penalty of perjury today, correct?

A Yes.
Q Is there any reason you can't testify truthfully today?

A No.
Q I'm going to ask you when I ask a question to please always respond verbally, because the court reporter can't record gestures or grunts like uh-huh; is that okay?

A Understood.
Q Just so the court reporter can take everything down, can $I$ ask you to wait until I finish asking a question before you start answering?
A Yes.
Q And any time you want to take a break is
okay. The only exception to that is if I posed a
question to, or if anyone else has, to answer that
question before your break; is that okay?
A Yes.
Q Great. You understand that you're
testifying today as a representative of the
Census Bureau, right?
A I do, yes.
Q As a representative of the Census Bureau,
you'd agree that question sequencing can affect
the response rate to a survey, right?
A Yes.
Census Bureau, you'd agree that question
if you preface one question, another question or
questions, that would affect the survey response
rate, right? sequencing can affect the accuracy of responses to

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that question survey, right?
MR. EHRLICH: Objection. Form.
THE WITNESS: I understood your question
to be that the sequence of questions on a
questionnaire can affect the data quality produced
by that questionnaire. If that's what your
question was, my answer is yes.
BY MR. HO:
Q Great. So you'd agree that if you
preface one question with another particular
question or questions, that that could affect the
data quality in terms of the accuracy of the
response to the question, right?
(A) Yes.
Q You'd agree that question sequencing can
affect the response rates to a survey in ways that
you wouldn't necessarily anticipate at the
question drafting stage, right?
A Yes.
Q And one way you would know that -- sorry.
Let me start that again.
One way that you would know whether
question sequencing affected response rates would be to test a question in the sequence that it's going to be asked, right?

A Yes.
Q $\bar{l}$ want to show you a document, weili mark
it as Exhibit 1 .
(Plaintiffs' Exhibit 1, Questionnaire for the American Community Survey, was marked.) BY MR. HO:

Q Dr. Abowd, this is the questionnaire for the American Community Survey downloaded from the Census Bureau website. Does that look correct to you?

A The document $I$ see is the current paper form of the American Community Survey.

Q Okay. Could we turn to Page 8 of the ACS survey? And in the left-hand column, Question Number 8 is a question about citizenship; is that right?

A Yes. That's correct.
Q Now, Question Number 7, the question that immediately precedes the question -- the

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    citizenship question, is a question about where
    the person was born; is that right?
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        A Yes. That's correct.
            Q Now, you said this is the print version
    of the ACS survey questionnaire, right?
A Yes. That's correct.
Q There's also an Internet version of the
ACS questionnaire, right?
A Yes.
Q Now, if someone answers
Question Number 7, the question about where a
person was born and says that the person was born
in the United States, while taking the Internet
ACS survey questionnaire, does that person then
see Question Number 8, the question about whether
or not the person is a citizen?
A No.
$\begin{array}{ll}\text { Q So if someone says -- } \\ \text { A Excuse me for a second. } \\ & \text { THE WITNESS: I'm trying to speak up. If }\end{array}$
you can't hear me, let me know. When my voice
fades -- I noted it just fade- -- I have to think
about it.
BY MR. HO:
Q Thank you.
So just to be clear, if someone is taking the ACS Internet survey and they answer in response to the question, where was this person born, in the United States, that person does not see a -- and the answer -- the person was born in the United States, that person does not see the citizenship question, right?

A That's correct.
Q So if someone says they're born in the United states in response to the ACS Internet survey, there's no way to measure item response or nonresponse to a citizenship question for that person, right?

A No. That's not technically correct.
Q Okay. Could you explain?
A When we compute item nonresponse rates, we would have converted the yes answer from the -- you were born in the United States to a response citizen --
Q I see.
A - and then we would compute item
nonresponse and item allocation rates on that basis.

Q So everyone who answers the Question 7 on the ACS Internet survey and says that the person was born in the United states, that person gets an imputed, yes citizenship answer for

Question Number 8 ; is that correct?

A I wouldn't have used the word imputed. They get coded as citizen.

Q Okay. Thank you.
I want to show you another document.
We'll mark this as Census Exhibit 2 - -
(Plaintiffs' Exhibit 2, Census 2000 questionnaire, was marked.)

BY MR. HO:
Q Dr. Abowd, this is the long form census 2000 questionnaire download from the Census Bureau website.

MR. EHRLICH: Is that a question?

BY MR. HO:

Q Does that appear correct to you?
A This is the person section. I'm looking for the housing section.

Q I think it's only the person section.
A Okay. Then, yes. This is the person section of the long form from 2000 --

Q From 2000?
A -- census, yes.
Q Could you turn to Page 4? On the right-hand column, question Number 13 on the 2000 long form is a question about whether or not a person is a citizen of the United States; is that right?

A Yes. That's Question 13.
Q And just like on the ACS, the 2000 long form question about citizenship is immediately prefaced by a question -- or preceded by a question about where the person was born; is that right?

A Yes. That's correct.
Q I want --
A Actually, let me modify it. It's not
just like the ACS you showed me, but the questions are in the same order.

Q Thank you. I want to show you another document. We'll mark it as Exhibit 3.
(Plaintiffs' Exhibit 3, 1950 census questionnaire, was marked.) BY MR. HO:

Q I will represent to you this was downloaded from the Census Bureau website as the 1950 census questionnaire. Do you see the middle of the questionnaire, roughly, it looks like it's Column Number 13, there's a question about where a person was born, what state or foreign country was he born in?

A Yes. I see that in Column 13.
Q And immediately after that in Column 14, there's a question, if foreign born, is he naturalized; is that right?

A Yes. That's in Column, appears to be, 14.

Q So the naturalization question on the 1950 census questionnaire follows a question about
place of birth, right?
A It's in the next column. The 1950 questionnaire was filled out by an enumerator, not by the householder. So the exact order in which the enumerator filled it out isn't controlled by the way you see the questions.

Q So looking at the 1950 census questionnaire, we don't know how -- what sequence an enumerator asked the questions in; is that right?

A Well, we would know from the field training instructions, but $I$ was not able to locate them.

Q But if you just look at the questionnaire itself --

A I agree, they're sequential.
Sorry. I should have let you finish.
Q Is it fair to say the questions about citizenship on the ACS, the 2000 long form and in the 1950 census questionnaire, are preceded by a question about place of birth?

A Yes.
Q Now, as planned, the question about
citizenship on the 2020 decennial questionnaire,
that's the same citizenship question as
Question Number 8 on the ACS; is that right?
A I'm only verifying the question numbers,
because I don't have it memorized.
Q Sure. It's on Page 8 .
A Yes. That's correct.
Q At present, there are no plans to add a place of birth question to the decennial census questionnaire, right?

A That's correct.
Q There has been no cognitive testing of this citizenship question without a question about place of birth; is that right? MR. EHRLICH: Objection. Form. THE WITNESS: I'm not prepared to answer whether there has been no cognitive testing of this question without being preceded by what we would call a nativity question. In the experiments and the evaluations that the Census Bureau has been able to locate, the survey
testing has not been conducted without a nativity
question preceding the citizenship question.
BY MR. HO:
Q So you're not aware of any testing - - any
cognitive testing of the citizenship question
without a preceding question about nativity; is
that right, Dr. --
A I'm not aware of -- sorry. I'm not aware
of any, no.
Q Are you aware of any prior census in
which cognitive testing of the full short form
questionnaire had not been conducted before using
that questionnaire for the actual census?
A I am not aware of any -- well, let me be
careful.
Many censuses were conducted without
cognitive testing, the equivalence of cognitive
testing existed for much of the 20 th century. In
preparing for this deposition, I reviewed the
generic answer to the question, how was this
tested, and in some cases, that question elicited
some cognitive testing, for example, the
Current Population Survey, and theAmerican Community Survey. In other cases,historical censuses back in the $180 s, 170 s$ and'60s, no one could produce cognitive testing.Q SO --A I didn't specifically ask -- I asked, anytesting? And what $I$ got was the sort of standard
protocol testing.
Q So you're not aware of any
circumstance -- any previous decennial
census -- excuse me. Let me start that again.
Since there's been cognitive testing of
the decennial short form questionnaire, you're not
aware of any time in which a full short form
questionnaire has been deployed without
cognitively testing that full short form
questionnaire, are you, Dr. Abowd?
A I need to answer that question in a more
nuanced form.
I am not certain that the full
questionnaire was cognitively tested for the
period in which the question appeared on the long
form. I am certain that the questions for the
American Community Survey and the 2010 census were
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put through the full battery of the tests.
If you would like, during the break, I
will call and ask for cognitive testing of the
censuses prior to the 2010 .

Q Well, so just stick with the 2010. The full short form census enumeration questionnaire was cognitively tested before being deployed for the actual 2010 census, correct?

A That is my understanding. But it may have been question by question. I will-- I will actually, during a break, ask a more specific question about the form of the testing.
Q Dr. Abowd, has there been any field
testing of the citizenship question that's going
to be used on the 2020 census without a prefatory
question about nativity?
A No.
Q And there's been no field testing of the full 2020 census questionnaire, including the citizenship question, correct?


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disrupting the production instrument, but with a proper experimental design.

Tori drafted such an experiment. It included multiple forms of the citizenship question; the one that is in the ACS, the shorter one that's in the Current Population Survey, and no citizenship question, at all. Designed a randomized controlled trial of those questions, controlled to produce sampling errors of either a half of a percent or one percentage point and presented the plan to the acting deputy director and its budget.

The acting deputy director and Ron Jarmin, the deputy director performing the nonexclusive functions and duties of the director, and I'm going to call him the acting director from now on. The acting director and Enrique decided that the experiment which could not be deployed until the earliest, November of 2019, and possibly not until the following February, I believe, was not going to produce sufficient information to be worth deploying. In their opinion, and in the
opinion of the Census Bureau professionals, the citizenship question, even without a nativity lead-in, has been adequately tested.

Q I believe you said that it was in May of 2016 - -

A I said -- I may have said '19, but I meant May of 2018 . It was after the Secretary -- sorry. Thank you for correcting me. It was after the secretary instructed us to add the question. It was in May of this year.

Q Thank you for clarifying.
Dr. Abowd, what is the Center For Survey Measurement within the Census Bureau?

A The Center For Survey Measurement is a group of, primarily, behavioral scientists and survey methodologists led by Paul Beatty who is the chief.

Q And what does -- I'll call it CSM for short -- what does CSM do?

A CSM does a variety of questionnaire testing and qualitative research, leading content recognition questionnaire layout, ISR -- Internet
self-response instrument design, focus groups, related behavioral science research.

Q Fair to say that they are involved in testing Census Bureau questionnaires?

A Yes.
Q Fair to say that they assess whether or not a particular questionnaire has been tested adequately?

A They assess survey development at all stages of the survey lifecycle, including the one that you referenced.

Q And were the professionals in CSM asked their opinion as to whether there had been adequate testing of the ACS citizenship question to add it to the decennial enumeration questionnaire?

A In the course of developing our technical response to the Department of Justice request, the first group interviewed by the technical response team was a group from the Center For Survey Measurement, and they were asked about the quality of the citizenship question on the

American Community Survey.
Q And what did they say?
A They said that the question itself had had cognitive testing, and that it had been successfully deployed in the field. The last time that that question form underwent extensive testing was in 2006 where alternative versions of it were developed through the full lifecycle process and field experiment.

Q When you say they, who are you referring to?

A I'm not sure. I might have used the antecedent -- free pronoun a couple of times. If you read back the record, I'll tell you who I was talking about.

Q I believe you said they said that the question itself had had cognitive testing, and that it had been successfully deployed in the field. Who is they?

A Okay. They would have been the group from the Center For Survey Measurement that the SWAT team interviewed.

Q And who would they be?
A I'm -- I'm not sure how many people were in the room. I'm also not sure everyone in the room was from the Center For Survey Measurement. The -- usually, Paul Beatty, the center chief is in the room when a team is giving input like that. I can call and find out exactly who was in the room. I didn't ask.

Q Let's stick with Mr. Beatty, did Mr. Beatty --

A I'm not sure he was even in the room. I just said usually, he's in the room.

Q Okay. Fair enough.
But let's talk to Mr. Beatty for a second. Did Mr. Beatty express a view whether the testing of the ACS citizenship question was adequate for placing that question on the decennial enumeration?

A I do not know.
Q Did anyone among -- at CSM express concerns that there had been inadequate testing of the ACS citizenship question for purposes of
adding it to the decennial enumeration?
A I don't think so. In preparing for this testimony, I asked all of the people who had been involved in the -- in the technical work that was done at the Census Bureau with regard to the citizenship question, the current environment, since December of 2017, whether they knew of research or reservations about the citizenship question, and I didn't get any recorded.

The acting deputy director summarized the research, and since he was the associate director for demographic programs and had a long history in that part of the Census Bureau, we accepted his summary. And his summary of the search was -- research was that the citizenship question had been more than adequately tested on the American Community Survey.

Q When you say more than adequately tested, did he express a view as to -- never mind.

Assuming that the citizenship question is on the decennial enumeration questionnaire, is it going to remain a part of the American Community

Survey questionnaire?
A The acting director has formed an
internal expert panel. I testified about it in my direct testimony -- my fact testimony. The -- I may not have given the complete composition of it at that time, but it's a 13-member expert panel, charged them with drafting decision documents about questions like the one you just asked. They have been given until March 31st of 2019 to -- to write a draft decision document about the way the Citizenship question will be processed on the 2020 census and the way the Citizenship Voting Age Population Table by Race and Ethnicity at the block level will be produced. The rest of their charter, they have not been given a specific timeline for.

Q So just -- not about the processing of the CVAP data, but just a question about whether or not the citizenship question on the ACS will remain on the questionnaire --

A I - -
Q -- is that one of the questions that
they -- this internal expert panel is considering?
A I understood your question. And, yes, that is in their charge. It's not in their charge specifically, tell us to take the question off the ACS. It's in their charge specifically to write standards for how surveys will be conducted if in the view of the experts producing the data there are alternative sources for particular questions. It's not just about administrative record sources for alternative questions. There are other alternative sources that we might consider using in the future. So we haven't made a decision is the right answer to that.

Q What are some reasons why the citizenship question might be removed from the American Community Survey questionnaire?

A We regularly do content reviews of all of our periodic surveys and -- I may have just put the ACS in an improper budget category -- what I mean by that term, the ones we ask on a repeated basis -- to assess that the content is still timely with respect to the well-established and

> new use cases for those data.
> Trading off against that is our
obligation to minimize burden on the respondents to those surveys. So if in the course of testing and research and content review, we are able to reduce burden by producing data as good or better quality by combining multiple sources, we do that.

And in the economics area, we have done that for decades. So the multiple source production of data is not new but many different expert panels -- not the ones inside the Bureau, but outside the Bureau and other statistical agencies have, as they move into the 21 st Century, they have recognized you have to develop standards for this. The Federal Committee on Statistical -FCSM, Federal Committee on Statistical Methodology, has also been developing standards for using multiple sources to produce information products. So this is -- as a part of your normal content review for the ACS, the question will be on the table, can we replace any of the survey questions with alternative sources, and one of
those alternative sources might be administrative record citizenship table.

Q So just to be clear, you may remove the ACS citizenship question from the ACS questionnaire in order to reduce burden on survey respondents; is that right?

MR. EHRLICH: Objection. Form.
THE WITNESS: We may remove the citizenship question from the American Community Survey in the future, yes. BY MR. HO:

Q If you remove the citizenship question from the American Community Survey questionnaire, would that mean that the only available citizenship data for redistricting purposes at that point would be from the decennial enumeration?

MR. EHRLICH: Objection. Form.
THE WITNESS: If we remove a question -that was a generic -- deliberately generic -- a question from the American Community Survey, there could be multiple reasons. One reason might be
that there is no longer a valid use case for producing an information product based on the answer to that question.

Another reason might be because there's an alternative way of developing as good or better quality information product without asking the question on the survey. I anticipate -- but this is a predetermining decision-making process that hasn't happened -- that there would be a
continuing valid-use case for citizenship data.
So even if we took it off the American Community Survey, we would not stop producing statistical
information products that contain citizenship data.

BY MR. HO:
Q Let's talk about some of those information products. Now, the Census Bureau produces various data files for redistricting purposes, right, Dr. Abowd?

A Yes.
Q And one of those redistricting data products by the Census Bureau is the P.L. 94-171
data file, right?
A Yes.
Q The Department of Justice uses the P.L. 94-171 data file; is that your understanding?

A Yes.
Q And the P.L. 94-171 data file is also available to the public, right?

A Yes.
Q The P.L. 94-171 data file has information in it concerning the population and characteristics of people at various levels of census geography, including census blocks, right?

A Correct.
Q And the PL 94-171 data file is based on responses to the decennial enumeration, correct?

A Correct.
Q The P.L. 94-171 data tile ls considered reliable, correct?

MR. EHRLICH: Objection. Form.
THE WITNESS: The P.L. 94-171
redistricting data are produced under the law of the same name by negotiation between the

Census Bureau redistricting office and 51 state and the Washington, D.C. redistricting offices to meet the requirements of redistricting legislative districts in the states. The Census Bureau provides data to the states and District of Columbia in the support of redrawing every legislative district in the country. BY MR. HO:

Q Dr. Abowd, the Census Bureau doesn't consider the P.L. 94-171 data file unreliable, does it?

A No. I was trying to state the use case for which reliable is defined, but $I$ forgot to finish my answer.

We believe that the P.L. 94-171 data are reliable for redistricting and reliable for their Department of Justice Voting Rights Act enforcement uses.

Q The P.L.94-171 data file has never had citizenship data in it; is that correct?
produced by the Census Bureau is the special
tabulation of CVAP and other ACS data; is that right?

A So that's not technically right.
Q Okay.
A The redistricting office initially
request -- initially assisted the
Department of Justice in the design and production
of a special tabulation of Citizen Voting Age
Population by Race and Ethnicity and at the block group level. I'm just going to say CVAP from now on.

CVAP, because of a use case that the
Department of Justice had, it was subsequently put
into regular production, so it's produced
regularly. And its timing is now such that it can
be used in conjunction with the P.L. 94-171 data,
but no statute obligates the production of CVAP
and no statute obligates the negotiation with part
of government on to its form and content.
Q That special tabulation of CVAP data
is available to the public, right, Dr. Abowd?
$401 ;$


THE WITNESS: The estimates in the CVAP table are considered correct by the Census Bureau. Meaning, that they were processed from the

American Community Survey according to a survey design that was properly executed, and the steps that were taken in the post processing of those results are also according to the survey design. So that when they are estimated, that is the proper design estimate, and when this margin of error is released, that is the number that we believe is an appropriate indication of the 90 percent confidence interval.

BY MR. HO:
Q Now, the data in that tabulation, that's based on five-year pooled ACS data; is that correct?

A The CVAP is produced from what we call the five-year ACS data, which is a rolling five-year window on the American Community Survey.

Q The tabulation of CVAP data is not based on a single year of ACS respondents, correct?

A That's correct.

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ever heard from anyone, other than the Department of Justice, that the tabulation of CVAP data was insufficient for Voting Rights Act enforcement purposes?

A I had not heard that was insufficient. I had heard that it was difficult to use. There's a nuanced difference between them, but that's what $I$ had heard.

Q And who had you heard that it was difficult to use from?

A I believe I explained this in my fact testimony, but I'll -- $I$ will do it again.

Independent of the question about whether to put a citizenship question on the 2020 census, one of the areas at the Census Bureau that $I$ was asked to modernize was the disclosure avoidance system that we use. And that work began in 2016 when I arrived as the chief scientist. The use case for P.L. 94-171 and the use case for CVAP are intimately related, because of the requirement that you be able to build legislative districts that meet the one-person, one-vote requirement and
satisfy Section 2 scrutiny of the Voting Rights Act from the smallest granule level of geography that will allow you to get the one-person, one-vote part right. In -- once you're done with that, then you have to demonstrate, as well, that there's an adequate number of eligible voters in that district to continue to meet your section 2 scrutiny.

So experts that I interviewed, when we were talking about the disclosure modernization for the P.L. 94 said it's already extremely hard to combine the P.L. 94-171 data and the CVAP data, because you have to model down the block group level data to the block level. And once you've done that, controlling the margin of error in your resulting districts is problematic and a lot of the alternative ways of doing it come from alternative ways of modeling that process.

So I was trying to learn -- in my official capacity, $I$ was trying to learn what the use case was for the P.L. 94 when the user volunteered, but one of the problems that they
encountered was the combining of.
And I asked the redistricting office if it was a politically-loaded question to say improving the way that the citizen data could be combined with P.L. 94 or was that something that would have bipartisan agreement, and he didn't answer right away. It was James Whitehorne, the chief of the redistricting office. He did his own independent research. And he came back and said it's not political to say that improving the way that is citizen -- the CVAP and P.L. 94 would be an improvement.

Q When was that conversation with Mr. Whitehorne?

A I don't remember exactly. It was in 2017 at some point.

Q Before receipt of the Gary letter?
A Yes. All of this was before receipt.
Q You mentioned talking to experts who said it was difficult to combine the P.L. data file with the CVAP. Who are those experts?

A I wasn't able to specifically recall all
of them. I recall talking to Professor Gary King at Harvard. Professor Mike -- I believe his last name is McMahn, at the University of Florida.

Q Could it be Mike McDonald at Florida? A That's it.

And the chief of the bipartisan
commission at -- in California. I remember her title but not her name. And I don't have notes.

And I may have talked to some others, but
it was those three primarily, especially the California one. She was able to give me very detailed use cases. Not actual code, but precisely how they combined various things.

Q Let's talk about you mentioned disclosure avoidance. I want to ask you a couple questions about that.

The citizenship data in the CVAP tabulation, $I$ believe you said before, those are estimates at the block group level, correct?

A That's correct. Technically, so are the P.L. 94-171, but they're official estimates.

Q Now -- but the difference is, the P.L. 94
data, that data doesn't have error margins associated with it in the way that the CVAP tabulation, which is based on a survey sample does have error margins, correct?

A The P.L. 94-171 data are not sample based. They do have margins of error. We don't discuss it very much, but they're not -- they're not because of the sample. They're because of the statistical methods that intervene in converting the responses to tabular data, including disclosure avoidance. The CVAP table is based on a multistage probability sample, and so it has a design that implies that it has a sampling error. And it is the sampling error that we tabulate in our margins of error.

Q Okay. So just to be clear about the different data forms. The P.L. data, that has some errors associated with it, right?

A Yes.
Q It doesn't have the kind of standard error associated with an estimate based on a statistical sample, right?

specifications. What we say in our technical documents is that we apply household-level swapping and some synthetic data noise infusion.

Q Let's talk about those two things. What's household-level swapping?

A Household-level swapping means that the certain variables on the household record, not the person record, certain variables on the household record are matched to variables on a household record in a different geographic area. And if the household is selected for swapping, and when the match is found, essentially all the values are swapped, except the address ID. So it looks as if the data from a different address lived at the address of the original and vice versa.

Q So when you're building the CVAP tabulation, in some cases, it's based on data that's been swapped between two households where the ACS citizenship response for one household has been swapped with another; is that right?

A I am only allowed to tell you the variables that are used in the swap that are in

