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1   UNITED STATES DISTRICT COURT
1   SOUTHERN DISTRICT OF NEW YORK
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3   DAVID FLOYD, et al.,
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4   Plaintiffs,
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5   v.   08 CV 1034(SAS)
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6   CITY OF NEW YORK, et al.,
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7   Defendants.
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8   ------------------------------x
8   New York, N.Y.
9   May 2, 2013
9   10:10 a.m.
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10 Before:
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11   HON. SHIRA A. SCHEINDLIN,
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12   District Judge
13
13   APPEARANCES
14
14 BELDOCK LEVINE & HOFFMAN, LLP
15   Attorneys for Plaintiffs
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16   JENN ROLNICK BORCHETTA
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21 CENTER FOR CONSTITUTIONAL RIGHTS
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 1                         APPEARANCES (Cont'd)
 2
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 1                (Trial resumed)
 2               MS. BORCHETTA:  The city has not yet responded to our
 3      request for a proffer with respect to Inspector Catalina and
 4      Chief Hall.
 5               MS. GROSSMAN:  As to Catalina, our proffer would be
 6      similar to the testimony that Inspector Cirabisi has provided,
 7      Inspector Lehr, and --
 8               THE COURT:  Then why are we doing it?  Why do we need
 9      three people to say the same thing?
10               MS. GROSSMAN:  It's similar in terms of what is --
11               THE COURT:  If it's cumulative, I don't want it.  This
12      is a long, long trial.  So tell me what they are going to say
13      that has not already been testified to at this trial.
14               MS. GROSSMAN:  Your Honor, as far as Inspector
15      Catalina, I have not had a chance to speak with him since he
16      has been out of the country.  So when he returns, I will be
17      able to speak with him and try to narrow it to what has not
18      been covered.  And that won't happen until, I think he returns
19      next week.  So I will endeavor to speak with him as soon as he
20      comes in and notify the plaintiffs' counsel.
21               In terms of what it is that the inspectors are doing
22      at the particular commands --
23               THE COURT:  But if it's only repetitive to say, we got
24      this memo in January, we are implementing it, we are now doing
25      it, we didn't used to do it, this is what we do, I do not need
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1 repetitive testimony. I heard it. It's in the record.
2   MS. GROSSMAN: That's fine, your Honor.
3   MS. BORCHETTA: I would only say the whole purpose of
4 our request was to avoid prejudice of not knowing the topics in
5 advance. He is scheduled to testify next Thursday.
6   THE COURT: You will know before next Thursday.
7   Who did you mention beside Catalina?
8   MS. BORCHETTA: Chief Hall.
9   MS. GROSSMAN: I think on the performance monitoring,
10 the civilian complaint profiling assessment committee, that
11 would be one topic that he would be covering that has not been
12 covered. And in terms of his role as chief of patrol and what
13 he plays in that role, the role he plays in addressing the
14 committee work.
15   MR. CHARNEY: What committee?
16   MS. GROSSMAN: There is a committee that's noted in
17 the --
18   THE COURT: I am sure plaintiffs' counsel knows what
19 you're talking about.
20   MR. MOORE: I do.
21   MS. BORCHETTA: This is a committee that we have
22 already had extensive testimony on, but that's helpful. We
23 have already asked extensive questions of Commissioner Schwartz
24 about that committee and what it does, so I don't understand
25 how that would not be duplicative, but it's helpful to know
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 1   that.  But again, Chief Hall, who is the chief of patrol, could
 2   testify about many other topics.
 3            THE COURT:  Do you intend to use him for other topics?
 4            MS. GROSSMAN:  Again, he is not testifying until the
 5   week after next.  So I need to have a chance to speak with him.
 6            THE COURT:  Maybe you can do that Friday afternoon
 7   when we don't have court.
 8            MS. GROSSMAN:  I will try.
 9            THE COURT:  There was letter writing about the
10   so-called remedies experts, and there is no way I can make the
11   ruling without reviewing both reports.  So I have decided I am
12   in this awkward position of a nonjury trial, I have to pore
13   over them to make the decision, and I just referred it to
14   Magistrate Judge Pitman.  He agreed to do it, and he will pore
15   over the reports, he will read your letters, he will meet with
16   you if he has questions, and he will rule if you wish.  If one
17   of you doesn't like what he says, we will have to figure out
18   where that goes, but not to me, maybe the part 1 judge.  I am
19   not going to do it.  It doesn't make sense to me.  I am trying
20   to shield myself from what I shouldn't see, and I don't want to
21   see it.
22            You have concerns, Ms. Grossman?  You look very
23   concerned.
24            MS. GROSSMAN:  I just wanted to raise an issue that
25   Mr. Moore raised yesterday about the order of the testimony.
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1 And I just wanted to raise that now.
2   We believe that the plaintiffs should put on, after we
3 close, plaintiffs should put on Walker first and then the city
4 should respond, not the other way around.
5   THE COURT: You don't disagree with that, do you?
6   MR. MOORE: No.
7   THE COURT: The plaintiffs' expert goes before the
8 defendants' expert, if indeed we get two of these experts. The
9 issue was raised as to defendants' expert. Judge Pitman is
10 looking into that issue.
11   MR. MOORE: The other issue I had raised yesterday was
12 the order, whether Hall should come before Assistant Chief
13 Morris, because Morris is talking about the Hall memo and
14 talking about other implementations. The cat is sort out of
15 the bag already on this.
16   THE COURT: So it doesn't really matter all that much?
17   MR. MOORE: I do think it would matter with respect
18 to --
19   THE COURT: In the great scheme of life.
20   MR. MOORE: He is head of a patrol borough. This
21 individual is only -- not only, he is a commanding officer.
22 Don't take it personally.
23   THE COURT: He didn't, thankfully.
24   MR. MOORE: It just seemed to me that at that level we
25 should hear from Chief Hall first.
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 1              THE COURT:  Preferably.  But if it can't be arranged,
 2    I don't think in the great scheme of this trial and all these
 3    issues it's going to make a world of difference.  Obviously, it
 4    will be a little more efficient.  I agree with you.
 5              MR. MOORE:  The only other thing I had raised with the
 6    city yesterday with regard to that was in Assistant Chief
 7    Morris's declaration, he makes reference to some documents and
 8    a sample of 40 UF-250s that he reviewed to determine if they
 9    are implementing Chief Hall's, and we asked that those be
10    produced.
11              MS. GROSSMAN:  We are trying to find out exactly if we
12    can get the copies of the documents.  I don't know that there
13    were copies retrieved.  So we are trying to see if we can find
14    documents that are responsive.
15              THE COURT:  It doesn't sound very difficult.  They
16    have reviewed 40.  Find the 40.
17              Which reminds me, were you able to achieve your
18    homework?
19              MS. GROSSMAN:  We provided it to plaintiffs' counsel.
20              MR. CHARNEY:  We have it.
21              THE COURT:  Any other letters I haven't addressed?
22    There were a flurry yesterday.
23              That's it?  OK.  Then we are ready to go.
24              (Continued on next page)
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1   STEPHEN CIRABISI, resumed.
2   CROSS-EXAMINATION
3   BY MR. CHARNEY:
4   Q. Good morning, Inspector Cirabisi.
5   A. Good morning.
6   Q. Have you spoken to your attorney since we were here
7   yesterday?
8   A. Only to give her the copy of the memo.
9   Q. Yesterday we were talking about the QAD audits for stop and
10   frisk, and we had looked at 2008. If you remember, when you
11   were in the 107th Precinct, at that point in time, on the item
12   that involves activity log entries your precinct had gotten a
13   1, right?
14   A. Correct.
15   Q. My question is, after that, from that point in 2008 to when
16   you received this score on the audit, up until at least your
17   deposition in 2009 -- actually, strike that. I will withdraw
18   the question.
19   After you received this audit result, you didn't talk
20   to the borough commander about it, did you?
21   A. About this individual audit?
22   Q. Yes.
23   A. Not that I recall.
24   Q. In fact, the borough commander when you were the CO of the
25   107 was Chief Thomas Dale, correct?
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D528FLO1   Cirabisi - cross
1   A.   Correct.
2   Q.   And that's the borough commander of Queens South, right?
3   A.   Correct.
4   Q.   Now, at no point after this audit, up until at least the
5   time of your deposition in October 2009, did you talk to Chief
6   Dale specifically about the issues in your precinct with
7   officers not documenting stops in their activity logs, right?
8   A.   There were times at borough meetings where the subject of
9   stop, question and frisk was discussed with all the commanding
10   officers.
11   Q.   But you never spoke specifically with Chief Dale about the
12   problems in your precinct with officers failing to document
13   stops in their activity logs, isn't that right?
14   A.   I do not recall if I had a one-on-one meeting directly with
15   him about this topic. I know it was discussed at a lot of
16   borough commander meetings.
17   Q.   My question is, Chief Dale never spoke to you specifically
18   about the problems in your precinct, the 107, with officers
19   failing to document stops in their activity logs, isn't that
20   right?
21   A.   I don't recall if we directly did or not.
22   Q.   You want to see if your deposition might refresh your
23   recollection? You want to look at page 104, line 8, and just
24   read the question and answer there to yourself. You don't have
25   to read it out loud.
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D528FLO1   Cirabisi - cross
1   A. In the deposition I said that.
2   Q. You never did speak to Chief Dale specifically about the
3   problems in your precinct with officers failing to document
4   stops in their activity log?
5   A. Correct.
6   MS. GROSSMAN: I just note that the answer before that
7   is consistent with what he just said. "It comes up at like
8   meetings with Chief Dale, it could have come up, some type of
9   communication or memo or something."
10   Q. So then there was another audit in 2009, correct, the same
11   audit QAD for stop, question and frisk for your precinct?
12   A. Correct.
13   Q. I want to take a look at that. This is Defendants' Exhibit
14   G6. And I am going to go to the 2009 audit, which starts on
15   Bates number NYC_2_18524, and I am going to go to your precinct
16   107.
17   Again, if we go across here, for the activity log
18   entry item, your precinct got a 1 again, correct?
19   A. Correct.
20   Q. So again in 2009, for the third year in a row, your
21   precinct failed that item of the audit, correct?
22   A. Correct.
23   Q. Then you transferred to the 114 in August of 2010, is that
24   right?
25   A. Correct.
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D528FLO1   Cirabisi – cross
1   Q. Since you have been the commander of the 114, you had the
2   same QAD audit done in 2011 and 2012, correct?
3   A. Correct.
4   Q. So I want to, again looking at Defendants' G6, I want to
5   look at the 2011 audit. That's going to start on NYC_2_22183.
6   Again, we are going to look at the 114, and this is
7   Patrol Borough Queens North. The 114, it looks like you
8   received -- your precinct received a 2 in 2011, right?
9   A. Correct.
10 Q. So that's better than a 1, right?
11 A. Correct.
12 Q. But it's still not passing, correct?
13 A. Correct.
14 Q. Then lastly, I want to look at 2012. And 2012 starts on
15 NYC_2_27856.
16   And again, the 114 here, it looks like again we have a
17 1.0. So again in 2012 you failed that item, correct?
18 A. Correct.
19 Q. Let's take a look at the memo that you referred to
20 yesterday which was provided to us this morning. This is
21 Defendants' Exhibit M14.
22   Is this the memo you were referring to yesterday that
23 you received from the borough concerning activity log entries
24 on stop and frisk?
25 A. Correct.

D528FLO1   Cirabisi – cross
1   Q. So it's addressed to the training sergeants, right?
2   A. Correct.
3   Q. Who is Sergeant Christopher Lockel?
4   MR. CHARNEY: I'm sorry. We would move for the
5   admission of Defendants' M14.
6   MS. GROSSMAN: No objection.
7   THE COURT: M14 received.
8   (Defendants' Exhibit M14 received in evidence)
9   Q. Do you know who Sergeant Christopher Lockel is?
10 A. He is the training sergeant that works at the borough.
11 Q. So this memo is actually addressed to the training
12 sergeants in the precincts, right?
13 A. Initially it was given to the training sergeants and then
14 to the commanding officers.
15 Q. So it's a one page memo. It states here that, "When making
16 activity log entries regarding the preparation of a stop,
17 question and frisk worksheet, the following information must be
18 included. All members of service are to follow the below
19 format when making the activity log entries."
20   Then there is an example here -- well, there's two
21 things. It's kind of layout of what the format should look
22 like, and then I guess there is an example.
23   Was there anything attached to this memo do you recall
24 when you received it?
25 A. Not that I recall.
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D528FLO1   Cirabisi - cross

1   Q. So according to this memo, the information that must be
2   included in an activity log entry are the time and the date of
3   the stop, right?
4   THE COURT: You don't have to go through them one by
5   one. I am looking right at it. Time, location, name of
6   suspect, date of birth, pedigree, reason for the stop,
7   explanation of why, and Sprint number.
8   Q. Is it your understanding that this information is now
9   required for every officer to enter in their memo books when
10 they make a stop, question and frisk?
11 A. Correct.
12 Q. I want to ask you about this one particularly, reason for
13 the stop, a detailed explanation of why the person was stopped.
14   You said that other than this memo, you haven't
15 received any other directives from the borough about what is
16 meant by a detailed explanation of why the person was stopped?
17   MS. GROSSMAN: At this time frame as of January 15,
18 2013.
19 Q. Since January of 2013, have you received any additional
20 directives from the borough about what this means, a detailed
21 explanation of why the person was stopped?
22 A. There was an additional memo that came from chief of
23 patrol's office that was, I believe, more descriptive.
24 Q. So other than these two memos, the January 15 memo and the
25 chief of patrol memo, you haven't received any other directives
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D528FLO1   Cirabisi - cross
1   from anybody above you in the police department about what is
2   meant by a detailed explanation of why the person was stopped?
3   A. Not that I can remember.
4   Q. In addition, I want to go back up here. Am I correct that
5   the directions that are in this paragraph, there is no
6   explanation as to why this directive is being issued, correct?
7   THE COURT: What is the date?
8   MR. CHARNEY: This is January 15, 2013.
9   Q. You would agree with me that there is nothing in this
10 paragraph that explains why the borough is now requiring that
11 activity log entries look like this?
12 A. Written on this, no.
13 Q. Since this memo came out, has anybody in the police
14 department explained to you why this directive was put in place
15 in January of 2013?
16 A. Yes.
17 Q. Who gave you an explanation?
18 A. Originally, when this memo came out, it was discussed at
19 the borough meeting with Chief Pizzuti, and it was discussed
20 that we needed to make improvements with the officers making
21 command log entries, and that was the reason why these steps
22 were put in place.
23 Q. In other words -- Chief Pizzuti?
24 A. Pizzuti.
25 Q. Is the current borough commander of Queens North?