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public documents. And I told you what was in the
public documents.
Q Okay.
A So the swap controls for family size, for
``` the number of persons in -- not family size. That was not a correct technical term.

Q Household?
A Household size. Thank you. And the number of members of the household above voting age -- voting age or above.

Q When households are swapped, at what level of geography are they swapped?

A I'm only allowed to say that the search is over nearby geographic regions.

Q So you're not swapping someone from Maine with someone in Arizona?

A I'm also allowed to say that the swap never crosses state lines.

Q Does the swap ever cross county lines?
A If you can produce a technical document
that says it does or doesn't, I can confirm it. I can't remember ever reading that, one way or
another.
Q And can you say, one way or another, whether or not the swap ever occurs across census block group lines?

A I have read a lot of the public documents. I have also read a lot of the confidential documents. I do not recall any public document explicitly saying anything other than we don't swap across state boundaries.

Q And do -- so that would -- okay. Thank you.

Well, does swapping ever occur between
census blocks?
MR. EHRLICH: Objection. Form.
THE WITNESS: Of course swapping occurs
across census blocks, because there would be no point in it otherwise.

BY MR. HO:
Q You mentioned synthetic data noise infusion for disclosure avoidance. Can you describe what you mean by that?

A There are two methods of doing that. The
one that is used in the American Community Survey is to develop a model for when a particular record or item on a record is sensitive. The models are more precise, but, again, their parameters are not confidential. Basically, you think of extreme values as sensitive.

And then the statistical model replaces the sensitive value with a value that's sampled from the model and from the error distribution of the model.

Q The plan after collecting the citizenship responses from the enumeration is to deliver block-level citizenship data to the Department of Justice for the purposes of VRA enforcement, right, Dr. Abowd?

A Yes.
Q The block-level citizenship data that the Census Bureau is going to deliver to the Department of Justice, will that be based primarily to the citizenship question on the decennial enumeration questionnaire?

A The internal expert panel has been
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charged explicitly with determining both the processing of the answers to the citizenship question in the internal files and the formulation for the CVAP table at the block level.

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Q So as of right now, a decision has not been made yet as to whether or not the CVAP table -- table that is produced to the Department of Justice is going to be based primarily on responses to the citizenship question on the decennial enumeration or on a different source; is that right, Dr. Abowd?

A With one correction. We are not producing a CVAP for the Department of Justice. We are producing a CVAP table at the block level as a public use product.

Q But otherwise, the answer to my question is yes?

A We have not made a decision on the way in which we will aggregate the data to the block level.

Q Other than responses to the citizenship question on the decennial questionnaire, what

1 Other data sources might you use in the production
of the block-level CVAP table?

A We have said that we will use
the -- what's called the census NUMIDENT data. In
    addition, we are negotiating with the
    U.S. CIS - Customs and Immigration Service, did I
    expand it right -- U.S. CIS and with the
    State Department to acquire additional citizenship
    data and data on visas that have been issued to
    legal visitors to the United States.
            Q Is it fair to say that it has not yet
        been decided precisely how the block-level CVAP
        table will be assembled?
            A That's correct.
            Q Has it been decided whether or not the
        block-level CVAP data will be included in the
        P.L. 94-171 data file?
            A It has not.
        \(Q\) Let me show you a document. We'll mark
        this as Exhibit 4.
            (Plaintiffs' Exhibit 4, Federal Register
        notice, was marked.)

BY MR. HO:
Q This is a Federal Register notice. This
is a Federal Register notice from the Department of Commerce on proposed information collection and a comment request and the 2020 census.

Have you seen this document before?
A Yes, I have.
Q I want to turn to the second page of the document -- oh, sorry, just for the record, it's dated June 8, 2018, and the first page on it is 26643 .

I'd like to turn to the second page of the document, that's Page 26644. And the middle column, the second paragraph, about halfway down there is a sentence that starts with "If stakeholders."

Do you see that?
A Yes.
Q The sentence reads, "If stakeholders such
as the National Conference of state Legislatures elect to receive tabulations of citizenship data,
the Census Bureau will make/require" -- I think that's a typo -- "a change" -- "a design change to include citizenship as part of the Public Law 94-171 redistricting data file."

So I want to ask you a question about that sentence. If stakeholders do elect to receive citizenship data, what kind of design change can be made to the P.L. 94-171 file to include citizenship information at the census block level?

A So I was, of course, aware of that sentence. The way that redistricting office interacts with the National Conference of State Legislatures, as is described in the statute, as I understand it, is to attempt to meet their data needs, and their data needs are specifically what's required to redraw legislative districts. So that's why the redistricting office worked with the American Community Survey office to get the CVAP tabulation to be released in a timely manner with respect to redistricting in the first place.

the form of the CVAP and P.L. 94 data, but \(I\) don't believe we've had any specific discussion about the format. I believe that we presume that our data production systems, when we say we're going to deliver data at the block level, we'll deliver data at the block level in a way that the receiving users already understand how to use. So we're planning to disseminate the products in CEDSCI system at the block level and that's the -that is the distribution medium that we would be working towards using. No one has mentioned that that's problematic.

Q I'm sorry. I think I probably asked the wrong question.

A That's possible.
Q So - -

A I hope I answered the right one.
Q We talked earlier about how the
Census Bureau has not yet determined how it's going to assemble the CVAP tables, whether it will be based on the census enumeration questionnaire responses, some other data source, what mix of
those things.
Do you remember that, Dr. Abowd?

A Yes.
Q Have there been conversations with the Department of Justice about how the Department - sorry - how the Census Bureau is going to assemble that block-level CVAP data, that is, whether it will be based on the enumeration questionnaire responses or the administrative data or something else?

A There have been conversations with the voting rights division or branch -- I'm not sure which -- the voting rights section of the Department of Justice about the consequences of the disclosure modernization on the tabular data. And so we were trying to educate them on that. That doesn't affect how the census responses and the administrative data might be combined to produce those tabular data. There's a variety of ways in which they can be combined that are going to result in tabular data with the same statistical properties.

Q So just to be clear, there have been no conversations with the Department of Justice about how the different forms of citizenship data are going to be combined for purposes of assembling the CVAP table?

A None that I'm aware of, and during a break, I'll ask to make sure there aren't some that I wasn't aware of.

Q Now, you did mention some conversations between the Census Bureau and the voting section at DOJ. Who were those conversations between, both on the DOJ and the census side?

A So the meeting was arranged by James Whitehorne, who is the chief of the redistricting office. On the Census Bureau side, a number of experts were present, primarily disclosure avoidance experts, but there were also subject matter experts present. On the DOJ side, the chief of the section was present and staff familiar with the Voting Rights Act.

Q Was Mr. Whitehorne present at that meeting?

A Yes, he was.
Q When you say the chief of the voting section, is that Chris Herron?

A I'm going to have to check a meeting invitation list. I don't remember that person's name.

Q Do you know the names of any of the DOJ personnel who were present at that meeting?

A James Whitehorne knew the names of all of them, and \(I\) got their cards.

Q Okay. You were present at the meeting?
A Yes. I was present at the meeting. Sorry.

Q When did that meeting take place, roughly?

A Within the last three months, after -after the secretary's announcement and before people started going on summer holidays.

Q Were there any other meetings between Census Bureau personnel and the Department of Justice about the issues that we've been talking about?

A I believe the answer to that is no, because James has been inviting me to those, but \(I\) will also check to make sure.

Q Roughly, how long did the meeting last?
A About an hour.
Q Where was it?
A DOJ.
Q Just backing up for a moment, a census block is the lowest level of census geographic, correct?

A Correct. Tabular geographic.
Q Census block could have as few as ten people it in, right, Dr. Abowd?

A A census block can have no people in it.
Q And a census block could have one person in it, right?

A That's also correct.
Q I want to show you a document -- let's mark this as Exhibit 5.
(Plaintiffs' Exhibit 5, Map, was marked.) BY MR. HO:

Q I will represent to you this is a map
derived from census data on the Census website. It was produced by adjoining tiger files with the P.L. 94 data file after the 2010 census, and it's a map of an area in Fort Myers, Florida.

So you recognize the rectangles and other shapes on this map as census blocks, right, Dr. Abowd?

A Well, \(I\) can't independently verify that, but certainly looks like it's right.

Q And some of these census blocks have no people in them, some of them have just a single person on it, right?

A Are you asking me to say that the number that's sitting in the middle there is a population count?

Q I'll represent to you that that's -- that the numbers are population counts, and assuming that that's correct, some of the census blocks represented on this map have only one person on them, right, Dr. Abowd?

A Yes. I found a singleton.
Q Let's talk about that singleton. Now,
you'd agree with me, Dr. Abowd, that if you publish citizenship information at the block level based on the responses to the decennial enumeration solely -- so ignore the administrative data for a second -- then any singleton, any person who is the one individual on a census block, you would be publicizing that person's response to the citizenship question, correct?

A No. MR. EHRLICH: Objection. Form. THE WITNESS: No.

BY MR. HO:
Q Why not?
A Hasn't been correct since 1990.
Q Please explain to me why that's the case.
A Even before we considered the citizenship variable, that one person, that household that has only one person in it, had other characteristics, and the goal of our disclosure avoidance system has been to inhibit a user's ability to say that the person identified as that one count here has these characteristics.

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    In 2000 and 2010, that was accomplished
    by swapping, primarily. In 2020, that's going to
    be accomplished by what's called differential
    privacy. They amount to similar goals. One is a
    more hardened technique.
    Q Uh-huh.
    A But, basically, if you do it properly,
    then everything is an estimate and nothing is an
    exact tabulation of what happened there.
            Q Okay. So for these singletons, when you
        publish block-level CVAP data, a census block with
        one person on it and you publish data that shows
        whether or not that person is a citizen, you're
        telling me that's not going to disclose that
        person's actual citizen status?
            A It's not even going to be that person's
        actual citizenship value for any person.
            Q So the -- just to be clear -- I just want
        to be clear about this. The CVAP block-level data
        that gets produced by the Census Bureau, in some
        cases, the block-level citizenship values that are
        reported on that table are not going to be the
    ```
    actual citizen statuses of the person or persons
    on that census block; is that right?
    A No, not in some cases. In all cases.
    Q Okay.
    A There won't be a single block in which
    the citizenship variables or the race and
    ethnicity variables are the values reported by the
    people who live there.
            Q So I'm new to this, so I just -- forgive
        me.
            A You're not the only one.
            Q I want to come back to that.
            But just explain this to me like a fifth
        grader, okay? When you publish -- after the 2020
        enumeration, when you publish block-level
        citizenship data and you say \(X\) number of people on
        a particular census block, whether it's one out of
        one people, eight of ten people, whatever the
        number is, are citizens, according to the table,
        that table will not accurately reflect the
        citizenship status of the people enumerated in
        those citizen blocks; is that right, Dr. Abowd?
A No. But I'm actually going to treat you
    like a college-aged person and not a fifth grader.
    Q Let me just get a clarity on what the no
    was, no. No, I was not right or no --
    A That's correct. No, you were not right.
    Q Please explain to me.
    A The use case for block-level data is not
    that when I take a microscope to the census and I
    look at a block, the answers I get there are right
    for that block. That would be enormously
    disclosive and would be almost impossible to
    prevent reidentification of the confidential Title
    13 data, and we haven't done that -- we didn't do
    it in 2010. We didn't do it in 2000 .
    What has happened between 2010 and 2020
    is that we now actually know how to produce
    block-level data that are suitable for their use
    without having to put the exact -- what you call
    accurate, but \(I\) think you really mean exact
    tabulation in that block. It's too dangerous in
    terms of the confidentiality of the underlying
    records to put the exact tabulation there. So you
    have to introduce randomness, and what -- we
    introduced that randomness through a swapping
    system in 2010 and in 2000 . We're replacing that
    swapping system with a system that introduces the
    randomness in a much more controlled way for 2020.
    Such that, as you take those blocks -- even though
    the block number is going to be noisy and we're
    going to tell you how noisy it is -- when you add
    them up to voting districts, the more people that
    are in that voting district, the more accurate
    estimate you get of all of the things you're
    trying to tabulate. Not just citizenship,
    race/ethnicity.
            Q Just to clarify my understanding again,
        my question wasn't about fitness of use. My
        question was just about exact measurement.
            And is it correct that after you received
        the decennial enumeration questionnaire responses
        and you tabulate CVAP data at the block level,
        that the numbers that you produce for CVAP at
        particular census blocks will not reflect the
        exact actual values of the number of citizen of
voting age at each of those census blocks?
A Could you read his question back to me? (Thereupon, the reporter read the record as requested.)

THE WITNESS: As read to me, that statement is correct.

BY MR. HO:
Q Another way to put it is, after you tabulate the CVAP data at the block level, those CVAP numbers at the block level will have error margins associated with them, right, Dr. Abowd?

A That's correct.
Q Now, in your previous deposition, I
remember reading that you discussed that there is sometimes disagreement between a person's citizenship status as reflected in the NUMIDENT data and the person's response to the citizenship question on the ACS; is that right?

A That's correct.
Q I want to show you a document. We'll mark this as Exhibit 6 .
(Plaintiffs' Exhibit 6, Email thread, was
marked.)
BY MR. HO:

Q This is an email thread on which you participated. Top email on the thread is from J. David Brown to a number of individuals, including you, dated January 3, 2018 .

Do you see that?
A I see the header of the email, yes.
Q And this is an email that discusses, among other things, the issue of disagreement between the ACS responses and the NUMIDENT data with respect to citizenship status.

Does that look right to you?
A Give me a second. I'm refreshing my memory.

Q Sure.
A Yes. That's what the email says.
Q Mr. Brown, in his email to you, attaches a paper - if you look at attachments - - I don't have the actual paper here - but the attachments line at the top of the email, Dr. Abowd.

A Okay.

Q Let me start that question again.
Mr. Brown apparently attached an email to you from -- sorry -- apparently attached a document to you, a paper by Van Hook and Bachmeier from 2013 on the issue of disagreement between ACS responses and the NUMIDENT data with respect to citizenship status, correct?

MR. EHRLICH: Objection to form.
THE WITNESS: David Brown attached a paper about aggregate-level comparisons of the American Community Survey citizenship data with aggregate summaries from other sources. BY MR. HO:

Q That paper was written by two people, Van Hook and Bachmeier -- B-A-C-H-M-E-I-E-R is spelled -- correct?

A I don't have the paper in front of me. There may have been other authors, but as far as I know, that's correct.

Q Who are Van Hook and Bachmeier, do you know?

A I do not know.

Q Do you know anything about their reputation as political scientists or - social scientists? I'm sorry.

A I remember looking at the article and noting where it was published, but I did not look at the research activities of the authors.

Q Let me show you another document. We'll mark this as Exhibit -- this is going to get a little confusing now. I'm going to mark this as Exhibit 7. This was Exhibit 6 in Your previous deposition. This was your January 19, 2018 memo.
(Plaintiffs' Exhibit 7, January 19, 2018 memo, was admitted into evidence.)

THE WITNESS: Yes, it is.

BY MR. HO:
Q Okay. I want to ask you about Page 7 of the document, which is AR1282. You know, I'm sorry, \(I\) think \(I\) have the wrong page number here.

It's Page 12--AR1283. It should be the second paragraph after the Header Cl, quality of administrative record versus self-report citizenship status.

A The paragraph that begins "For all of these analyses"?

Q Yes.
A Okay.
Q Now, the second sentence here reads, "The NUMIDENT data contained information on every person who has ever been issued a Social security number or an individual taxpayer identification number. Since 1972, SSA has required proof of citizenship or legal resident alien status from applicants. We use this verified citizenship status as our administrative citizenship variable."

I want to ask you about what you wrote there. You described citizenship status in the NUMIDENT data as verified, right, Dr. Abowd?

A Yes.
Q And you described citizenship status as reported in the NUMIDENT as verified, because everyone who obtains an SSN or an ITIN has had to show a document concerning their citizenship or legal noncitizenship status, correct?

\section*{A Correct.}

Q So if someone shows up in the NUMIDENT as a noncitizen, just to put this in plain language, that's because the Social Security Administration records reflect that a document has been shown identifying that person as a noncitizen, right? MR. EHRLICH: Objection to form.

THE WITNESS: No. It's the citizenship status that's been documented or if you add an ITN, the eligibility for an ITIN. BY MR. HO:

Q And the eligibility for an ITIN, if that record in the NUMIDENT indicates that a person is a noncitizen, it's because they've submitted a document that indicates that they're a noncitizen, right?

A Correct.
Q Now, in your view, if someone is identified as a noncitizen in the NUMIDENT, that reflects that person's current noncitizenship status except for where there's a lag time between when a noncitizen naturalizes and when the SSA
updates the person's record to reflect that change in status, correct?

A Approximately correct. Not everyone is obligated to notify SSA of a change in their status. So the things you said, plus the possibility that it never gets updated.

Q Generally speaking, you would agree that if someone is denoted in the NUMIDENT as a noncitizen, that that person is likely to be a noncitizen, subject to a few exceptions?

A I won't agree with the last statement. Subject to a few exceptions, we would intend to quantify that, but subject to the exceptions in whatever quantity they are.

Q Generally speaking, if someone is -- let me just try this again.

Generally speaking, if someone is identified in the NUMIDENT as a noncitizen, you think it's reasonable to conclude that that person is likely a noncitizen at present, correct, Dr. Abowd?

A If the person is actually coded as a
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noncitizen, then I believe it is reasonable that
they were issued an SSN with SSA believing that
they were not a citizen. If it's missing, that's
a different matter.
Q Now, if someone is identified through ACS

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questionnaire as a noncitizen, that's based
exclusively on a survey self-response that is not
verified by an actual document regarding the
person's legal status, right?
    A In the case of the respondent, that's
correct. In the case of the other members of the
household, it's based on the information provided
    by the respondent about those other members of the
    household.
    Q So for anyone on the ACS who is
    designated as a noncitizen, it's based on a survey
    response, not an actual document about the
    person's noncitizen status, correct?
    A That's correct.
Q Let me show you another document. We can
mark this as Exhibit 8. It's another email thread
you're on. The top email is from Paul Beatty.
(Plaintiffs' Exhibit 8, Email, was
marked.)

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BY MR. HO:
Q It is from Paul Beatty to you, dated January 2, 2018, and the Bates number of the first page of this thread is AR6629.

Now, the third email in the chain is an email that you write to -- it's on the first page, Dr. Abowd. It on an email that you write to Mr. Beatty and John Elting --

A Elting.
Q Elting, E-L-T-I-N-G-E [sic] - - dated January 2, 2018, \(9: 35\) a.m.

Do you see that email?
A Yes, I do.
Q Okay. You wrote, "I spent the entire week of December 18 through 22 working on the response to this for Ron. He sent it to DOJ on Friday afternoon, December 22. We proposed adding citizenship to the P.L. 94-171 to the administrative records, not a new question on the 2020 census. This proposal had the backing of the
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    redistricting office."
    You wrote that, right?
    A Yes.
    Q And the redistricting office is the
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    redistricting office at the Census Bureau run by
    James Whitehorne, right?
    A Yes.
    Q Now, when you -- what do you mean when
    you say that the option of using administrative
    records to generate citizenship information for
    the P.L. 94 file had the backing of the
    redistricting?
    A Okay. I was writing an email and I
        didn't take my assistant director's advice as
        seriously as \(I\) should have, to reread every
        sentence before you click send. I meant that \(I\)
        had discussed it with James Whitehorne. I meant
        that we would produce a CVAP table in support of
        P.L. 94-171.
            Q Okay. Fair enough.
            So you're referring to, in this email,
        the production of a CVAP table with block-level

1 CVAP data, right?
CVAP data, right?
A Yes.
Q Okay. And when you say that that
proposal - the proposal to generate that table
using administrative records had the backing of
the redistricting office led by Mr. Whitehorne,
what did you mean by that?
with him whether this was a -
we could make that would be considered politically
neutral and appropriate in support of state
redistricting efforts.
citizenship status is verified, at least for
people since 1972 in the NUMIDENT, is evidence
already received some scrutiny.
    Q So you would agree with the statement
    that you -- I'm sorry. Let me just -- let
    me -- start that question again.
            You described citizenship data from the
NUMIDENT as verified, because it's based on the
    receipt of an actual legal document; is that
    right, Dr. Abowd?
    A Yes.
    Q Okay. And you would describe responses
        to a citizenship question as unverified, right,
        Dr. Abowd?
            A Yes.
        \begin{tabular}{|l|}
\hline Q Let me show you another email. We'll \\
mark this as Exhibit 9. \\
(Plaintiffs' Exhibit 9, Email, was \\
marked.) \\
BY MR. HO: \\
Q This is an email from Ron Jarmin to a
\end{tabular}
number of people, including you, dated December 22, 2017. That's the top email in the thread anyway. The document is AR6659.

So in the top email, Dr. Jarmin is forwarding to you and Albert Fontenot?

A Fontenot.
Q Fontenot. An email --
A It's French. Don't say the \(T\) at the end.
Q Thank you.
Dr. Jarmin is forwarding an email to you that he previously sent to -- it's redacted, but it's addressed to someone named Arthur, and it's cc'd to Enrique Lamas; is that right?

A That's correct.
Q In -- now, you understand -- do you -- the Arthur referred to by Dr. Jarmin in this email -- or sorry. Let me start that again.

The Arthur to whom this email is addressed, does that appear to you to be Arthur Gary from the Department of Justice?

A Well, I understand it to be someone in the Department of Justice, but \(I\) don't know any of
them. So I don't know the last name.
Q Do you understand -- okay. I'm sorry.
The first sentence is, "Thank you for your letter dated 12/12/2017 regarding improving the quality of citizenship information for DOJ enforcement of the Voting Rights Act."

When Dr. Jarmin wrote that, do you understand that to be a reference to the DOJ's request to add a citizenship question to the census?

A Yes.
Q And would this email -- you understand Dr. Jarmin to be forwarding a description of the analysis that you were working on described in your email to Mr. Beatty, the exhibit that we just discussed previously, Exhibit 8?

A Yes.
Q The third sentence down in Mr. Jarmin's email to Arthur starts with the phrase, "They have now briefed me."

> Do you see that?

A Yes.

survey report?
MR. EHRLICH: Objection. The document says administrative and survey data in the Census Bureau. BY MR. HO:

Q You can answer the question.
A So I understand him to be summarizing the knowledge that we had after about \(a\) week and a half of studying these linked files about the disagreement between survey responses and administrative citizenship data.

Q So you'd agree that if there's disagreement between survey responses and administrative -- excuse me. Strike that. Let me start that again.

You would agree if there's a disagreement between survey responses and administrative data about a person's citizenship status, that usually you'd assume that the verified administrative records are correct and that the reported survey response is incorrect, right, Dr. Abowd?

MR. EHRLICH: Objection. Form.

THE WITNESS: No. It's not as simple as that. If you were certain that the person you had the survey response from and the person you had the administrative record from were the same, and you had a valid statistical sample of such people, then you could estimate the error rates in both the agreement and disagreement cells. We were at that time -- and we still are -- hypothesizing that when the citizenship variables disagree for a citizen, that that error rate is relatively low. And that when they disagree for noncitizens, that error rate is relatively high. That would be one of the hypotheses that we would attempt to verify before asserting that the administrative data should replace the survey response. Otherwise, we would use them in combination. BY MR. HO:

Q Okay. I understand that there are some errors associated with trying to determine a person's citizenship status based on the administrative record. We talked about one early, which was that a person's citizenship status may
change. That's not yet reflected in the administrative record. That's one source of error, when you try to ascertain someone's citizenship status from the administrative record, right, Dr. Abowd?

A Correct.

Q Another source of error is if you have a problem in the linking of records, the person that you're wanting to know the citizenship status of might not be the same person that you're looking at the administrative record of, right, Dr. Abowd?

A That's correct.

Q Do you have confidence in the
Census Bureau's matching procedures when you're trying to ascertain whether or not a particular Census Bureau survey respondent is, in fact, the same person in the administrative NUMIDENT data?

A When the quality of the personally-identifiable information on both the survey response and the administrative record are sufficiently high, yes. And as the quality of either of those two sources of PII deteriorates,
then increasingly, no, to the point where you can't link, at all.

Q You described earlier there was a -- the hypothesis that if there's disagreement between the administrative record and a person's self-response, that it's -- that you could hypothesize that the administrative record is more likely to reflect the person's citizenship status than the survey self-response; is that correct, Dr. Abowd? Do I understand you correctly?

A In the hypothetical I posed where the linkage was not an issue, yes.

Q When the Census Bureau links survey respondents to the administrative data and there's disagreement between the survey response and the administrative data, do you think it's a reasonable hypothesis that the administrative data about a person's citizenship status is more likely to be reliable than the survey response?

MR. EHRLICH: Objection. Form.
THE WITNESS: When the linkage is high quality, yes.

BY MR. HO:
Q Is the linkage performed by the
Census Bureau between ACS survey respondents and the NUMIDENT data what you would describe as high quality?

A Sometimes, yes, and sometimes, no. Generally, yes.

Q For purposes of the analysis that you conducted referenced in your January 19th memo, was the linkage between the ACS respondents and the NUMIDENT data about citizenship status, was that a high-quality match?

A So the average statistic for that match was that it was a high-quality match, but not all of the records matched with high quality.

Q Okay.
A And some didn't match, at all.
Q Generally speaking, when there was
disagreement -- in the analysis that you performed
in your January 19th memo between the
administrative record and a person's survey
response about citizenship data, is it reasonable
    to conclude that the administrative record is more
    likely to be correct about the person's
    citizenship status than the response to the ACS
    question?
    A When the administrative record says you
    are a citizenship and when the linkage of high
    quality, as it generally is for people whom the
    administrative record says you're a citizen, then,
    yes. When the administrative record says that
    you're not a citizen and the linkage is of high
    quality, then subject to the caveats I have
    already expressed, I would also say yes. But as
    the linkage quality deteriorates, then you're not
    sure you're looking at the same person and you're
    also not confident of the -- either the survey
    responses or the administrative record.
            Q So let's just talk about the
        noncitizens --
            A Okay.
            Q -- in the NUMIDENT data. When you have a
        non- -- someone who is identified as a noncitizen
        in the NUMIDENT data and you link that person to
\begin{tabular}{|c|c|}
\hline Page 92 & \\
\hline an ACS response and there's disagreement, that is, & \\
\hline the person who is identified in the NUMIDENT as a & \\
\hline noncitizen, but their ACS response is citizen, & \\
\hline when you conducted that analysis for purposes of & 40 \\
\hline your January 19th memo, do you have confidence & \\
\hline that person is likely a citizen -- sorry -- likely & \\
\hline a noncitizen and that the response to the ACS & \\
\hline question was incorrect? Vague; & \\
\hline MR. EHRLICH: Objection. Form. Confusing & \\
\hline THE WITNESS: We believe that the most & \\
\hline likely conclusion is that the administrative & \\
\hline record is correct and the survey response is not. & \\
\hline BY MR. HO: & \\
\hline Q And I believe in your January memo, you & \\
\hline conclude that about 30 percent of ACS respondents & \\
\hline who are identified as noncitizens in the NUMIDENT, & \\
\hline respond to the ACS citizen question by stating & \\
\hline they are citizens, right, Dr. Abowd? & \\
\hline A We agreed to use 30 percent as the & \\
\hline summary for a range, but yes, I think that's a & \\
\hline representative statistic. & \\
\hline Q So based on your previous responses & \\
\hline Veritext Legal Solutions & \\
\hline 215-241-1000 ~ 610-434-8588 ~ 302-571-0510 ~ 202-803-8830 & \\
\hline
\end{tabular}
today, you think it's likely that 30 percent of noncitizens who responded to the ACS citizenship question responded incorrectly about their citizenship status to the ACS question, right, Dr. Abowd?

A I -- the correct statement is that the data provided for 30 percent of the survey respondents who indicated citizens, that wasn't necessarily provided by that person -- that's what I'm trying to correct -- is likely incorrect, yes.

Q Do you have any empirical basis to expect that noncitizens who respond to a citizenship question on the 2020 decennial enumeration questionnaire will respond more accurately than noncitizens who have responded to the citizenship question on the ACS?

A No.
Q Is there any reason to think that noncitizens who respond to the citizenship question on the 2020 enumeration will respond less accurately than noncitizens who respond to the citizenship question on the ACS?
A We have identified an upward trend in the
disagreement between the survey responses and the
administrative record. It's not precise enough
for us to label as a definitive upward trend, but
it - there are definitely indications in the data
that the willingness to respond accurately to that
question is declining.
Q Would you expect noncitizens responding
to the citizenship question on the 2020 decennial
enumeration questionnaire to respond inaccurately
at a higher rate than the inaccuracies you
documented among noncitizens responding to the
citizenship question on the Acs?
    there are, at present, no plans in place to
    address situations where a person's self-report in
    response to the citizenship question on the 2020
    enumeration questionnaire disagrees with that
    person's citizenship status as noted in the
    NUMIDENT data file; is that right, Dr. Abowd?
    THE WITNESS: I'm sorry. Could you read
    the first part of his question back to me?
    (Thereupon, the reporter read the record
    as requested.)
    THE WITNESS: I think you're asking me
    about the processing decisions for the 2020 census
    and the subsequent production decisions for the
    CVAP tabulation; is that right?
        BY MR. HO:
            Q Right.
            A There are no current decisions about how
        that's going to be done.
            Q There are no current decisions about how
        you're going to reconcile differences between the
        responses to the citizenship question and a
        person's citizenship status as defined in the
\begin{tabular}{|c|c|}
\hline & Page 96 \\
\hline 1 & NUMIDENT? \\
\hline 2 & A That's correct. \\
\hline 3 & Q The last sentence of Exhibit 9, \\
\hline 4 & Dr. Jarmin's email says, "I suggest we schedule a \\
\hline 5 & meeting of Census and DOJ technical experts to \\
\hline 6 & discuss the details of this proposal." \\
\hline 7 & That meeting did not take place, did it, \\
\hline 8 & Dr. Abowd? \\
\hline 9 & A That's correct. \\
\hline 10 & Q You anticipated having such a meeting in \\
\hline 11 & January of 2018, right? \\
\hline 12 & A I wouldn't say that the Census Bureau \\
\hline 13 & anticipated having such a meeting. I would say \\
\hline 14 & that we offered DOJ the opportunity to meet with \\
\hline 15 & us and hoped that they would. \\
\hline 16 & Q I'm going to show you a document. We'll \\
\hline 17 & mark it as 10 \\
\hline 18 & (Plaintiffs' Exhibit 10, Email, was \\
\hline 19 & marked.) \\
\hline 20 & BY MR. HO: \\
\hline 21 & Q This is an email thread, the top email is \\
\hline 22 & from Misty Heggeness to you dated January 2, 2018 \\
\hline & Veritext Legal Solutions \\
\hline
\end{tabular}
with Bates number AR6623. The second email on the thread, you write on January 2, 2018 at 1:16 p.m., "Don't worry about missing the DOJ follow-up meeting. I don't expect many technical questions. It's mostly about messaging."

You wrote that, right?
A I did, yes.
Q Misty Heggeness is the senior advisor for evaluations and experiment at the Census Bureau, right?

A Yes, she is.
Q Why did you tell her not to worry about missing the DOJ follow-up meeting?

A So I believe what's going on in this email, I'm using a very shortened sentence for the response to the DOJ request follow-up meeting.

Q Okay.
A We never had a DOJ meeting scheduled. I'm sure I'm referring to shorthand of we're working on a technical response to the DOJ's request and there were follow-up meetings from that.
\begin{tabular}{|l} 
Q When you say the meeting would be mostly \\
about messaging, what did you mean by that? \\
A To be honest, I'm not sure. I believe \\
that on the 2nd of January, we were discussing the \\
wording of a short summary memorandum that I was \\
working on for the acting director, summarizing \\
the state of the research through the end of \\
December.
\end{tabular}

Q You testified a moment ago that DOJ declined to take the meeting that was referenced in Dr. Abowd -- Dr. Jarmin's email; is that right?

A That's correct.
Q Do you know why?
A I believe it's in the administrative record, the reply to this email. I'll summarize. Again, if you say this is the author of the letter, \(I\) believe you, but names haven't stuck. Said that the basis for our request is adequately documented in the letter and we decline to further meet.

Q In your experience, is it unusual to receive a data request from an agency to the

Census Bureau and then for the agency to refuse to meet to discuss the technical aspect of that data request?

A My experience in my current position is only two years old. I will answer on behalf of the agency. Yes.

MR. HO: We've been going for about an hour 50, 55 or so. Would now be an okay time for a bathroom break?

MR. EHRLICH: It's okay with me.
VIDEOGRAPHER: This concludes Media Unit Number 1. The time on the video is 10:55 a.m. We are off the record.
(Off the record.)
VIDEOGRAPHER: This begins Media Unit Number 2. The time on the video is 11:19 a.m. We are on the record.

MR. EHRLICH: Just to clarify something we were discussing earlier on the record when we were talking about you had received documents yesterday evening that you wanted to talk to Dr. Abowd about. We wanted to clarify that you
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get seven hours for the 30(b)(6). If you want to
reserve time at the end of today in order to
review those documents and ask him more questions,
we can produce him again for you.
MR. HO: Thanks for that offer. I'll
confer with co-counsel and counsel for the other
plaintiffs --
MR. EHRLICH: Okay.
MR. HO: -- and we'll talk.
MR. EHRLICH: Thank you.
BY MR. HO:

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Q Dr. Abowd, before moving on to another topic, I just want to ask a few questions about some things we discussed earlier.

You testified that when the Census Bureau, after the 2020 decennial census, produces the block-level CVAP data, that there will be error margins associated with that block-level CVAP data. Do you remember that?

A Yes.
Q Okay. Today, does the Census Bureau know whether or not the error margins associated with
that block-level CVAP data will be larger or smaller than the error margins associated with the block-level CVAP data that DOJ currently uses, based on ACS estimates?

A I have to give a nuanced answer to that question. We don't know, because we haven't set the parameters of the disclosure avoidance system yet. That's somewhat new territory for my colleagues, and I am certain that one of the things we will be discussing is whether the error margins associated with both the P.L. 94 and the CVAP table at the block level still allow redistricting offices and the Department of Justice to use the data effectively. That is the use case for those data.
\begin{tabular}{|l}
\hline Q Would you agree -- never mind. That's \\
fine. \\
You testified a little bit about a \\
possible RCT of the citizenship question and \\
request from, I believe it was Enrique Lamas, to \\
get a proposal for doing an RCT of the citizenship \\
question without the prefatory nativity question
\end{tabular}

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that's been used in past questionnaires.
Did I get that right?
A Everything you just said is what \(I\) said, I think, yes.

Q Okay. And that was in March of 2018?
A May.
Q May of 2018.
And are there documents to reflect the request from Mr. Lamas to conduct an RCT of the citizenship question without a prefatory question without nativity?

A First of all, he didn't request an RCT. He requested a proposal for an RCT.

Q Thank you.

A And \(I\) have seen Victoria Velkoff's response to that request. So there are artifacts, yes.

Q Was that request, or Ms. Velkoff's response, were those in emails?

A I do not know how the correspondence between Enrique and Tori Velkoff was conducted. But there is a document that is the proposal of

American Community -- ACS office produced, and that was transmitted to me by email.

Q And when you say there was a document produced, was that like a memorandum attached to an email or was it in the text of an email?

A It was a separate document, short summary of the proposal. I think it was all of the proposal, but it was short.

Q As set forth in that proposal, how long would the RCT have taken?

A I did read it very recently, but I did not memorize it. The way it works in the experimental components of the American Community Survey is you designate certain months in the field for data collection. And then the American Community Survey data are processed in a flow, but we don't release the official products until the flow of an entire year has been processed, but we would have been able to evaluate an experiment as soon as the months that were in the experiment were evaluated.

She gave two separate start dates for the
experiment. One was November and one was early in 2019. But \(I\) don't remember her saying how many months it had to run to achieve the standard errors that -- that it was designed to produce, so that's -- it may not have been in there.

Q Do you know how expensive either of those proposals to conduct an RCT of the citizenship question would have been?

A Would you remember to re-ask that question after the next break? I would rather give you exactly the right answer than the two numbers I remember, and I think I have transposed digits in one of them, so I'm just going to go look.

Q I appreciate that. And if it's not me, then it might be somebody else.

A Right. As long as someone knows to re-ask, \(I\) know my counsel will remind me to check.

Q Was that RCT proposal discussed with anyone outside of the Census Bureau?

A When I discussed that RCT proposal with the acting deputy director, he took
responsibility, in conjunction with the acting director, for giving me the no-go, but he didn't
tell me whether he discussed with anyone else outside the Bureau.

Q So you're aware that Dr. Jarmin and -- I don't know if it's Dr. or Mr. Lamas?

A It's doctor. It's Dr. Velkoff, too.
Q Okay. You don't know if anyone other than Dr. Jarmin and Dr. Lamas were involved in this -- the decision not to do the RCT of the citizenship question?

A I do not know.
Q You testified at one point whether or not -- excuse me -- you testified at one point that there are indicators in that -- let me try again.

I think you testified earlier that there are indicators suggesting that nonresponse rates to a citizenship question among noncitizens are increasing; is that right?

A Yes.
Q What are those indicators that you were

referring to?

A In our technical research, we've conducted statistical experiments that attempt to estimate the extent to which certain categories of households that either include a noncitizen or include someone for whom we don't know the citizenship status might not respond to questionnaires that include a citizenship question. In the analysis for the 2000 census, that number was around 3 percentage points. In the analysis circa 2010 , it was closer to 5 point -- 5 percentage points. And the most recent analyses we have produced, it's closer to five and a half percent --5.8 percentage points and applies to a bigger subpopulation of households than our previous analyses.

Q Any other analyses suggesting that there are indications of greater nonresponse over time from noncitizens to a citizenship question other than the ones you've just described?

A If you look at the item nonresponse rates and the break-off rates, the reason I said that

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(1) they didn't meet statistical standards for saying
(2) we think there's a trend is because they're short
(3) and there have been some procedural changes that

4 materially affect the year-to-year comparisons,
5 but they are higher now than they were earlier in
6 the decade.
sensitivity to a citizenship question have been
increasing over time; is that right, Dr. Abowd?
A You have to permit the caveat that \(I\)
13 didn't say increasing. I said they're going up,
two points for the break-off rates.
But at the time we prepared our technical
report for the secretary, we had the 2000 and the
2010, and those two numbers are statistically
different from each other, and the one in 2010 is
larger.
Q But you would agree that the item nonresponse and the break-off rate analysis that you've done, they're both consistent with the notion that noncitizens' sensitivity to a citizenship question and unwillingness to respond to such a question, have increased over time?
MR. EHRLICH: Objection. Form. Vague;
THE WITNESS: I will agree to the Compound
statement, consistent with the -- with the increase over time, yes.
BY MR. HO:
Q Other than the three things we've discussed, unit nonresponse, item nonresponse and break-off rates, are there any other indicators suggesting that noncitizens' sensitivity to a citizenship question has been increasing over
time?
A There are survey indicators from the
Census Barriers, Attitudes and Motivators Survey and qualitative analysis from focus groups that also suggest it.

Q Other than the CBAMS and the focus groups, any other indicators that you're aware of suggesting that noncitizens sensitive to a citizenship question has been increasing?

A None that \(I\) can recall at this moment.
Q Okay. You said something about the 5.8 percentage point reduction in response rates among noncitizens to a citizenship question -- because of the presence of a citizenship question; is that right, Dr. Abowd?

A I can restate the question so it's right.
Q Please.
A We did analyses -- we did analyses that compared different categories of households that included citizens with categories of households that either didn't or may not include citizens. And the most reset of them -- which is in the
technical paper that was delivered to you last night -- uses an estimate of 5.8 percentage points.

Q Right. That 5.8 percentage point estimate, that's not reflected in your January 19th memo from earlier this year, right?

A That's correct.
Q But it is reflected in the updated white paper dated August 6, 2018 that plaintiffs' counsel received after the close of business last night, right, Dr. Abowd?

A Well, I don't know when you received it, but that is the correct document, yes.

Q Are you aware of any reason why that document couldn't have been produced to plaintiffs' counsel before last night?

A That document had been produced in substantially the same form three weeks ago.

Q When you say produced in substantially the same form, to whom do you mean?

A There's a version dated July and a version dated August, both of which were provided
to the Department of Commerce in response to a discovery request we were processing.

Q Do you know when the August 6th version of that paper was produced from the Census Bureau to the Department of Commerce?

A I do not.
Q Was it yesterday?
A I don't think so -- no. It definitely wasn't yesterday. It -- because I asked for a copy at the Department of Commerce on Monday, and I was given a copy with the August 6th date. I was expecting to see a copy with a July date. There's no difference between them, other than some grammar mistakes that have been corrected.

Q I want to show you a document that you talked about at your last deposition. This was a short version, I think, of the analysis we were just talking about. It was the first Abowd Deposition Exhibit 4, marking it as Exhibit 11 for this deposition.
(Plaintiffs' Exhibit 11, Analysis, was marked.)

BY MR. HO:
Q I want to turn to Page 7 of this document, Bates number 5506, and I want to ask you about Table 5 and the description of Table 5. Take a look at it, and let me know when you're ready to talk about it.

Oh, I'm sorry. I said the wrong table.
I meant Table 6, and the paragraph right above Table 6, which I believe describes Table 6.

A Okay.
Q The analysis depicted in Table 6 is a longitudinal analysis, right, Dr. Abowd?

A That's correct.
Q And that means it's an analysis of data that was gathered from the same subjects repeatedly over a period of time, right, Dr. Abowd?

A Same subject households, yes.
Q So just to put it in plain English, a longitudinal survey is, basically, a survey that is administered periodically to the same households in this case, right?



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featuring a citizenship question at a higher rate than did citizens, then that suggests that noncitizens are more sensitive to a citizenship question and might fail to respond to a survey with a citizenship question at a higher rate than citizens; is that right?

A So the nuanced answer to your question is that it is suggestive of that. In these kinds of survey situations, we can't design the gold standard randomized controlled trial for which the precise hypothesis that you stated would be the one you could precisely test. So the questionnaire does include a citizenship question. It includes lots of other questions, as well. And subject to that caveat, the conclusions that you drew about the difference between Wave 1 and Wave 2 participation -- sorry, response rates -is correct. BY MR. HO:

Q And the Census Bureau agrees with the authors of the white paper that this longitudinal analysis is suggestive of the notion that
noncitizens are more sensitive to a question about citizenship and less likely to respond to a survey featuring a citizenship question, correct? Vague; MR. EHRLICH: Objection. Form. Compound

THE WITNESS: The Census Bureau considers the evidence from the SIPP to be consistent with the other evidence that we have examined suggesting that households that either contain a noncitizen or contain at least one person for whom we do not know the citizenship status are more sensitive to questionnaires that include questions about citizenship status.

BY MR. HO:
Q There are other longitudinal studies conducted by the Census Bureau featuring a question on citizenship, right, Dr. Abowd?

A Yes.
Q For example, the Current Population Survey, CPS, is a longitudinal survey conducted by the Census Bureau featuring a citizenship question, correct?

A So that's not technically correct. The
current population's survey frame is only longitudinal in the sense of the selected housing units, not in the sense of the selected persons who are in those housing units. So the interviewer's instructions are to go back to the same physical address, and whoever is living there gets interviewed.

Q So it's fair to say, though, that it's longitudinal survey of the same household's units and that it -- correct?

A Housing, not household.
Q Okay.
A That's precisely what I'm trying to correct.

Q Got it.

So the CPS features a citizenship
question, correct?
A Yes.

Q And it's a longitudinal survey of the same housing units, correct?

A The survey is longitudinal. The citizenship question isn't.

Q The citizenship question does get asked periodically in the CPS, correct?

A I'm going to take the opportunity to correct something from my --

Q Uh-huh.
A -- testimony earlier where \(I\) was showing my age.

Early in my career, I used the CPS a lot, and early in my career, the citizenship status question only appeared on supplements. They were called the immigrant supplement. Beginning in 1994, the question is asked every month, but is only asked of a respondent once. And so the next time the interviewer goes to that household -- we call it dependent surveying -- if the survey form indicates that you're talking to the same person who answered before, then a number of questions, including the citizenship question, aren't asked again. So it's not longitudinal on the citizenship question in the same way that the SIPP in the era being examined here would be longitudinal.

Q Just so \(I\) understand correctly, if someone responds to the CPS, the first time, they get a citizenship question, correct?

A So the CPS, like the American Community Survey, accepts the responses for every member of the household from a single respondent.

Q Uh-huh.
A And so if -- if the -- and they're categorized by numbers that refer to the -- to the respondent. If the next time that housing unit is in the sample, the same family, technically household, and members are there, then the question is not supposed to be asked about someone for whom the survey already has the data.

Q So the household receiving the CPS survey questionnaire is absent any change to the composition of the household only supposed to be -- ask the citizenship question once?

A Month and Sample 1 -- and I didn't review the field procedures for what happens if Month and Sample 2 through 8 enumerator -- the interviewer finds a different household there. But Month and

Sample 1 is when you're supposed to be asked the nativity question and citizenship.

Q And you're not supposed to be asked the citizenship question again on a subsequent CPS survey unless the composition of your household changes?

A That's my understanding from the summary of the field instructions, yes.

Q If we looked at the CPS in a way that was similar to the analysis in this white paper of the SIPP, and we compared the rates at which different subgroups dropped out of the CPS survey, say racial or ethnic minorities or noncitizens, for example, and compared that to the rate at which other subgroups dropped out of the CPS, would that be suggestive of sensitivities to survey with a citizenship question in a manner similar to the dropout analysis of the SIPP respondents in the white paper?

MR. EHRLICH: Objection. Form.
THE WITNESS: You can't do an analysis of the CPS data that is strictly comparable to the
analysis that's done in Table 6 here. So there is no way in which \(I\) can say if -- I don't know how to interpret if you did something similar here. If you show me an analysis that was actually done on the CPS data, I could understand where the components came from and \(I\) might be able, at that point, to assist in interpreting those numbers. BY MR. HO:

Q Okay. Let's - - I'm not asking about something exactly comparable to the SIPP analysis here, but if \(I\) took a group of CPS respondents at Time 1, and then \(I\) looked at the same group of CPS respondents at Time 2, and I noticed, for example, that noncitizens dropped out of the CPS at a higher rate than did citizens -- so similar to the SIPP analysis here -- would that be suggestive of the notion that noncitizens are more sensitive to a survey question about citizenship?

MR. EHRLICH: Objection. Form.
THE WITNESS: As you have stated the question, you're, again, doing something that you can't do with the Current Population Survey, so I
don't know how to answer your question.
A housing unit doesn't drop out of the Current Population Survey, though it could be destroyed, in which case there would be a field report that the housing unit doesn't exist anymore.

BY MR. HO:
Q But a housing unit can have -- can refuse to respond to the CPS, correct?

A That's correct.
Q So forget that \(I\) said drop out. Let's just talk about refusal to respond.