D528FLO1   Cirabisi - cross
 1   A. Correct.
 2   Q. So he was saying that --
 3   A. She.
 4   Q. I apologize. So she was saying that, as of the time this
 5   memo came out, it was her view that activity log entries by
 6   officers for stop, question and frisk were inadequate, correct?
 7   A. Correct.
 8   Q. So she explained to you that the entries needed to be
 9   improved, right?
10   A. Correct.
11   Q. So is it your understanding that this was her effort to try
12   to improve officers' activity log entries for stop, question
13   and frisk?
14   A. Correct.
15   Q. So other than what you just told me that Chief Pizzuti said
16   at this borough meeting, have you received any other
17   explanations from anybody above you in the police department as
18   to why this directive was issued in January 2013?
19   A. Other than the written memo from the chief of patrol's
20   office was given to us.
21   Q. So then let's look at the example here that they give you.
22   So this is an example of what a memo book entry should look
23   like according to this memo.
24   So reason for stop, it says suspect was looking into
25   windows and fit the description of a person wanted for a 1031.
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 1 Is a 1031 a burglary?
 2 A. Correct.
 3 Q. Then there is a Sprint number, and then this is the number
 4 that would be on the UF-250 form itself?
 5 A. Correct.
 6 Q. Have you since -- actually, what did you do after you
 7 received this memo? Do you recall what you did after you first
 8 saw this memo?
 9 A. I had a meeting with all my supervisors instructing them of
10 the memo. This was given to the training sergeant. It was
11 given out to all of the officers at all the roll call
12 instructions.
13 Q. So you said you met with the supervisors in the 114 about
14 this memo?
15 A. Correct.
16 Q. What did you tell them, if anything, with respect to this
17 memo?
18 A. They were all given copies of the memo and they were
19 instructed to follow what the memo stated.
20 Q. Did you tell them what would happen or what, if any,
21 consequences there would be if in fact they didn't follow this
22 memo?
23 A. Well, they were instructed that if the memo wasn't
24 followed, that discipline would be taken.
25 Q. When you say follow the memo, what do you mean by that with

D528FLO1   Cirabisi – cross
 1 respect to supervisors? What is your expectation with respect
 2 to how supervisors would comply with this memo?
 3 A. Well, when the officers hand it in, they are to ensure that
 4 the copy of the memo book would be handed in, that they should
 5 be reviewing it, and when they are reviewing their memo books,
 6 they should be checking to make sure that on the stop, question
 7 and frisk the proper information is documented.
 8 Q. What, if anything, did you direct supervisors to do if in
 9 fact an officer's memo book did not comply with this memo?
10 A. The officer would be spoken to, would be reinstructed, and
11 a command discipline would be given if necessary.
12 Q. Now, since January of 2013, have you personally done any
13 assessment of the 250s and activity log entries of officers in
14 your precinct to determine the level of compliance with this
15 memo?
16 A. Yes.
17 Q. What have you done?
18 A. Well, I review the self-inspection that is performed. The
19 executive officer performs a self-inspection and then gives me
20 copies for review. Those copies will consist of the activity
21 log, a copy of the 250 along with the activity log.
22 Q. Now, that self-inspection would only include five activity
23 logs and five 250s a month, right?
24 A. I'm not sure on that specific one, if it's five or 25.
25 Q. We will come back to that. That's another one of the
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D528FLO1   Cirabisi - cross
1   topics that I want to ask you about.
2   So other than reviewing -- these are monthly
3   self-inspections?
4   A. Yes.
5   Q. Other than reviewing these monthly self-inspections, have
6   you done anything else since this memo came out to assess the
7   level of compliance of officers in your precinct to the
8   directives in this memo?
9   A. I spot-check the 250s, copies of the 250s and memo books
10   that are handed in.
11   Q. What do you mean by spot-check?
12   A. Periodically, I will go and grab a bunch of them when they
13   are handed in, and I will review them.
14   Q. When you say grab them, are they in a binder in the
15   precinct, is that what you mean?
16   A. Yeah. Usually when they are handed in, initially they are
17   turned in to the desk officer. They are put in a basket at the
18   desk, and I will take some out of there and review them. Then
19   they are put into a binder, which is kept in my crime analysis
20   unit, and then I will go up and pull some of the binders. I
21   have directed my special ops lieutenant, he personally reviews
22   the 250s and memo books of the officers that are assigned under
23   him.
24   Q. Have you in your reviews seen any activity logs that do not
25   comply with this memo?

D528FLO1   Cirabisi – cross
1   A. Yes.
2   Q. Do you know approximately how many?
3   A. There have been several.
4   Q. What, if anything, have you done in response to those
5   inadequate memo book entries?
6   A. Some officers have been instructed and some officers have
7   been issued command disciplines.
8   Q. When you say instructed, what do you mean by that?
9   A. Well, the officer will be spoken to by his supervisor
10 showing him -- explaining to him what he is doing incorrectly
11 in the memo book. In certain circumstances they will be issued
12 command disciplines.
13 Q. In any of these situations, has the officer been instructed
14 to explain in his own words the reason that he made the stop
15 that is recorded in his memo book?
16 A. Yes.
17 Q. OK. Do you have any sense of the level, a rough percentage
18 of the level of estimation of what percentage of the officers
19 in your precinct are complying with this memo?
20 A. I would say the majority of them are complying. As far as
21 handing in a copy of the memo book, they are all complying
22 because we check to make sure that the memo book is handed in
23 with the 250. If there is no memo book entry, they will
24 receive a command discipline for not having the memo book
25 entry.

D528FLO1   Cirabisi - cross
1   Q. When you say no entry, meaning there is just nothing
2   written about the stop?
3   A. Correct.
4   Q. What if what is written doesn't meet the standard in this
5   memo?
6   A. The officers will either be reinstructed or given command
7   disciplines, minor violations.
8   Q. Have you yourself given your supervisors any guidance on
9   how to assess whether or not the memo book entry is meeting the
10 standard for the reason for stop portion, in other words, have
11 you given them any guidance on how to assess whether or not the
12 entry meets this standard?
13 A. Well, I instruct them at the supervisor meeting they should
14 be looking -- the officer should be explaining what brought
15 them to that location and what did they observe that led them
16 to the point of a stop, question and frisk, what movements or
17 what did they see, what exactly was happening that caused them,
18 that required him and they developed reasonable suspicion to
19 stop that person.
20 Q. Have any of your supervisors since this memo came out
21 spoken to you about officers that they supervise who they
22 believe are not complying with the memo?
23 A. No.
24 Q. So your assessment that the majority of the officers in
25 your precinct are complying with this memo is based on your

D528FLO1   Cirabisi - cross
1   spot-checks, right, that's one thing?
2   A. Correct.
3   Q. Your reviews of the self-inspections, right?
4   A. Correct.
5   Q. And anything else?
6   A. Speaking to my executive officer who is reviewing them,
7   speaking to my special ops lieutenant that reviews them, my
8   operations coordinator in her self-inspection reviews the memo
9   books.
10 Q. We spoke a little earlier about the self-inspections that
11 your precinct does of the stop and frisk paperwork. The
12 self-inspection that we are talking about is called the
13 worksheet 802, is that right?
14 A. Correct.
15 Q. I want to show you what has been previously admitted as
16 Exhibit 71, Plaintiffs' Exhibit 71.
17   Do you recognize this document, Inspector?
18 A. Yes.
19 Q. This is the worksheet 802, correct?
20 A. Correct.
21 Q. Now, if we go to the third page of the document. So this
22 is the portion of the worksheet where the reviewer is going to
23 fill out information about the 250s he or she reviewed, right?
24 A. Correct.
25 Q. So it's fair to say that this self-inspection involves a

D528FLO1   Cirabisi - cross
1   review of 25 250s each month, right?
2   A. Correct.
3   Q. Going over to the far right-hand side, the column that says
4   "check member's activity log entries," that portion of the
5   self-inspection only involves five activity logs, right?
6   A. Correct.
7   Q. So this self-inspection, the totality of this
8   self-inspection is a review of 25 250s and five activity logs,
9   right?
10   A. Correct.
11   Q. And the only two pieces of information which the
12   self-inspection is trying to determine is whether the 250s are
13   filled out accurately, right, that's one thing?
14   A. Correct.
15   Q. And whether officers are recording info about the stops in
16   their activity logs, right?
17   A. Correct.
18   Q. And that's it, correct?
19   A. Well, they are looking to check all the captions that are
20   on here, that all of those that are listed are clearly filled
21   out in the activity log.
22   Q. I think --
23   A. In the 2250.
24   Q. The only two things that this self-inspection is trying to
25   determine is whether or not officers fill out UF-250 forms

D528FLO1   Cirabisi - cross
1   completely and accurately and whether or not they document
2   stops in their activity logs, right?
3   A. Correct.
4   Q. With respect to the activity log entries, the only thing
5   that the reviewer is trying to determine is whether or not
6   there is an entry at all in the activity log, right?
7   THE COURT: In other words, you just want to make sure
8   it's documented, it's in the log?
9   THE WITNESS: They should be looking not just as an
10 activity log entry, but they should also be looking at the
11 entry to see what is in the entry.
12 Q. Your testimony is that they are supposed to be
13 substantively reviewing what the entry says?
14 A. Correct.
15 Q. But this self-inspection doesn't allow anywhere for the
16 reviewer to document the level of detail that the activity log
17 entry has, right?
18 A. Correct.
19 Q. The only thing that the reviewer will do on here is check
20 off either yes or no with respect to whether there is an
21 activity log entry, right?
22 A. Correct.
23 Q. Now, I want to show you what has been marked as Plaintiffs'
24 Exhibit 184. It's been admitted as 184.
25   Do you recognize this document?

D528FLO1   Cirabisi - cross
1   A. Yes.
2   Q. This document sets forth the NYPD's policy regarding racial
3   profiling, correct?
4   A. Correct.
5   Q. If you look at paragraph 4 there, it says that commanding
6   officers are supposed to establish a self-inspection protocol
7   to ensure that the contents of this order are complied with.
8   Do you see that?
9   A. Correct.
10   Q. Your precinct does have a self-inspection to assess
11   compliance with the racial profiling policy?
12   A. Well, the self-inspection, which was created by the
13   department, was created, I believe, to address this operations
14   order.
15   Q. Would that be the worksheet 802-A?
16   A. I believe so.
17   Q. Now, I want to show you what has been admitted as
18   Plaintiffs' Exhibit 58.
19   Do you recognize this document?
20   A. Yes.
21   Q. What is this document?
22   A. This is another self-inspection dealing with stops.
23   Q. Is this the 802-A that I just mentioned?
24   A. Yes.
25   Q. So this is the self-inspection that the precincts do to
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D528FLO1   Cirabisi - cross
 1 measure compliance with the racial profiling policy, right?
 2 A. I believe so.
 3 Q. The way that this self-inspection works is the integrity
 4 control officer, or assistant integrity control officer, is
 5 supposed to review five self-initiated arrest reports each
 6 month, right?
 7 A. Correct.
 8 Q. And if there were any stops associated with those arrests,
 9 they would also review the 250s that go along with those
10 arrests, right?
11 A. Yes.
12 Q. But other than those two documents, the arrest report and
13 the 250, the reviewer is not going to review any other
14 information as part of this self-inspection, right?
15 A. I don't believe so.
16 Q. I want to go back to Plaintiffs' Exhibit 184 for a second,
17 the racial profiling policy.
18   Inspector, what is your understanding of what this
19 operations order directs members of the service to do or not
20 do?
21 A. It's directing the officers that they shouldn't be stopping
22 people just based alone on their race or gender.
23 Q. Is there anything else that you understand this order to be
24 directing members of the service to do or not do?
25 A. It's directing them to perform stops within the legal

D528FLO1   Cirabisi - cross
1   guidelines.
2   Q. Now, do you see under number 4, again, the last sentence
3   there says, "Performance in this area will also be included in
4   CompStat review." Do you see that?
5   I know it's hard because it's darkened for some
6   reason. The last sentence of paragraph 4, "Performance in this
7   area will also be included in CompStat review." Do you see
8   that?
9   A. Yes.
10   Q. You as a precinct commander have been to many CompStat
11   meetings in your time, right?
12   A. Correct.
13   Q. At none of those meetings has the issue of the high number
14   of people of color stopped by the police department ever been
15   discussed, right?
16   MS. GROSSMAN: Objection. The high number? In what
17   context? It's kind of an overbroad question given the
18   testimony.
19   THE COURT: I guess he is saying, has there ever been
20   any discussion of the percentage by race of people stopped?
21   THE WITNESS: As being a problem that --
22   THE COURT: Just discussed as an issue, the percentage
23   by race of people stopped.
24   THE WITNESS: The issue of stopping people as it
25   relates to where the crime is happening, and looking at the
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D528FLO1   Cirabisi – cross
1 people that are suspected of committing the crimes, and
2 ensuring that when we are stopping people, that it's the people
3 that --
4   THE COURT: If you move to strike as nonresponsive, I
5 will grant it.
6   Has it ever come up a discussion about the percent by
7 race of people stopped? Did anybody notice and say the
8 percentages are, we are stopping mostly blacks and Hispanics,
9 or any kind of conversation about that issue?
10   THE WITNESS: In that context, I don't believe so.
11   THE COURT: Now you can try, unless you think it's
12 covered. If you want to rephrase now, you can, but that's the
13 best I can do.
14   MR. CHARNEY: Your Honor asked the question way better
15 than I did.
16 Q. Let me ask one more question about this, following up on
17 what her Honor just asked you.
18   Has the issue of the fact that the overwhelming number
19 of stops conducted by the police department each year, in other
20 words, more than 80 percent of them are of either blacks or
21 Latinos, has that issue ever been discussed in any way at a
22 CompStat meeting that you have attended?
23 A. In that particular format, no.
24 Q. What about just the percentages of stops broken down by
25 race, has that ever been discussed either as the city as a
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D528FLO1   Cirabisi - cross
 1 whole, in your precinct, in somebody else's precinct at any
 2 CompStat meeting that you have attended?
 3 A. Well, it's brought up at CompStat because, obviously, it's
 4 something that's been discussed in the public over a period of
 5 time. It is brought up that we must ensure that the officers
 6 are stopping people and are not racial profiling. Whether or
 7 not it's percentages of how many particular people are being
 8 stopped in that fashion, I don't remember it being discussed
 9 that way.
10 Q. Have concerns about whether or not officers are making
11 illegal stops ever been discussed at CompStat meetings that you
12 have attended?
13 A. The direction for us to ensure that people are being
14 stopped within the guidelines is discussed.
15 Q. But my question was a little different. Have concerns ever
16 been raised at CompStat meetings that officers, either in a
17 particular precinct or in the city at large or particular
18 borough, have made illegal stops, has that ever been discussed
19 as an issue at CompStat?
20 A. In that terminology, I don't believe so. What we discuss
21 is that the officers should be stopping not based on a person's
22 religion, or stopping people because they think they need to do
23 so many stops, but based on what they observe and reasonable
24 suspicion.
25 Q. I am going to show you an exhibit that's been previously
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 1   admitted as -- actually, before I show you, have you as a
 2   precinct commander tracked the racial breakdown of the stops
 3   conducted in your precinct, the 114? Do you track that
 4   information?
 5   A. It's documented, yes.
 6   Q. When you say it's documented, by whom?
 7   A. Well, they are entered in a database so that information is
 8   looked at. We look at the 250s, as far as where the stops are
 9   taking place, broken down. We look at who is being stopped, as
10   far as age, race.
11   Q. Have you ever done an analysis of the data in your
12   precinct, the stop data, to determine if the percentage of
13   stops that are made of black and Hispanic people is higher than
14   their representation amongst the crime suspect population in
15   the precinct?
16   A. I have seen data that does break that down.
17   Q. Are you aware that in 2011, in your precinct, the 114, the
18   percentage of stops of black residents or civilians and
19   Hispanic civilians, those percentages are higher than the
20   percentages of each of those groups in the crime suspect
21   population?
22   A. Higher than those suspected of crime?
23   Q. Yes.
24   A. I have never seen that. The statistics that I have seen is
25   based on overall crime and violent crime. I think when it
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D528FLO1   Cirabisi - cross
1   comes to overall violent crime, for the statistics I have seen,
2   I think those statistics are a little different.
3   Q. What about for overall crime? You would agree with me that
4   stops are made on suspicion of all kinds of crime, right?
5   A. Correct.
6   Q. In fact, the majority of stops are made for crimes other
7   than violent crimes, right?
8   A. It would depend on the precinct and the conditions in that
9   precinct.
10   Q. In your precinct, you're aware that stops for nonviolent
11   crimes are more than two thirds of all the stops, right?
12   A. Correct.
13   Q. So then my question is, have you ever done a comparison of
14   the racial breakdown of people stopped in your precinct with
15   the racial breakdown of the crime suspects for all crime
16   categories in your precinct?
17   A. Have I personally sat down and done that analysis? No.
18   THE COURT: Have you ordered it done and results were
19   given to you?
20   THE WITNESS: I have seen a analysis like that.
21   THE COURT: For your own precinct?
22   THE WITNESS: Yes.
23   Q. Are you aware that in 2011, the racial breakdown of all
24   known crime suspects, in that breakdown, the representation of
25   blacks and Hispanics was higher than in the breakdown of the