If I look at Time 1 and I compare response rates to the CPS, and I look at Time 2 and \(I\) look at refusals to respond, right, and \(I\) see that noncitizens or noncitizen households refuse to respond to the CPS at Time 2 at a higher rate than did citizen households, would that be suggestive of the idea that noncitizens are more sensitive to a citizenship question than --

A You can't do that experiment either.
Q Okay.
            A It's a housing unit --
            Q I think I understand.

A You don't know who is in the housing unit when you go the second month and second sample. That's the point I'm trying to make.

Q I think I understand.
A Okay.
Q All right. Let me try this again. Time 1, right, we have a group of CPS respondents. Some housing units have a noncitizen, some housing units do not have a noncitizen. Time 2, the share of respondents to the CPS from the housing units that at Time 1 had a noncitizen has shrunk. Would that be suggestive of the notion that noncitizens are more sensitive to a citizenship question than are U.S. citizens?

MR. EHRLICH: Objection. Form. Vague; confusing
THE WITNESS: Replace Time 1 and Time 2
with Month and Sample 1 and Month and Sample 2. If you look at statistics for Month and Sample 2
for households for Month and Sample 1 that identified as citizen versus for households for

Month and Sample 1 that identified as noncitizen and you found differences in the Month and Sample 2 statistics, that would be as similar as you could construct to the hypothetical in Table 6 of the working paper we're talking about. BY MR. HO:

Q And would that analysis -- if I showed that Month and Sample 1 housing units that featured a noncitizen responded at a lower rate at Month and Sample 2 than the households that at Month and Sample 1 were all citizen households, would that be suggestive of greater sensitivity of noncitizens to a citizenship survey question? MR. EHRLICH: Objection. Form. Vague; Confusing THE WITNESS: That would have an interpretation similar to Table 6 in the working paper, yes.

BY MR. HO:
Q Now, during your last deposition, do you remember talking about the acronym \(\mathrm{C}-\mathrm{A}-\mathrm{P}-\mathrm{I}\) or CAPI?

A Computer-assisted personal interview,
yes.

\section*{(Conference call interruption.)}

BY MR. HO:
Q CAPI is, basically, a nonresponse
follow-up for the ACS; is that right?
A As of right now, that is correct.
Q Okay. And what --
A That is the field technical technique used for nonresponse follow-up in the ACS.

Q Okay. And what it means is you send, basically, a census employee out with some kind of personal handheld computer device to try to get an answer to the ACS from a household that didn't respond; is that right?

A That's correct.
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Q Okay. Now, the SWAT team that did the
white paper that we talked about earlier,
conducted a stratified analysis of the CAPI
response rates breaking census tracts into deciles
from those with the -- the lowest percentage of
household with the noncitizen to those with the
most; is that right?

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A If you're going to ask me about one of the analyses that's in this early draft, I need to know which one.

Q Sure.
A If you're going to ask me about something else, I need to have my memory refreshed as to what you're asking me about.

Q I understand. I don't think it made its way into that version of the white paper.

A Okay.
Q But my understanding is that at some
point, the SWAT team looked at CAPI response rates
and they compared census tracts to a stratified analysis, deciles -- percentage -- a household -census tracts with the lowest percentage of households with a noncitizen and -- you know, from 1 to 10 , those with the greatest percentage of households with a noncitizen, and compared the CAPI response rates. Does that help refresh your memory?

A You've refreshed my memory to the point that \(I\) acknowledge that an analysis was done in
which tracts were stratified by decile. But I would like to review what it is you're asking me about, because I don't remember specifically what the stratifier was and what the response was. I've had to look at a lot of documents over the last several weeks. I simply am not sure what the exact analysis is you're asking me about.
(Plaintiffs' Exhibit 12, Tables, was marked.)

Q Okay. Let me show you a document. It's been marked as Exhibit 12. It's a series of tables. The first page on the document is AR10408.

And I'm looking at the third table, the CAPI response rate. Now, this table shows an analysis of census tracts broken into deciles from least to most percentage of households with a noncitizen comparing CAPI response rates; is that right, Dr. Abowd?

A Yes. I don't recall exactly how the tract deciles were determined, but they are from least to most noncitizen. That's right.

\section*{Q So one is the decile of census tracts} with the lowest percentage of households with a noncitizen. Ten is the decile of census tracts with the largest percentage with households with a noncitizen, correct?

A That's correct.
Q And, basically, what that means is, as you go from 1 to 10 , the percentage of households in a census tract increases, correct?

A Percentage of households with a noncitizen.

Q Noncitizen, sorry.
And when we look at -- just to take one number from the table -- for the loth decile, year 2016, the CAPI response rate is 87.4, bottom right corner of the table. What does that mean for the CAPI response rate to be 87.4 for that decile census tract?

A I'm going to check with the author of this table on the next break to make certain that the CAPI here means only the nonresponse follow-up that was followed up by computer-assisted personal

22
interview. We sometimes lump Internet self-response in, but \(I\) don't think that was done here, because Internet self-response is by itself separately, and it didn't start until 2013.

Q Uh-huh.
A And up until 2016, you could also be followed up with CATI, computer-assisted telephone interview. So I think I've told you correctly, that this is nonresponse follow-up computer-assisted personal interview.

In that case, it means that the subsample of nonrespondents that was selected for nonresponse follow-up in the ACS were successfully followed up with the percentages indicated in the table.

Q So just to be clear, the subset of non- -- of households chosen for nonresponse follow-up on the ACS for the tenth decile in 2016, nonresponse follow-up on the ACS was successful 87.4 percentage of the time?

A That's correct.
Q Now, if we look at this table, correct,

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that the Bureau found that nonresponse follow-up for the ACS has declined each year for each decile; is that correct?

A That - that seems to be correct.
Q Okay. And is that consistent with the notion that citizenship has become a more sensitive question on surveys since the year 2010?

A One of the reasons that this particular analysis doesn't appear in some of the technical papers that were relied upon by the larger group of senior executives at the Census Bureau in drawing their conclusions, is that the internal peer review of this particular analysis suggested that there were enough qualifications to that conclusion that many of them were unwilling to make it.

You correctly characterized the trend lines, that there were changes to the design of the survey that occurred here and there were also potential other differences that -- that many of the people who looked at this found qualifications that -- so that's the right conclusion. But it
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isn't a conclusion that the Census Bureau,
speaking collectively for the people who peer
reviewed this analysis, would have jointly made.
Q I understand there are caveats, but
notwithstanding those caveats, is the decline in
successful nonresponse follow-up for the ACS since
2010 suggestive of the notion that citizenship
questions on surveys have become more sensitive
since 2010?

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    A It's consistent with that interpretation,
    yes.
    Q It also appears that in each year, as a
    census tract has greater percentage of households
    with a noncitizen, that nonresponse follow-up,
    generally, is less successful. Would you agree
    with that?
    A Yes. It's consistent with that
    interpretation, as well.
    Q Okay. So is it consistent -- is that
    data consistent with the notion that noncitizen
    households are less likely to cooperate with
        nonresponse follow-up to the ACS?
        Veritext Legal Solutions
        215-241-1000 ~ 610-434-8588 ~ 302-571-0510 ~ 202-803-8830
A So we didn't -- well, if we did a difference-and-difference analysis of this table,
suggested.
Q But as a census tract gets a greater
percentage of households with a noncitizen, generally speaking, nonresponse follow-up in that census tract is less successful, correct, Dr. Abowd?

A Is less successful than?
Q Than it is for a census tract with a lower percentage of households with a noncitizen?

A You're asking me do the numbers go down when the deciles go up, and that's correct, yes.
Q Now, I believe when you testified at your last deposition, when you were talking about the CAPI analysis, you described something like a spreadsheet that had all the tables that you looked at which had been cleared for release by
the disclosure review board. Does that ring a bell?

A My testimony rings a bell, yes.
Q Do you believe this was the table you were referring to during your deposition -- or these set of tables?

A I believe so. As it turns out, it wasn't in the same collection of spreadsheets \(I\) thought it was, but \(I\) believe this was the table I was referring to, yes.

Q Has the Census Bureau looked at the 2017 CAPI data?

A Someone in the Census Bureau may have. This team has not yet analyzed the 2017 data.

Q Do you know if the 2017 CAPI data shows a continuing trend of less successful nonresponse follow-up to the ACS?

A I don't know. The production data from the 2017 ACS won't be ready until september, and so it's not until after those data have been generated that you can generate a column that's comparable to these columns from 2017.
Q Has the census Bureau, in response to
this analysis or for any reason, taken any
measures specifically to address the lower success
rate of nonresponse follow-up in census tracts
with higher percentages of noncitizen households?
MR. EHRLICH: Objection. Form.
could point to any specific activity that would
have been explicitly stratified by this decile
analysis. The declining response rate is a
general problem, and we attempt to manage field
operations in a manner that is consistent with
keeping those response rates up. In fact, one of
the reasons we switched to Internet self response
American community survey has not been increased
in the Acs was in an effort to increase the
voluntary response rate. so -- so, generically,
we're, of course, interested in keeping the
response rate high. It's a mandatory survey, but
voluntary or self-response is a critical cost
control factor.
in proportion to the cost of living, so we don't
have the same resources to do nonresponse
3
4
follow-up. So we focus on -- we focus on those
4 things that are going to get the total nonresponse
5
follow-up
BY MR. HO:
Q But has -- sorry.
Has the Census Bureau done anything to
try to address the lower rates of nonresponse follow-up success in areas that have higher percentages of noncitizen households?

A I believe I just said that I'm not aware of any activity specifically correlated with -explicitly correlated with these indicators.
Q Thank you. Sorry.
Just a few other quick questions. You're
familiar the acronym of C-S-A-C or CSAC?
A Yes.
Q And that stands for Census Scientific
Advisory Committee?
A Yes.
Q And the members of CSAC advised the

Census Bureau director of issues, including the statistical data collection and survey methodology?

A Field operations, time series analysis, yes.

Q So they advise the Census director on the topics that \(I\) mentioned, and others?

A That's correct.
Q The members of CSAC are appointed by the Census Bureau director; is that right?

A No. The Census Scientific Advisory Committee is chartered by the Department of Commerce. The Census Bureau -- so you are nominated in response to a Federal Register notice. There is one now open through October 26th, I think. So you have -- you have to be nominated through that process, but you can self-nominate, so anyone can be nominated. Then the nominations are reviewed by a committee within the Census Bureau. Most -- all of the directors are represented. My recollection is that most send their associate directors, that's somebody at
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my rank, but some will send a specialist. And
then the director conveys to the Department of
Commerce a set of recommendations to fill a
vacancy. It's the Department of Commerce then
decides to whom to extend that invitation.

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Q Is it fair to say that, generally speaking, CSAC members are highly regarded as social scientists by the Census Bureau?

A Yes.
Q You're familiar with former Census Bureau director John Thompson?

A I have met Dr. Thompson. Mr. Thompson, excuse me.

Q Fair to say that the Census Bureau has a high opinion of Dr. Thompson as a scientist?

A It is Mr., and yes.
Q Fair to say the Census Bureau considers him well versed in standard Census Bureau testing practices?

A Yes.
\begin{tabular}{|c} 
Q Has the Census Bureau contracted with any \\
private companies or \(P R\) firms to conduct research
\end{tabular}
on public attitudes with respect to answering a citizenship question?

A The Census Bureau has awarded the integrated communication contract for the 2020 census. Under task orders associated with that contract, the CBAMS -- I expanded the acronym earlier - - the CBAMS surveys and the CBAMS focus groups were conducted. They were conducted by the contractor, who \(I\) believe satisfies the definition of an external expert on collecting survey opinion.

And after the secretary instructed us to put the citizenship question on the 2020 census, the focus group protocol was modified to begin collecting information on it, but it was not time to modify the survey protocol.

Q Who is that external contractor?

A So the lead contractor is
Young \& Rubicon.
Q Has the Census Bureau contracted with a company named Reingold to conduct research on public attitudes with respect to answering a
citizenship question?
Reingold spelled \(\mathrm{R}-\mathrm{E}-\mathrm{I}-\mathrm{N}-\mathrm{G}-\mathrm{O}-\mathrm{L}-\mathrm{D}\).
A I do not know whether Reingold is a subcontractor in the integrated communication contract. If they are, then the answer could be yes. I'm not aware of another contract, but I will check during a break.

Q Okay. Does the Census Bureau think that adding a citizenship question to the 2020 enumeration questionnaire is a good idea?

A No.

said you were going to check on a few things at lunch, and I just wondered if there was anything in particular that you wanted to offer any detail about that you were unable to -- for which you were unable to do earlier?

A Yes. First of all, let's go to the easiest one. Reingold is a contractor for the Census Bureau.

Q Okay. What are they a contractor for?
A They're in -- they have one of the decennial communications contracts. I have requested a summary of the task orders. I haven't received it yet.

Q Do you know what work they've performed for the Census Bureau?

A That's why I asked for a summary of the task orders. I do not.

Q Do you know if there are any documents reflecting the work that Reingold has done for the Census Bureau?

A I didn't ask that. I will at the next break.

field period.
BY MR. HO:
Q Thank you. And this would have been the only testing of the 2020 decennial questionnaire with a citizenship question in it, correct?

A This is the only field testing with and without citizenship question, directly analyzing the citizenship question that we have considered at the Census Bureau.

I also verified that the 2010 census questionnaire had full cognitive and field testing. That the 2020 questionnaire without the citizenship question had -- so I asked him the same way you asked me, was adequately, cognitively tested; yes.

Q I'm sorry. Who did you ask whether or not?

A I asked my staff -- the same group that I had been asking generally about the testing, I specifically asked about the cognitive testing for the 2020 questionnaire, with and without the citizenship question, and their answer was that it
was adequately tested with the citizen- -- without the citizenship question, but not adequately tested with the citizenship question, cognitive testing.

Q Thank you.
A Okay.
And, thirdly, in this table, Exhibit 12, the third panel, the CAPI response rate, I confirmed, so \(I\) can now say the way the tract was put into deciles was based on the five-year American Community Survey for the middle five years of the table, so 2011 through 2015. That the CAPI response rate is just the CAPI response rate in the nonresponse follow-up system, okay.

I think those were all the things we had unresolved. If you think there were others -- we went over our notes, but \(I\) think I've answered the questions that that were unresolved.

MR. HO: I don't have any others right now, so I'm going to pass you along to one of the other lawyers for one of the other plaintiff groups, subject, of course, to the issue that I've
raised earlier about wanting to potentially ask you questions about the documents produced last night. But thank you very much.

THE WITNESS: You're welcome.
VIDEOGRAPHER: We're going off the
record. The time on the video is 1:08 p.m.
(Off the record.)
VIDEOGRAPHER: We're back on the record. The time on the video is 1:09 p.m.

EXAMINATION BY MS. SHAH:
Q Good morning -- afternoon, Dr. Abowd. My name is Niyati Shah, and I represent the plaintiffs in Lupe \(v\). Ross in the District of Maryland, Case Number 8:1801570.

I'd like to just kind of start today by giving you a document, first, and we can mark it as Exhibit 13. It is Bates-stamped 4802 .
(Plaintiffs' Exhibit 13, PowerPoint, was marked.)

BY MS. SHAH:
Q And this is a draft PowerPoint from February 2018 titled submission of the 2020 census
and American Community Survey questions to Congress. If you could turn to Page 4804 , and it has a slide and some presentation notes below the slide, and notes towards the bottom say that, "Requests undergo legal review of the justification by DOC; technical review by the Census Bureau; and policy review by DOC and OMB." I'd like to put aside technical review for a moment, and can you tell me what a legal review is?

A A legal review means whether there is any statutory basis - first of all, let me preface with I'm not a lawyer -- my understanding as a senior executive at the Census Bureau who makes use of the legal review is that they are examinations of statutory basis for the request and the potential for any statutory bars from the request.

Q And who conducts this review?

A So the Census Bureau uses the legal staff of the Office of the General Counsel and Department of Commerce. A number of their
attorneys are assigned to us, I believe, full time. They have their offices in the Census Bureau, but they're on the staff of the General Counsel's office and the Department of Commerce.

Q And when is a legal review conducted in the process?

A My hesitation is not because I don't have an answer. It's because I don't completely understand what you're trying to --

Q Sure. Sure. So as we mentioned, there is a legal review, a technical review and a policy review, correct?

A Right.
Q Do these happen simultaneously? Do they happen in some sort of sequential order?

A Okay. Usually, they happen
simultaneously. A legal review can be ongoing while operational decisions are still being made.

Q And to clarify, the legal review, the technical policy -- technical review and the policy review can all happen simultaneously?

A The -- they can. The policy review is also a process conducted outside Census Bureau, and certain parts of it are governed by legal requirements. So the requirements for a submission package to the Office of Management and Budget to get a clearance number so that you can actually conduct a survey under the Paperwork Reduction Act, that has timelines.

And, generally speaking, leading up to that, there are Federal Register notices that gather comments, and they have requirements, as well. So when we say the policy review, we mean the whole process of gathering public comment, preparing a clearance package, submitting the clearance package, responding to the comments on the clearance package, and then act in accordance with the clearance that we're giving.

Q Understand.
So was a legal review done for the Justice Department's request to add a citizenship question?

A It is my understanding that a legal
review was done, yes.

Q And specifically by whom?

A In this case, that legal review was not shared with the senior executive staff broadly. I haven't seen it.

Q Do you know why it wasn't shared?

A I do not.

Q Was it shared by -- was it shared with Dr. Jarmin?

A I don't believe so. I did forget to ask him. I'll ask him on the next break.

Q Okay. And I would also ask if you can ask if Dr. Lamas saw it.

A I'll ask who saw it.
Q Thank you.

And do you know when it was finally
completed?

A I do not.

Q And how is it generally documented, the legal review?

A If someone at the Census Bureau has requested an opinion, one of the attorneys in the

Office of the General Counsel prepares an opinion and conveys it to the person who asked.

Q And in this case, did the Census Bureau ask for a legal review?

A My understanding is that the legal review was prepared at the request of Department of Commerce. I'll also check that.

Q And then can you -- can we go back to the policy review and can you explain to me who conducts it in toto?

A So within the Census Bureau, we coordinate the OMB policy review through our policy coordination office, which is headed by Robin Bachman. So it would be her staff's responsibility to ensure that the Federal Register notices have been properly prepared and that the clearance packages have been properly prepared. But, generally, it's the responsibility of the program funded to conduct the activity to do all the work, all of the substantive assembly work associated with doing that. Or in the case of when you get comments back, processing the
comments and developing answers to them.
Q And has -- has the policy review been completed for the citizenship question?

A So immediately after our submission to the Secretary and Congress -- our submission to Congress via the Secretary of the proposed questions for the 2020 census and the continuing American Community Survey questions, a Federal Register comment period was open that closed on August 7th.

Q Uh-huh.
A So that's the initial comment period on the state of the 2020 census and specifically opened up after the questions are delivered to Congress. They closed on August 7th. There were over 250,000 comments submitted. We are -- so those will be handled by staff in the decennial census directorate. They will be charged with putting the comments that are not in the format where they can be posted on regulations.gov into the correct format, and then characterizing them in a manner such that the Census Bureau can
address them in preparing the clearance package for the 2020 census, which we anticipate submitting in October.

The clearance package itself will also have a comment period of 30 days. So at the end of that comment period, we will have to collect up the comments on the clearance package and address them, and then Office of Management and Budget will make a decision about whether to issue that famous eight-digit number that we can't ask a survey of without that clearance number.

Q Okay.
A We are trying to get the clearance number by the end of this calendar year.

Q And each of these reviews yield a recommendation or an answer to what -- to the issue that has been presented to it?

MR. EHRLICH: Objection. Form.
THE WITNESS: So we discussed the technical review already, so you know what was in there.

I do not know the contents of the legal
review.
In terms of the policy review, the obligation at this stage of the policy review is to correctly describe what you intend to do and permit stakeholders to comment on it and then to address those comments and then prepare the clearance package according to the requirements of the Office of Management and Budget. And that generally involves a back and forth between the staff preparing the clearance package and the staff -- the very small staff at the Office of Management and Budget who review these clearance packages, to make sure that the package essentially contains what that clearance staff at OMB expect it to contain. And if there are going to be any issues surrounding that, those are generally discussed before the clearance package is sent. And the clearance package, when it is sent, is generally sent in the form that the Office of the Chief Statistician expects it to be in.

Q And when there is a request for a
question and there's a recommendation during one of these three reviews against that question, does a question become part of the decennial census form?

A The difficulty in answering that question is that it presumes that on December 12 th, there was a process in place to address a request to put a question on the census -- the decennial census short form. To be perfectly clear, there wasn't. There had not been such a request in anyone's living memory.

And so when the request arrived, the decennial census directorate assigned its chief of its communication and relations staff, Burton Reist, to write what the procedure would be, first, to see if there was a preexisting procedure.

There was a preexisting procedure in the following sense. The Census Bureau has always considered the long form and the

American Community Survey to be an integral part of the census. It is not the short form actual
enumeration, but it is part of census. And so the process that we had in place for evaluating which questions would be on the long form dates from the creation of the long form. And it was inherited by the American Community Survey and modernized for the American Community Survey, and the way in which these bullets on this page -- page AR4804 describe the process as adaptation of the process that is in place and is used for questions on the American Community Survey.

Q But to go back to my question, this -- this process that we've just talked about, the three reviews that are on this page, 4804, if any one of those reviews advises against the addition of a question, does the question get added?

A So it would be more iterative than that. If a technical review revealed that it was going to be difficult to ask the question for some reason -- let's speak hypothetically -- then we would probably not prepare a clearance package supported by a technical analysis that says this
is not likely to work very well. The
Census Bureau would re-examine the use case for the particular request. If it's a -- if it's a specific agency of the executive branch, one of our principal statistical clients, we would work with that agency to refine the request. What we were attempting to determine is the least burdensome way of delivering statistics that are suitable for the purpose that we're being asked to produce them.

So in that iterative process, would attempt to identify a technically better way of addressing the data need. And, generally speaking, that -- in that iterative process, both the Census Bureau and the principal client -- all these data are going to be released for public use, so the principal client is acting as the agent of the general public in design of a product. If there was an agreement that this particular technical solution will work and it will meet the needs, then we would -- and then it would involve a modification or a question -- a
new question on the survey, then we would move forward with the questionnaire design and the testing that we would normally do, and we would eventually get to the point where a clearance package would be sent forward.

There might be some other regulatory barriers. There are lots of -- I shouldn't say lots of. There are several very specific categories of data that statistical agencies and other agencies of the federal government collect that are governed by regulations of OMB. And so if the request involved something that inherently meant you had to modify or update one of those standards, then that would also come into play. And those standards are regularly modified and updated, and there, the Office of the Chief Statistician takes charge of creating the relevant working group, preparing the modification, doing the Federal Register notices on the modifications. So if you have to modify the standards before you can produce a survey instrument, then that process would happen.

This would all basically go on simultaneously, but no OMB clearance package would be sent to the Office of the Statistician prior to doing the ground work that the chief statistician is known to require before she, in this case, would approve the clearance request.

Q So did I understand you correctly that the clearance package has not yet been submitted to OMB with regard to the citizenship question?

A The clearance package for the specific forms for the 2020 census has not yet been submitted to OMB.

BY MS. SHAH:
Q I'm going to hand you what's Exhibit 14, and I only have two copies, because they're very large. I'm going to have this marked as Exhibit 14, which is statistical quality standards from the Census Bureau.
(Plaintiffs' Exhibit 14, Census Bureau statistical quality standards, was marked.) BY MS. SHAH:

Q Are you familiar with this document?

A Yes.
Q Do you follow it?
A The Census Bureau conducts its production of statistical and other information products according to these standards, yes.

Q And who has to follow it?
A All -- so it defines the types of products that are covered by the -- by the standards. And essentially, all outward-facing products, which would be official statistical products, special tabulations, research papers, the reports of activity -- information summaries that accompany the releases of principal monthly indicators and the 2017 ACS when it's released in September, so both the information products that are used for the general public and the detailed information product that you're releasing are subject to the standards.

Q And -- but what \(I\) meant was -- I'm sorry if \(I\) was unclear -- was, do all census employees have to follow the guidelines set forth in this document?

A So the guidelines are Census Bureau quidelines, and the employee, in the conduct of his or her job, when preparing an information Mroduct covered by the standards, that's what \(I\) just explained, would be expected to abide by standards, yes.

Q And what about the secretary?
A The Secretary is not bound by the standards.

Q And we talked about some of the products that this applies to. Does it apply to the decennial census questionnaire?

A Yes.
Q And, more specifically, the citizenship question, as well?

A Yes.
Q So is it fair to say that the Census Bureau has to follow these standards when they develop and design survey questionnaires?

A It is fair to say that every information product and statistical program within the Census Bureau is expected to follow these
standards? Yes.
Q And if you can turn to Page 5 of this document -- and it's a large one, so, you know -- when we're talking about Requirement A16, which says that, "Quality control checks must be performed to ensure the accuracy and completeness of the program plans including, among other things, survey designs."

Does this requirement apply to the decennial census questionnaire?

A Yes.
Q And what does it mean, survey design?
A In this -- on Page 5, it has a very broad interpretation. We might sometimes call it the lifecycle design, all of the components that go into executing a -- an information product, including, to be frank, a case where there's no actual survey --

Q Uh-huh.
A -- but it's the design of an information product.

Q And has this quality check been done for
the citizenship question?
A It is the view of the senior executive staff at the Census Bureau that the citizenship question has been adequately tested. It is clear from the timeline of that -- of the Secretary's decision that it couldn't have been subjected to all the testing that the rest of the questionnaire has been subjected to. The question itself has been through cognitive testing. The question itself has been used extensively in the American Community Survey. We made the decision when the request from the Department of Justice came that the only way we could respond to that request would be to use the pre-existing American Community Survey question. There simply wasn't time to engineer the -- a decades' worth of tests. We thought it would be inappropriate to tell the secretary that we cannot put the question on the census because we have not had a decade to test it.

So our standards permit us, in the situation where because of either time or
budgetary constraints we have to make a decision to use a question that has not been conducted in -- tested in the context it's going to be used, our standards permit that exception.

Q Okay. Let's -- I have two follow-ups. Let's back up. And I understand that you said that the quality check -- has it been done for the census questionnaire that includes the citizenship question? And I'm talking about the census instrument, questionnaire instrument?

A So until just a few weeks ago, the print version of that instrument didn't even exist in draft form. It now does. And the Internet self-response of that instrument won't exist in draft form until sometime in September. So instruments that don't exist, can't have been tested in their complete form.

Q But was the 2020 census questionnaire that was used in the 2018 end-to-end test, had that questionnaire instrument been subjected to a quality check?

A So that questionnaire was approved -- I'm
sorry. Let me -- that questionnaire was designed and being engineered to include a combined question on race and ethnicity under a long negotiation with the Office Of Management and Budget as to whether or not the 1997 standard for the collection and publishing of race and ethnicity data would be modified. It was our expectation until roughly the end of 2016 that that standard would be modified in a timely fashion. The Office of the Chief Statistician had a working group. The working group had a draft. The draft had been through multiple revisions. In anticipation of that draft become the new standard, we used the research from the decade to engineer -- to test and engineer a combined question, and that was the question we intended to ask on the end-to-end test.

Shortly before December 31st, on December 2st, to be exact, the acting director instructed the 2020 census staff to replace the single -- the combined question with a two -- two-question ethnicity first, race second OMB '97 compliant
version. And so over the course of several days, the Internet self-response instrument was reprogrammed and the artwork for the mail-back -- mail-out/mail-back form was modified to include the two-part question. That two-part question was taken from the last tested version in the two-part question in the 2015 National Content Test. That was all done very quickly and on direct instruction from the acting director.

Shortly after the New Year, the executive steering committee and the operating committee of the Census Bureau were informed, and on January l7th, the secretary was informed by the director -- by the acting director.

So that's -- so that's a case where the questionnaire was modified at the last minute and the specific form that was sent into the field had never been tested in its complete form. And we were aware that that's -- that should be unusual, and it was unusual. However, the explicit objectives for the end-to-end test were to test the integration of -- I just memorized these
numbers -- for 35 -- no, sorry -- 44 of the 52 systems and 20 of the 35 operations of the census. We've renumbered them a couple of times and I came late to the number management. I'll check those at the break. I'm pretty sure I got them right.

So testing the integration of our systems is a different kind of operational test from the kinds of controlled trials that we usually do when we run content tests. This was not a content test. It had to have content to be a real test, but it wasn't a content test. It used content that had been previously tested, although not all on the same form.

Q And then you mentioned that when there are time constraints, you don't have to necessarily conduct all of those quality checks. Do you have to ask for a waiver for that?

A It is customary to ask for a waiver.
Sometimes the request for a waiver comes after the fact.

I chair the committee that hears the waiver requests, and \(I\) know there was no waiver
request for the end-to-end test. The waiver would have been granted. And I think the distinction here between an operational test and a statistical test is material. The standards do apply to operational tests, but we do not intend to make any statistical inferences from the data produced by the operational test. They're also going to test data to be evaluated in terms of their compliance with the layouts, formats and expectations of the users over what's going to be in the cells.

So the vast majority of the standards are designed to protect the scientific integrity of the inferences that you make from the data that we release. Since we didn't tend to make any inferences from the end-to-end test like that, I'm certain the waiver would have been granted, but I also know it was requested.

Q But the quality check isn't done just at the end -- just as part of the end-to-end test, am I correct?

A Oh, that's right. Yes.

Q So was a waiver for a quality check obtained in the question -- in this instance? Sorry.

A So the answer to the question whether a waiver was obtained for any part of the end-to-end operation is no.

The question that \(I\) heard was, should a waiver have been obtained because of the quality variation over the -- over the life of the -- of the survey? Let me also say that these are quality standards that bind the agency, but a sitting director and a sitting acting director can instruct the staff to do something and they're expected to do something. And while we would expect a sitting director or acting director to check whether there was a standard, there was a lot of urgency here. So the next methods and standards meeting would have been after the whole decision process was made.

But the quality of the process by which we conducted the end-to-end test was extensively peer reviewed inside the Census Bureau by the
standards -- by the processes that had been put in place to remain compliant with these standards.

Q Again, I want to be clear. I'm not asking just with respect to the end-to-end test. I'm talking about the census survey.

Does that have to -- for the 2020 census, was the quality check requirement waived?

A There was no need to waive the quality check requirement for any component of the end-to-end test, that I'm aware of. The standards are designed to make sure that we develop and put in place products that have been properly tested and then produce data that are suitable for their use, usually inferences.

I agree with you -- I have to agree that a rapid modification to a survey instrument that is then put into the field, when the data coming out of that survey instrument are expected to be used for inferences is problematic with respect to these standards.

Q Okay. Let's move on to Requirement A-2.3. I believe it's on Page 8. It says, "The
data collection instrument and supporting materials must be pretested with respondents to identify problems, e.g., problems related to content, order, context, effects, skip
instructions, formatting, navigation and edits, and then refined prior to implementation based on the pretesting results."

Do you agree this requirement is
important and it should be followed?
A Yes.
Q Do you agree that the order and context of questions can affect the quality of responses?

A Yes.
Q And if pretesting -- I'm sorry.
And then formatting and navigational experience of respondents can affect the quality of responses?

A Isn't that what you just asked me?
Q Well, I said -- I think that there -that -- so I think the navigational experience probably applies more specifically to an Internet survey instrument.

A Could you read back her precise question? (Thereupon, the reporter asked counsel to rephrase.)

BY MS. SHAH:

Q So I'm just going to ask both sets of questions again.

A Would you mind pointing --
Q Sure.

A -- on this page, and be careful of her coffee.

Q On Page 8, it's right, Subrequirement A2-3. 3 .

A Okay.
Q So my first question is: Do you agree that the order and context of questions can affect the quality of responses?

A Yes.
Q And that the formatting and navigational experiences of respondents can also affect the quality of responses?

A Yes.

Q And then \(I\) want to direct your attention
towards the bottom of the page where we're talking about A2-3.3 Number 2C. It's at the very, very bottom. And it says that, "If pretext" -- that "it should involve respondents or data providers who are in the scope of data collection. Pretesting must involve respondents or data providers who are in the scope of the data collection, and it must verify that the questions, among other things, are not unduly sensitive and do not cause undue burden."

So if pretesting had been conducted for the citizenship question, the pretesting could have verified that question was not unduly sensitive?

MR. EHRLICH: Objection. Form.
THE WITNESS: Testing was conducted for the citizenship question. I've said that repeatedly in two depositions.

What precise testing are you asking me about?

BY MS. SHAH:
Q Well, the -- is it correct that the

Census Bureau conducts testing throughout the decade preceding the decennial census?

A Yes.
Q Would such testing reveal
whether -- would that be considered pretesting?
A Yes.
Q And would such testing reveal whether a question is unduly sensitive?

A Yes.
Q And if so, responses collected from a survey or testing aren't used for data production, would you say that that question can be construed as unduly burdensome?

MR. EHRLICH: Objection. Form. speculation
THE WITNESS: I think you just asked me if you collect an item and then you don't use it to tabulate anything, is that undue burdensome? Yes.

> BY MS. SHAH:

Q And would the Census Bureau run -typically run pretesting to identify issues with order, context or formatting?

A Yes.
Q And did it do so with -- in the context of order, context and formatting to the citizenship question?

MR. EHRLICH: Objection. Form.
THE WITNESS: If you're asking
specifically with respect to the questionnaire for the 2020 census, no.

BY MS. SHAH:
Q And if we can go, actually, back a page, to Page 7, and look at Requirement A2-2, it's at the top of the page. It begins that -- a plan must be produced that addresses four different requirements, and I want to go through each requirement separately.

If -- "The plan must address program requirements for the data collection instrument and the graphical user interface or GUI, if applicable."

Does this requirement apply to the 2020 census paper questionnaire?

A Yes.

Q And to the Internet self-response instrument?

A Yes.

Q And was a plan that addressed this requirement produced?

A A plan to address this requirement is being developed.

Q By whom?

A The 2020 staff in conjunction with other parts of the Census Bureau who normally cooperate with them.

Q And when will that plan be completed?

A So you can look to the 2020 program management review where we will present what the development of the questionnaire in its paper and Internet self-response form. We will allow our usual stakeholder groups to comment on them. We will demonstrate the Internet self-response instrument. We will demonstrate that nonresponse follow-up instrument. We will only be able to do testing within the development of moving into production for the 2020 census. But the modified
forms will be tested to the extent that they can be in those contexts. The plan is basically the operational plan for the 2020 census. So as the components come to readiness -- so we finish the end-to-end test. We have to process what we learned in the end-to-end test. We have to bring the additional operational components into the integration. As those steps are being completed, we will make our quarterly presentations on the progress of the 2020 census, and that includes progress on designing, testing and implementing the new form.

Q Let me step back. When is this requirement -- this plan, rather, is it produced during -- for the decennial census, particularly, in general, at what period of the planning process is this plan produced?

A So in the -- in the lifecycle of the 2020 census, there have been multiple versions of such plans. The -- there's an overarching design of the census which has a plan that says we're going to try to reduce the cost of address canvassing by
doing much more of it in the office. That plan was laid out very early in the decade. I was not associated with the 2020 census at the time, nor management, so I'm not sure exactly, but around 2012 or '13. It was substantiated in the first operational publication in 2015. I did see that as of my current role.

So as that part of the plan, we had a plan to promote self-response by developing Internet self-response. We had a plan to reduce nonresponse follow-up by integrating administrative records into the process, and we had a plan to modernize the dissemination.

So those were high-level plans. And when they go down in the organization, they get instantiated into very detailed project management charts. The decennial program operates with formal review of all of the components of that plan as they evolve over the course of the decade, including the addition of the citizenship question.

So the staff in the Census Bureau,
associated with the different components of the 2020 census are modifying their research plans, their implementation plans, their evaluation plans, incorporating the fact that we have been instructed to put a citizenship question on.

For a small survey, I'd be able to say, well, the plan was done in May of this month and then it was reviewed -- it was determined that no waivers were needed and it was taken into the field. But that's pretty unusual data product. A bigger agency does a big data product. So there's no specific date for these.

That was a long winded. Sorry.
Q And then the next one is that this plan has to address supporting materials needed for data collection.

Is that also currently being developed?

A Yes.

Q And - -

A And was developed for the end-to-end test. Was developed for the 2017 test. Was developed for the 2016 test. Was developed for
the 2015 National Content Tests. There were separate evaluations of all of those materials.

Q And can supporting materials include things like questionnaire instructions?

A Yes.

Q What about language-assistance materials?

A Yes.

Q And promotions or advertising materials?
A Most of our data collection programs don't have communication campaigns associated with them -- special communications. We have an ongoing one that's the whole Bureau. The 2020 census does have a special communication campaign. So specifically for 2020 , there would be a special communication campaign being developed.

Q And then we've talked a little bit about this already, but it also has to address the pretesting of the data collection instrument and supporting materials.

Has that been done here for the 2020 census?

A Within the time constraints of the

Secretary's decision, the different components of the 2020 questionnaire have been pretested. They will get their first test in their presumed form some time after those forms are ready. It won't be an extensive field test. We have neither budget or time for that. The last chance for that was probably before March of 2018.

Q So for the full 2020 census questionnaire, which would include the citizenship question, has there been a waiver requested for this requirement?

A So -- we don't think we need a waiver.
Q Okay.
A And this is not a piece of legislation. It's operating principles for the agency. So an example for a census that would request a waiver is the economic census in 2012. The economic
census is a survey-based instrument. It's not an enumeration.

So the standards say that when you release the data from an economic census, since it was a survey, all the data items have to be
accompanied by a margin of error. They weren't. So the 2012 economic census did request a waiver for that because that's a clear indication from the Census Bureau that a piece of quality information that we expect to be produced couldn't be produced.

In this operational context, our
standards allow us to ask the professionals at Census Bureau in a consensus form, do you believe this has been adequately tested, given the time and operational and financial constraints? Our conclusion is that the citizenship question has been sufficiently tested to not require a waiver.

Q Okay.
A The Office of Management and Budget can disagree, and it can refuse the clearance package without further testing of the specific form that we intend to go to field with. That is within their authority. And were they to do that, we would, obviously, have to do something in order to come into compliance. But at the moment, we do not feel that question needs a waiver for testing

\section*{reasons.}

Q So let me ask you a separate question. Secretary Ross, in his supplemental memorandum, stated that he began considering the citizenship question when he first started, and I'm paraphrasing here. If you had known that, then at that time, could the citizenship question have been added to the end-to-end testing?

MR. EHRLICH: Objection. Form.
THE WITNESS: If the Secretary had asked us to test the citizenship question in -- after his arrival in the Department of Commerce, we could have engineered one into the end-to-end test, yes.

BY MS. SHAH:
Q All right. I think we're done with this document for the moment.

We talked a little bit earlier
about -- or you had talked earlier a little bit about the race and ethnicity question. And is it correct that the race and Hispanic origin or ethnicity question for the 2000 census short form
changed from the 1990 census short form?
A I looked at those this morning. Yes.
Q And they changed in that they -- the 2000 census short form changed in that it asked both the race and ethnicity or Hispanic origin question for everyone and not just the race question; is that correct?

A Now I'd have to look at the form.

Q Let me --

A It changed, basically, because the 1997 regulations were in place for the 2000 census. And one of the reasons why the 1977 [sic] standards were modified was because of the difficulties with the race and ethnicity question on the 1990 census, but \(I\) don't remember the skip logic in the 1990 census.

Q I'll give you a document that may help you refresh your recollection, and I think we can mark it as 15. And \(I\) don't have many copies of this but let me give that to you.
(Plaintiffs' Exhibit 15, Census 2000 brief, was marked.)

\section*{Page 183}

BY MS. SHAH:
Q So if you look at page -- first page, right column, towards the bottom, it says the --
(Thereupon, the court reporter
clarified.)
Q "For Census 2000, the questions on race and Hispanic origins were asked of every individual living in the United States."

Does that refresh your recollection that this question was for everybody -- both questions were for everybody and not just --

THE WITNESS: For 2000 , I knew that. It was 1990 I asked you about.

BY MS. SHAH:
Q No. I'm sorry if I misspoke. Then I meant just for the 2000 ?

A I knew 2000 was asked of everybody.
Q So is it also true for the 2000 census the placement of the race and ethnicity questions was changed such that the ethnicity question was asked before the race question?

A The ethnicity question is asked before
the race question because of the studies that were done in the decade in between, yes.

Q And then you said that the testing was done. When was the testing done?

A Leading up to the 2000 census, there were a sequence of content tests designed to refine the form of the questionnaire. I think it was the 1996 one that did the specific test on the form of the race and ethnicity question.

MS. SHAH: Can we take a - can we go off the record and take a quick break?

VIDEOGRAPHER: We're going off the record. The time on the video is 1:59 p.m.
(Off the record.)

VIDEOGRAPHER: This begins Media
Number 4. The time on the video is 2:21 p.m. We are on the record.

BY MS. SHAH :

Q So we were just discussing the 2000 census. I'd like to just talk very briefly about the 2010 census.

Is it true that the Census Bureau
considered adding a question on ancestry in conjunction with the race and Hispanic origin question for the 2010 census?

A It is true that the intercensal tests for the 2010 census included some experimentation on ancestry questions -- ancestry components to those questions, yes.

Q And is it true, also, that the Census Bureau also assessed the use of ancestry data -- data for editing and imputing missing data for Hispanic origin and race as part of the 2005 National Content Test?

A I will have to ask whether it was part of the 2005 National Content Test. It is the case we experimented with information like that for our --
(Thereupon, the court reporter clarified.)

THE WITNESS: Our edit and imputation routines.
(Plaintiffs' Exhibit 16, 2005 National Content Test, was marked.) BY MS. SHAH:

write in here anything else you want to tell us.
MS. SHAH: I'm going to, actually, leave it at that. I'd like to go off the record so we can switch questioning from another questioner.

VIDEOGRAPHER: We're going off the record. The time is 2:24 p.m.
(Off the record.)
VIDEOGRAPHER: We're back on the record. The time on the video is 2:26 p.m.

> EXAMINATION BY MR. TALIK:

Q Good afternoon, Dr. Abowd. My name is Karun Tilak. I'm counsel for the plaintiffs in Kravitz, et al., v. United States Department of Commerce, et al.

I just wanted to follow up on something you said earlier this morning. I think you had testified that the Census Bureau is obligated to use available data instead -- where available, instead of imposing the burden of adding a survey question.

Is that a fair summary of your testimony?
A It's close. I said specifically that if
we asked a question and then didn't use it because we had administrative data, that that would be unnecessary burden.

Q Would it be an unnecessary burden if you had administrative data but you still decided to ask the question?

A So we often have administrative data and we ask the question. Administrative data and survey data have different properties. It's a balancing act.

Q When did the Census Bureau begin preparations for the 2020 census?

A Some of my colleagues would answer 1790 . As a practical matter, the staff is put in place to begin developing preliminary plans at about the time the current census is going into the field. And then the office in charge of the 2010 census was put in place in 2002, I believe.

Q So it takes at least a decade to prepare for the decennial census?

A The preparation for decennial census is continuous and the next one is in preparation
before the last one ends, yes.

Q And over the course of that time, the Census Bureau administers a series of tests to prepare for the decennial census, correct?

A In modern history, that's correct.

Q Let me clarify. I'm speaking
specifically about the 2020 census as it administers a series of tests in order to prepare for the 2020 census.

A All right. \(I\) thought, initially, you asked me about the 2010 census. Was that question also about the 2020 ?

Q About 2020 , correct.

A The 2020 had an associate director about the same time as the 2010 census was in the field and the office was put in place in 2012 .

Q And now - - approximately how many tests has the Census Bureau run in order to prepare for the 2020 census?

A '12, '13, '14, '15, '16 and '18, six.
Q And some of those years, have there been multiple tests?

A We often lump them together, but yes.
Q And did -- was 2017 a year where testing was conducted?

A Yes.
Q So, basically, every year since 2012?
A Yes. -- wrong -- not 2019. There's no operational plan test. There will be testing. There's -- testing is continuous. We're talking, really, about these formal designed tests that usually have an RCT component to them, but not always.

Q And why does the Census Bureau run this series of tests to prepare for 2020?

A In a modern business, when you develop a tool that you're going to use for your flagship product, you're usually going to use it continuously. So in a modern business, there's a continual improvement and implement phase.

For the census of population, that tool is going to be used exactly once. So you can't guess how you're going to do it. You have to take the accumulated knowledge from the last times you
did it, multiple decades ago, and predict what the environment's going to be like when you're starting about a decade forward, and try to balance the likely budget that you will get. You'll only know the early part of it. You won't know the -- with the goals -- the goal has consistently been the -- an accurate actual enumeration, but the goals have been expanded. So the current census also has the goal to collect the race and ethnicity data that are used to enforce civil rights laws. So the social goals have to be incorporated, and they change.