D528FLO1   Cirabisi - cross
1   people stopped in your precinct?
2   THE COURT: I don't think I follow your question.
3   Q. This is Defendants' Exhibit Y8, which is already in
4   evidence. This is the 2011 reasonable suspicion stops report.
5   I want to show you the 114, which is your precinct.
6   First of all, have you seen this document before?
7   A. Yes.
8   Q. This document notes that there were 10,000 stops,
9   approximately, in your precinct in 2011, right?
10   A. Correct.
11   Q. Then it says the top crime suspected was robbery, but
12   that's only about 22 percent of all the stops, right?
13   A. That's what it says, yes.
14   Q. So 77.3 percent of the stops were for other crimes, not
15   robbery, right?
16   A. Correct.
17   Q. Now, then we have a bar graph here. You see the blue is
18   the population of the precinct broken down by race. The red is
19   the all known crime suspects, which is an issue in this case
20   that you don't have to worry about. The green is the known
21   violent crime suspects. Then the blue is the people stopped.
22   THE COURT: The darker blue.
23   Q. The darker blue is the people stopped. The lighter blue is
24   the resident population.
25   On the Y axis we have the percentages, right?
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D528FLO1   Cirabisi - cross
1   Then on the X axis we have each racial group, right?
2   A. Correct.
3   Q. At least Asian, black, white and Hispanic.
4   So if we look at blacks, it looks like the numbers are
5   pretty close. However, the percentage of people stopped who
6   are black is a little bit higher than the percentage of all
7   known crime suspects who were black, right?
8   MS. GROSSMAN: Can I have that question read back?
9   (Record read)
10   MS. GROSSMAN: I just object.
11   THE COURT: I have no problem with it.
12   Do you understand it?
13   He is just saying, the dark blue line is slightly
14   higher than the red line, right?
15   THE WITNESS: The black percentage of population is 10
16   percent and all known crime suspects for black is 35 percent.
17   Q. Then persons stopped that are black, it's 37 percent,
18   right?
19   A. Correct.
20   Q. Then if we look at Hispanics, it's actually a bigger
21   difference, right?
22   So Hispanics are 27.8 percent of the population. 32.6
23   percent of the known crime suspects. And then about 38 percent
24   of the people stopped, right?
25   A. Correct.

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D528FLO1                    Cirabisi - cross
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1   Q. Then when we look at whites, whites are the biggest
2   population in the precinct, right?
3   A. Correct.
4   Q. 46 percent?
5   A. Correct.
6   Q. There are 25 percent of the known crime suspects, right?
7   A. Correct.
8   Q. But they are only 18.6 percent of the people stopped,
9   right?
10   A. Correct.
11   Q. So whites are actually stopped at a rate lower than their
12   representation in the crime suspect population, right?
13   THE COURT: 18 is less than 25, right?
14   THE WITNESS: Right.
15   Q. So my question is, you have seen these numbers before,
16   right, before today?
17   A. Yeah.
18   Q. When you saw these numbers, did it raise any concerns to
19   you that there may be officers in your precinct that are
20   violating the racial profiling policy?
21   A. No. Because when we deploy the officers, we deploy them in
22   specific areas. This is just relative to one type of violent
23   crime, robberies. You have other types of crimes, CPW. I
24   would have to take all of that into consideration.
25   Q. But this tells you the total number of stops. It doesn't

D528FLO1   Cirabisi - cross
1   just say the total number of stops for robberies; it says the
2   total number of stops, right?
3   A. Correct.
4   Q. So you would agree that this chart actually does cover all
5   the stops that were done in your precinct in 2011, right?
6   A. The overall number of 10,000, correct. Not all of those
7   would be by 114 personnel.
8   Q. I understand that. But I guess my question is, and again,
9   I am not suggesting -- maybe I am suggesting. I don't know
10 whether officers in your precinct are violating the racial
11 profiling policy. My question is, did these numbers raise any
12 concerns for you that that might be happening?
13 A. No.
14 Q. Has anybody in the police department spoken to you about
15 the statistics that are reflected on this page?
16 A. Specific to this page? No.
17 Q. Has anybody in the police department spoken to you about
18 the fact that in 2011, blacks and Hispanics were being stopped
19 at a rate higher than their percentage of the crime suspect
20 population and that whites were being stopped at a rate lower
21 than their representation of the crime suspect population?
22   MS. GROSSMAN: I just want to say that Professor
23 Fagan's expert opinion is saying that he disavows that he even
24 compares this to the census. So this line of questioning --
25   THE COURT: But this chart was prepared by?
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1   MR. CHARNEY: By them. This is their document.
2   MS. GROSSMAN: In terms of the point that is being
3   made and the relevance, I think that Professor Fagan has
4   testified and he has disavowed that there is a connection to
5   the census alone. He is looking at crime rate and census
6   together.
7   THE COURT: I don't understand your point, Ms.
8   Grossman. That's opinion testimony. This is fact testimony.
9   That's all I can tell. These are the facts, so to speak.
10   Q. I am simply asking, has anyone in the police department
11   spoken to you about the patterns that are reflected in this
12   document, in other words, that blacks and Hispanics are being
13   stopped at rates higher than their representation in the crime
14   suspect population and that whites are being stopped at rates
15   lower than their representation in the crime suspect
16   population? Has anybody in the police department spoken to you
17   about that?
18   A. Directly about that? No.
19   Q. I want to turn to the OCD complaint that Ms. Grossman
20   showed you yesterday from the 107 when you were there. This is
21   Exhibit 251.
22   Actually, before I show that to you, you testified
23   yesterday that you did not see a problem with assigning an OCD
24   civilian complaint investigation to the supervisor of the
25   officer who was the subject of that complaint, right?

D528FLO1   Cirabisi - cross
1   A. Correct.
2   Q. In fact, in the case of Exhibit 251, that's exactly what
3   happened, right?
4   A. Correct.
5   Q. Now, I want to show you, if we can pull up what has been
6   previously admitted as Plaintiffs' 250.
7   This is a UF-250 and it says the name of the person
8   stopped is David Ourlicht, right?
9   A. Yes. Correct.
10   (Continued on next page)
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D529FLO2   Cirabisi - cross
1   Q. And it says that the date of the stop -- where is the date
2   of the stop -- it says January 30, 2008, right?
3   A. Correct.
4   Q. So it's fair to say that this is the 250 that is associated
5   with the incident that is the subject of that OCD complaint,
6   right?
7   A. I'd have to see the other copy of the complaint that says
8   the date of the complaint.
9   Q. So let's look at Plaintiffs' Exhibit 108 which is also in
10 evidence. I think we may have looked at this yesterday.
11   This is the complaint report. Looking at this
12 document, do you agree with me that the UF 250 we were just
13 looking at refers to this particular incident, right?
14 A. Yes, it does.
15 Q. So going back to Exhibit 250, which is the UF 250, I want
16 to go down to see -- at the end of the page to see who the
17 reviewing supervisor was for this.
18   Do you see the reviewer -- in other words, the
19 supervisor that signed off on this 250 was Sergeant Hegney,
20 right?
21 A. Correct.
22 Q. And Sergeant Hegney is also the sergeant who did the
23 investigation of this incident, correct?
24 A. Correct.
25 Q. Now, when a sergeant signs off on a 250, you would agree

D529FLO2   Cirabisi - cross
 1   that he's confirming that in his or her view -- I'm sorry --
 2   he's confirming that in his view this was a proper stop, right?
 3   A. Correct.
 4   Q. So, in other words, when he signs a 250 and he confirms
 5   that in his view this is a proper stop, he is now taking
 6   responsibility for the actions of his officer, right?
 7   A. I don't know what you mean by "taking responsibility" for
 8   his actions.
 9   Q. In other words, if he has signed off and stated that in my
10   view this was a constitutional stop, he is now responsible for
11   the consequences of his officer's action with respect to this
12   stop, right?
13   A. He could be, yes.
14   Q. So if it's later determined through an investigation of a
15   complaint that the stop was, in fact, improper the sergeant is
16   going to be held responsible too, right?
17   THE COURT: All he's saying is he could be disciplined
18   for having signed off on an improper stop, for not having
19   questioned it, right?
20   THE WITNESS: Will he be disciplined?
21   THE COURT: I just said could be.
22   THE WITNESS: Yeah, I guess.
23   Q. Well didn't you testify yesterday that supervisors are
24   responsible for making sure their officers comply with the law?
25   A. Yes.

D529FLO2   Cirabisi – cross
 1 Q. So if one of their officers break the law, isn't the
 2 supervisor going to be held responsible for that?
 3 A. Well he didn't do the stop so I don't see where he would
 4 be -- he would be responsible for the actual stop itself.
 5   THE COURT: He means for an inadequate review. He
 6 should have caught it in the review if there was something
 7 wrong with it and said so?
 8   THE WITNESS: Correct.
 9 Q. That's one thing. But I also want to know if an officer
10 who he is responsible -- who a supervisor is responsible for
11 making sure he complies with the law, if that officer breaks
12 the law, is it your testimony that the supervisor is not going
13 to be held responsible in any way for that violation?
14   THE COURT: I don't think that's a fair question. I
15 don't know what you mean by "held responsible." By whom? Not
16 here in a 1983 action, no.
17   What do you mean, "held responsible"?
18   MR. CHARNEY: By that supervisor's superior in the
19 police department.
20   THE COURT: In what way held responsible? You mean
21 subject to discipline?
22   MR. CHARNEY: Subject to discipline or --
23   THE COURT: That's what I asked.
24   Would he have any exposure for failure to supervise?
25 That's what he's saying.

D529FLO2   Cirabisi – cross

1   THE WITNESS: Possibly.
2   THE COURT: Okay.
3   Q. So then going -- so then wouldn't the supervisor -- it
4   would be a better result for the supervisor of an officer who
5   is the subject of a civilian complaint if that civilian
6   complaint was unsubstantiated, right?
7   A. After speaking -- investigating the complaint and he
8   determined that at that point that there was an issue, then he
9   would be responsible then to discipline the officer. So I mean
10 when he signs off the stop, question and frisk he's reviewing
11 it --
12   THE COURT: Okay. Again, I don't think you understood
13 that question.
14   MR. CHARNEY: It was a bad question.
15   THE COURT: He's saying since the supervisor might be
16 responsible for failure to supervise, wouldn't he prefer that
17 the outcome of the CCRB be unsubstantiated because then he's
18 not exposed to any discipline himself?
19   THE WITNESS: Well if the officer was found guilty on
20 the CCRB, the supervisor -- I don't know what level of
21 discipline he would get.
22   THE COURT: Right. But he would be exposed to
23 possible failure to supervise.
24   THE WITNESS: Possibly.
25   THE COURT: But if it's unsubstantiated then he's not

D529FLO2   Cirabisi - cross
1   exposed to anything?
2   THE WITNESS: I guess, yeah.
3   THE COURT: Okay.
4   Q. So given that --
5   MR. CHARNEY: Thank you, your Honor.
6   Q. Given that, you still don't have any concerns that the
7   direct supervisor of the officer who conducted this stop is
8   going -- you don't have any concerns that he may not be
9   completely objective in doing the investigation of the stop?
10 A. Well, his investigation would be reviewed. So if it was
11 determined that he didn't do his job on the investigation by
12 not fully investigating, then he would ultimately be
13 disciplined for not conducting a proper investigation. So he
14 has liability one way or the other. If he decides that he's
15 not going to do a proper investigation and it comes out upon
16 review that he failed to conduct an investigation, then he's
17 just as much liable in this case.
18 Q. I understand that. But my question was given what her
19 Honor asked you and that you confirmed that a sergeant is
20 definitely not going to be held responsible if the complaint is
21 unsubstantiated but could possibly be held responsible in some
22 way if it's substantiated, given that, that doesn't raise
23 concerns for you that the sergeant will maybe not be objective
24 when they investigate this complaint?
25 A. No.
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D529FLO2   Cirabisi - cross
1   Q. So then let's look at this OCD investigation again, the
2   disposition report.
3   Now you testified yesterday that according to this
4   report, and I think also Exhibit 108, Sergeant Hegney spoke to
5   Officer Moran about it, right? That's one person he spoke to?
6   A. Correct.
7   Q. And he spoke to the mother of Mr. Ourlicht, right?
8   A. According to this report, yes.
9   Q. But he never was able to speak to Mr. Ourlicht, right?
10   A. According to this report, no.
11   Q. But he ended up -- his final conclusion was that this
12   complaint was unfounded, right?
13   A. Correct.
14   Q. Now unfounded means -- doesn't unfounded mean that the
15   subject officer did not commit -- definitively did not commit
16   the misconduct that was alleged?
17   A. Correct.
18   Q. But that determination in this case was made without
19   speaking to the individual who was actually stopped, right?
20   A. Correct. In this case this probably should have been
21   marked unsubstantiated, not unfounded.
22   Q. So you would agree that this was an improper disposition
23   for this complaint, right?
24   A. Correct.
25   Q. But you never before today -- well actually were you ever
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D529FLO2   Cirabisi - cross
1   made aware before you testified at this trial that this
2   investigation had been conducted in this fashion?
3   A. Deposition.
4   Q. So prior to your deposition in October of 2009 had you been
5   made aware by anybody in the police department that this
6   investigation in your precinct by one of your supervisors had
7   been done in this fashion?
8   A. No.
9   Q. The other thing I want to ask you about is according to
10 Sergeant Hegney's notes here about his conversation with -- I
11 actually want to focus on Officer Moran. It says, "Police
12 Officer Moran states that perpetrator fit the description of a
13 man with a gun and had a bulge in his waist under his arm.
14 Upon stopping him, he became irate and disorderly by yelling --
15 go on to the next page -- obscenities and causing a public
16 annoyance."
17   I want to go back and look at Exhibit 250 again.
18   Now you would agree that in order to conduct this
19 investigation properly Sergeant Hegney should have reviewed the
20 paperwork associated with the stop, right?
21 A. Correct.
22 Q. So I want to look at the 250 here. Do you see under
23 circumstances leading to stop. Do you see that -- right where
24 the cursor is there?
25 A. Yes.
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D529FLO2   Cirabisi - cross