So it's -- it -- the Census Bureau doesn't have the option of using the continuous improvement model. So it has to simulate that by having something that is a first roughed out one and then doing continuous improvement on that and then scaling it at -- we used to call the test that we just completed a dress rehearsal. We don't call it an end-to-end test. You scale it right after that.

Q So these tests help you simulate what the
decennial census environment might be like, correct?

A They help you predict the quality of the instrument and the cost of the operations to implement it and collect and process the data.

Q And would you agree trying to count more than 300 million people across the country is a fairly complex undertaking?

A Yes.
Q So the Census goes through these multiple years of tests in order to make sure it get things right for the 2020 census, correct?

A Actually, we hold ourselves to a higher standard. We like to do them better than we did them last time.

Q Because the decennial census is a once-in-a-decade event?

A It is authorized in the Constitution.
Q And we discussed testing, at length, earlier. Is one of the purposes that testing is used for to develop predictions about field operations?

A Yes.
Q And particularly options for - operations for nonresponse follow-up?

A Among other operations, yes.
Q And is it okay if \(I\) refer to nonresponse follow-up as NRFU going forward?

A I'll recognize it if you call it NRFU.
Q Okay. Are the tests used to help project, for example, staffing levels for NRFU operations?

A They're used to help refine the projections. They're usually our early on projections that are based on the most recent census and then they're refined.

Q How are they refined?
A So the relevant history is the post-war history of the census, and that is the era in which we moved from the primary operational mode is you send an enumerator into a space that is defined by a physical area, and you ask that enumerator to find every domicile or other place where people can live, and then after finding
those domiciles, to count the number of people that are there and to collect other information about them.

We moved from that mode to asking the residents of the United States to supply that information for themselves in a manner that would allow us to control whether we had received information about a particular physical address. So the field operators are different in those two. There really -- it wasn't really NRFU before there was NR to follow up.

Q So just talking about the 2020 census, have these tests been used to project the number of NRFU enumerators that the Census Bureau may need to hire?

A Yes. They have been used along with other data to do that projection.

Q What is the other data that's been used?
A Historical practice, feedback from the field office and tests for the various forms of the operational control systems.

Q And when were those tests for the
operations control systems performed?
A So every time we do a test, there's an operational control system. So it's a component of the data that we gather in order to revise our estimates of how much effort is going to be needed at each phase of the census.

Q And have these tests over the last several years also been used to project the number of census offices that the Census Bureau will need to open up for the 2020 census?

A They have been used to revise the area census office plan, yes.

Q Have these tests been used to test the adequacy or the amount of training that enumerators will receive?

A Yes.

Q And have these tests been used to test NRFU - - methods of NRFU contact with households?

A If I rephrase your question, have they been used to test a variety of NRFU protocols and modes, yes.

Q Have these tests been used to -- in
relation to the census questionnaire assistance telephone service?

A Yes. Not all of them, but some of them.

Q Which tests have been used for that purpose?

A So I will have to review which of the tests included a CQA. That's what we call it, census questionnaire -- census questionnaire assistance, which is the telephone component. The end-to-end test did. The 2015 National Content Test did. I can't remember whether the 2017 test did or not.

In the next break - - I have notes on this. I'll just - f fleshed short-term memory, so I'm not sure. Some of them did and some of them didn't.

Q And is it accurate that the census questionnaire assistance service is there for people to ask questions that they might have about the 2020 census questionnaire?

A So the goal of the CQA is to get to the point where during what we call peak operations,
once we mail out the invitation to take the census, that we would be able to take a call load that would support a large proportion of the population making inquiry, expect to actually enumerate a nontrivial fraction of the household directly on the CQA.

Q By enumerate, you mean get people to respond to the census over the phone?

A The training for the CQA operators is to ask early on in the contact, would you like us to just do it right now, and then begin the telephone-administered instrument.

Q And has the testing program for the 2020 census been used to project the call load that might be expected for that peak operations period?

A It has. And so has the question -- the equivalent operation for the economic census, which is a field mode.

Q Has the testing program since -- the testing program for the 2020 census been used to test the role of administrative records in reducing the NRFU workload?

    January 19th memo?
time are discussed in the memo, yes.
Q And since then, are there any other ones that have been done?

A There are more extensive ones that have
been done in the full version of the technical
paper that was developed after the memo was
written.

Q Is that the document that was just
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would be, but that would be another form of
indirect inference. There was no citizenship
question, but there were environmental factors
that intervene.
Q Besides that, are there any other

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    sources?
    A None that I'm aware of.
        Sorry. From our test operations.
        Q And so to the extent that any tests
    conducted to date have been used to project the
    number of offices that the Census Bureau will open
    in 2020, those projections would not have
    accounted from the citizenship question, correct?
    A In general, that's correct, yes.
    Q And to the extent the tests were used to
    test the adequacy or amount of enumerator
    training, they would not have accounted for the
    citizenship question, correct?
    A That's correct.
    Q And the same question with respect to the
    testing of NRFU protocols. To the extent that
    testing has been used to test the adequacy of
those protocols, they would not have accounted for the citizenship question, correct?

A That's correct.
Q And the same question with respect to the census questionnaire assistance. To the extent the testing was used to develop a projection about call loads for peak operations, those projections would not account for the citizenship question, correct?

A That's correct.
Q In light of the Secretary's decision to
add the citizenship question, will the
Census Bureau conduct any testing on the impact of
that question on staffing levels?

MR. EHRLICH: Objection. Form.
THE WITNESS: It's hard to imagine what kind of testing we might do, other than on a relatively small scale. However, we are working closely with the integrated communication campaign, which the Secretary has recommended increasing the budget to 500 million. They are developing messaging and other tools that we fully
expect to use, both with the general population and with specialized groups, like enumerators. BY MR. TALIK:

Q But there has been no testing on the need for -- let me rephrase that.

There has been no testing on whether the citizenship question will require -- require the Census Bureau to increase staffing levels for 2020 ?

A I think I've already said there hasn't been in direct testing.

Q Sure.
A We have the time, from now going forward, to accumulate additional information. If the only testing that you mean is randomized controlled trials, \(I\) don't believe there will be one of those.

If you mean the kind of testing that modern advertising firms do in developing a media campaign, that's just rolling out, and there's going to be a lot of that conducted between now and the start of the media campaign, and we're
> already using that forum to collect additional information.

Q And what kinds of tests are you referring to with respect to developing a media campaign?

A So in the development phase of that contract, we conducted the Census Barriers, Attitudes and Motivators Study, CBAMS, which had both the survey and the focus group component. The survey was -- instrument was closed before the Secretary's decision, so it was not modified. But the focus group's were not closed. They were in process when the Secretary made his decision. So we conducted 42 focus groups and 30 of them were conducted after the citizenship question was added to the 2020 census. And the focus group protocols were modified in a manner that kept them comparable to the focus group protocols from the ten that were conducted before that -- to gather specific information about the effects of the citizenship question.

Q Besides the CBAMS focus groups, are there other tests that the Census is already doing or
plans to do?
A So we will small scale test the paper form, the Internet self-response form, the address canvas training, the NRFU training, and the other components that have been modified by the introduction of the citizenship question. Exactly the form in which we will conduct those tests and how much budget we will have to do it is not fully determined.

That testing is not in the lifecycle cost estimate, other than as it would have occurred in -- on a routine basis. So every new version of the Internet self-response instrument gets tested and every new version of the paper form gets tested, but they don't all get the full battery of tests we've discussed, which tests haven't occurred to date on those forms.

Q Just to clarify, has the Census Bureau committed to doing these tests or is it a question of how much budget is available?

A You will see in the overall plan that in this phase, when we -- when we finish integrating
the systems and we ramp them to scale, that there are testing phases. We envisioned them testing a substantially complete instrument, but they'll now be testing an instrument that has had a major revision and we will use that opportunity to learn about that revision. We will probably not conduct a randomized controlled trial in that set up because that involves modifying those same operational control systems in order to be able to do it, and that's precisely why Acting Director Thompson asked the American Community Survey Office to see what such a thing would cost, because that doesn't involve intervening in the scaling of the operational.

But there's all kinds of testing periods in there, in both the software development cycle and the hardware or paper development cycle. We will use those testing periods to get experience with the instrument and to do the kinds of qualitative testing that's feasible in that environment. And the cost for that is in the budget. It would be modifications like
randomization something -- randomization is surprisingly more expense than you realize, including me when \(I\) first got into a position where I could randomize.

Q Besides CBAMS, is there a specific test for which the form has been decided that the Census Bureau will undertake related to the citizenship question?

A Not that I'm aware of.
Q And when does the Census Bureau intend to make a decision about the form of these tests?

A So what has happened is the different components of the Census Bureau with expertise in this, have been consulting with the operational program attempting to provide them with feedback on how this kind of -- this kind of testing can be done without disrupting the timeline. That's a good question to pose at a quarterly program management review. Because when you do, then from out of the woodwork come the different ways in which that has happened. I'm not aware of any specific way in which that has happened
immediately, but \(I\) am aware of the conversations that happened and the oversight that occurs with those conversations. So when people propose that, then their plan gets rush vetted. So I expect to see modifications to the testing procedures so that we can make sure that the -- the things that are under our control get more testing.

Q But, so far, there has been no outcome of that consultation in terms of a specific testing plan for the citizenship question?

A So far, the results from the CBAMS focus groups have been directly fed back to decennial, and the new training materials are being developed and those are an input to them.

So although we have to work fast, we're not so bureaucratic that we can't process new information when we get it. We have to have the opportunity to get it. The CBAMS focus groups were the opportunity -- the first opportunity to get some fresh information.

Q Now, independent of testing, does the Census Bureau intend to increase staffing levels
for the 2020 census in light of the citizenship question?

A That decision hasn't been made. We do believe that the baseline nonresponse follow-up staffing levels won't be sufficient. And we have a projected incremental cost that is within the contingency for the field operations, but the precise control of the contingency fund will depend on the form of the '19 and '20 appropriations --
(Conference call interruption.)
THE WITNESS: I think -- I had
it -- could you read me back the last thing I said, please?
(Thereupon, the reporter read the record as requested.)

THE WITNESS: In the 2018 appropriation, the Secretary directly controls the \(\$ 50\) million contingency. So he will have to release to us some of that money to cover incremental costs incurred in this fiscal year. And however the appropriation is written in '19 and '20 will
determine what process we have to go through to get funds from the contingency released.

I don't have direct experience with the way that happened in 2010, but most of those contingencies were never released, so it might be the case that no one had to ask, how do we get the contingency released? But \(I\) believe there was a known process in 2010. There will be a known process for the 2020 census, but that's going to be embodied in the Appropriations Act.

And so if it is the current process, the way the '18 appropriation is written, then we would go to the Secretary and say the nonresponse follow-ups are running past budget. We need an extra allocation, and he would have the authority to release that allocation from the contingency fund. In the current lifecycle cost estimates, the contingency fund for the field portion of the census is over \(\$ 400\) million.

BY MR. TILAK:
Q And you said he would have the authority to release those funds. Would he be required to
do so?
A So if you mean legally required, I'm going to decline to answer.

Q Do you know for 2010 whether he was required to release contingency funds?

A I will check on the next break. I believe the director had the authority to release the funds in 2010, but I'm not certain.

Q And you mentioned an estimate of the incremental costs. Was that the \(\$ 27.5\) million you calculated?

A That was the estimate on January -- in January of this year. Our current estimate is 91.2 million.

Q And is there a document that contains that estimate?

A You got it last night.
Q And I think you mentioned that as of now, your belief is that current NRFU operations are insufficient. Did I get that right?

A What I said is I believe we will need additional NRFU resources based on current
research, yes.
Q And those would be resources you would have to ask the secretary for under the contingency program you described?

A Under the current management of the contingency funds for the 2020 census, the Secretary has the authority to release them.

Q Does the Census Bureau have any plans to increase the number of census offices it will open in 2020 in light of the citizenship question?

A The area census office plan has not been revised.

Q Are there plans to revise it?
A Not that I'm aware of. The agency's answer to that question is no.

Q Is there a final date by which the 2020 census questionnaire has to be finalized?

A The agency's answer to that question is we expect to finalize the questionnaire by June of 2019, the paper form. That's the - - in current operational plan, that is the due date -- the due month for the final artwork.

Q And is that the date on which printing of the questionnaire will begin?

A When you deliver the final artwork, then the printer starts to implement it.

Q And is that also the same month in which you would have to finalize the Internet self-response instrument?

A There is more flexibility for the Internet self-response instrument. So we don't -- sorry. I'm blanking. There's an industry term for the software development system that we're using for the software components of the 2020 census, and it will come into short-term memory, but it probably will by the time \(I\) finish this answer.

In that timeline, what would happen if we -- in that timeline, the instrument will be in the form where we expect to be able to scale it after the sprint that ends in the middle of September. So that means that the software is in its -- in the form in which you then move into test readiness and then production. So -- but it
was also like that well before the end-to-end test, and we were able to modify it on short term. So the modification of software can be done under different contingencies. The modification of the print can be done under different contingencies, too.

Q Can you expand on that, modification based on contingencies?

A Well, if the 2019 or 2020 budget is passed, instructing us to modify the paper form and funding that modification, then we will modify the paper form and the Internet self-response form and meet the schedule. We can be instructed by law to change something, even on a very short notice -- most things can be changed on short notice if they're adequately funded.

But in the current lifecycle cost estimate and with the current schedule, we expect to finalize the print form in June of 2019 and send it to the printer, and we expect to have the internet self-response instrument in software test form, meaning ready to be integrated into the
system, in the middle of next month.
Q Going back to the paper questionnaire,
under the current budget, if there are changes to
the paper questionnaire after June of 2019 , would
that impair the census Bureau's ability to timely
administer the 2020 census?
A Without appropriate funding adjustments?
Q Under the current cost estimates and
budget?

A Under the cost estimates and budget, yes.
Q Has the Bureau developed an estimate for how much additional funding it would need to timely administer the 2020 census if the questionnaire is modified after June of 2019?

A We do not have well-articulated lifecycle cost estimates for such a contingency.

Q And for the Internet self-response instrument, is there a drop-dead date by which it has to be finalized in order to timely administer the 2020 census under current cost estimates and budget?

A Under current cost estimates, it should
go into test readiness preparation in mid-September, get the appropriate scaling tests that are planned for the next several months after that and then go into the production environment.

Q And is that september of 2019 or 2018?
A That's next month, yeah.

Q September 2018?
A Yeah.

Q So under current cost estimates, if the Internet self-response instrument was changed after next month, the Census Bureau would need additional funds in order to be able to timely administer the 2020 census?

A What we would have to do is adjust the timing of the lifecycle cost estimate. Again, there are contingency funds.

And so, perhaps, \(I\) should clarify my earlier answer. When we say within the budget, we mean without going into the contingency. Whenever you go into the contingency, then you do what it takes. We do not think that modifications of the Internet self-response instrument would take us
outside of the contingencies, but they would take it outside of the planned budget.

Q How much is that contingency fund?
A So I only reviewed how much it was in the overall and the -- in the peak field operations, it's just over 400 million, and, overall, I believe it's about 1.2 billion. It might be 1.5 billion. I will check that.

Q And you said the current estimate for additional NRFU operations was 92.1 million?

A 91.2 million.
Q Got it backwards. I apologize.
And you said for the paper questionnaire, the Census Bureau does not have a well-articulated number for the additional costs if a citizenship question -- if the questionnaire was modified after June of 2019, correct?

A If it's modified after our -- after we send artwork to the printer, we do not have a well-articulated cost estimate.

Q And does the Census Bureau have a well-articulated cost estimate for the increased

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cost if the Internet self-response instrument is changed after next month?

A We don't have a well-articulated one, but we actually -- that would be easier to do, because that's similar to what happened to the -actually, we changed the print form for the end-to-end test with the scales. The scale is so different for the end -- the scale is not the issue with changing the Internet self-response program. It's the sequence of tests you put new software through before you deploy it.

Q Right. But as of now, there's no specific estimate --

A That's right.
Q -- of any of those costs?
Is there a deadline by which the Census Bureau needs to translate materials for the 2020 census into foreign languages?

A So all the deadlines that we're talking about for the final preparation of the print form apply to the languages we're going to have on the print form, and that's just English and Spanish.

All of the deadines associated with the Internet self-response instrument -- I've been discussing the ones for the English language. The ones for the 12 languages that will be implemented in are on a different schedule, but \(I\) don't know it offhand.

Q Is that deadline later than June of 2019, do you know?

A So the translation occurs simultaneously, but the implementation in all of the languages doesn't occur simultaneously.

Q Is there a deadline by which the Census Bureau needs to finalize materials for enumerator training for the 2020 census?

A Yes.
Q What is that deadline?
A I don't know, but it's in -- it's in the operational plan. I'll look it up for you.

Q Is that --
A Most of these deadlines are in the late -- Version 3 of the 2020 operational plan, which is a very long document that \(I\) do not have
memorized.

Q You mentioned that was Version 3. Do you know when that was published?

A Late 2017.

Q Is there going to be an updated operational plan released?

A I'll ask that question. I don't know.
But there is an answer to that question.
Q And so the various deadlines that the Census Bureau needs to meet are contained in that operational plan, correct?

A The timeline is, yes.
Q Switching gears a little bit. When
someone fails to self-respond to a census questionnaire, the Census Bureau has certain other methods of getting that information, correct?

A Yes.

Q NRFU is one of those methods?
A NRFU is the generic term for all of the methods that we use when we don't get a self-response. When we don't get a self-response to the contacts that happened before, we turn on

NRFU -- we sometimes -- we do get self-responses after NRFU, too, and we still call them self-responses.

Q Sure.
So is visits by an enumerator to a household that has failed to self-respond one of the methods that the Census Bureau can use to enumerate that household?

A Yes.
Q Are proxies another method the Bureau can use to enumerate a household?

A Proxies are part of the protocol when the field enumerator visits a domicile -- housing unit. The field enumerator is instructed to try to get someone who lives there to answer the form. And then on the third or more try, failing that, to get someone nearby who says that they had information about people who live there and to get as much information from that proxy respondent as the proxy respondent is willing to provide.

Q So a proxy is only sought out after an enumerator can't reach someone in a household
after three tries?

A So the protocol that \(I\) know is protocol that was in place for the end-to-end test. These protocols do get revised, but the protocol that was in place for the end-to-end test is that when the enumerator was being assigned to the third visit or more at a household, that -- that follow-up visit was proxy enabled. So the instructions said if you fail, try to find a proxy.

Q In addition to NRFU -- in addition to visits by an enumerator to a household or proxies, are administrative records another method that can be used to enumerate a household?

A Yes.
Q And, finally, is whole person imputation a method that can be used to enumerate a household?

A Whole person imputation is done in conjunction with the NRFU determination of occupancy status.

Q Can you clarify by what you mean by that?

A It's a part -- it's a part of the field operation to determine whether an address exists, and if it exists whether anybody -- whether anybody could live there. So it should be classified as a housing unit, not something else. And then whether anybody does live there. And the nonresponse follow-up will include an enumerator determination or sometimes an enumerate- -- administrative record determination of vacant or occupied. If that's all we know, then there are whole person imputations.

In addition, if all we know is the count, then there are whole person imputations for the characteristics of those people. But we only impute the count when the only piece of hard information we have is occupancy status.

Q And so you would impute if you know that a unit is occupied but you don't know how many people live there or any other characteristics of those people?

A That's correct. Yes.
Q And that would only occur if those people
had not self-responded or you could not enumerate them through a household visit or through proxies, correct?

A So that occurs after the sixth, in the current protocol, nonresponse follow-up. The enumerator is charged with getting any credible information about whether somebody lives there or not.

Q Now, besides those methods that we just discussed, household visits, proxies, administrative record, and imputations, are there any other methods that the Census Bureau uses to enumerate a household that has not self-responded?

THE WITNESS: Could you read it back to me, please?
(Thereupon, the reporter read the record as requested.)

THE WITNESS: No.

BY MR. TILAK:
Q And you mentioned that the maximum number of household visits was six; is that right?

A In the current protocol.
\(Q\) And is that the same maximum number of visits across the country?

A So the training protocol is the same, but in the actual operations of a census, the area supervisors have discretion. And that discretion extends to sending an enumerator out for an additional visit but it also extends to sending multiple enumerators to the same place. So at that point, you don't actually know which contact visit that is until the enumeration of the field data comes back in.

Q Has the Census Bureau made any decisions as to where additional visits might be warranted?

A No decisions have been made.
Q And that's in the discretion of the supervisors in the field; is that right?

A Well, the first thing we're going to do is take the data from the end-to-end test and evaluate the efficiency of the field operational control system and the field performance. Those data may suggest modifications. Other analysis possibly engendered by the presence of the
citizenship question may make modifications.
Those modifications will have to be made relatively soon. The field operations actually start with address canvass and address canvases start next summer. So we don't have a lot of time. But the final forms of the training materials and the final onboarding of those activities hasn't happened. So we do have the scope to make modifications, and we are intending to analyze the data from the end-to-end test and other data as they became available to us in order to optimize that.

\section*{Q And the end-to-end didn't test} citizenship, right?

A There was no citizenship question on the form.

Q And these additional data you mentioned with respect to citizenship, those are possible small scale tests that the Census might do, right?

A What I said was that the focus groups from CBAMS were small scale tests and the in place testing of instruments would necessarily be small
scale. We do not have budget for a field experiment -- a field evaluation of a new instrument.

Q And you said besides CBAMS, the form of any additional test has not been decided, correct?

A That's right.
Q Now, are the area supervisors who have discretion to use additional visits, are they guided by any criteria?

A One of the goals for the 2020 census was to reduce field costs, primarily through using a modern vehicle scheduling system, so that's what we implemented. We have a modern vehicle rooting [sic] system at the heart of the operation -- the field operation control system. We call it the optimizer. And the optimizer performed very well in the end-to-end test. So that will give us scope to rely on the optimizer to get what amounts to the easy part of nonresponse follow-up done quickly and at low cost. It won't change our budget for nonresponse follow-up, so it will give us some scope to focus efforts where when we're in
the field monitoring the actual data, we can
detect variation from our expectation and we can
focus the resources there. It gives us the
capability to spend the money in the areas that
demonstrate they're problematic, rather than
having to plan to spend the money in the areas
that we think will be problematic. Those are
sometimes correlated and sometimes not.
Q And as of now, the Census Bureau doesn't
know which areas will be problematic, correct?
A So we use a tool called the planning
database that tells us historical estimates of low
response rate areas. And we are certainly using
that tool, and our targeted advertising campaign
is using that tool. But those are historical
data. We can't incorporate realtime field data
until there's a realtime field operation going.
Q And you said a household would be
eligible for proxy enumeration after three visits;
is that right?
A I did say that. We were discussing
various protocols. A household is actually
eligible for proxy enumeration via administrative records after one visit. So we call that an administrative record enumeration, and, technically, a proxy enumeration is where a neighbor filled it in and administration record enumeration is where these ad recs filled it in, but they're doing the same thing. They're substituting for self-response with a different form of enumeration, and they're eligible after one visit.

Q What records would be used to enumerate a household --

A The final decision on that has not been made. I prepared to describe the protocol to you, but the final decision on how the elements of the protocol will be substantiated has not been made.

Q If you could describe the protocol, that would be great.

A So in the protocol, we operate under a data sharing agreement with the Internal Revenue Service to incorporate tax returns and other information -- individual and household
information returns, along with administrative records from the Social Security Administration, from Medicare, from the Bureau of Indian Affairs and a few other sources, but I've hit the major ones.

From those records, we build an image of the household that we project to census date, April 1, 2020. And then we use more realtime information, like information returns from the current tax year and the U.S. Postal Services address sequencing file to isolate those addresses which we think are actually occupied by that household of persons around the census days for the test, that was April 1 of 2018.

When we determine that we have accurate information -- so we consider the self-declaration on income tax return for the household one source of accurate information, declaration of dependencies and other federal programs like Medicare, another source of information -- we determine that we have a household roster for that address, we then find a second -- and this is
current protocol -- federal source for every item on it, and we replace all the tax items with that source. If it wasn't a tax item, we compare the two sources and choose one according to protocol. What we now have is an administrative record enumeration of that household that does not depend on tax data. We copy that into the ad rec area of the 2020 census, and that is a household candidate enumeration -- candidate record for ad rec enumeration.

If in the operations of the census that address, MAFID, doesn't have a response, then it's triggered for nonresponse follow-up, and under the current protocol, a field enumerator goes to that address and attempts to get an interview. If that first nonresponse visit comes back unsuccessful, then the ad rec becomes the enumeration and the NRFU for that MAFID is turned off.

Q Is there a minimum quality requirement for that administrative record -- let me rephrase.

Is there a minimum quality requirement that the administrative record must meet before it
can be used to enumerate a household after just one household visit?

A Yes. There are multiple cutoff criteria that have been honed over the course of the decade and will probably be honed again from the end-to-end test.

Q And none of those tests have been used to hone these quality requirements, including the citizenship question, correct?

A That's correct.

Q What proportion of the NRFU population do you expect can be enumerated through administrative records?

MR. EHRLICH: Objection. Form.

THE WITNESS: In the current lifecycle cost estimate - - I'm going to check this on the break, because \(I\) actually know this is true for Version 2 but I'm not sure it's true for Version 3 - - that was 6 million households we expected to be able to enumerate with ad recs. BY MR. TILAK:

Q Has any research been done on the
differential availability or quality of these2 records for households with noncitizens compared(3) to the U.S. population generally?
A The research that has been done is
germane to that question, not necessarily because6 it's specifically looking at a citizenship(7) variable, but one of the things that matter is
8 quality of the personal identifying information in
9 the ad recs. And people who file income tax
likely to have useable PII. And that PII is the
Q So these indicative --
A I didn't mean favor. I'm very

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sensitive -- is going to more likely select
citizens.

Q So is that indicative that administrative records meeting the Census Bureau's quality requirements are more likely to exist for citizens than for noncitizen households?

A They are more likely to exist for persons who file -- persons and households that file an income tax return, and that is more likely to be the case for higher income people who are more likely to be citizens.

Q How about for racial and ethnic minorities, for example, Hispanics?

A So this is the reason why we use Medicare records, because that -- that is nearly exhaustive for the population over age 65. But, again, it's only if you have a Social security number that you're going to be eligible. So you have to be eligible for social benefits in the United States, and some noncitizens are and they're going to be in those records. They're also often eligible for State programs. And we did a plan to assemble

State records, but that's what's been evaluated
before we finalize which kinds of records we're

\section*{We're making a push to require SNAP}
records, Supplemental Nutrition Assistance Program
records, and we don't have them for every state, and we need to make a decision about whether -sufficiently complete that we will go forward. That decision hasn't been made.

Q Returning, briefly, to proxy enumeration. Will the default of three visits before proxy eligibility apply across the country?

A It -- well, the answer is in the current design, yes. But then \(I\) will say, again, that field staff have the authority from the very first visit to pile on, so they -- they can redeploy enumerators if they -- for example, if they deployed one early on in the process and our quality evaluation of that enumerator's work is going to cause that enumerator not to get any more work, the field staff can redo some of that.

And we do continuous quality control on a
sample, so that's going to involve additional visits, as well.

The six visits is the operational
guideline and the training and the expectation, but the discretion of the field staff and the discretion of the operational staff back at the census headquarters can modify that, even if the protocol was not officially modified.

Q And to date, are there any guidelines for varying the number of visits before proxy eligibility?

A I believe that there are not, but I believe that will be part of the end-to-end test evaluation, whether we should modify that.

Q And, again, end-to-end did not include the citizenship question, correct?

A That's correct.

Q Dr. Abowd, in the memos that you wrote - is that correct?

A That I supervised the preparation of.
Q That you supervised the preparation of, is it accurate that you found evidence of a lower
self-response rate in households with at least one noncitizen as a result of the citizenship question?

MR. EHRLICH: Objection. Form.
THE WITNESS: With respect to your question up to the phrase as a result of the citizenship question, yes.

As I explained in my previous deposition, this was a natural experiment and not a randomized controlled experiment, and so what you can test is what you have. So in our work that you're talking about, the two groups were everyone in the household is a citizen, according to administrative record, versus at least one person in the household is not a citizen, according to administrative records. There's a third ground that wasn't analyzed. That's everybody else. That's the group where there's a 5.1 percentage point difference between their self-response for a form that includes the citizenship question versus a form that does not. But that form that included the citizenship question also included other
questions.
BY MR. TILAK:
Q Is natural experiment an accepted method of research in social science?

A Yes.
Q Do you believe a decline in self-response rates in households with at least one noncitizen will result in a higher undercount for noncitizen households?

A We don't have any evidence to suggest that hypothesis is true.

Q Do you have any evidence to suggest the hypothesis is false?

A No.
Q So you just don't know, one way or the other?

A No. We think we know. We believe that the net undercount -- I put the net before your undercount, but I'm putting it there exclusively -- that the net undercount depends primarily on the energy and efficacy of the nonresponse follow-up efforts. That is a lesson
learned over multiple censuses where we have beaten that net undercount down by perfecting processes that get at least some information about the house- -- household -- housing unit.

The critical piece of information is how many people live there. So if you can determine that, then the rest of what's happening is you don't know anything about them, so the quality of the analyses you're going to do on anything other than the population count is affected.

And truth in discussion, we know that there's a differential in that undercount. We make active efforts to abate that, and we have no evidence that the differential undercount is related to the presence of a citizen question, but it is related to the macroenvironment when you conduct the census. And that's not something you can do a randomized controlled trial on.

Q Are you aware of any analysis or research looking at the relationship between self-response and undercount?

A Again, net undercount, no.
Q Net undercount, I will clarify that.
A Net undercount, no. And in preparation
for this deposition, I asked every expert at the
Census Bureau that explicit question, and I'm
responding with the agency's answer.
Q And is there any plans to conduct such an
analysis of the relationship between self-response
and net undercount in preparation for the 2020
census?
A Instead of just answering, no, I'm going
to explain why the answer is no.
Q Please do.
A That's a hard analysis to do on the net
undercount because of the way the net undercount
has to be estimated. It's not estimated household
by household with record level data, which is how
we performed the experiments that are documented
in the technical papers you've gotten, and how
bements of the census quality are analyzed,

\begin{abstract}
alternative estimates of the total population. One is developed by what's called demographic analysis and we only do that at a national level, although we do have some subnational controls in the demographic analysis, and the other is done by the dual-system estimation and we -- in the 1990s -- for the 1990 census and for the 2000 census, we did attempt to implement a dual-system estimation that would be capable of doing accurate dual-system estimation below the state level. But our current dual-system estimator is only accurate at the national. The state level estimates for the dual-system estimator are what statisticians call synthetic, what econometricians call estimated.

Q And earlier you had said that the ability to abate the undercount depends on the energy and efficacy of nonresponse follow-up; is that right?

Has the Census Bureau developed a budget of how much it would need to increase its nonresponse follow-up to address any decline in self-response as associated with the citizenship
\end{abstract}
question?
A So we have not yet formally modified any budgets. The \$91.2 million estimate that I gave you earlier is our current -- we should start there, because that's a conservative estimate. It assumes that households that are all citizens are going to respond the same way they would have responded in earlier surveys, and they may not be true either.

Q Yeah. What is the basis for that assumption, that households will respond in the same way as before?

A In social science, that's called the counterfactual. There's no basis for it. I state it because that's a maintained hypothesis that the other -- the hypothesis under test can be compared to. So if you don't make an assumption about the component of the hypothesis that you can't test, you can't interpret the component of the hypothesis you can accept in a randomized controlled trial.

So in a natural experiment, you have to
accept which things you can estimate and which things you have to make a hypothesis on. So making the hypothesis that households that contain all citizens won't change their response behavior, it's not making the prediction that they won't change their response behavior. It's allowing you to interpret the 5.1 percentage points or now it's 5.8 percentage points, and apply to a larger base in a proper manner. That's why I say it's probably an underestimate, because it's probably not a reasonable hypothesis that the households that are all citizens won't change their behavior, but we don't have any evidence.

Q So it's your view that that's not a reasonable hypothesis but it's the assumption?

A It's not a reasonable projection, let me say that.

Q But it's the assumption that you had?
A It's not a reasonable projection. It is the assumption in that analysis for the purposes of generating that budget number.

Q And if it's not a reasonable hypothesis,
is it a reasonable assumption?
A Sorry. You keep changing my words. I keep changing them back. I said you have to make a hypothesis, and it's the one we made. It's not a reasonable projection. That is to say, if you ask us collectively do we think that the self-response of all citizen households is going to stay changed in an environment where a controversial citizen question is on the census, we would say no, we expect that their cooperation would be expected, too. But we don't have any scientific evidence to do the sign or the magnitude of that, and we can't rule out the hypothesis that they would be more cooperative.

Q Is there any empirical evidence that they would be more cooperative, that you're aware of?

A I'm not aware of any empirical evidence for either side of it. I have consistently said that it was maintained or a counterfactual hypothesis for the purposes of interpreting the coefficients that you can estimate, and I've now said that it's not a reasonable projection, okay,
which is why we labeled it conservative.
Q Is there an upper bound -- you had mentioned 91.2 million being a conservative estimate. Has the Census Bureau come up with an upper bound estimate for the costs?

A In the lifecycle cost estimate, the current one, the stress testing of that estimate moved the nonresponse -- the percentage of households that had to go into nonresponse follow-up through a fairly wide range of variation, and then it's selected as the target cost estimate, the one that was at the 80 th percentile of the distribution. The exact parameters of that range aren't in the --in the final report of that -- but -- but the text says they put it through a wide range, and they put the other parameters of the system through a wide range. So the 80th percentile was used to generate the base budget and then the higher quantiles were used to generate the contingency.

Q Going back to nonresponse follow-up for a second, are you aware of analysis of the efficacy

Of nonresponse follow-up for noncitizen households versus the rest of the United states population?

A There is analysis in the Report GO1 from the 2010 census, which I know have been supplied.

Q Besides GO1, is there any other analysis you're aware of?

A There are components of that in the rest -- so the coverage -- Census Coverage Measurement Program, CCM [sic], for the 2010 census have data that allows one to look carefully at that, yes.

Q And does that analysis also look at the efficacy of nonresponse follow-up for Hispanic households versus the rest of the U.S. population?

A Yes.
Q And does it also look at the efficacy of nonresponse follow-up for households with limited English proficiency versus the U.S. population?

A I'll have to check. I don't think so. I think it uses variables that were collected in either the census or what's called the Census Coverage Measurement Survey for that, and language
proficiency would not have been one of those.
Q Now, if a household is only partially enumerated in self-response, supposing there are four people, and it only reports there's one person living in the household, does that household go into NRFU or is it marked as enumerated?

A It doesn't depend on just the number of persons who live here box. It depends on how much of the information we get about those persons, again, according to protocol, that hasn't been finalized. The -- the generic version of that formula would be: Do we know your name, do we know age or birth date and sex? So if we had substantially complete information, that's the definition of it, and we wouldn't send the household into nonresponse follow-up. We might send it into field quality control, but those are not targeted, based on the responses. Those are samples of the respondents that are -- they're basically generated to check that the enumerators are doing their job.


A Whole person substitutes.

Q Exactly. Yes.

A Okay. Because we also do whole person imputations when we know the count but we don't know anything else -- or limited amounts of stuff.

Q Focusing on if you don't know the count and you're trying to determine the count of individuals, the imputation -- or substitution - -

A So the algorithms that will be used in 2020 for the whole person substitutions have not been finalized. The algorithms that were used in 2010 were variations of hot-deck imputations.
(Thereupon, the court reporter Clarified.)

THE WITNESS: Hot-deck, hyphenated.

BY MR. TILAK:

Q Do you expect the protocols for 2020 or the algorithm for 2020 to be different from 2010?

A We have been actively experimenting with additional uses of administrative record as a substitute to for or compliment to hot-deck imputation, so it's a live candidate.
Q But no final decision has been made?
A No.
Q When does the Census Bureau expect to make a final decision?

A A necessary condition for a final decision is to have the processing software that the various files must move through in order to produce final estimates in place, and it's not. It will be in place -- it's not off schedule. It will be in place as the rest of the end-to-end test is completed. And then when you have that in place, you can actually start testing these things in the operational environment. They're currently being tested in a research environment, and that research has been going on for more than a decade.

Q Has any of that research looked at the accuracy of whole person substitutes for noncitizen households versus the rest of the U.S. population?

A No.
Q Has any of that research looked at the accuracy of whole person substitutes for other
hard-to-count communities as compared to the U.S. population?

A The research that was done with the 2010 Census Coverage Measurement studies included analyses of the components of the year-end census by characteristics like the ones you just recited.

Q And that's the GI - -

A That's the \(G\) series.

Q The G series may help us, okay.

Has the Census Bureau decided what geographical unit will be used for whole person substitutions?

A I'm not sure \(I\) know what the question means.

Q In general, when imputation is done - or substitution is done, does that rely on records from surrounding communities?

A The hot-deck imputation algorithms that were in place for the 2000 and 2010 census did use nearby records. Statistical imputation systems do not have to.

Q Is that still the plan for 2020?

A There is no plan for 2020. That is among the candidate algorithms.

Q So no final decision has been made?
A That's right.
MR. TALIK: If we could go off the record and take a short break.

VIDEOGRAPHER: This is the end of
Media Unit Number 4. The time on 3:40 p.m. and we are off the record.
(Off the record.)
VIDEOGRAPHER: This begins Media Unit Number 5. The time on the video is 4:04 p.m. We are on the record.

BY MR. TILAK:
Q Dr. Abowd, is there any empirical
evidence that someone who chooses not to respond
to this 2020 census because of the citizenship
question would respond in a face-to-face
interaction with a census enumerator?
MR. EHRLICH: Objection. Form. Vague
THE WITNESS: Not that I'm aware of.
BY MR. TILAK:

such that there are more likely to beadministrative records for citizens compared tononcitizens?

A I think that's a reasonable hypothesis. I don't actually have any empirical data to support it.

Q And this, finally, this whole person imputation, is there any empirical evidence on the accuracy of a whole person imputation for noncitizen households versus the U.S. population?

A So whole person substitutions and whole person imputations are not very accurate. We've documented that for multiple censuses, but we documented it most carefully for the 2010 census where we explicitly looked at it. We know that.

Q And so you would agree that --
A We don't count them as correct
enumerations, because we require that the characteristics be correct, not just the count.

Q So you wound agree with all the censuses procedures to try to enumerate a household, some people are always missed in the decennial census?

it says, "The correct enumeration estimate was \(284.67 \mathrm{million} \mathrm{people."}\)

The correct enumeration is the number of people who were correctly counted, correct?

A In the right place.
Q It then says the erroneous enumeration estimate was 10.04 million people. What -- what are erroneous enumerations?

A They consist of persons who are counted twice, duplicates, and persons who are improperly counted at the location that they were recorded at, so not within what's called the - what's called the coverage evaluation search area.

Q And then it goes on, the second to last sentence, "The Census Coverage Measurement estimated that 16 million people were omitted from the census, and omissions are people who should have been enumerated in the United states but were not."

Omissions are people who did not self-respond and were not counted through NRFU; is that accurate?

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\section*{Page 256}

A Gross omissions are people that the dual-system estimation predicts should be there that we didn't actually find. It's an estimate.

Q Is it a reasonable estimate of people who should have been counted but were not?

A It's gross. We don't know that they were not counted. We just know they were not in the correct enumeration population.

Q And then, finally, it says that many of these people may have been accounted for by the 5.99 million whole person census imputations.

A Yes. That's what I said, but I used different words. That -- the next sentence says why you don't count gross omissions of people that have been missed.

Q But some percentage of them are people who have been missed, correct?

A That a reasonable statement, yes.
Q In fact, in this case, somewhere between 10 and 16 million people were missed, correct?

A No. It's not bounded that way.
Q Okay. Why is it not bound that way?

A Because the -- the dual-system estimation and the demographic analysis are designed to measure net undercount and differential net undercount. As a byproduct, they generate this number that is labeled omissions, but it's gross omissions. It doesn't mean that this many people are missing from the census. It means the residual category is only explainable as a difference between the dual-system estimator and the correct enumerations.

Q And besides those people not being counted, what other reason would there be for those residuals between the estimation and the census count?

A Well, there are two decades of litigation on this, but the dual-system estimator might be wrong, too, or the demographic analysis.

Q But you would agree some portion of the omissions were people not counted in the 2010 census?

A I'll agree there is probably some gross undercount, as well as net undercount, but we
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don't know its order of magnitude.
Q Would you agree that the undercount is
differential between different subpopulations in
the United States?
A We have documented that the net
undercount is differential.
Q And are hard-to-count populations
specifically likely to be undercounted
differentially compared to the rest of U.S.
population?
A That's almost tautological. When we
label a subpopulation hard-to-count, one of the
indicators we use is its net undercount.
Q Let's next turn to Page 9, and the
last -- the paragraph, it says, "The black alone
Or in combination and the Hispanic populations had
a larger percent omissions than the non-white
Hispanics" --
A Sorry. Sorry. You got there too fast.
Q It's the second paragraph.
A Got it. Okay.

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\[
\begin{aligned}
& 2009 \text { language questions in the American Community } \\
& \text { Survey. So they're indicators of households that } \\
& \text { speak more than one language. }
\end{aligned}
\]

Q And, again, the omission percentage for bilingual mailing areas in Table 9 is 7.3 percent compared to 5.3 percent for the U.S. total. Is it accurate that the census's enumeration procedures
are more likely to miss people living in bilingual
mailing areas compared to the U.S. population,
generally?

A I'll correct your question. If you mean gross omissions, that's what the table describes. If you meant net undercount, you can't get that from this table.

Q What table would you refer to for that?
A If we have a net undercount estimate, it would be in one that is labeled net undercount as -- or percentage net undercount, one of those two. I don't know -- I don't know the contents of all of those \(G\) series reports. They're summarized in G01.

Q If I can refer you to the column just to
the left of omissions percentage undercount, is that the net undercount?

A Thank you. Thank you.
Q And is the Number . 80 for bilingual mailing areas?

A Yes.
Q And the asterisk indicates that it's statistically significant, correct?

A At the 90 percent level, yes. That's

\section*{correct.}

Q And so given that information, is it more likely that the census's enumeration procedures would miss people living in bilingual areas compared to the U.S. population?

A Yes. That's what a positive differential net undercount is.


A Yes.
Q And that's statistically-significant --
A Yes.
Q -- compared to the U.S. population?
So with that information, is it more likely that the census's enumeration procedures will miss members of the Hispanic population compared to population --

A There's a differential net undercount for Hispanics, yes.

Q Now, this is all for the 2020 census. Does the Census Bureau expect not to have a differential undercount of Hispanics for the 2020 census?

MR. EHRLICH: Objection. Form.
THE WITNESS: The Census Bureau expects to improve its net undercount performance every census and targets the populations that had previous net undercounts for special attention. Sometimes with tests that have been demonstrated to be more effective and sometimes with advertising campaigns that have looser empirical