1   Q. Do you see the circumstance "fits description" indicated
2   there?
3   We can look at the frisk factors. Do you see it
4   there?
5   A. Fits description on here?
6   Q. Yeah. Do you see it on there anywhere?
7   A. No.
8   Q. But going back to Exhibit 251 on the ELMO, didn't --
9   according to Sergeant Hegney, Officer Moran told him that
10 Mr. Ourlicht fit the description of a man with a gun, right?
11 A. That's what it states on here.
12 Q. So if we assume that Sergeant Hegney has it right in terms
13 of what Officer Moran told him, what Officer Moran told him was
14 inaccurate, correct?
15 A. I'm sorry. Can you repeat that again.
16 Q. If we assume that what Sergeant Hegney wrote here is
17 accurate with respect to what Officer Moran told him in his
18 investigation, what Officer Moran told Sergeant Hegney is not
19 accurate?
20   MS. GROSSMAN: Objection. That's just speculation and
21 hypothetical.
22   THE COURT: He said if. So it's a hypothetical
23 question. He said if. Do you want to hear it again?
24   THE WITNESS: Yeah.
25   THE COURT: Okay.
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D529FLO2   Cirabisi – cross
 1   If we assume that what Sergeant Hegney wrote here is
 2   accurate with respect to what Officer Moran told him in his
 3   investigation, then what Officer Moran told Sergeant Hegney is
 4   not accurate? Because it doesn't say anything about fits
 5   description, right?
 6   THE WITNESS: On the 250, no.
 7   THE COURT: Right.
 8   Q. And Sergeant Hegney -- when a sergeant signs off on a 250,
 9   it's your assumption that that 250 is accurate, right?
10   A. Correct.
11   Q. Now you also testified yesterday that when the OCD
12   disposition, complaint disposition is finished, it's sent to
13   the borough and the office of chief of department, right?
14   A. Correct.
15   Q. But none of the paperwork associated with the incident, in
16   other words the 250 form, summonses, arrest reports, those
17   wouldn't be sent to the borough or the office of chief of
18   department, right?
19   A. No.
20   Q. So the only thing that the office of chief of department or
21   the borough has, the only information it has to evaluate the
22   sufficiency of the investigation would be this particular form,
23   right?
24   A. Correct.
25   Q. And based on your experience as both the CO and somebody

D529FLO2   Cirabisi - cross
1   who has investigated OCD complaints is it your view that this
2   particular disposition report is on its face sufficient?
3   A. Sufficient?
4   Q. Well that's a bad question.
5   Does this disposition report alone, based on the
6   information here, does this satisfy you that the investigation
7   that Officer Hegney did was a sufficient investigation?
8   A. Well it doesn't indicate what he reviewed or didn't review.
9   So based on what he wrote I would be looking at what -- based
10 on what he wrote, that the -- that those things would have been
11 done. But it's not noted here whether or not he reviewed any
12 other documents.
13 Q. So I guess my question is the information -- does the
14 information on this form allow you to determine, without
15 looking at anything else, whether or not Sergeant Hegney did a
16 sufficient investigation?
17 A. Just based on what's on this individual paper?
18 Q. Yes.
19 A. Probably not.
20 Q. But you never spoke to Sergeant Hegney about whether or not
21 this investigation was sufficient or not, right?
22 A. At the time of this -- no. No.
23 Q. Do you know whether anybody else in the 107th precinct back
24 when you were the CO spoke to Sergeant Hegney about this
25 investigation and whether he did a good job?

D529FLO2   Cirabisi - cross
1   A. I don't know if my operations coordinator spoke with him on
2   this or not.
3   Q. And do you know whether at any point the borough or the
4   office of chief of department sent this report back to you, to
5   your precinct and asked for the investigation to be reopened or
6   improved upon in any way?
7   A. Not to my knowledge.
8   Q. Just a couple more topics I want to go through.
9   The other thing we were looking at yesterday and I
10 think you have it in front of you is Defendants' Exhibit Z3 the
11 performance monitoring document. And I actually -- what page
12 number? Sorry.
13   This is Exhibit Z3 if we pull it up on the screen.
14   So you recall you were asked some questions about this
15 by Ms. Grossman, right?
16 A. Correct.
17 Q. Now, looking at level I, the criteria for being placed in
18 level I performance monitoring, do you see there it lists
19 negative performance, right? And then it lists -- there's a
20 couple categories there for CCRB complaints, right?
21 A. Yes.
22 Q. But there's nothing on there about whether or not an OCD
23 complaint would make an officer subject to performance
24 monitoring, right?
25 A. No.

1   Q. It also says on there negative performance evaluation.
2   Do you see that?
3   A. Correct.
4   Q. Now, officers get performance evaluations on both an annual
5   and a quarterly basis, right?
6   A. Yes.
7   Q. And the quarterly reviews are done on the back of those --
8   they're now called, what, monthly conditions impact measurement
9   reports, right?
10 A. Correct.
11 Q. And the quarterly evaluations are supposed to be based on
12 the information that's on those monthly conditions impact
13 measurement reports, right?
14 A. Yes.
15 Q. And is it your understanding that if an officer gets two or
16 more negative quarterly performance evaluations that that
17 officer could be subject to this performance monitoring, right?
18 A. Just based on two negative months?
19 Q. No. Two negative quarters in a single year.
20 A. Well it would be based on his overall yearly evaluation
21 would place him in this.
22 Q. So you don't -- it's not your understanding that if an
23 officer got two or more negative quarterly evaluations in a
24 single year, you don't agree that he could be subject to this
25 same performance monitoring?

D529FLO2   Cirabisi - cross
1   A. Possibly.
2   Q. You would consider being placed on performance monitoring
3   to be punishment, right?
4   A. Well it would be a negative thing.
5   Q. So a negative employment action in other words, right?
6   A. Yes.
7   Q. I think I only have one more question here.
8   You said that you were the ICO in the 75 precinct at
9   one time; is that right?
10   A. The operations coordinator.
11   Q. I'm sorry. Operations coordinator, right.
12   And what years was that?
13   A. 2000 to 2002.
14   Q. And was Michael Marino the precinct commander at any point
15   during that time?
16   A. No.
17   MR. CHARNEY: One minute, your Honor.
18   One other question.
19   Q. You mentioned earlier when I was asking questions that if a
20   sergeant did a bad OCD complaint investigation he or she could
21   be disciplined for that, right?
22   A. Correct.
23   Q. Are you aware of any sergeants in either the 107 or 114 or
24   any other precinct you worked in who have been disciplined for
25   doing an inadequate OCD investigation of a civilian complaint?