connection. Although we used targeted advertising in 2010 to try to address net undercount issues, and it was successful in its evaluation. That's why we were trying to do more targeted advertising, why we included a specific component in the integrated communication contract for targeted marketing. And one of the indicators being used for the targeted marketing is our low response rate indicator, which is not the same thing as a net undercount. These numbers are not available at levels of geographic detail that would be useful, but they have correlates, like, lower response.

BY MR. TILAK:
Q You said to improve. Do you also expect to eliminate the differential undercount for hard-to-count populations?

A We design the census, and we optimize the efforts in order to control the net undercount. We are trying to achieve a zero net undercount, but the census is a human operation, and we evaluate it for the coverage years. We will learn
when we evaluate it whether we were successful.
Q Do you agree that adding the citizenship question will make it more difficult to achieve that goal of reducing undercount for hard-to-count populations?

MR. EHRLICH: Objection. Form.
THE WITNESS: It will make it more difficult to correct -- to collect accurate data on the enumeration, which will complicate the assessment of net undercount, because the indicators, the right-hand side variables, won't be as accurate as they are if you get more self-responses.

MR. TALIK: We can go off record.
VIDEOGRAPHER: We're going off the record. The time on the video is 4:19 p.m.
(Off the record.)
VIDEOGRAPHER: We're back on the record.
The time on the video is \(4: 20 \mathrm{p} . \mathrm{m}\).
EXAMINATION BY MR. ADAMS:
Q Good afternoon, Dr. Abowd. My name is Rory Adams. I represent the City of San Jose and
the Black Alliance for Just Immigration in the action pending in Northern District of California. What is the purpose of the 2020 CBAMS?

A Census Barriers, Attitudes, Motivators Survey?

Q Yes.
A Sorry, study.
There's both a survey and focus group component. Its primary objective was to gather information on indicators that we call barriers, indicators that we call attitudes and things that we think of as motivators. So a barrier is a reason why someone might not complete the census. So the questions asks, for example, are you planning to fill out the census, and if not, well, we try to get some reasons.

An attitude might be, do you think that -- do you trust the government, do you think that your 2020 census information will be kept confidential?

And motivators are things like do you think it's important to equitably allocate the
seat - e equitably reapportion the
House of Representatives?

The -- some of the statistical modeling was based on historical relationships between these kind of variables and the actual indicators that they took -- they filled out in the census, self-responded on the census.

Q You said there are two components, a survey component and a focus group component?

A Yes.

Q How is the survey component designed?
A I'm going to answer specifically with respect to what \(I\) believe we're labeling the 2020 CBAMS, but, internally, we've been calling it the 2018 CBAMS because it was conducted in 2018 .

That is a household probability sample. So it had a frame from our master address file, which is the address frame that we keep continuously as accurately -- as accurately as we can in which is rebenchmarked in the decennial census. So we use the production, master address file, to sample 50,000 households - no - - 50,000

MAFIDs. Then the -- the primary instrument was an Internet self-response instrument run off the same computer system with the American Community Survey and many of the economic surveys are run off of. If the -- if the contact, which is by mail, comes back determining that there's nobody living there, so they're removed from the scope of the sample, and then we calculate the percentage of households that we get a response from. So about 17 percent -- about 17,000 of the 50,000 households responded. In the way we calculate response rates, that's about a 38 percent response rate.

Q And I'm going to hand you what's going to be marked as Exhibit 18.
(Plaintiffs' Exhibit 18, 2020 CBAMS survey, was marked.) BY MR. ADAMS:

Q And I will represent that this is a document downloaded from the Census Bureau's website and identified as the 2020 CBAMS survey. Do you recognize the document as being the 2020

CBAMS survey?
A So I've only ever seen the code book, not the instrument. But I recognize questions, so I think this is the right questionnaire.

Q And how -- how are these questions selected for inclusion in the survey?

A We conducted a much more limited CBAMS in 2008. That, I believe, was the first time we attempted to get pre-census information on factors that might affect the costs of carrying out the census, the effectiveness of the census. There is a -- there is a research staff led by one of the -- by a senior survey methodologist, Nancy Bates, and with other senior mathematical statisticians and with other senior survey measurement experts, some in the Center For Survey Measurement and some in the decennial census statistical divisions, and some in the other parts of the Census Bureau. They put this instrument and the survey through our lifecycle survey development program.

They had constructs that they were trying
to capture. Some of which they believed to be well captured by questions that had been used in older CBAMS. Some of which come from questions that are used by other survey organizations to measure general attitudes. There are a large number of those and our survey measurement experts are very familiar with them.

So -- so they would have had a set of candidate questions -- they have, generally speaking, a known budget or approximate budget, and experience in planning how much of that budget has to be allocated to instrument development, instrument testing. So if it's an Internet self-response, so there's no field operations for the data collection operation. There was no nonresponse follow-ups, so that phase isn't there. And then, post -- post-response processing and data editing tabulation. So they would have had a tentative plan for allocating their budget across the steps and then put the questionnaire through cognitive testing, the questions, unless the question has been previously cognitively tested,
and then laboratory testing of the whole form.
And then \(I\) believe they used a small experimental sample. Our -- I'm not sure they used an experimental sample. They might have all been done with laboratory samples, so those are people that were recruited into our labs to take whole instruments as opposed to single questions or focus groups. The Center For Survey Measurement has laboratory facilities that can simulate the survey environment or simulate questions or conduct a focus group. They would have used a combination of those tools to get the instrument in place.

One of the statisticians on the team would have drawn the address sample from the MAF. The addresses would have been prepared, mail-out materials inviting you to participate would have been prepared, and then the effort staged during a fixed field operation.

The survey was conducted in collaboration with -- in collaboration of \(Y \& R\), Young \& Rubicon, the lead contractor in the integrated
communication contract, and \(Y \& R\) and other subcontractors in that contract also participated in the development and some of their resources were used, as well.

Q Will the result of the 2020 CBAMS be used only for the purposes of the 2020 census?

A Well, I'm sure the answer to that question is no, because our data can be used regularly. They were collected primarily in support of the 2020 census. That's a funding issue. So we couldn't have run a survey like this intending to use it primarily for the SIPP and charged it to 2020. So its principal reason for being conducted was in support of the 2020 census. But it produced useful data. We are still using the data for the one we conducted in 2008 in support of the 2010 census. So it's a reasonable presumption that the data will be used for other purposes, but their primary purpose is in support of the 2020 census.

Q I believe you testified earlier that when you were trying to draft the protocol for adding a
question to the decennial census, that you looked to the processes and procedures that were used to vet and add questions to the ACS and the long form, because they were also considered to be part of the census; is that correct?

A That's correct.
Q And both the ACS and long form included a citizenship question, correct?

A That's correct.
Q Was a decision made at any point to include or not to include a citizenship-related question on the CBAMS survey?

A There was no active decision. I believe that if even a rumor of a citizenship question had been actively circulating through the Census Bureau, the development team would have attempted to gather information about that, and I believe that the Office of Management and Budget would have approved it in issuing the clearance number.

Q To be clear, a citizenship question has appeared on the ACS and the long form and was
planned for inclusion in the ACS in 2020, correct?
A And 2019 and 2018, correct.
Q Right. In light of the fact -- and that is considered part of the census, the ACS?

A Yes.
Q So in light of the fact that at least in part of the census, the citizenship question was going to appear, there was no consideration to testing that in CBAMS survey?

A So for starters, the CBAMS survey isn't about testing questions for either the ACS or the decennial census. And to be perfectly clear, the 2020 census is a separate budget appropriation from the ACS. So, once again, the principal purpose of this document couldn't have been to test questions for the ACS. It had to be to test the environment and the successful conduct of the 2020 census. That had to be the principal purpose.

Good survey methodologists -- and I believe a very good crew worked on this -- are quite sensitive to things that you want to get a
measurement of ahead of the pack. But it literally wasn't on the radar screen in a way that was - that the team developing this instrument caught. As soon as it did, they modified the protocol for the focus group. So I'm sure that if six - \(\quad\) can't actually be sure about at six months. I'm sure that if there had been time to modify the questionnaire for CBAMS, it would have been modified.

The compromise was that the first use of these results is to program the advanced buys for the advertising campaign, and that has a very tight deadline. Those buys start earlier next year. So they need to be doing the analysis, and this time, we did it with an external partner. So in addition to doing the analysis -- and this - - they had to design protocols for conveying the information outside of the Census firewall to the Young \& Rubicon system so they could do these targeted advanced buys, and we didn't have protocols for that. We did all of that
internally, so we didn't have to worry about
producing public-use summaries of the data so they could be given external to the Census Bureau.

A contract is no different than any other person. If we release the data to the contractor, the contractor is allowed to operate with those data outside the Census firewall, then those are public data. So we had to figure out a way to make the data public, as well.

Q Exhibit 18, this -- the survey instrument was finalized prior to December 12, 2017?

A Yes. I don't know exactly when it was finalized. OMB clearance packages are public, so you should be able to use that OMB clearance number at the top of the form to see the date it was finalized.

There's a pretty -- there's a pretty long planning period to get an instrument all the way through the approval process. That's why we want the clearance package for the 2020 census to be approved by the end of 2018.

Q In your -- in your individual deposition, I believe you testified that there were a number
of questions in the survey that were considered salient for purposes of analyzing the impact of the citizenship question, but you weren't sure which questions those were. Looking at the survey now, can you identify which questions are salient for purposes of analyzing the impact of the citizenship question?

A What I wanted to look at -- and you haven't given me, but I did look at -- is the interim report, which you won't have because it's not public. Although the discovery has produced the public use micro sample file that we released to the contractor, because it was cleared by the DRV. So you do have that.

But what the report says is that most of the information we got out of CBAMS about citizens came from the focus groups. But we were very concerned about the high level of answers to questions like, do you think the Census Bureau's data can be used by another government agency? Do you think the Census Bureau is required to protect -- since I've seen the code book and the
tabular form, I'm not quite sure where the questions are, but if you give me a second, I'm sure \(I\) can find them.

MR. EHRLICH: Page 6.
THE WITNESS: Ah, yes. There it is.
"Question 38: How concerned are you, if at all, that the Census Bureau will not keep answers to the 2020 census" -- "How concerned are you, if at all, that the Census 39" -- "that the Census Bureau will share answers to the 2020 census with other government agencies? How concerned are you, if at all, that the answers you provide to the 2020 census will be used against you" -- so those questions are considered relevant correlates of potential difficulties with the 2020 census due to the presence of the citizenship question.

Those attitudes -- I think we actually classified these barriers, those responses are neutral, classification of them, were also true to an extent before the 2010. The belief in certain portions of the population that the Census Bureau
either isn't required by law to keep the answers confidential and to not supply them to other, say, agencies or might do that in spite of the current requirement of the law, that is a known barrier. And so its prevalence in the population is something we use to both target advertising in the case but also target other efforts.

So these data will be used to do something called small area estimation to help identify where -- which areas should be targeted with a communication campaign that addresses the fact that we are not, by law, allowed to give the data in identifiable form to anyone, including other government agencies, and including, in particular, the immigration and naturalization services, and we have not done so since those protections were enacted into law in 1954.

BY MR. ADAMS:
Q I'd like to get to the interim report in just a minute, but beforehand, I want to show you Exhibit 19.
(Plaintiffs' Exhibit 19, 2020 CBAMS brief
update, was marked.)
BY MR. ADAMS:

Q This is a document entitled 2020 census barriers, attitudes and motivators study brief update for a funder initiative meeting on

April 23, 2018. And I'd like to ask you to turn to Page 8559 .

A Yes.

Q Are the questions listed on Page 8559 the questions that were asked in focus groups pertaining to the citizenship question?

A Those are the focus group protocol questions, so it's a discussion. So those would have been the prompts used to move the discussion on to the question of citizenship.

Q How are - how are prompts for the focus group discussion guide designed?

A A team of behavioral scientists determines, first, what the objectives of the focus group are. And so the objectives of the CBAMS focus groups are to recruit participants from known hard-to-count populations. So,
basically, the people in the room are not a representative sample of the population, which makes statistical inference not a good tool. But what they are, are the people that are very similar to the people we have difficulty getting to answer the questionnaire in the first place. So what you try -- in this case, what you're trying to get from -- some people -- sometimes we just want people who might not understand the questions or who might not speak the target language. In this case, we wanted to know from people that we had scored as high on a low response rate score, we wanted to know why they wouldn't want to take the census. Or in this set of questions, whether their hard-to-count characteristic was going to be further enhanced by their attitudes towards the citizenship question.

So these questions would have then been designed to try to understand why specific groups of known hard-to-count individuals didn't want to fill out the census form. And that qualitative information would then be processed, basically, by
counting up how many of these focus groups particular mentions occur in.

So the transcript of focus group gets coded by professional transcript coders, and it gets reliability checked, and then those codes are used to characterize the conversation in the focus group on certain dimensions. In this case, it would be barriers, attitudes, motivators, dimension, and then you -- exactly -- you count up in how many of the focus groups did this happen? So for the 30 focus groups we were able to ask the citizenship question, that would be the denominator, and we would say something -- 16 -in 16 of those 30 groups, this -- this attitude was expressed. I don't like the citizenship question. I won't take the census if it's on there.

And then we would go back and look at what was the recruiting characteristics for those focus groups, and we would correlate that -- not with a formal correlation coefficient but we would say, in the ones where this was an issue, this was
the property. They were mostly Hispanics or they were other -- renters, single -- young, single people, that other -- those are the things that are used to score you as hard-to-count.

Q And is that qualitative information reflected or discussed in the interim report?

A Yes.
Q And are the quantitative results of the survey discussed in the interim report?

A Yes.
Q With respect to the questions you identified as -- as relevant to barriers and related to the citizenship Questions 38, 39 and 40, does the interim report reflect increased fears or concerns with respect to those questions?

A You can't say increased, because that implies you have something to reference with, so we would say high or low or relative to. In these cases -- there's a battery of questions where there's actually a correct answer and so we mark how many of the answers that came that are incorrect. So if you say -- if you say that you
don't -- so 38 asks us whether you're concerned about whether we keep it confidential. But there's a true or false question that asks whether you think we're required, by law, to keep it confidential. So we would take the score on that true/false test, and that's a measure of their -- a barrier, because they have incorrect information. They might still behave the same way if they had correct information, but we identify the kinds of incorrect information people have and then design a communication campaign to correct it.

For an attitude, we would correlate that with things that we can target, communicate and attempt to convert them, basically, to change their attitude.

And for motivators, we would say, well, other people have said this is an important reason to fill out the census. We would tell the general population other people think it's important to fill out the census because you'll get your fair representation in the Congress. Other people

\begin{abstract}
think it's important to fill out the census because it's used to allocate \(\$ 675\) billion a year, so that's the way in which the quantitative information would be converted into actionable things.
\end{abstract}

Q With respect to 38, 39 and 40, in particular, does the interim report recommend any action items to deal with misperceptions of these particular issues?

A So the interim report does indicate that the communication campaign should address these questions. It's interim, not just because we haven't finished dotting the Is and crossing the Ts. It's interim because we haven't fully internally vetted the way the information was used to draw conclusions about the advertising campaign. So when it's issued in report form in late November or December, then we'll put it through the internal vetting process, and it will be a publication of the 2020 census program and you'll be able to see how we process the information into the basic
instructions - instructions is too strong of a word - into the basic planning of the first page of the communication campaign.

That first phase, also, in addition to media buys, it includes recruiting partner organizations and identifying places where it might be good to find additional partners or different partners.

BY MR. ADAMS:
Q What views are - what findings or qualitative information is reflected in the interim report that was prompted by the prompts added on March 27 after the citizenship question was decided?

A Since the interim report isn't final, I'm going to characterize it in broad terms and not quantitatively. We identified that some subpopulations, including ethnic groups, Hispanics, are very concerned about the citizenship question and appear to be concerned about it for reasons related to the same things in the series. This came from the focus groups where
we were specifically asking about citizenship, but its correlates show up in the survey where we don't ask about citizenship but we can correlate something like Hispanic ethnic origins with answers here.

But we also found that other groups weren't particularly concerned. For example, when the focus group was primarily citizens, they didn't -- they didn't express the same concern. Even though those citizens would have been selected with the same hard -- hard-to-count indicator procedure. So they -- obviously, didn't come from the same subpopulations but came from persons within those subpopulations that had been selected on the hard-to-count criteria.

Q Were focus group participants selected based on their own citizenship status?

A That was not one of the criteria.
Q The focus groups indicated that Hispanics were very concerned about the addition of \(a\) citizenship question. Does Census have a way to determine whether those concerns have increased
relative to before December -- before March of 2018?

A We're trying to measure levels at this point. Measuring changes is beyond the pale.

Q The results from focus groups have been fed to a decennial team, I believe you stated earlier. I was wondering if you could clarify what you meant by that.

A I know what \(I\) meant by it. That might have been an imprecise technical term there.

So the operation of running a census is highly interdependent, and it has a group of very large contracts that are carrying out those operations in collaboration with career civil servants who work in various parts of the Census Bureau, but primarily, in this case, in the decennial directorate. So the results are being -- I'm not supposed to use air quotes -- are being supplied to -- it's called team Y\&R, that is the team integration contract, but they would also be supplied to the field directorate because the field directorate actually conducts the field
operation under a budget from the decennial. We don't get a separate -- we have lots of enumerators who haven't worked for us except for the census, but their -- that whole process is run through the field directorate.

Q How are the results from the CBAMS currently being used? Are the results currently being used to modify protocols, to design messaging campaigns or other -- in other ways?

A The results are currently in the hands of a small team from Young \& Rubicon and the Census Bureau, being coordinated within the Census Bureau by Nancy Bates, and Gina Walejko on the technical side. They were the core of the team that did this successfully. By this, I mean focused the advertising and focused the field effort on quantitatively-identifiable low response areas that -- Nancy, in particular, is something of a pioneer in this area. So she is using her expertise. Gina is using her expertise. The \(Y \& R\) team is using their expertise, which comes from a different domain, and the field staff is using
their expertise to try to learn what we can from these data, in addition to the other tools that we've already produced, like the -- the low response indicators in the planning database. So all of those tools will get used.

Some of those tools have been actively incorporated into the operational control systems optimizer so that it can use them as a part of its scheduling algorithm. The field supervisors and the managers will get briefed, but the primary use, right now, is to ramp up the communication campaign.

Q And just to confirm, the final report will be publicly available, you anticipate, in November or December?

A I'm guessing it's still going to be labelled an interim report, but it will be the first public report from the CBAMS.

MR. ADAMS: Let's go off the record. VIDEOGRAPHER: We're going off the record. The time on the video is 4:53 p.m. (Off the record.)

VIDEOGRAPHER: This begins Media Unit Number 6. The time on the video is 5:11 p.m. We are on the record.

EXAMINATION BY MS. GOLDSTEIN:
BY MS. GOLDSTEIN:
Q Good afternoon, Dr. Abowd. My name Elena Goldstein. I am senior trial counsel for the New York Attorney General's office. We are another one of the plaintiffs in these many cases challenging the citizenship question.

Now, I'm going to be asking you a series of questions, and, in large part, to make this go a little bit faster and in light of the questioning you have sat through so helpfully today, I'm going to be jumping around some of our topics sort of abruptly, okay?

A Okay.
Q Okay. So I'm going to hand you what has been marked as Plaintiffs' Exhibit 20 .
(Plaintiffs' Exhibit 20, Question 28, was marked.)

BY MS. GOLDSTEIN:

Q I'm handing you what has been marked as Exhibit 20. It is a document Bates stamped 4863 to 4877. And I'm going to ask you to just turn to Page 4874. And I'm going to direct your attention to the very last paragraph for Question 28 , in the last portion of it, which is discussing why the Census Bureau did not include a topic on the SOGI, sexual orientation and gender identity, on the planned topics on the 2020 census.

And this paragraph, I'll just read the relevant language, notes "However, at the end of the process, there was no demonstrated federal data need for the addition of this content and, subsequently, no changes to the planned census or" -- "and ACS subjects."

What does it mean for there to be no demonstrated federal data need?

A In assessing the reasonableness and feasibility or changing or adding to one of our questionnaires, we have an informal hierarchy. So the Constitution says we have to count everybody, so that one, basically, is off the table to
change.
Several statutes mandate that we collect information, for example, about languages in support of the section 203 of the Voting Rights Act. So absent the change to that legislation or judicial determination that it was no longer effective, the things that we do in support of that would stay on the questionnaire. Now, we might change the way we do them, but they would stay there.

Q Sure.
A Many federal agencies identify -- they're our next prime -- identify programmatic requirements for data and statistical agencies serve those programmatic requirements as a principal client. That really is one of the reasons why we exist. But those are nuances. They have degrees.

So we would generally try to determine what the specific requirement, in this case for SOGI, was relative to a self-response declaration of sex, which is the way we asked the question
from on the census, and some of our clients make their independent case for it. Like, the National Center For Health Statistics, when we conduct a survey with them, if they ask for SOGI information, we will get it, but it's a survey we're conducting on a contractual relationship for them.

So on the ACS -- which is, really, where we were discussing this, not the census - - on the ACS, it would have been: Are there sufficient programmatic needs across, primarily, our federal client, but we wouldn't rule out other clients, but primarily our federal clients to justify developing sOGI battery, and, also, is it a large enough self-identifying proportion of the population that we can get reliable measurements? We think we can get reliable measurements of SOGI, but we haven't identified a broad-based federal agency requirement that can only be fulfilled by modifying the ACS - or it can be most effectively fulfilled on both quality cost and usefulness by modifying the ACS.
Q Is this one of the issues that might be
discussed at one of those technical meetings that
you were testifying about earlier today?
A It would certainly be discussed in
advisory groups like the census scientific
advisory group, and national advisory - the
Census scientific Advisory committee and the
National Advisory committee, and it's also
discussed in working groups organized by the
Office of the chief statistician of the
United states and omb under working groups. so it
is an active area of discussion among the
statistical -- official statistical community in
Washington and the broader statistical community.
And if you'll see in the very first paragraph on
m875, this document distinguishes between
mandatory content, required content and
three
proper definition of mandatory and --
Q I just want to make sure you're familiar with this?

A Yeah. Okay.
Q And this is an accepted set of distinctions for the Census Bureau, between mandatory, required and programmatic data needs?

A It's a useful classification, and some data needs move more fluidly between the categories than others.

Q Where would you classify the citizenship question?

A I would personal- - so I'm not aware of the Bureau having put it into these categories. I believe the proper classification of it is required.

Q How can it be required -- would it be required pursuant to the Voting Rights Act?

A Yes. So what is required is information sufficient to estimate the eligible voter population in a proposed district. That's required both to demonstrate you are in compliance

\begin{abstract}
with the Voting Rights Act and to do the scrutiny of that compliance.
\end{abstract}

Q So it has been required since 1965 when the Voting Rights Act was passed?

A So this is why \(I\) say these are -- these are fluid. It -- tabulations from the long form were used when they started to be -- they weren't available in the 1960s, because we didn't ask the question in 1960 on the long form. So we did ask it again on this long form in 1970s and tabulations were produced of citizenship population, I believe. I don't have specific knowledge of how they were used in the 70 s but \(I\) believe used like the Citizen Voting Age Population tabulations that we now produce.

Q And that the Census Bureau has been producing for decades?

A When we collect data on citizenship, we produce statistical products based on those data.

Q So you mentioned the advisory committees just a moment ago. What is the role of the advisory committees with respect to the decennial

\section*{census?}

A So the Census Bureau is an agency that benefits from three advisory committees, the CSAC, the Census Scientific Advisory Committee, the National Advisory Committee on Race, Ethnicity and Other Populations, and the Federal Economic Statistics Advisory Committee, so they're usually called CSAC, NAC and FESAC.

I'm going to do FESAC really quickly.
It's chartered in the Department of Commerce but it advises the Census Bureau, the BLS, the Bureau of Labor Statistic, and the Bureau of Economic Analysis, BEA, primarily about economic products, but the census of population would be a subject that would be presented to them on which we might ask their advice and they do get updates on it as well as other products.

But they focus on economic products, and although they're charted in Commerce, the BLS is a full partner.

The other two, CSAC and NAC, are chartered in the Department of Commerce for the
benefit of the Census Bureau, and they are advisory committees under the Federal Advisory Administrative Committee, FACA. So they operated according to the FACA rules. The nomination procedure has to be public. Because they're charted in Commerce, Commerce determines the membership. The agenda has to be public. The meetings have to be public. There has to be a public comment period.

But, generally, they are for our benefit in the sense that we actively seek to put on those advisory committees people and representatives or organizations who can be helpful in the scientific committee on many different technical issues in the National Advisory Committee on the full gamut of issues, in particularly, for the census - -

Q Sure.

A - not just the one in 2020, that has been a source of advice and outreach to many of the populations that we -- that it's important to have partnerships with when you collect the data.

Q So is it fair to say that the

Census Bureau typically consults with CSAC and the NAC about significant changes to the decennial census?

MR. EHRLICH: Objection. Form.

THE WITNESS: It is correct to say that we regularly consult with CSAC and the NAC about the ongoing operations of all our major statistical programs and some of our not-so-major statistical programs.

BY MS. GOLDSTEIN:

Q And that includes the census?
A That includes the census.

Q Do you know the dates of the NAC committee -- withdrawn.

Was the NAC consulted about the citizenship question prior to the March 26 th decision by secretary Ross?

A With your permission - - are you going to ask me the same question about CSAC?

Q I will.

A I'm sorry?

Q I will.

A Can \(I\) do them at the same time? It will be easier.

Q Please.
A So both NAC and CSAC meet twice a year on an approximately September/March schedule. So when they met for what they call the fall meeting of 2017, there was nothing in the air. And when they met for the spring meeting, in the case of CSAC, the secretary had just announced his decision. And in the case of NAC, the Secretary's decision had been out for, I believe, about a month, but nothing in the administrative record had been released yet. So for both of those spring meetings, we had what \(I\) think we would all characterize in the Census Bureau a very awkward meeting.

Had the question been before us long enough, we would certainly have consulted with them. And because the entire decision-making process was compressed into a few months, we did not. And we did not have working groups in place that we thought we could effectively use in
preparing the materials that the secretary relied upon for his decision.

Q So I just want to make sure I understand, that if the Census Bureau had had adequate time, you would have consulted the NAC regarding the citizenship question proposal?

A Yes.
Q And if the Census Bureau had had adequate time, you would have consulted the --

A CSAC.

Q -- CSAC about the citizenship question?
A Yes.

Q And if the Census Bureau had had adequate time, you would have convened working groups at these advisory committees to study the citizenship question?

A We might have, yes. It would have been actively discussed.

Q Now, recognizing that these committees did not have an opportunity to weigh in prior to the Secretary's decision, following that decision, did these committees at your awkward meetings
express opinions with respect to the citizenship question?

A Both committees expressed recommendations that reflected the views of those committees about the citizenship question, yes.

Q Can you please tell me NAC's recommendations or views with respect to the citizenship question?

A NAC's -- so I'm going to summarize them. They're public. They're on the NAC site, so if you want to read a recommendation into the record and have me comment on it, I will.

I will characterize them this way. They were extremely concerned that it was going to make conducting the census in some of the populations that are represented on the NAC much more difficult, for a variety of reasons. And they made recommendations, like, can you -- can you determine what policies will be used to influence whether immigration officials will be in the field at the same time as census enumerators? Can you describe how the communication campaign will be
modified in light of the citizenship question?
Q Sure.
A That captures the general tenor.
They also made specific recommendations that we explicitly did not accept. I don't remember all of them, but it's in the record that, no, we can't do that. We were instructed by the Secretary to conduct the census with the question on it, and that is what's going to happen.

Q Is it fair to say that NAC told the Census Bureau, we don't think you should have the question?

A Well, \(I\) don't recall reading it in their recommendations, but \(I\) think that's a fair characterization, yes.

Q And did the CSAC take, substantially, the same position?

A They might have been even more vocal.
Q With respect to their opposition to the citizenship question?

A Yes.
Q So I am going to show you what is going
to be marked as Plaintiffs' Exhibit 21.
(Plaintiffs' Exhibit 21, 2020 census integrated communication plan, was marked.)

MS. GOLDSTEIN: And this is a 208-page document, and so \(I\) only printed a couple copies. My apologies to the world and counsel.

BY MS. GOLDSTEIN:
Q This is document entitled 2020 census integrated communication plan. As I mentioned, 209-page [sic] version. This is version 1.1 dated \(6 / 2 / 2017\).

\section*{Do you recognize this document?}

A Yes.
Q What is this?
A This is one of the many plans that the 2020 census releases periodically to supply transparent detailed information about the planning and operations of the 2020 census.

Q And is another version of this document planned?

A So I've been asking about these throughout the day but \(I\) didn't ask about this
one. I now know that there will be another version of the -- of the overall plan released in early 2019. Most of these plans do get updated, but -- to say whether there is a planned version, I would have to ask, and I will.

Q And in connection with that, if you can also find out whether and to what extent the citizenship question will change the plans that are in this document, or if you know now?

A So the reason we revised them is to reflect information that has come to our knowledge during the time it was written and during the time the remaining things the plans are about have to be acted on. So there's no point in having a revised census plan in 2022. That's, basically, just a history document. So if it's going to be revised, it's likely going to be revised relatively soon, and it will certainly reflect what we learned in -- about the citizenship question from the work that's been done to date. We did not have a communication component in the end-to-end test, so there won't be an opportunity
to revise the plan as a consequence of what we learned there.

Q Why did you not have a communications - -

A Component.

Q -- component in the end-to-end test?
A It was not sufficient - -
(Thereupon, the court reporter
Clarified.)

THE WITNESS: There was not sufficient budget.

BY MS. GOLDSTEIN:

Q So if you can turn to Page 7 of this plan, and if you go down to Bullet Point 1 , "Detail the research and database approach: A successful campaign must be based on a solid foundation of research and have strong internal systems for collecting and analyzing data to optimize performance."

Do you agree with this statement?
A Yes.

Q And given the timing of when the citizenship question was added, is there a solid
foundation of research that informs the communication plan -- the communication planning process about the citizenship question and its implications?

A No.
Q And are there stronger internal systems for collecting and analyzing data to optimize performance, given the recent addition of the citizenship question?

A So we have tried to optimize performance by using the instruments that we have available to us, and there are additional planned task orders for this communication, the integrated communication contract, that will involve additional collection of data, realtime tracking data, both survey-based and other ways. So there are definitely plans to collect data, and they will be checked with -- with the census design as it exists today in mind. So they will be fully cognizant of the citizenship question.

Q Is it fair to say that the late addition of the citizenship question will make it harder to
implement an effective communications plan?
MR. EHRLICH: Objection. Form.
THE WITNESS: No. I don't think it will make it harder to implement an effective communication plan. Whether that plan can be as effective as we had hoped, is an open question. We are going to have to figure out how to conduct the census in the current macro climate. And that's not just the citizenship question. That is the current climate. And that's not different from what we had to figure out in 2010 and 2000 . 2000 was the first time we did a communication campaign, and we learned an enormous amount. I think the most important thing we've learned from a communication campaign is that the vast majority of the residents of the United states only know about the Census Bureau because of the conducting of the decennial census. And while we're immersed in it every day and many of you are professionals, you're probably immersed in it, too, the typical citizen, the representative respondent on one of our surveys
doesn't know about the existence of statistical agencies until that survey shows up in his or her mailbox usually.

So the one with 100 percent saturation is the census. The next closest thing is American Community Survey, but its saturation is only a few percentage points a year, accumulates to a fair percent of the population. So this is our opportunity to teach the people who live in the United States why we have a statistical agency. Why we have statistical agencies and what they're good for.

BY MS. GOLDSTEIN:
Q But is it fair -- I think you testified -- let me ask it as a new question.

A Okay.
Q The addition of the citizenship question will impact how the Census Bureau does its communications, correct?

A Yes.
Q And the short time frame in which the Census Bureau has to adjust its plan will make

\section*{that process a little bit more difficult --}

A Yes.
Q -- fair to say?
A Yes.
Q Okay. So let's go to Page 37, and if you go one, two, three, four, bullet points down, "With young children having a highest net census undercount rate than any other age group, Hispanic children account for more than 36 percent of the total net undercount for all children younger than five."

Did I read that correctly?
A Yes.
Q So there is a -- prior to any addition of the citizenship question, the Census Bureau has recognized that there is a net undercount for Hispanic children, correct?

A Yes.
Q Is it fair to say that the NRFU -- NRFU efforts that the Census Bureau puts in place are less effective with respect to this population?

MR. EHRLICH: Objection. Form.

THE WITNESS: So these are estimates based on the 2010 census coverage measurement program.

BY MS. GOLDSTEIN:
Q Sure.
A So they were in an environment -- a different political environment and a questionnaire without a citizenship question on it. And this identification of children, age zero to four, this is the first time that that had popped out as such a large net undercount.

There's a couple of possible reasons for that. Our demographic data -- so one of the things we would measure against better now are for that age group because of accuracy of birth records. So we have, consistently, throughout this decade, focused on ways in which we can improve our undercount. The -- the end-to-end test does have a coverage evaluation component, but it wasn't structured to provide statistical information. So we have only the direct analysis of the test to see if we have improved it.

I don't want to say it's a crap shoot. I think that there is solid evidence that design changes that have been made, particularly queues and reminders, and these are actually easier to do on the Internet self-response instrument than on a paper instrument, because you can blow by the reminders and the queues on the paper one, but it's harder to blow by the ones on the Internet instrument, too, but it's harder to because of the way it's structured. So we put some considerable effort --

BY MS. GOLDSTEIN:
Q Sure.
A -- into trying to alert people who have answered someplace else on the form, correlates to there might be a young -- an uncounted person here on this, but we don't have the statistical evidence to back up a claim that that will reduce the net undercount. We have the statistical correlates to suggest it might.

Q Is it possible that the presence of the citizenship question on the decennial census will
exacerbate this kind of net undercount of Hispanic children?

A Yes. That is what we mean when we say the quality of the census count will be harmed.

Q Let's go to Page 53. And I just want to -- you got -- direct you to the very last paragraph in bold. Leading up to the 2020 count, all communication elements, including advertising, earned media, collateral and other items designed for public dissemination will be pretested and refined.

Has that process happened yet?
A I'm sure that some parts of that process have happened already. But a systemic part of it would have been part of the 2018 end-to-end test and so -- yeah, at the point at which this plan was written, I believe -- I get my budget years and my calendar years -- I believe -- we were still in fiscal 2017. The full design for the end-to-end test was still on the table. That was the three site and it included a media campaign. So those comment components were not done.
\begin{tabular}{|c|}
\hline Page 314 \\
\hline The other components that are part of the integrated communication contract and the ongoing activities of the decennial census were done. \\
\hline Q Earlier you testified that the political \\
\hline environment can affect response rates, correct? \\
\hline A I know I just said political. I've been \\
\hline trying very hard to say macroenvironment. If \\
\hline you'll give me leave to say macroenvironment, \\
\hline that's what I meant. \\
\hline Q And one of the things that goes into \\
\hline macroenvironment is the political context, fair to \\
\hline say? \\
\hline A That's fair to say. But another thing \\
\hline that goes into it is the state of the economy. \\
\hline Q Absolutely. \\
\hline So let's say -- so would you -- you've \\
\hline also testified that the macroenvironment can \\
\hline affect the efficacy of NRFU, correct? \\
\hline A Correct. \\
\hline Q Is there -- is it possible that the \\
\hline presence of a citizenship question will exacerbate \\
\hline those effects? \\
\hline
\end{tabular}

Veritext Legal Solutions

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    was extraordinarily easy to onboard very good,
    quality enumerators.
    So in terms of macroenvironment,
    we're -- the red lights are flashing around can
    you hire enough enumerators? And the cost
    estimate is designed -- assuming that we can, if
    we can, then where the extra cost from the
    nonresponse follow-up might be caused by the
    citizenship question will come from having to
    deploy them more intensively than we had planned.
    Q And it's fair to say that there are
    aspects of the macroenvironment currently that are
    making it difficult to hire as many enumerators as
    the Census Bureau needs?
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    A So I don't have to hypothesis, we had
        difficulty hiring enumerators in Rhode Island for
        the test.
            Q And you expect that problem to be the
        case for the -- as you attempt to onboard more
        enumerators, correct?
            A I would say we used that experience
        to -- as an opportunity to revisit some components
of that recruitment plan.
Page 317

Q But it's fair to say that the low levels
of unemployment right now will make it more
difficult to hire enumerators?
MR. EHRLICH: Objection. Form.
THE WITNESS: It's fair to say it will
make it more expensive to hire enumerators. And
if that's not acknowledged, then it will make it more difficult to hire enumerators.

BY MS. GOLDSTEIN:
Q So, previously, you testified about the work that Young \& Rubicon was retained to do, correct?

A So I testified about the work of the integrated communication contract for which \(Y \& R\) is the lead contractor.

Q Have they done attitudinal studies on the citizenship question as part of that contract?

A I do not know whether they have done them. I do know that they are being actively discussed.

Q And has Reingold performed attitudinal
studies on the citizenship question?
A So, as I said earlier, I would learn what Reingold -- so Reingold is a partner in the integrated communication contract, one of the subcontractors. Reingold has been involved in the task orders associated with the integrated communication contract to date. Reingold did participate in the CBAMS task order. I asked whether the task orders were public, and the task orders are not public. So they either have to be FOIA'd or if they're discovered, they have to be redacted to remove confidential information from them. I think that that's what I promised to get in terms of an answer about Reingold.

Q But do you know if they have performed attitudinal studies as part of this?

A So I do not know whether Reingold was the specific subcontractor or on the subcontractor team to do them. That would be in the task order -- the task order would say this has to be done, and then \(Y \& R\) would assemble the team that did it. So I might not necessarily know, but the
financial officer paying the bills would know whether contractors --

The Census Bureau's answer to that question is they have actively participated in the task orders to date and -- and that included the CBAMS, which did have attitudinal - - 1 think you're not talking about those attitude studies.

Q There are other attitudinal studies pursuant to that contract, correct?

A There is discussion of other attitudinal work broadly interpreted, but we're not done collecting data - - -

Q Right.
A - about things that might make it easier or more difficult to conduct the census.

Q So are -- there are no results yet to be analyzed from those studies?

A As far as \(I\) know, yes. The agency's answer is there are no --
(Thereupon, the court reporter clarified.)

THE WITNESS: There are not yet any data
from those studies.

MS. GOLDSTEIN: Can \(\quad\) have this marked, please?
(Plaintiffs' Exhibit 22, OMB standards and guidelines for statistical surveys, was marked.)

BY MS. GOLDSTEIN:
Q Actually, before \(I\) get to this, you had testified at your previous deposition regarding Census's statutory charge to seek alternative sources for information before asking a question of the population.

Where does that statutory charge come from?

A Yeah. In Title 13 - - I'm sorry, I can't identify the clause -- we are instructed to use administrative records and other sources of data before attempting to gather the data by direct instrument. That's a paraphrase, but that is certainly the way we interpret that clause in the Title 13.

Q And that is a well-established

Census Bureau practice, correct?
A Correct.
Q I'm handing you what has been marked as Plaintiffs' Exhibit 22. It is a copy of the standards and guidelines for statistical surveys, September 2006, from the Office of Management and Budget.

Do you recognize this document?
A I think your handed me SPD2.
Q I think that's the shorter way to say it, yes.

A Okay.
Yes. I do.
Q The Census Bureau is obligated to comply with the standards set forth in this document, correct?

A Yes. That's right.
Q I'm going to ask you to turn to Page 11
of this document, standard 2.3. "Agencies must design and administer their data collection
instruments and methods in a manner that achieves the best balance benefit maximizing data quality
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and controlling measurement error" --
A I'm sorry. I started reading -- 2.3.
Q I'm sorry?
A I was down in the guidelines. Go ahead.
Yes, I've got it. Go ahead.
Q - - "controlling measurement error while

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    minimizing respondent burden and cost."
    Now, at prior depositions, we have looked
    at the many Census Bureau memoranda that your team
    of experts put forth, and the Census Bureau has
    concluded that Alternative D resulted in lower
    quality data than Alternative \(C\), correct?
    A Yes.
    Q And Alternative \(D\) has a higher respondent
        burden than Alternative C, correct?
    A Yes.
    Q And Alternative \(D\) has a higher cost than
        Alternative \(C\), correct?
            A Yes.
            Q And I believe you've testified previously
        that no decision has yet been made on whether or
        not the Census Bureau will use the self-response
data gathered pursuant to a citizenship question; is that correct?

A I believe I said that no decision has been made on how the Census Bureau will process the respondent data into the final record of the 2020 census and use the respondent data and the administrative data in producing a CVAP table.

Q And one possibility that you raised at your deposition was to implement Alternative D -- "One way to" -- I'm reading from your deposition, "One way to implement Alternative D is to conduct Alternative B, ignore it and do Alternative C."

Correct?
A That is one way to implement Alternative D, yes.

Q So one possibility that the team of experts is considering is to conduct Alternative \(B\), ignore it and do Alternative C; is that correct?

A It's more nuance than that. One possibility they're considering is how to do a
response quality evaluation that allows a combination of the respondent data and the administrative data that uses both in a statistically defensible way. A statistical defensible way means you can explain the reason why the combination was done the way it was done and demonstrate that it has better properties on this quality risk usefulness profile.

Q And the Census Bureau has not yet determined whether or not there is a scientifically feasible way to do that?
(Conference call interruption.)
BY MS. GOLDSTEIN:
Q Or statistical feasible way to -She's like an old friend.

A We have a number of candidate evaluations that we're clearly going to have to do very rapidly and come to a conclusion. Large collections of mathematical statistics and survey methodologists can have difficulty coming to a conclusion in a hurry. That's why the acting director gave us a deadline.

Q Lawyers have the same problem.
But it is still the case that today, no conclusion has been reached, correct?

A That's correct. Yes.
Q If the Census Bureau does not make use -- if the Census Bureau concludes that the self-response data from the citizenship question should be disregarded with respect to the ultimate processing of the response data, would that use minimize response -- respondent burden --

A No.
MR. EHRLICH: Objection. Form.
THE WITNESS: No.
BY MS. GOLDSTEIN:
Q Alternative \(D\) has a higher respondent burden than Alternative C, correct?

A Yes.
MS. GOLDSTEIN: May I have one more exhibit, please?
(Plaintiffs' Exhibit 23, Secretary Ross decision memo, was marked.) BY MR. HO:

    ability, the accurate ratio of
    citizen-to-noncitizen responses to impute for that
    small percentage of cases where it is necessary to
    do so."
    How does adding a question -- a
    citizenship question to the census and determining
    the incorrect response rate for citizens and
    noncitizens who respond help the Census Bureau
    impute with respect to folks who do not respond at
    all and who do not have administrative records?
    A The Census Bureau did not write that
    sentence, so I suggest you ask the Secretary what
    he meant by it.
    Q Well, let me back -- let me ask the
    question a slightly different way.
            Do you agree that this will enable the
    Census Bureau to establish, to the best of its
        ability, the accurate ratio of citizen to
        noncitizen responses to impute for that small
        percentage of cases where it is necessary to do
        so?

A The Census Bureau does not yet have a
position on what percentage of cases it will be necessary to do so.

So the first part of the sentence, this will allow the Census Bureau to establish, to the best of its ability, accurate ratios of citizen-to-noncitizen responses, I don't think is controversial.

Q What about the second half of that sentence, that that -- I'm trying -- that ratio will aid the Census Bureau with its imputation for that category of folks who will be leftover?

A Second half of that sentence makes technical presumptions that the Census Bureau does not currently endorse.
\begin{tabular}{|c}
\hline Q Can you list those presumptions for me? \\
A Well, I'm not sure, because it's a very \\
short sentence, and I would have to ask the \\
Secretary what he meant by small, and why he \\
thought that that particular ratio was what was \\
going to be used to do the imputation. \\
I don't think there's anything in what \\
the census Bureau communicated, and technical
\end{tabular}

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responses to the secretary, that indicated that
that is the methodology that we would use to
produce the CVAP table. We were, in fact, very
careful to say that we hadn't yet finalized a
methodology to do that, especially in the presence
of multiple responses for the same -- what we'd
call indicator.

```

Q So is it fair to say that at the very
least, it is premature to say that this ratio will
help the Census Bureau establish, to the best of
its ability, an accurate ratio that will help you
to impute for that small percentage -- for that
whatever it is percentage of cases where it is
necessary to do?

A Speaking on a purely statistical basis, having population data of self-responses and
population data of administrative responses does
contribute to more accurate statistical analysis.
            As to how they would be used to impute
the problematic cases in either direction, that is
not yet determined.

Q And this is complicated by the
significant inaccuracy issues that were
noticed -- that were noted in your technical
3
4
5

6
memos, correct?MR. EHRLICH: Objection. Form.THE WITNESS: This is complicated by the
need to resolve, with defensible evidence,conclusions that you draw from thoseinconsistencies, especially for the administrative
    record noncitizens.
    BY MS. GOLDSTEIN:
            Q So the Census Bureau has not yet
        completed its analysis that would support or not
    support Secretary Ross's conclusion in that
    sentence; is that fair to say?
        A Yes.
\begin{tabular}{l} 
MS. GOLDSTEIN: Let's take a short break \\
and see where we're at. Off the record. \\
VIDEOGRAPHER: Going off the record. The \\
time on the video is \(5: 59 \mathrm{p} . \mathrm{m}\). \\
(Off the record.) \\
VIDEOGRAPHER: This begins Media Unit \\
Number \(7 . \quad\) The time on the video is \(6: 09\) p.m. We \\
\hline
\end{tabular}
are on the record.
BY MS. GOLDSTEIN:
Q Dr. Abowd, I think I have just one more question.

If you will turn to the last page of the exhibit in front of you Bates marked 1320.

A Okay.
Q In light of the Census Bureau's analysis
of Alternative \(C\) versus Alternative D, do you agree that reinstatement of a citizenship question on the 2020 decennial census is necessary
to provide complete and accurate data in response to the DOJ request?

A No.
Q And that is the position of the
Census Bureau, correct?
A Yes.
MS. GOLDSTEIN:
Q Thank you, Dr. Abowd.
I just want the record to reflect and that plaintiffs -- and \(I\) speak to all plaintiffs with respect to this -- are leaving the record
open, because, among other reasons, the documents that were produced last evening that we have not had time to review that are relevant to this deposition, both with respect to the underlying documents, as well as to how the documents relate to many of the topics listed in the \(30(\mathrm{~b})(6)\) deposition notice, as well as documents that were identified this afternoon that have not yet, to our knowledge, been produced. These include the Reingold documents, documents relating to the \(Y \& R\) contract, the CBAMS microdata file that was given to \(Y \& R\), and the July extended white paper and possible other documents that we will confer with counsel on.

MR. EHRLICH: I think Dr. Abowd said the July white paper was the same as the August white paper we sent you.

MS. GOLDSTEIN: There were some small modifications. So to the extent there is another version of that white paper that should be produced to us, okay?

MR. EHRLICH: We can talk about that.

MS. GOLDSTEIN: Absolutely. Can we close the record or does counsel have questions --

MR. EHRLICH: I just --
MS. GOLDSTEIN: Not close the record. Leave the record open but end this deposition for today?

MR. EHRLICH: I just have a couple questions on open items that we wanted to close the loop on.

EXAMINATION BY MR. EHRLICH:
Q In terms of the 2010 census, who authorized the use of contingency funds?

A For the 2010 census, contingency funds had to be requested by the director from OMB. So OMB had to approve the release.

Q And for the 2020 census, is there a place you could find an amount of the contingency funds that are currently planned?

A Yes. The lifecycle cost estimate is a public document. It's on census.gov. I can supply find the URL or the search keywords that will find it, whichever you prefer.
Q And is there a place -- a place where you
could find the expected enumeration from the
administrative records?
A That's a component of the lifecycle cost estimates.

Q And why was it that the RCTs that we've discussed previously were not put into the field?

A Acting Deputy Director Lamas, Acting Director Jarmin, and Under Secretary Kelley conferenced about that proposal and determined that the 42 million households that had already asked -- had already answered the existing citizenship question constituted adequate testing and that we would use that question.

MR. EHRLICH: I have nothing else.
FURTHER EXAMINATION BY MS. GOLDSTEIN:
Q One follow-up question on that,
Dr. Abowd. Sorry.
Was the Census Bureau team of experts consulted on Director Jarmin, Under Secretary Kelley and Dr. Lamas's decision not to put those RCTs into the field?

A Tori Velkoff, although she's not an author of the paper that you got, was a member of the SWAT team. She had staff supported.

So in these situations, the senior
leadership of the Census Bureau consults with the internal experts they believe are most salient. I mean, Tori preferred the cost estimate, so that was -- that's who got consulted.

Q So Ms. Velkoff got consulted?
A Yes.
Q Thank you.
And were you -- were you consulted?
A No.
Q Thank you.
VIDEOGRAPHER: This concludes today's video deposition. The time on the video is 6:14 p.m. We are off the record.
(Whereupon, at 6:14 p.m., the deposition of Dr. John Abowd was concluded.)

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CERTIFICATE OF REPORTER

I, KAREN LYNN JORGENSON, RPR, CSR, CCR the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by me in stenotype and thereafter reduced to typewriting under my direction; that the said deposition is a true record of the testimony given by said witness; that \(I\) am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.


KAREN LYNN JORGENSON, RPR, CCR, CSR Dated this 1st day of September , 2018.

ACKNOWLEDGEMENT OF DEPONENT
I, DR. JOHN ABOWD, do hereby acknowledge I have read and examined the foregoing pages of testimony, and the same is a true, correct and complete transcription of the testimony given by me, and any changes or corrections, if any, appear in the attached errata sheet signed by me.

Stephen Ehrlich, Esquire
U.S. DEPARTMENT OF JUSTICE 20 Massachusetts Avenue Washington, D.C. 20530

IN RE: New York Immigration Coalition, et al., v. United States Department of Commerce, et al.

Dear Mr. Ehrlich:
Enclosed please find your copy of the deposition of DR. JOHN ABOWD, along with the original signature page. As agreed, you will be responsible for contacting the witness regarding signature.

Within 21 days of receipt of transcript, please forward errata sheet and original signed signature page to counsel for, John Freedman and all counsel of record.

If you have any questions, please do not hesitate to call. Thank you.

Yours,


Karen Lynn Jorgenson, RPR, CCR, CSR
Capital Reporting Company
1821 Jefferson Place, Northwest
3 rd Floor
Washington, D.C. 20006
(202) 857-3376
cc: All counsel of record
                    \(E R R A T A \quad S H E E T\)

Case Name: New York Immigration Coalition, et al., v. United States Department of Commerce, et al.,

Witness Name: DR. JOHN ABOWD
Deposition Date: Wednesday, August 29, 2018
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Federal Rules of Civil Procedure
Rule 30
(e) Review By the Witness; Changes.
(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:
(A) to review the transcript or recording; and (B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.
(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule \(30(f)(1)\) whether a review was requested and, if so, must attach any changes the deponent makes during the \(30-d a y\) period.

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\author{
VERITEXT LEGAL SOLUTIONS \\ COMPANY CERTIFICATE AND DISCLOSURE STATEMENT
}

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\section*{Summary: Census Bureau 30(b)(6) (John Abowd) Vol. 2 (October 5, 2018)}

The Census Bureau produced a White Paper in response to DOJ's request. Tr. 351-53. Dr. Abowd's January 2018 memo to Secretary Ross [AR 1277] was based on a preliminary version of the White Paper, which constitutes the best analysis that the Bureau can do of the consequences of adding a citizenship question to the 2020 census, and of the quality of citizenship data available from different sources. Tr. 353-58. The Bureau agrees that the balance of evidence available suggests that adding a citizenship question to the 2020 census would lead to a lower self-response rate in households potentially containing noncitizens. Tr. 358.

On the ACS, item non-response (the failure to answer a particular question) and breakoff rates (the rate at which respondents stop answering the survey) are higher on the citizenship question for Hispanics as compared to non-Hispanic whites, and have increased. Tr. 359-64. The Bureau believes that the citizenship question will cause Hispanics' response rates to the 2020 Census to decline more than non-Hispanic whites' response rates. Tr. 364-69. The Bureau communicated to Commerce the empirical basis for its belief that the question will reduce response rates. Tr. 369-72. The Bureau conservatively estimates the question will reduce response rates among households with a noncitizen or a person of unknown citizenship status by 5.8 percentage points relative to all-citizen households. Tr. 372-77.

The Bureau has non-response follow-up (NRFU) methods to enumerate households that do not self-respond to the Census including in-person enumerators; but the Bureau believes that households that do not self-respond to the census because of the citizenship question are not likely to cooperate with an enumerator. Tr. at 425. The Bureau also uses proxies (e.g., neighbors) to obtain responses, but proxies are more likely to omit a person, and the Bureau believes that people who live in Census tracts with higher percentages of noncitizens are less likely to give proxy responses. Tr. 382-87. The Bureau will also use administrative records, but they are less frequently available for Hispanics and noncitizens. Tr. 387-92. The citizenship question may cause more households to omit a member when responding to the Census, but the Bureau does not employ NRFU if a household does so. Tr. 394-99. The Bureau conducted an analysis after the 2010 Census showing that Blacks and Hispanics were more frequently omitted, and undercounted, as compared to non-Hispanic whites. Tr. 399-407.

The Bureau compared Alternative C (using administrative records for CVAP data) and Alternative D (using both a citizenship question and administrative records, which Secretary Ross chose), and found that Alternative D results in worse CVAP data for various reasons: the question reduces self-responses, resulting in poorer-quality census responses which are in turn harder to match to administrative records; under Alternative D, the Bureau has no plan for how to address situations where a person's survey response as to citizenship status and their administrative records do not agree; and, although administrative records do not exist for everyone, and thus Alternative C requires imputing the citizenship status of some people, these imputation methods are more reliable than responses to the citizenship question. Tr. 407-24. The Bureau communicated its disagreement with Alternative D to the Commerce Department.

The Bureau received a proposal for a randomized control test (RCT) of the citizenship question, but it was rejected. Tr. 426-30. The Bureau believes that it does not make sense to include a citizenship question on the 2020 Census. Tr. 432-33. The Bureau can lock down the content of the Census questionnaire by June 30, 2019. Tr. 436-37. The Census Barriers, Attitudes, and Motivators Survey (CBAMS) includes 42 focus groups, many of which responded negatively to the citizenship question, including mainland US Spanish speakers. Tr. 437-62.

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
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STATE OF NEW YORK, et al., :
Plaintiffs, :
vs. : Civil Action No.
UNITED STATES DEPARTMENT OF : 1:18-cv-2921-JMF COMMERCE, et al., :

Defendants. : Volume II
- - - - - - - - - - - X

CONTINUED VIDEOTAPED 30(b) (6)DEPOSITION OF:
UNITED STATES CENSUS BUREAU GIVEN BY JOHN M. ABOWD

DATE: Friday, October 5, 2018
TIME: 9:05 a.m.
LOCATION: Arnold \& Porter Kaye Scholer
601 Massachusetts Avenue, N.W.
Washington, D.C.
REPORTED BY: Denise M. Brunet, RPR
Reporter/Notary
Veritext Legal Solutions
1250 Eye Street, N.W., Suite 350
Washington, D.C. 20005
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\begin{array}{llllllllll}
A & P & \mathrm{E} & \mathrm{~A} & \mathrm{R} & \mathrm{~A} & \mathrm{C} & \mathrm{E} & \mathrm{~S}
\end{array}
\]

On behalf of the New York Immigration Coalition: DALE HO, ESQUIRE American Civil Liberties Union Foundation

125 Broad street
18th Floor
New York, New York 10004
(212) 549-2693
dale.ho@aclu.org

SARAH BRANNON, ESQUIRE
American Civil Liberties Union Foundation

915 15th Street, Northwest Washington, D.C. 20005
(202) 675-2337
sbrannon@aclu.org
(Appearances continued on the next page.)

APPEARANCES (continued) :

On behalf of the New York Immigration Coalition (continued):

JOHN A. FREEDMAN, ESQUIRE
DAVID GERSCH, ESQUIRE
Arnold \& Porter Kaye Scholer, LLP
601 Massachusetts Avenue, N.W. Washington, D.C. 20001
(202) 942-5316
john.freedman@arnoldporter.com

On behalf of the state of New York:
DANIELLE FIDLER, ESQUIRE
Assistant Attorney General
■ Environmental Protection Bureau
28 Liberty street
New York, New York 10005
(212) 416-8441
danielle.fidler@ag.ny.gov
(Appearances continued on the next page.)

APPEARANCES (continued):

On behalf of the Kravitz Plaintiffs:
KARUN TILAK, ESQUIRE
Covington \& Burling
85010 th Street, Northwest
Washington, D.C. 20001
(202) 662-6000
ktilak@cov.com

On behalf of the Lupe Plaintiffs:
NIYATI SHAH, ESQUIRE
ERI ANDRIOLA, ESQUIRE
Asian Americans Advancing Justice
1620 L Street, Northwest
Suite 1050
Washington, D.C. 20036
(202) 296-2300
nshah@advancingjustice-aajc.org
(Appearances continued on the next page.)

APPEARANCES (continued):

On behalf of the City of San Jose \& Black Alliance for Just Immigration:

DORIAN L. SPENCE, ESQUIRE
Lawyers Committee for Civil Rights Under Law

1500 K street, Northwest
Suite 900
Washington, D.C. 20005
(202) 662-8324
dspence@lawyerscommittee.org

On behalf of the state of California:
ANNA FERRARI, ESQUIRE
Department of Justice
Office of the Attorney General
Government Law section
455 Golden Gate Avenue, suite 11000
San Francisco, California 94102
(415) 510-3779
(Appearances continued on the next page.)

APPEARANCES (continued):

On behalf of the state of California (continued):
R. MATTHEW WISE, ESQUIRE
(via telephone)
Department of Justice
Office of the Attorney General
1300 I Street
P.O. Box 944255

Sacramento, California 94244
(916) 210-6053
matthew.wise@doj.ca.gov

On behalf of Los Angeles Unified School District:
KEITH YEOMANS, ESQUIRE
(via telephone)
Dannis Woliver Kelley
115 Pine Avenue, suite 500
Long Beach, California 90802
(562) \(366-8500\)
keyomans@dwk.com
(Appearances continued on the next page.)

APPEARANCES (continued) :

On behalf of the County of Los Angeles:
DAVID I. HOLTZMAN, ESQUIRE
(via telephone)
Holland \& Knight
50 California Street
Suite 2800
San Francisco, California 94111
(415) 743-6909
david.holtzman@hklaw.com

On behalf of Defendants:
STEPHEN EHRLICH, ESQUIRE
U.S. Department Of Justice

Civil Division
20 Massachusetts Avenue, Northwest Washington, D.C. 20530
(202) 305-9802
stephen.ehrlich@usdoj.gov
(Appearances continued on the next page.)

C O N T E NTS

EXAMINATION BY:
Mr. Ho 349

Ms. Fidler 436

ABOWD DEPOSITION EXHIBITS: PAGE:

24 - Bates COM_DIS00009833-9909 349

25 - Bates COM_DIS0012757-762 349

26 - DSSD 2010 Census Coverage Measurement Memorandum Series \#2010-G-01

27 - Proposed Content Test on Citizenship Question425
28 - Bates COM_DIS00010669-684 ..... 436
29 - Bates COM DIS0013025-55 ..... 436
(*Exhibits attached to the transcript.)
\[
P R O C E E D I N G S
\]
(Abowd Deposition Exhibit Numbers 24 and 25 were marked for identification.)

THE VIDEOGRAPHER: We're now on the record at 9:05 on October 5th, 2018. This is the continuation of the \(30(b)(6)\) deposition of the Census Bureau, given by John Abowd, taken in the matter of the New York Immigration Coalition, et al., v. United States Department of Commerce, et al.

Our court reporter is Denise Brunet, camera operator is Nhat Pham, both on behalf of Veritext.

Attorneys present and attending remotely will be noted on the stenographic record. Will the court reporter please swear in the witness. WHEREUPON,

JOHN M. ABOWD,
called as a witness, and having been sworn by the notary public, was examined and testified as follows:

\author{
EXAMINATION BY COUNSEL FOR
}

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no unless I'm unclear or if I've misstated
something or if my question necessarily calls for
a longer answer. Would that be okay?
A Yes, sir.

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        Q Okay. Picking up from last time, I've
    given you an exhibit that's been marked as
    Exhibit 24. Do you see that?
    A Yes, sir.
    Q Now, this is a white paper titled,
Understanding the quality of alternative
citizenship data sources for the 2020 census,
dated August 6th, 2018, the first page of which
has the Bates number COM_DIS09833. Is that
correct?
    A Yes, sir.
    Q Now, this document was created by the
Census Bureau in the ordinary course of its
business and not for litigation purposes, correct?
    A That is correct.
    Q I'm going to refer to this as the white
paper. Okay?
    A That's fine.

today.
Q And the paper includes an assessment of
the possible effect of the inclusion of the
citizenship question on self-response rates to the
2020 census, correct?

A Yes.
Q Now, the bureau is in the process of getting this white paper peer reviewed; is that right?

A Externally peer reviewed.
Q Why?
A We consider it a valuable scientific contribution made by the authors in the course of their work. The authors are in research positions at the Census Bureau, and so part of their job requirement is to have their technical work externally peer reviewed and appear in the scientific journals.

Q Is this the most recent version of the paper currently available?

A Yes, sir.
Q The authors of the white paper, they are
the members of the SWOT team that you assembled at the direction of Acting Census Bureau Director Ron Jarmin to respond to the DOJ request, correct?

A A subset, yes.
Q Is there anyone better at the census Bureau for conducting the analysis that -contained in the white paper other than the authors of the white paper?

A I honestly don't know.
Q You wouldn't have chosen people who weren't the best people for this job, would you, Dr. Abowd?

A I attempted to choose the best people known to me for this job, yes.

Q Do you think you succeeded in choosing the best people known to you for conducting this analysis?

A Yes, sir.
\begin{tabular}{||c||}
\hline Q To your right, there's a document that \\
was marked as Exhibit 7 early -- during the first \\
part of your deposition. This is a memo under \\
your name dated January 19th, 2018 . Do you see \\
\hline
\end{tabular}
```

that?
A Yes, sir.
Q Now, this memo of yours, Exhibit 7,
relies on a preliminary version of the analysis
that's contained in the white paper; is that
right?
A Yes.
Q Is it fair to say that the white paper
that's Exhibit 24 represents an extended and more
up-to-date version of the analysis that you relied
on in preparing your memo, Exhibit 7?
A Yes.
Q Now, in the -- we don't have to talk
about your memo anymore. Just back to the white
paper. In the Census Bureau's view, the various
analyses contained in the white paper, Exhibit 24,
were methodologically appropriate for the
questions that the white paper attempted to
answer, correct?
A Yes.
Q Now, does this white paper represent the
Census Bureau's best possible analysis based on

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existing data regarding the impact of the
citizenship question on self-response rates to the
2020 census?
A I would say it represents the primary research effort, but not all of the research effort.

Q And when you say it represents the primary research effort, would you say that it represents the best analysis that the census Bureau has of the possible effect of adding the citizenship question on self-response rates for the 2020 census?

A I think it provides the inputs for doing the best analysis that we can of the consequences of the question on the 2020 census.

Q Is there any better analysis that the Census Bureau has of the effect of adding the citizenship question on self-response rates to the 2020 census that's not contained in the white paper?

A There's one additional analysis in my expert report that's already been disclosed that
is not in the white paper.
    Q Okay. Which analysis is that
    specifically?
    A The one of the short-form test that
    followed the 1990 census.
    Q Does the white paper represent the Census
    Bureau's best possible analysis of existing data
    regarding the quality of citizenship data that's
    available from different sources, such as surveys
    and administrative records?
    A Yes.
    Q Does the Census Bureau agree with the
    conclusions expressed in the white paper?
            A I'll deal with that on a specific
        conclusion-by-conclusion basis.
            Q As a general matter, are there
        conclusions in the white paper -- I'm sorry.
            Are there conclusions in the white paper
        that the Census Bureau disagrees with?
            A There are no conclusions in the white
        paper that the Census Bureau disagrees with.
        There are some of the author's interpretations
that \(I\) might not agree with.
\begin{tabular}{|c}
\hline Q Let's turn to page 2 of the white paper, \\
Bates COM_DIS09834. The last sentence of the \\
abstract reads, "The evidence in this paper also \\
suggests that adding a citizenship question to the \\
2020 census would lead to lower self-response \\
rates in households potentially containing \\
non-citizens, resulting in higher field work costs \\
and a lower quality population count." \\
A Iid read that accurately? \\
Yes, you did.
\end{tabular}

Q Does the Census Bureau agree that the balance of evidence available suggests that adding a citizenship question to the 2020 census would lead to lower self-response rates in households potentially containing non-citizens?

A Yes.
Q Does the Census Bureau agree that the balance of evidence available suggests that adding a citizenship question to the 2020 census would lead to a lower quality population count?

A I have to define lower quality population
```

    count to answer that question. May I?
    Q Yes, please.
    A So the usual accuracy measures are two:
    Net undercount and then its components, gross
    omissions and erroneous enumerations and
    whole-person census imputations. We have no
    evidence that it would affect the quality as
    regards net undercount. We have evidence that it
    would affect the count -- the quality as regards
    components of the errors in the enumeration.
    Q We'll get back to that. Thank you for
    that clarification.
    Could you turn to page 8 in the white
    paper, Bates number COM_DIS09840? And I want to
    look at figure 1, panel A. This graph shows item
    non-response, which is the failure to answer
    certain questions, on the American Community
    Survey, or ACS, in the year 2016, broken down by
    various racial and ethnic subgroups; is that
        correct?
            A Racial, ethnic and demographic subgroups,
        yes.
    ```
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                                    Page 360
    Q And the data here does not distinguish
    between citizens and non-citizens, correct? I'm
    referring to panel A only.
    A Oh. That's correct.
    Q So in panel A, when we look at data for a
    group like Hispanics on this chart, we're talking
    about a group that includes both Hispanic citizens
    and Hispanic non-citizens, correct?
    A Correct.
    Q Is it fair to say that on the ACS in 2016
    the item non-response rate for Hispanics on the
    citizenship question was more than twice as high
    as it was for non-Hispanic whites?
    A Yes.
    Q And let's look at figure 1, panel B on
    the same page. Now, this graph shows item
    non-response rates on the ACS in 2016 for
    respondents who were identified in the NUMIDENT
        data as non-citizens broken down by racial, ethnic
        and demographic subgroups, correct?
            A Correct.
            Q And is it fair to say that on the 2016
    ```

ACS, the item non-response rate for Hispanic non-citizens on the citizenship question was more than twice as high as it was for non-Hispanic white non-citizens?

A Yes.
Q Let's look at page 11, Bates number COM_DIS9843, table 1. This table lists the breakoff rates for various questions on the ACS broken down by race and ethnicity, correct?

A Correct.
Q And the breakoff rate is the rate at which, when people are responding to the ACS questionnaire online, that they stop answering the survey upon encountering a screen with a particular question, correct?

A Correct.
Q If we look at the breakoff rates to the citizenship question and compare Hispanics to non-Hispanic whites, the breakoff rate on the 2016 ACS for Hispanics on the citizenship question is more than ten times what it is for non-Hispanic whites, correct?


Q When you say the question is sensitive to
that subpopulation, you mean it is -- the
citizenship question is sensitive for Hispanics
relative to non-Hispanic whites?

A Yes.
Q I want to ask you about what's been premarked as Exhibit 25, just to your right. It's a chart, the footer of which reads, 2017 breakoff rates by race group augmented 20180915.pdf, and the first page is Bates number 126757. Do I have that right?

A Mine says 20180917.pdf.
Q Sorry.
A Okay.
Q Other than that?
A Yes.
Q Okay. Now, let's look at the citizenship question breakoff rate on the 2017 ACS for non-Hispanic whites. That rate is . 03489 percent, correct?

A Correct.
Q And the citizenship question breakoff rate on the 2017 ACS for Hispanics is
.4343 percent, correct?
A Yes.
Q So on the 2017 ACS, is it correct to say that the citizenship question breakoff rate for Hispanics is more than 12 times what it is for non-Hispanic whites?

A I didn't calculate the ratio myself, but that looks about right.

Q Okay. And if you look back to the 2016 ACS breakoff rates on page 11 of the white paper and compare them to the 2017 breakoff rates, is it correct that the citizenship question breakoff rate for non-Hispanic whites stayed about the same in 2016 and 2017?

A Yes.
Q And is it correct that the citizenship question breakoff rate for Hispanics increased between 2016 and 2017?

A The point estimate increased. I didn't calculate a margin of error of the difference.

Q Okay. Now, is it correct to say, given the analysis of item non-response rates and
breakoff rates that we've talked about, that the Census Bureau believes that it is more likely than not that Hispanics will respond to the citizenship question on the 2020 census at a lower rate than non-Hispanic whites?

A Yes.
Q Is it also correct to say that the census Bureau believes, based on the item non-response and breakoff rate analyses that we've discussed, that it is more likely than not that there will be a greater decline in unit self-response rates to the 2020 census due to the citizenship question among Hispanics than there will be among non-Hispanic whites?

A I'm not prepared to draw that conclusion from the analysis that you just showed me. Do you have other analyses you want me to look at?

Q Well, let's stay here. Is it fair to say that none of the analyses of ACS data that the Census Bureau has conducted suggests that self-response rates to the 2020 census among Hispanics and non-Hispanic whites will decline at
the same rate as a result of the citizenship question?

THE WITNESS: Could you read the question back, please?
(The reporter read the record as
requested.)
THE WITNESS: Yes.
BY MR. HO:
Q Is it fair to say that the Census Bureau believes that unit self-response rates to the 2020 census will decline more among Hispanics than non-Hispanic whites as a result of the citizenship question?

A To the extent that Hispanic is correlated with households containing non-citizens or persons of unknown citizenship status, yes.

Q Let's go back to the white paper and let's look at page 9, Bates number COM_DIS09841. And I'm looking at figure 2, panel A. This graph shows the difference in item non-response on various questions comparing the 2013 and 2016 ACS broken down by various racial, ethnic and
demographic subgroups, correct?

A Yes.
Q And according to the Census Bureau's analysis, for non-Hispanic whites, non-response to the citizenship on the ACS did not change between 2013 and 2006 [sic], correct?

A Yes.
Q And according to the Census Bureau's
analysis for Hispanics, non-response to the citizenship question on the ACS increased between 2013 and 2016, correct?

A Yes.
Q And during this same period for
Hispanics, non-response to the sex question on the ACS actually decreased between 2013 and '16, correct?

A Hispanics, right?
Q Yes.
A Yes.
Q Let's go to the next page, page 10 , and I'm looking at figure 2, panel B. This is the same analysis comparing 2013 and 2016 item
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non-response rates but among individuals

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    identified as non-citizens in the NUMIDENT data,
    correct?

A Yes.
Q And according to the Census Bureau's analysis, for non-Hispanic white non-citizens, non-response to the citizenship question on the ACS increased by less than 0.5 percentage points between 2013 and '16, correct?

A Yes.
Q And during the same period, for Hispanic non-citizens, non-response to the citizenship question on the ACS increased by more than 1.5 percentage points, correct?

A Yes.
Q So is it fair to say that among non-citizens, the non-response rate to the citizenship question on the ACS between 2013 and 2016 increased for Hispanics at more than three times the rate that it did for non-Hispanic whites?

A Yes.

question on self-response rates for non-citizens is that the addition of the citizenship question will cause non-citizen self-response rates to decline by 5.8 percentage points relative to citizens, correct?

A Households containing a non-citizen or a person of unknown citizenship status relative to households containing all persons with known citizenship status -- known citizens. And then -yes.

Q Yes, that's correct?
A With my correction of your definitions, yes.

Q Okay. Now, given that opinion, if someone said to you that the Census Bureau could not articulate a rationale to support its belief that there would be a decline in the response rate as a result of adding the citizenship question to the 2020 census and that the Census Bureau simply made an assumption that the self-response rate would decline, would you agree with that person?

A No. Vague;

Q Did you ever tell Earl Comstock from the Department of Commerce or give him the impression that the Census Bureau could not articulate a rationale to support its belief that there would be a decline in the self-response rate to the 2020 census as a result of the citizenship question?

A \(\quad\) No.
Q Did you, in fact, ever explain to Mr. Comstock the basis for the Census Bureau's belief that the addition of the citizenship question would reduce self-response rates to the 2020 census?

administrative records or a person with unknown citizenship status in the administrative records compared to households with all citizens as defined in the administrative records, correct?

A Not quite. Th all household population had to be both in administrative records and self-declared. And then the comparison group is every other household.

Q Got it. Okay. So let me try this again. The 5.8 percentage point number, that's a comparison of households where the response to the ACS and the administrative records indicate that every member of the household is a citizen and all other households, right, Dr. Abowd?

A Yes.
Q Okay. That analysis -- if we look at page 38 of the white paper, Bates number COM_DISO9870, that analysis producing the 5.8 percentage point differential that we've discussed, that is set forth on this table, correct?

A Which table are you asking me to
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    reference?
    Q Table 8.
    A And which number?
    Q The 5.8 percentage point differential.
    A No, you have the wrong table.
    Q Okay. Could you show me --
    A Although you have that right number.
    Q Could you show me the right table?
    A 9, second panel.
    Q Got it. Okay. So this analysis, the 5.8
    percentage point -- that produces the 5.8
    percentage point differential, that's based on a
    comparison of 2016 ACS data to -- response rates,
    I'm sorry, to 2010 decennial response rates,
    correct?
    A Yes.
    Q Okay. So in the Census Bureau's
        estimation, it's more accurate -- if you're trying
        to assess the impact of the addition of the
        citizenship question on self-response rates, it's
        more reliable to use more recent ACS non-response
        data in calculating your estimate; is that Vague;
                                    Calls for
                                    speculation
    ``` correct?

MR. EHRLICH: Objection. Form.
THE WITNESS: Generally, yes.
BY MR. HO:
Q Let's look at page 46 of the report, Bates number COM_DIS9878, and I'm looking at the third full paragraph here.

A \(\quad\) As mentioned above"?
Q "As mentioned above." It reads, "As mentioned above, the estimated reduction in self-response due to the inclusion of a citizenship question is based on a comparison of a long 2010 ACS questionnaire to a short 2010 census questionnaire. The visibility of the citizenship question may be more prominent when added to a short questionnaire, resulting in a larger reduction in self-response than what we have estimated here."

Did I read that right?
A Yes, you did.
Q Would it be accurate to say that the Census Bureau believes that the effect of a
```

Citizenship question in terms of reducing response
rates among households that have a non-citizen or
someone of undefined citizenship status,
et cetera, as compared to all citizen households
might be even larger than 5.8 percentage points
because that estimate is based on ACS data, and
here the citizenship question would have more
prominence on the relatively shorter 2020 census
questionnaire?
A If the question is does the Census Bureau
agree with the question -- with the sentences in
the paragraph that you read me, the answer is yes.

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    Q Okay. Let me try this again. Does the
    Census Bureau believe that 5.8 percentage
    points -- that that estimate is conservative? Let
    me stop there.
    A Yes.
    Q Okay. And one of the reasons why the
    Census Bureau believes that that estimate is
    conservative is that it's based on ACS
    non-response rates, whereas, here, if you add the
    citizenship question to the census questionnaire,
the citizenship question could have more prominence and a greater effect in terms of reducing self-response rates; is that right, Dr. Abowd?
\begin{tabular}{||c||} 
A Yes. \\
Dr. Abowd, which you articulated earlier, is that \\
the Census Bureau is going to enumerate most of \\
the people who failed to respond to the census \\
questionnaire because of the citizenship question; \\
is that right? \\
MR. EHRLICH: Objection. Form. \\
THE WITNESS: The vast majority, yes. \\
BY MR. HO:
\end{tabular}

Q Now, one of the ways that you have of enumerating people when their household does not self-respond to the census questionnaire is by sending census enumerators in person to that household, correct?

A That's correct.
\begin{tabular}{|c|}
\hline Q And we would call that - we could call \\
that part of the non-response follow-up, or \\
\hline
\end{tabular}

N-R-F-U. I'm going to call it NRFU during the deposition. Is that okay?

A That's fine. I say NRFU, but it's a matter of style.

Q Let's look at page 42 of the white paper, Bates number COM_DIS9874. And I'm looking at the last paragraph, last complete sentence, starting with, "This analysis." It reads, "This analysis assumes that, during the NRFU operations, a cooperative member of the household supplies data 79.0 percent of the time, and 21.0 percent receive proxy responses."

In that sentence, the phrase "this analysis" refers to the Census Bureau's cost analysis of the effect of adding the citizenship question to the 2020 census, correct?

A The particular cost analysis in the paragraph that you're reading, yes.

Q Okay. Now, in generating this cost analysis about the effect of adding the citizenship question to the 2020 census, the Census Bureau assumed that of the households that
do not respond to the census questionnaire because of the citizenship question, 79 percent will respond to an in-person enumerator, correct?

A Yes.
MR. EHRLICH: Objection. Form.
THE WITNESS: Yes.
BY MR. HO:
Q Let's turn back to the previous page, page 41, Bates number COM_DIS9873. The last paragraph on this page, the second sentence, four lines down, reads, "Households deciding not to self-respond because of the citizenship question are likely to refuse to cooperate with enumerators coming to their door in NRFU, resulting in the use of neighbors as proxy respondents on their behalf."

Does the Census Bureau agree with that sentence?

A That's one of the places where the authors are stating their own opinion.

Q Okay. Does the Census Bureau agree with that sentence, Dr. Abowd?

A Not completely.
Q Is there an empirical basis for the Census Bureau's incomplete agreement with that sentence?

A The sentence represents a summary of qualitative evidence with which the Census Bureau agrees that hard-to-count subpopulations are less cooperative in NRFU and, to that extent, the Census Bureau agrees with that sentence.

Q Okay. And that sentence was written by the authors of this white paper whom you selected as the best people at the Census Bureau to conduct the analysis reflected in the white paper, correct, Dr. Abowd?

A Yes.
Q Let's turn forward two pages to page 43, Bates number COM_DISO9875. And let's look at footnote 60, which reads, "These enumeration errors may not be avoidable simply by spending more money on field work. Once a household decides not to cooperate, it may not be possible to obtain an accurate enumeration no matter how
many times an enumerator knocks on their door."
In this footnote, the term "these enumeration errors" refers to enumeration errors that arise as a result of increased non-response to the census questionnaire due to the addition of a citizenship question, correct?

A Yes.
Q And the view of the Census Bureau is that enumeration errors arising from the decline in self-response caused by the citizenship question may not be avoidable simply by spending more money on field work, correct?

A Yes.
Q And it is the view of the Census Bureau that once a household decides not to cooperate with the census because of the citizenship question, it may not be possible to obtain an accurate enumeration of that household no matter how many times an enumerator knocks on their door, correct?

A Accurate in this sentence means erroneous enumerations and whole-person census imputations.

It does not mean net undercount.
THE REPORTER: Could you please repeat
your answer.
THE WITNESS: Accurate enumeration in
this sentence means enumeration errors and
whole-person census imputations. It does not mean
net undercount.
BY MR. HO:

Q Now, if you send an in-person enumerator to a household that doesn't self-respond and that doesn't result in a response, one way that you could -- another way you could have of enumerating that household is through a proxy response, which means trying to obtain a response from someone who is not a member of that household about that household, correct?

A Yes.
Q And the Census Bureau agrees that proxy enumeration generally results in lower quality enumeration data than self-responses, correct?

A Yes.
Q And the Census Bureau agrees that a proxy
response is more likely to result in the omission
of a household member than a self-response,
correct?

A I haven't looked at the table recently,
but I believe that's correct, yes.
    Q Let's go to the white paper again. And I
want to look at page 12, Bates number
COM_DISO9844, figure 3 .
    A Figure 3, did you say?
    Q I believe so. On page 12?
    A Okay. I thought I heard 4.
    Q Okay. Figure 3 depicts unit non-response
    to the ACS from 2010 through 2016 comparing census
    tracts with the lowest decile of housing units
    containing a non-citizen to the census tracts in
    the highest decile of housing units containing a
    non-citizen, correct?
    A Correct.
    Q And for each year of ACS depicted here,
census tracts in the highest decile of housing
units containing a non-citizen have a lower
response rate to the ACS than do census tracts in
    the lowest decile of housing units with a
    non-citizen, correct?

A Yes.
Q And for both groups, unit non-response to the ACS declined between 2010 and 2016 , correct?

A No. It increased between 2010 and 2011 and then declined from 2011 forward.

Q But if we just compare 2016 to 2010 --
A Yes.
Q -- the unit non-response rate for both groups in 2016 was lower than it was in 2010 , correct?

A That's correct, yes.
\begin{tabular}{|c}
\hline\(Q\) Okay. And the decline amongst - I'm \\
sorry, let me start that again. \\
\hline
\end{tabular}

The decline in census tracts in the
highest decile of housing units including a non-citizen -- the decline in unit self-response rates for that group was sharper than the decline in unit self-response rates by households in census tracts with the -- in the lowest decile of housing units with a non-citizen, correct?

the same exhibit.
Q Okay. Well, given what we've talked about, that unit non-response is lower in census tracts that have higher percentages of non-citizens and that ACS NRFU is less successful in census tracts that have higher percentages of households including a non-citizen, does the Census Bureau expect that people who live in census tracts with higher percentages of households with a non-citizen would also be less likely to provide proxy responses to the census than people who live in other areas?

A Accepting your premise about my testimony from before, the Census Bureau believes that that is likely, yes.

Q Let's look at page 43 of the white paper, Bates number COM_DIS09875. Let's look at the last full paragraph on this page. About halfway down, the second to last sentence starts -- it's about halfway down in that paragraph. The second to last sentence starts with, "As shown above."

A Yes.


Q Let's look at page 17 of the white paper, Bates number COM_DISO9849. Looking at figure 4, titled, Percent without administrative record or ACS citizenship in 2016. Now, the solid bars, which are the color blue on this graph, those show the percentage of 2016 ACS respondents broken down by racial, ethnic and demographic subgroups who cannot be linked to an administrative record indicating citizenship status, correct?

A Correct.
Q Now, the first paragraph on this page, the second sentence reads, "Note that the linkage between the ACS and administrative data from the SSA NUMIDENT and IRS ITIN tax filings depends on two factors: (a) the quality of the personally identifiable information (PII) on the ACS response; and (b) whether the ACS respondent is in the SSN/ITIN universe."

Did I read that right?
A Yes.
Q Okay. So here, the authors of the white paper are explaining that there are two reasons
primarily why the Census Bureau would be unable to link an ACS respondent to an administrative record indicating citizenship status: One, because the personally identifiable information on the survey response might not be high quality enough to link that person to administrative records; and, two, because the survey respondent is not in the administrative records at all; is that correct?

MR. EHRLICH: Objection. Form.
THE WITNESS: Yes.
BY MR. HO:
Q And if we look back at the graph, figure 4, among 2016 ACS respondents, Hispanics could not be linked to an administrative record at a higher rate than non-Hispanic whites, correct?

A Correct.
Q Now, based on this data, would you agree that the available evidence indicates that the Census Bureau, generally speaking, cannot link Hispanic survey respondents to administrative records at as high a rate as it can for non-Hispanic whites?
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|r|}{Page 390} \\
\hline \multicolumn{3}{|c|}{A Yes.} \\
\hline \multicolumn{3}{|r|}{Q The administrative records referenced} \\
\hline \multicolumn{3}{|l|}{here are the SSA and tax records, correct?} \\
\hline \multicolumn{3}{|r|}{A The individual tax identification number} \\
\hline \multicolumn{3}{|l|}{records} \\
\hline \multicolumn{3}{|l|}{\begin{tabular}{l}
Q You corrected me earlier when we talked about enumeration via administrative records. Could you just clarify what administrative records the Census Bureau relies on when it tries to enumerate people using administrative records? \\
A There's two parts to the process for using administrative records for enumeration. One part is performing the record linkage to identify all of the administrative records that might apply to a particular household. And the other part is constructing a candidate administrative record enumeration to be used during the NRFU process if the first NRFU follow-up visit doesn't produce a successful interview. \\
In the former part of the process, there's extensive use of tax records. In the latter part of the process, by agreement with the
\end{tabular}} \\
\hline
\end{tabular}

administrative records to be as successful for non-citizens as it is for citizens?

Vague;
MR. EHRLICH: Objection. Form.
Calls for speculation

BY MR. HO:
Q Let's go to page 5 of the white paper, Bates number COM_DIS09837. And I'm looking at the last paragraph on the page that starts with, "Camarota."
"Camarota and Capizzano, 2004, conducted focus groups with over 50 field representatives (FRs) for the 2000 supplemental survey, a pilot for the ACS. FRS reported that foreign-born respondents living in the country illegally or from countries where there is distrust in government were less likely to cooperate. Some foreign-born respondents failed to list all household members. FRs suspected that some foreign-born respondents misreported citizenship status, and they" -- continuing to the next page -- "believed this was due to recall bias, a fear of the implications of certain responses or a
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desire to answer questions in a socially desirable
way."
Did I read that right?
A Yes.
Q Okay. Now essentially what the white
paper authors are stating here is that in a study
Of a survey that was a precursor to the ACS which
contained a citizenship question, the researchers
conducting that study found that foreign-born
people responding to the survey sometimes did not
list all the members of their households, correct?
A The focus group evidence was that, yes.
THE REPORTER: The focus group...
THE WITNESS: The focus group evidence
was as described.
BY MR. HO:
Q And essentially -- sorry, let me start
again.
Separate and apart from this study, the
Census Bureau has determined that one of the
reasons in past censuses for the undercounting of
Hispanics is because of the failure of Hispanic

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households to include a response for every member
of their household, such as children, correct?
MR. EHRLICH: Objection. Form.
THE WITNESS: Are you referring to a
specific study that you want me to comment on?
BY MR. HO:

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    Q I'm not. I'm just -- my understanding
is -- and I just want you to correct me if my
understanding is mistaken -- that the Census
Bureau has looked at the historical undercount of
Hispanics in previous censuses. That's correct,
right?
    A Yes.
    Q Okay. And one of the reasons that the
Census Bureau has attributed the undercount of
Hispanics to in previous censuses has been the
failure of Hispanic households to provide a
response for every member of their household,
correct?
    A Yes.
    Q Okay. Now, the Census Bureau agrees that
    if the citizenship question is included in the
census, that would likely cause some households,
(2) such as those including a non-citizen or those
(3) including an undocumented immigrant, to fail to

4 provide a response for every member of the
5 household when they respond to the census,
6 correct?

BY MR. HO:
Q Well, does the Census Bureau believe that the citizenship question could have an incremental effect in certain households failing to enumerate every member of their household when they respond to the census?
A I think I just answered that question.
Q Is the evidence that we've seen and
discussed about item non-response, unit
non-response, breakoff rates with a citizenship
question, is that evidence consistent with the
notion that adding a citizenship question to the
census would cause an incremental increase in the
number of households that respond to the census
but don't provide a response for every member of
their household?

A Yes.
Q Now, NRFU efforts are only initiated if a household fails to provide a response for that household altogether, correct?

A With a few minor exceptions outlined in my expert report, correct.

Q So if a household responds to the census, but omits some of the members of that household, the Census Bureau doesn't send in-person enumerators to that person's door because you'd have no way of knowing if they omitted some members of their household, correct?

A If the household's response passes the sufficiency condition for being considered an essentially complete response, then, yes.

Q What's a sufficiency condition for being considered a complete response?

A It's a set of conditions that are checked before the NRFU workload is generated to see whether the response that came in from the household is complete enough to essentially fill in the rest with imputations or not. It varies by type of enumeration area, but -- and the actual conditions haven't been set for 2020 yet.

It is my way of saying there are some cases that go to NRFU where there was an incomplete response. And I don't have quantitative evidence on how many of those there are, but, generally, you're right. Generally, if you submit a self-response, it doesn't go to NRFU.

Q Generally speaking, if you answer the questions on the census questionnaire, the 10 questions, or 11, but you don't list every member of the household, the Census Bureau is not going
    to send an in-person enumerator to your door,
    correct?

A Correct.
Q Okay. And if you fill out the census response, answer the 10 or 11 questions, but don't list every member of your household, the Census Bureau is not going to try to get a proxy response for your household, right?

A Correct.
Q And if you answer the census questionnaire, but you don't list every member of your household, the Census Bureau is not going to start imputing -- sorry -- the Census Bureau is not going to start using administrative records to enumerate additional members of your household, correct?

A That actually hasn't been determined, but it's probably correct.

Q Okay. And if you answer the census questionnaire, but you don't list every member of your household, the Census Bureau isn't going to start imputing additional members of your
household, correct?
A Correct.
Q I want to show a document that's been marked as Exhibit 26.
(Abowd Deposition Exhibit Number 26 was marked for identification.)

BY MR. HO:
Q This is an official memo published by the Census Bureau, correct?

A It's part of the public memorandum series following the 2010 census that documents the coverage measurement studies, yes.

Q And this memo, Exhibit 26, it was produced by the Census Bureau in the ordinary course of its business, not for the purposes of litigation, correct?

A Correct.
Q Okay. And the subject line of this Census Bureau memo is, " 2010 census coverage measurement estimation report, summary of estimates of coverage for persons in the United States," correct?
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                                    Page 400
    A Correct.
    Q The lead author or the person that's
    prepared by is Thomas Mule, correct?
    A Mule.
    Q Mule. Thank you. He is in the decennial
    statistical studies division where he's an
economist in the Census Bureau, correct?
A He's a mathematical statistician,
otherwise correct.
Q Okay. And this memo is cited in the
white paper, Exhibit 24, correct?
A Yes.
Q Okay. Now, it's fair to say that
Exhibit 26, the Mule memo, that a purpose of it is
to estimate how well the 2010 census covered the
total population of the United States?
A Its purpose is to summarize a series of
studies that had that goal, among others.
Q And the 2010 census, that included NRFU
efforts for households that did not self-respond
to the census questionnaire, correct?
A Yes.

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table 9, titled, "Components of census coverage by
race and Hispanic origin."
                                The far right column in this table is
labeled, "Omissions," correct?
    A Yes, although \(I\) prefer the term "gross
omissions."
\begin{tabular}{|l|l|}
\hline Q Okay. \\
A Some of the experts use one and some use \\
the other. As long as we understand, whenever I \\
say omissions, it's gross omissions.
\end{tabular}

Q Okay. Omissions in this column, or gross
omissions as you would have it, refers to
percentage of people whom the Census Bureau
estimated were not counted in the 2010 census,
correct?

A It refers to the difference between the dual-system estimator and the number of persons that the coverage evaluation survey determined the estimate were correct enumerations.
\begin{tabular}{|c} 
Q Well, one way of characterizing this is \\
you have that dual estimator calculation of the \\
total population and you also have the number of
\end{tabular}
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people who the Census Bureau believes were
correctly enumerated in the 2010 census through
self-responses or in-person enumerators or proxy
responses, et cetera, and omissions is the
difference between the two, correct?
A No.
Q All right. Try to explain it to me
again. I'm sorry.
A So net undercount is the difference
between the dual-system estimator and the census
count.
Q Yes.
A Okay? Gross omissions is the difference
between the dual-system estimator and correct
enumerations, which is not the same thing as the
census count. Okay?
Q Okay.
A Is that what you think you said? Because
that's not what I heard. I'm sorry. I'm not
supposed to ask the questions. I'm sorry.
Q I'll ask the questions here. The Census
Bureau estimates that it omitted 5.3 percent of

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the population in the 2010 census, correct?

A Gross omissions, correct.
Q Okay. Now, the second to right-hand column is the percent undercount, which is a different number, right?

A Correct.
Q And if we look at percent undercount, the
Census Bureau estimates that the 2010 census
actually overcounted the total population of the
United States by 0.01 percent, correct?
A That overcount is not statistically significant, but that's the correct point estimate.

Q Okay. Now, the omissions are not evenly distributed across racial and ethnic groups, correct?

A The gross omissions are not, correct.
Q And the undercount is not distributed evenly among racial and ethnic groups, correct?

A That's correct. And undercount here is net undercount.

Q So let's start with non-Hispanic whites.

The Census Bureau estimates that 3.8 percent of non-Hispanic whites were omitted in the 2010 census, correct?

A You're using non-Hispanic white alone row, correct?

Q And the Census Bureau estimates that people who are non-Hispanic white alone were overcounted in the 2010 census by 0.83 percent, correct?

A Correct. And that one is statistically significant.

Q If we look at people who are identified as black in the census, the Census Bureau estimates that 9.3 percent of blacks were omitted in the 2010 census, correct?

A Correct.
Q And the Census Bureau estimates that blacks were undercounted in the 2010 census by 2.06 percent, correct?

A Correct. And that one is also statistically significant.

Q Let's look at Hispanics. The Census

Bureau estimates that 7.7 percent of Hispanics were omitted in the 2010 census, correct?

A That's the last row, and correct.
Q And the Census Bureau estimates that Hispanics were undercounted in the 2010 census by 1.54 percent, correct?

A Yes, and it's statistically significant.
Q So if we summarize the data that we just discussed, the racial or ethnic group with the highest percentage of omissions, blacks, also had the highest percentage undercount, correct? Just of the three groups that we discussed.

A Oh. Of the three groups we discussed, that is correct.

Q And Hispanics had a higher omission rate than people who are non-Hispanic white alone and also had a higher undercount rate as compared to people who were non-Hispanic white alone, correct?

A Correct.
Q Overall, there was no net undercount in 2010, but there were undercounts of particular racial and ethnic subgroups, correct?
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    A Those are called differential net
    undercounts, and that is correct.
    Q And while there was overall across the
    nation no net undercount, there were also in
    certain states and localities net undercounts,
    correct?
    A We did produce estimates that suggest
    that, yes.
    ```
\begin{tabular}{|c} 
Q Okay. I want to go back to the white \\
paper and I want to ask you questions about \\
different alternatives for obtaining citizenship \\
data described in the white paper. Do you \\
remember alternative \(C\), which is the exclusive \\
reliance on administrative records, Dr. Abowd? \\
A Yes.
\end{tabular}

Q Now, one limitation of alternative \(C\) is that, if you use alternative \(C\), you won't be able to match every person enumerated in the census to an administrative record containing citizenship data, correct?

A Correct.
Q So let's flip to page 49, figure 11,


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population. Sound right?
A I didn't do the calculation, but I'll accept that.

Q Thanks. And the Census Bureau expects under this scenario that, under alternative \(C\), you would not be able to link about 40.4 million people to administrative records on citizenship, correct?

A Correct.
Q So under this scenario, if you use alternative \(C\), the Census Bureau would have to model or impute the citizenship status of about 12 percent of the population to produce the CVAP data that DOJ has requested, correct?

A Correct.
Q Now, let's talk about alternative D, which is to both include a citizenship question on the census and to rely on administrative records. Now, the Census Bureau did not recommend alternative D, correct?

A Correct.
Q And the Census Bureau still does not
recommend alternative \(D\), correct?
A Correct.
Q Let's look at page 51, figure 12,
panel B, alternative D. Now, this has -- this figure has estimates for, if you use alternative D, how many people you would determine the citizenship status of using various methods, correct? At a high level, that's a correct description, right?
assumptions that we -- that were employed regarding alternative \(C\) that you and I discussed a moment ago in panel \(B\) of figure 11, correct?

A That's correct.
Q In addition to those revised assumptions, it also includes an assumption that, when you get proxy respondents for people who don't respond to the census, that, generally speaking, those proxy responses are going to report citizenship status, correct?

A I actually don't recall. Did you --
 that person -- those people's citizenship status,
correct?

A Correct.
Q And if we look at the far left side of the chart, under alternative D, this optimistic scenario, there are 260.9 million people who can be linked to an administrative record and whom you estimate their response to the citizenship question is going to be consistent with the administrative record on citizenship, correct?

A Yes.
Q And for both these groups that we just discussed, the 20.9 million people that don't give a census response as to citizenship, and the 260.9 million people for whom the census response is the same as the administrative record, adding the citizenship question doesn't in any way improve Our ability to get citizenship data about these two groups of people, correct?

A Yes.
Q So that's a total of 281.8 million people, out of the 330 million the Census Bureau expects to enumerate, for whom the addition of the
citizenship question does not improve our ability to get citizenship data on, correct?

A Correct.
Q And that's about 85.4 percent of the population for whom the addition of the citizenship question makes no improvement in terms of the availability of citizenship data, correct?

A Again, I didn't calculate the proportion, but that sounds right, yes.

Q Okay. Now, the Census Bureau under alternative \(D\) expects that the effect on a reduction of self-response rates would be the same as under alternative \(B\), which is just adding the citizenship question without using administrative records, correct?

A Correct.
Q And that means that the Census Bureau expects that, under alternative \(D\), there are more people who would end up getting enumerated by proxy than if you used alternative \(C\), which is administrative records only, no citizenship question, correct?

    two numbers together, it's a total of 44.4 million
    people who can't be linked to administrative
    records, correct?
    A Correct.
    Q So that means, if you'll accept my math,
    that under alternative \(D\), about 13.5 percent of
    the population you won't be able to link to
    administrative records, right?

A Correct.
Q And that's more people that you would not be able to link to administrative records than if you used alternative \(C\), just using the administrative records with no citizenship question, correct?

A Correct.
Q Back to the chart, if we look at the left branch of the chart, but the middle sub-branch, under alternative \(D\) in this optimistic scenario, you expect that there are about 8.7 million people for whom the survey response about citizenship and the administrative data on citizenship will not agree, correct?

401 ;

these 8.7 million people for whom you estimate the survey response and the administrative record conflict, that that would be more inaccurate on average than just relying on the administrative record, correct?

A We have said there's a disagreement and that is probably an inaccuracy, correct.

Q Conversely, you would expect, under alternative \(D\), when you have this conflict between the survey response and the administrative record for this 8.7 million people, if you were to rely by default on the administrative record rather than the survey response, then for that population of 8.7 million people, there was no reason to ask them the citizenship question, correct?

A Correct.
Q Let me ask about a different issue. Under alternative \(D\), with some of the people for whom you lack citizenship data through administrative records, you at least now have a survey self-response about citizenship, right?

A Are you talking about the one that comes
down to 39.5 million?
Q Yeah.
A Okay. Yes.
Q So you would expect that, under
alternative \(C\), some of these 39.5 million people you actually would have been able to have linked to administrative records because your survey responses to the census, if you did include the citizenship question, would be higher quality, correct?

A Yes.
Q Now, some of these 39.5 million people,
you're not going to be able to link to
    administrative records under alternative \(C\) or
    alternative D, correct?
    A Correct.
    Q Under alternative \(C\), for the people that
    you can't link to administrative records, the plan
    is you're going to model or impute the citizenship
    status --
    A Which alternative, I'm sorry?

Q Alternative C. Under alternative C, for
that subset of people who are not matchable to administrative records, the Census Bureau's plan would be to model or impute the citizenship status of those people, correct?

A Correct.
Q Under alternative D, however, if you can't match someone to the administrative record, but you have a survey response, there's no scientifically defensible method for rejecting that survey response, correct?

A Correct.
Q So under alternative D, just so we're
clear, you get a survey response on citizenship and no administrative record; you're stuck using the survey response, correct?

A We would use the survey response.
Q So key difference between \(C\) and \(D\) for these people who are not matchable to administrative records and don't give you a survey response under \(D\), under \(C\), you impute their citizenship status; under D, you use the survey response, correct?

A Is the question have we communicated
consistently our preference for C as opposed to D?
Q It's a more specific question than
that - - Okay.

Q -- Dr. Abowd. Has the Census Bureau specifically communicated its rejection of the argument that alternative \(D\) is better than alternative C because alternative C requires imputation of citizenship status of people for whom there is no linked administrative record?

A So I'm not sure how to answer that question because \(I\) don't know that the advice ever took that specific form. We have consistently communicated that the modeled response was better than the survey responses in the unlinked data.

Q Okay. So the modeled responses under alternative \(C\) for the group of people who can't be matched to citizenship records, in the Census Bureau's view, that's more accurate than the self-responses about citizenship that you would get from adding the citizenship question to the


MR. HO: Can we go off the record?
THE VIDEOGRAPHER: Going off the record at 10:26.
(Whereupon, a short recess was taken.)
THE VIDEOGRAPHER: Back on the record at 10: 44.

BY MR. HO:
Q Dr. Abowd, you testified that you communicated the Census Bureau's disagreement with the notion that alternative \(D\) is justified because alternative \(C\) requires imputation of citizenship status -- that you communicated that disagreement to Earl Comstock. When did you communicate that disagreement to Mr. Comstock?

MR. EHRLICH: Objection. Form.
THE WITNESS: I testified that the Census Bureau communicated that disagreement. And that occurred between the time that we briefed the Secretary -- and, I'm sorry, I don't remember the date in February, but I'm sure it's in the record -- and the time he made his final determinations. Most of that briefing occurred
because Acting Director Jarmin and Acting Deputy Director Lamas and Special Assistant to the Director Christa Jones were in daily contact with the Under secretary and with the secretary's staff.

And we were in the process of developing the numbers that you've asked me about that appear in the technical paper in support of the discussion about the difference between alternative C and alternative D. I didn't personally communicate.

BY MR. HO:

But to be clear, the Census Bureau communicated its disagreement with alternative \(D\) before the secretary issued his decision memorandum to include the citizenship question in late March 2018, correct?

A Yes.
Q I want to ask you one question - -follow-up question about a line in the white paper, page 41 , last paragraph, the sentence about a third of the way down that begins with,


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marked for identification.)
BY MR. HO:
Q I want to ask you about a document, Exhibit -- that has been marked as Exhibit 27, the title of which is, Proposed content test on citizenship question. This document sets forth a proposal for two different RCTs for the citizenship question on the census, correct?
A It's one RCT with two different precisions of estimation.

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Q And the RCT, as proposed here, would have taken six weeks to collect the data, correct?

A Correct.
Q And the proposal was to initiate the RCT in either November of 2018 or February of 2019 , correct?

A Correct.
Q In either case, the RCT could have been completed before census forms are due to be printed, correct?

A Correct.
Q The cost of this proposal, there are two
variations on it, but it ranges from 2 million for one option to 4.1 million for the other option, correct?

A Correct.
Q Does the Census Bureau have the money to conduct either option?

A Yes.
Q This proposal was rejected by a group of decision-makers, including Dr. Lamas, Dr. Jarmin and Under Secretary Karen Dunn Kelley, correct?

A That is what \(I\) testified, yes.
Q IS it your understanđing that the proposal was rejected by a different decision-maker than those three people?

A I wasn't in the conversation. I'm reporting it based on a summary given to me by Dr. Jarmin and Lamas.

Q Is it the Census Bureau's understanding that these three individuals jointly made the decision to reject the \(R C T\) proposal?

A Yes.
Q What is the Census Bureau's understanding
of why this RCT proposal was rejected?
A I have, subsequent to my first 30 (b) (6) testimony, learned that the motivation for this RCT was a congressional question asking us why, in the proposed census question, we used the form where, yes, born in the United states and, yes, born in Puerto Rico, Guam, the U.S. Virgin Islands or Northern Marianas were separate choices.

And primarily Enrique Lamas said that that's the form that's on the ACS, that's the form that's been tested, that's the only tested form we have, and at that point asked if we could do a content test to establish that some other tested form might also be usable.

And then -- I actually am not certain exactly how the decision not to make it was done. I think it's one of those decisions where time passed and no instruction was given to do it, and so it was not done.

But there was consultation. I wasn't in the consulting room so \(I\) don't want to characterize conversations that I never heard. We
actively decided not to do this, but I'm not exactly sure that someone said, don't do it, that explicitly.

Q Does the Census Bureau not know why the decision was made to reject the RCT proposal?

A The reason the decision was rejected was because the senior leadership, Jarmin and Lamas, decided that we wouldn't learn enough from this RCT to justify a content change in the specific citizenship question.

Q Why, in the Census Bureau's view, would you not learn enough from the RCT to shed light on the question of whether the citizenship question should be included or what form it should take?

A So the right way to think about that is against what opportunity cost. And the \(\$ 4.4\) million is not the opportunity cost that mattered. The opportunity cost that mattered is what the staff in decennial and the American Community Survey would have otherwise been doing while they were diverted to conducting this RCT. Our cost estimates do not include measures of
headquarters staff time devoted to the experiment.
So an active resource allocation decision was made that that staff time would be better spent doing the activities that it would be able to do if we didn't do this experiment.

Q If you had conducted the RCT, you would have had quantitative data on how the citizenship question would perform in the context of the decennial enumeration questionnaire in terms of response rates, correct?
\begin{tabular}{lll} 
MR. EHRLICH: Objection. Form. & Vague; Galls \\
& & for \\
THE WITNESS: Yes. & speculation
\end{tabular}

BY MR. HO:
Q And if the RCT like this had been performed, you would have had quantitative data on how well NRFU efforts could have addressed a decline in self-response resulting from the addition of the citizenship question in the census enumeration questionnaire, correct?

MR. EHRLICH: Objection. Form.
THE WITNESS: No.

BY MR. HO:

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Q You mentioned differences between NRFU efforts in 2020 versus NRFU efforts in 2010 . Could you elaborate on what those differences are anticipated to be?

A The major differences in the NRFU from 2020 as compared to 2010 are the extensive use of administrative records at both the determination of occupied, vacant, delete, and potentially for enumeration after the first non-response follow-up.

Q Any other differences in the NRFU efforts planned for 2020 versus 2010 other than the use of administrative records for enumeration purposes?

A The field operations are controlled by a field operational control system that contains a very extensive route optimizer that we tested all decade.
(Discussion held off the record.) BY MR. HO:

Q Backing up for a moment, Dr. Abowd, does the Census Bureau believe that it is reasonable to be spending the increased amounts of money that it
will be forced to spend, and staff time, due to the citizenship question being included on the decennial questionnaire given the utility of the data that will be on it?

A The Census Bureau has been instructed to include a citizenship question on the 2020 census and has attempted to quantify the consequences of that for the operations of the 2020 census. That quantification suggests increases in the non-response follow-up costs and a deterioration in the quality of the response data. And we are prepared to conduct the census with those extra resources in NRFU and taking account of the change in the quality of the data.

Q Dr. Abowd, you testified that one of the reasons why the Census Bureau rejected the RCT proposal is that it didn't make sense from a cost-benefit perspective, correct, in the view of the Census Bureau?

A Correct.
Q In the view of the Census Bureau, does it
make sense from a cost-benefit perspective to add
the citizenship question to the census?
Page 433

A It has been our consistent recommendation
not to do so.
Q Would the Census Bureau welcome a
decision from a court of law relieving the Census Bureau of the obligation to include a citizenship question on the 2020 census enumeration questionnaire?

MR. EHRLICH: Objection. Form.
THE WITNESS: The Census Bureau is
prepared to conduct the 2020 census with or without the citizenship question as instructed by the secretary, Congress or the courts, depending upon the final determination. BY MR. HO:

Q Given the Census Bureau's views about the cost benefits -- the costs and benefits of including the citizenship question, would it be desirable, from the Census Bureau's perspective, from a cost-benefit perspective, if a court issued a ruling stating that the Census Bureau no longer had to include a citizenship question on the
census?
MR. EHRLICH: Objection. Form.
THE WITNESS: The Census Bureau is prepared to conduct the 2020 census with or without a citizenship question, as instructed by the secretary and subsequently determined by either Congress or the courts.

BY MR. HO:
Q If the Census Bureau received an instruction in May of 2019 not to include a citizenship question on the census, would the Census Bureau be able to follow that instruction?

A Yes.
Q If the Census Bureau received an instruction in September of 2019 not to include a citizenship question on the census, would the Census Bureau be able to follow that instruction?

A Yes.
Q If the Census Bureau received an instruction in December of 2019, would the Census Bureau -- not to include the citizenship question on the census, would the Census Bureau be able to
include -- be able to follow that instruction?
A Yes.
Q Is there a drop-dead date by which the Census Bureau cannot receive -- cannot implement a decision or an instruction not to include the citizenship question on the census?

A My yeses presumed that the resources associated with making the change accompanied the decision. Without the resources, we can't make any change.

Q Regardless of resource questions, is there a drop-dead date by which the Census Bureau simply cannot remove the citizenship question to the 2020 census?

A I don't know the answer to that question.
Q The Census Bureau doesn't know the answer to that question?

A Yes. The Census Bureau does not know the answer to that question.

MR. HO: Can we go off the record?
THE VIDEOGRAPHER: Going off the record at 10:58.
(Whereupon, a short recess was taken.)
(Abowd Deposition Exhibit Numbers 28 and 29 were marked for identification.)

THE VIDEOGRAPHER: Back on the record at
11:24.

\section*{EXAMINATION BY COUNSEL FOR}

THE STATE OF NEW YORK
BY MS. FIDLER:
Q Good morning, Dr. Abowd. I'm Danielle Fidler with the New York attorney general's office representing the State of New York in this matter.

A Hi.
Q We just wanted to -- we had asked you, before we took a break, about trying to get a sense -- because a court will certainly need to know the answer -- of how long it has to decide this matter. And so does the Census Bureau -given existing resources, what's the drop-dead date by which the Census Bureau could guarantee implementation of the 2020 census without a citizenship question?

A So I did check. I actually asked the
acting director to give me an answer that is the agency's answer. With existing resources, June 30 th of 2019 is the content lock-down date. With exceptional effort and additional resources, October 31st, 2019 is the final date. Any date after that would require major redesigns in the 2020 census, and some might require congressional authorization to change the census date.
\begin{tabular}{|c} 
Q I'd like to turn to what has been marked \\
in advance as Exhibit 28 . You have it before you. \\
It's the 2020 census - - census barrier attitudes \\
and motivators survey, CBAMS, high-level findings, \\
dated August \(29 t h, 2018\). Are you familiar with \\
this document? \\
A have seen this document before. I \\
haven't reviewed it.
\end{tabular}

Q Can you please describe what the census barriers, attitudes and motivators surveys are?

A We expand that acronym differently in some places. So there's the census barrier, attitudes and motivators studies. One component was survey and one component was focus group.


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throughout the entire census and is designed to maximize self-response.

BY MS. FIDLER:
Q Which is critical for conducting an accurate census, correct?

A Self-responses are the best responses.
Q Does the bureau find the data from the CBAMS to be generalizable? We were talking about -- I mean, this is qualitative data, for the most part, with the exception of the survey, but the focus groups are kind of a qualitative assessment, correct?

MR. EHRLICH: Objection. Form.
THE WITNESS: Would you mind taking that apart into a few questions.

BY MS. FIDLER:
Q Sure. You mentioned that this particular -- the document we're talking about and the effort with the CBAMS had a survey component and a focus group component, correct?

A Correct.
Q Would you consider the survey component
to be quantitative data?
A Yes.
Q And would you consider the focus group responses to be qualitative data?

A Yes.
Q And does the bureau find the findings from the CBAM, both -- well, we'll start with the quantitative data -- to be generalizable in its conclusions about the questions that it's seeking to answer?

A We found, in advance of the 2010 census, that the much more limited CBAMS survey that we ran at that time provided actionable information that informed and improved the communication and partnership campaign during that census. And that's what we expect from the survey and the focus group components this time.

Q Okay. And I'd like to have you take a look at what's been marked as Exhibit 29. This is -- it starts with administrative record 13025 at the bottom. And the first page says, 2020 CBAMS focus groups - audience summary report.

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there any revised or more recent versions of this PowerPoint that you know of?
A Not that I'm aware of.
Q Okay. The last bullet states that a number of focus group participants -- or the second to the last bullet -- "A number of focus group participants responded negatively to adding the citizenship question, most notably Spanish (U.S. mainland) as well as Vietnamese, Chinese, NHPI, and members of the female MENA group."
What does that mean?
A So the way that we draw conclusions from focus groups is that we follow a similar protocol in stimulating conversation in each focus group, take the transcripts from those focus groups and double-code the responses, and then look for common answers across the focus groups, and then see what was the target recruitment group for that set of focus groups that had common responses. And that's what's being characterized here.
So that people recruited in the focus groups who mentioned citizenship as a barrier came
from focus groups that were recruited to have Chinese, Vietnamese, Spanish, Native Hawaiian and Pacific Islander, and MENA, Middle Eastern and North Africa.

Q And why was this bullet included in the PowerPoint?

A I believe to draw the attention of people who are using this to -- that finding of the focus groups.

Q And what significance, if any, does the Census Bureau accord to these focus groups with respect to self-response rates on the 2020 census?

A I think I've been asked this before, so I'm trying to give a consistent answer. The quantitative evidence from the survey comes from probability samples. And the recruitment targets in the focus groups are from groups that we have trouble getting responses to the probability samples. So they're complementary in that sense.

We learn from the focus groups because we try to be successful in recruiting into the focus groups people who are hard to count, and in fact,
you actually had to score high on a hard-to-count index in order to be recruited into these focus groups. That basically means that they're the groups that are most difficult to get responses in the survey, not necessarily for the same reasons, but as a general category.

And so we view this as being able to interview the people that either didn't respond or were very reluctant to respond to a survey component and attempt to discover what it is about the process or about any other aspect of the data collection activity that makes them reluctant to respond.

And then we try to design a partnership and communication campaign that addresses those issues, run additional tests, qualitative tests, to see if the messaging is successful in overcoming the barriers.
Q Thank you. Were you aware that this
document was saved electronically under the file
name 2020 CBAMS preliminary findings deck for
Under Secretary \(8 / 29 / 18 ?\)


Secretary conducts to get a progress report on the 2020 census, which is distinct from the regular meeting that the Under Secretary conducts to keep current on the operations.

I do not know the frequency of the meeting the secretary conducts. The Under secretary conducts one - that meeting once a week.

During the secretary's briefing, there was a presentation by the integrated communication contract team, \(Y \& R\), that covered the information in this presentation.

Q Okay. So just Y\&R did the presentation? Did anyone else from the Census Bureau participate?

A The chief of the decennial communications office also presented. That's Burton Reist, \(R-E-I-S-T\).

Q Did the Under Secretary or the secretary have a response to the bullets about the negative focus group response on the citizenship question?

A They were discussed, yes.
Q And is there -- was there a response that
    was noted?
    A I think that that's a more appropriate
    question for the regular attendees of this
    meeting. There was a discussion. I was in the
    room. I did hear the discussion. I don't know
    what constitutes a response in that context
    because I -- that's the only one I've ever been in
    and I wasn't there as a part of this discussion.
    So I know it was presented to him. And
    if you would like me to clarify, I will clarify.
    The Secretary was looking for indications
    from the team that they were responding in the
    development of the communication and partnership
    campaign -- there was -- there were people from
    the partnership campaign there, too -- responsive
    to this information. And the questions indicated
    that he thought that we should be responsive to
    this information. And the partnership and
    communication people both communicated that they
    intended to be responsive to it.
    But this was the first presentation of
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what we learned, and now the intensive effort to
design both the partnership materials and the
3
4
would be informed by this.

Q And since you were in the room, was there concern expressed about this particular - - the response to the citizenship question to these groups? Was that highlighted -- did the Secretary or Under Secretary have a concern about this?

A I'm very reluctant to characterize either the Under Secretary or the Secretary's actions as a concern or not a concern. Attention was paid. It was acknowledged to be a challenge in conducting the census. And much more of the attention was focused on how this information would be used to inform the partnership and communication campaign.
\begin{tabular}{|l}
\hline Q Okay. What, if anything, was discussed \\
with respect to the negative focus group response \\
to the citizenship question? Like, any -- was \\
there anything in particular beyond what you've \\
discussed right now?
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A Time was spent on that slide -- <br>
Q Okay. <br>
A -- and attention was drawn to that fact and it was discussed.

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\end{tabular} \\
\hline Q Okay. Turning to Exhibit 28, which is \\
\hline the summary -- I'm sorry, Exhibit 29, my \\
\hline apologies -- the summary of the CBAM focus groups. \\
\hline Could you please go to what's -- and that starts \\
\hline with the --13025. If you could please go to \\
\hline 13045. This is titled at the top the 2020 CBAMS \\
\hline focus groups - audience summary report for \\
\hline Spanish, U.S. mainland. Do you see that? \\
\hline A Yes. \\
\hline \begin{tabular}{l}
Q Okay. And if you go to the next page, which is 13046, this is the summary of emerging themes from that focus group, correct? \\
A Okay. \\
Q And this is prepared by the team after \\
having watched the focus group, correct? \\
A And processed the transcripts.
\end{tabular} \\
\hline Q Okay. If you go down to the third \\
\hline emboldened sentence, it says, "The citizenship \\
\hline
\end{tabular}

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question is a determining factor for
participation." Then it says, "All four Spanish, U.S. mainland, focus groups took place after the March 27, 2018 announcement that the 2020 census will include a question on citizenship.

Participants in all locations mentioned the citizenship question before the moderator asked about, except for Houston Group 1 participants. Most participants said that though they personally are citizens or legal residents and are not afraid to answer the citizenship question, they know many others who will not fill out the question or the form altogether out of fear. While all participants expressed the desire to be counted, fear of deportation outweighs any benefits."

Isn't this a strong indication that the citizenship question will drive down participation significantly among this community? Vague;

MR. EHRLICH: Objection. Form. the document
THE WITNESS: This is a focus group
indication from a hard-to-count population that the citizenship question is viewed as extremely
problematic in that population.
BY MS. FIDLER:
Q And aren't people afraid of deportation the least likely to participate at all in the census or to be swayed by NRFU efforts?

A I'm not prepared to say the least likely to participate at all. I'm prepared to acknowledge that they're an extremely difficult group to count.

Q Isn't it reasonable to conclude that if there's a fear of deportation, that NRFU efforts are unlikely to be successful?

MR. EHRLICH: Objection. Form.
THE WITNESS: NO.
BY MS. FIDLER:
Q And why not?
A We define NRFU success as our ability to characterize a housing address as vacant, occupied or non-existent, and to process the information about the occupants when we deem it occupied.

Q In light of the concerns raised by this community, doesn't this indicate that if there's a
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citizenship question on the census, trusted

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partners will have additional challenges in
convincing this community to participate?
    A Yes.
    Q Wasn't it also indicated from this focus
    group that this community does care about
    participation in the census?
    A Yes.
    Q That they would like to participate in
    the census, in fact?

A That's a reasonable conclusion.
Q They expressed that they understand the benefits to their community of participating in the census; isn't that correct?

A Yes.
Q And so it indicates that the community would participate -- would be more likely to participate in the census if there was not a citizenship question, correct?

A Should I interpret "participate" to mean self-respond?

Q Yes, self-response.

this information already been incorporated into
the integrated communication plan?
A The -- team \(Y \& R\), in collaboration with
its census staff, with census staff who are
working with them, were taking this information
immediately into the design of the media and
partnership materials which are -- they're in
content design phase now.

drove resources and services to any given
community, the greater they felt compelled toparticipate."

This is an indication that the moderators
    indicate that local counts, local census counts,
    are critical to ensuring representative levels of
    funding for particular communities, and they
    convey this information to the participants,
    correct?
    A Yes.
    Q And part of the reason the Census Bureau
    is trying to inform people of this connection
    between the census and the funding is because in
    order to ensure adequate funding, communities need
    accurate enumeration, correct?
            MR. EHRLICH: Objection. Form.
            THE WITNESS: Correct.
    BY MS. FIDLER:

Q And many of the respondents in the CBAM summaries indicate they already know about this connection, correct?

A Your characterization. I haven't read
through all the data, but \(I\) won't dispute it.
Q Okay. The Census Bureau acknowledges,
and you mentioned earlier, that there are local
undercounts for many hard-to-reach populations
that can exist and have sometimes persisted for
some time, for example, with the Hispanic
community, correct?
MR. EHRLICH: Objection. Form.
THE WITNESS: So I don't think I said
net undercounts at the national level.
BY MS. FIDLER:

Q And those -- at the national level and there can -- and there are -- there's data to show that there have been persistent undercounts of the Latin -- of the Hispanic community in particular, correct?
            THE WITNESS: At the national level,
correct.
BY MS. FIDLER:

Q With regard to local population, if there
are undercounts, funding for things like schools and Medicare that rely on census population numbers can be decreased, correct? Vague; Compound; MR. EHRLICH: Objection. Form. Confusing THE WITNESS: The relation between population measures for local communities and funding is sometimes direct and sometimes indirect. In most cases, having a larger population implies a larger share of the total resource being allocated.
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    BY MS. FIDLER:
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Q Many respondents throughout the study indicated an understanding that information is required to be kept confidential, but also indicated a fear that this could change and be used against them in the future. Are you familiar with that?

A Yes.
Q Is that a concern of the Census Bureau?
A The Census Bureau is not concerned about the current confidentiality protections embodied in title 13. Like any law, a law can be modified,
amended. Statistical agencies in general, and the Census Bureau among them, would be extremely concerned if the respondent confidentiality clauses were removed from title 13.

Q For those who have this fear about the potential for change, aren't those who have this belief less likely to self-respond to the census or to respond to an enumerator? \(\quad\) Vague; \(\quad\) Compound; Calls

MR. EHRLICH: Objection. Form. for speculation
THE WITNESS: I'm willing to summarize both the quantitative and the qualitative evidence suggesting that the groups that you have isolated in your question are less likely to self-respond. BY MS. FIDLER:

Q On page 13040 in this summary, one of the emerging themes identified -- and this is a native Hawaiian and Pacific Islander, but it comes up elsewhere as well -- is multigenerational housing as a potential barrier. "Participants expressed concerns about sharing information about the number of people who live in their households. It is a common practice on the islands to live with
extended family or to have more people living in their house than are listed on the lease or official documents. These concerns present a potential barrier for the NHPI audience, as some participants were worried about landlords finding out the number of people living in their residence."

This is another area where you could potentially have either a complete non-response, non-self-response or, as was described earlier, you could have a census response that did not include all of the members of the household, correct?

A Yes.
Q And when this occurs, the members that are not identified are the ones least likely to be found via imputation or other methods, correct? They're the most likely to be omitted as part of a gross omission.

A Could you unpack that question, please?
Q Sure. For the -- for the households that have multigenerational housing, as described here,
who do not want to disclose all of the members of their household, to the extent that they do not do so, that is where you are likely to have omissions, correct?

A That is where nothing in the current census protocol would correct that particular omission.

Q And these types of omissions can lead to localized or -- undercounts, correct? Vague;

MR. EHRLICH: Objection. Form. Confusing
THE WITNESS: So net undercount is the
difference between omissions and erroneous
enumerations and whole-person census imputations.
And these kinds of errors can affect both sides of that equation.
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BY MS. FIDLER:

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Q For those who have these multigenerational households, they're the -- it's unlikely that their landlord would be able to provide information about them, correct, because they wouldn't know?

MR. EHRLICH: Objection. Form.

BY MS. FIDLER:
Q Let me back up. This is a focus group that's describing that they do not want to provide information because it is their understanding that their landlords do not know that these numbers are living in their household, correct?

A Understood, yes.
Q And in those cases when the census is relying on proxy information, in part -- one of the sources for proxy information are landlords, correct, and landlord records, correct?

A Yes.
Q But in those cases where the landlords do not know about the multigenerational housing, that information would not be there, correct?

A That's a reasonable presumption, yes.
Q And so for subpopulations where multigenerational housing is common, this could present a problem for an accurate count of that subpopulation, correct? Calls for speculation A Yes.

MR. EHRLICH: Objection. Form.

THE WITNESS: Yes.
BY MS. FIDLER:
Q This is also an area where reliance on trusted partners is actually quite helpful for the Census Bureau, correct?

A I'm sorry. I was asking Mr. Ehrlich a question.

Q The -- the types of housing where there's multigenerational housing or people living in basements is an area where trusted partners are actually critical to helping the census get accurate information, correct?

A They're very important, yes.
Q And as we've discussed, trusted partners may have a difficult time convincing these communities to provide that information if there's a citizenship question on the census, correct?

MR. EHRLICH: Objection. Form. Mischaracterizes THE WITNESS: Yes.

BY MS. FIDLER:
Q How do omissions affect both sides --
MR. EHRLICH: Counsel, can I just

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interrupt for one second? I think we've reached
our time. Are you nearing an end of the
questioning?
MS. FIDLER: Yeah. I've got, like, one question, possibly two.
MR. EHRLICH: Okay. Because I think Dr. Abowd also needs a break anyway. So it works out.
MS. FIDLER: Thank you.
BY MS. FIDLER:

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Q How do omissions affect both sides of net undercount calculations?
A No, what \(I\) said is that net undercount is
the difference between omissions and erroneous enumerations, plus whole census [sic] imputations.

And the enumeration difficulties that you were
asking me about can both affect gross omissions and erroneous enumerations and whole-person imputations; since there's a difference, they can cancel.
\begin{tabular}{|r|r|}
\hline MS. FIDLER: That's actually my last \\
question. Thank you so much for your patience. \\
\hline
\end{tabular}


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CERTIFICATE OF NOTARY PUBLIC
I, Denise M. Brunet, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was sworn by me; that the testimony of said witness was taken by me stenographically and thereafter reduced to print by means of computer-assisted transcription by me to the best of my ability; that \(I\) am neither counsel for, related to, nor employed by any of the parties to this litigation and have no interest, financial or otherwise, in the outcome of this matter.


Denise M. Brunet
Notary Public in and for The District of Columbia

My commission expires:
December 14, 2022

New York Immigration Coalition v. US Dept. of Commerce John Abowd 30 (b) (6)

INSTRUCTIONS TO THE WITNESS
Please read your deposition over carefully and make any necessary corrections.

You should state the reason in the appropriate space on the errata sheet for any corrections that are made.

After doing so, please sign the errata sheet and date it.

You are signing same subject to the changes you have noted on the errata sheet, which will be attached to your deposition.

It is imperative that you return the original errata sheet to the deposing attorney within thirty (30) days of receipt of the deposition transcript by you. If you fail to do so, the deposition transcript may be deemed to be accurate and may be used in court.

3028797


New York Immigration Coalition v. US Dept.of Commerce John Abowd, 30 (b) (6)

\section*{ACKNOWLEDGMENT OF DEPONENT}
\(\qquad\)
hereby certify that \(I\) have read the foregoing pages and that the same is a correct transcription of the answers given by me to the questions therein propounded, except for the corrections or changes in form or substance, if any, noted in the attached Errata Sheet.

DATE
SIGNATURE

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\hline 399:3 407:9,10 & \[
\begin{gathered}
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\text { whites } 360: 13
\end{gathered}
\] & wrong 374:5 422:20 441:10 & \\
\hline 424:19 426:3 & whites 360:13
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\hline
\end{tabular}

Federal Rules of Civil Procedure
Rule 30
(e) Review By the Witness; Changes.
(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:
(A) to review the transcript or recording; and (B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.
(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule \(30(f)(1)\) whether a review was requested and, if so, must attach any changes the deponent makes during the \(30-d a y\) period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF SEPTEMBER 1, 2016. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

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VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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