D529FLO2   Cirabisi - cross
1   A. No.
2   MR. CHARNEY: Nothing further, your Honor.
3   THE COURT: Redirect, Ms. Grossman man.
4   MS. GROSSMAN: Yes.
5   REDIRECT EXAMINATION
6   BY MS. GROSSMAN:
7   Q. Good morning.
8   A. Good morning.
9   MS. GROSSMAN: Your Honor, yesterday during Inspector
10   Cirabisi's direct examination you actually asked a question
11   about whether there was a mistake in the civilian complaint
12   summary where the mother, Mrs. Ourlicht, called in a complaint
13   for her son, Mr. Ourlicht. And you thought the complaint --
14   you thought the civilian complaint was incorrect in describing
15   Mrs. Ourlicht as white.
16   So I would like to just ask that we have a stipulation
17   from the plaintiff.
18   MR. CHARNEY: That's not what your Honor said. Your
19   Honor said the date of birth was incorrect, which it is.
20   THE COURT: I did, right.
21   MS. GROSSMAN: But I think you also seemed to refer to
22   the description of the mother as being white.
23   THE COURT: I might have mentioned it -- I might have
24   mentioned it but not as an error. I remember his testimony was
25   he defined himself as black and white, remember that. So I
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D529FLO2   Cirabisi - redirect
1   guess he has a white mom and black dad. That's how he defined
2   himself. I just pointed it out that the birthday clearly was
3   in error.
4   MS. GROSSMAN: But I just wanted a stipulation from
5   the plaintiffs' counsel that Mrs. Ourlicht is indeed white and
6   I don't know that that should be a problem.
7   MR. CHARNEY: That's fine. The witness testified to
8   that, Mr. Ourlicht testified to that so we have no problem.
9   THE COURT: He testified to that. So it's so
10 stipulated.
11 BY MS. GROSSMAN:
12 Q. Now, Mr. Charney asked you questions about whether the
13 borough commander spoke to you about the 2008 audit results.
14   Do you remember that testimony?
15 A. Yes.
16 Q. And you didn't remember speaking with the borough commander
17 about that, right?
18 A. Correct.
19 Q. But you did receive deficiency notices regarding the
20 results of the audit, right?
21 A. Correct.
22 Q. And that was communicated through channels, right?
23 A. Correct.
24 Q. Now, Mr. Charney asked you some questions about the OCD
25 investigation that we just discussed of Mr. Ourlicht's stop?

D529FLO2   Cirabisi - redirect
 1   A. Right.
 2   Q. Now what are the disposition options available when a
 3   complainant does not cooperate with an investigation?
 4   A. Well, it would either be unsubstantiated, partially
 5   substantiated based on the investigation, or unfounded.
 6   Q. So the fact that the complainant does not cooperate with
 7   the investigation could play a role in the ultimate
 8   disposition?
 9   A. Possibly, yes.
10   MS. GROSSMAN: No further questions.
11   MR. CHARNEY: Nothing further, Your Honor.
12   MR. MOORE: Hold on a second.
13   MR. CHARNEY: Sorry. I guess we might have a redirect
14   question.
15   MR. MOORE: I just want to consult with him.
16   THE COURT: Sure.
17   (Pause)
18   MR. CHARNEY: I guess I do have one or two questions.
19   RECROSS EXAMINATION
20   BY MR. CHARNEY:
21   Q. So Ms. Grossman asked you whether you receive deficiency
22   notices through channels regarding the 2008 QAD audit, right?
23   A. Correct.
24   Q. But in 2009 you got the same low score on the activity log
25   entry item, right?
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D529FLO2   Cirabisi - recross
1   A. Correct.
2   Q. So is it fair to say that the deficiency that was noted was
3   not corrected by your precinct?
4   A. For that period, yes. Correct.
5   MR. CHARNEY: No further questions.
6   THE COURT: Done. Okay. Thank you. All set.
7   (Witness excused)
8   THE COURT: Now your next witness is going to be your
9   expert.
10   MS. COOKE: Robert Purtell.
11   THE COURT: I don't think it's worth starting for five
12 minutes and stopping so we might as well take the morning
13 recess a few minutes early and reconvene at 20 of, go
14 continuously.
15   MS. BORCHETTA: Just a quick question about
16 scheduling. Tomorrow I understand is a half-day so I'm just
17 wondering what time the court intends to stop.
18   THE COURT: 1:00. The time we would usually break for
19 lunch, around 1:00.
20   (Recess)
21   MS. COOKE: Defendants call Robert Purtell, your
22 Honor.
23   ROBERT PURTELL,
24   called as a witness by the Defendant,
25   having been duly sworn, testified as follows:
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D529FLO2   Cirabisi – recross
1   MS. COOKE: I'm sorry, your Honor. I have a nose
2   bleed.
3   MS. GROSSMAN: Can we take five minutes?
4   THE COURT: We can wait another five minutes, if you'd
5   like.
6   MS. COOKE: If I could.
7   THE COURT: I'm not going to leave the bench but
8   anybody else who wants to walk around can.
9   MS. COOKE: Thank you.
10   THE COURT: Better?
11   MS. COOKE: Yes. Thank you, your Honor.
12   DIRECT EXAMINATION
13   BY MS. COOKE:
14   Q. Professor Purtell, what are you currently employed?
15   A. I am on the faculty of the Rockefeller College of Public
16   Affairs and Policy at the University in Albany. To get a pitch
17   in for the school, it's a nationally ranked program.
18   Q. What are your responsibilities at the University of Albany?
19   A. I am what most people would think of as a pracademic. I'm
20   someone who came from a 30 year plus career in finance and
21   management and I was brought up there to help them revamp the
22   finance program. Brought to teach, obviously. And until just
23   recently I was the director of the MPA program. And I also
24   conduct some research in support of the program itself.
25   Q. What's the MPA program?

D529flo2   Purtell - direct
1   A. It's a master of public administration. It's the public
2   service equivalent of the master of business administration
3   which more people know about.
4   Q. Have you been retained as an expert in this case?
5   A. I have.
6   Q. And what were you asked to do in that engagement?
7   A. My role in this engagement is somewhat limited. I was
8   asked to review the analyses produced by Professor Fagan, to
9   read the descriptive narratives. Where it was available, I was
10 asked to review the code that he used to create his analyses.
11 And I was asked to read and interpret the results from all of
12 his regression analyses and his sampling --
13 Q. Do you have an understanding as to how Professor Fagan
14 conducted his statistical analysis and arrived at conclusions?
15 A. I do. I actually have a better understanding for the
16 material in his second report rather than the first because in
17 the first report he did not provide us with code to show us how
18 he did his calculations.
19 Q. Was not having the code an issue for understanding the
20 first report?
21 A. It is. If you don't understand the code you really can't
22 look through the numbers to find out how he estimated them.
23   So in one case he talked about using general
24 estimating equations -- I'll slow down for those strange
25 words -- and when we later looked at the code for his second

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D529flo2   Purtell – direct
1   analysis, he didn't really mean that he'd used something that
2   general, he'd used something called a negative binomial model,
3   which is one of a class of methods that fit into that category.
4   Q. So that was an important distinction that you were able to
5   determine after reviewing the code?
6   A. Yes. It helps us to interpret the results, which
7   unfortunately are extremely complex from a model like that.
8   Q. Professor Purtell, I'm handing you what's been marked as
9   Defendants' Exhibit H13A for identification.
10   Do you recognize H13A?
11 A. I do.
12 Q. What is it?
13 A. It is my CV. The academic equivalent of what used to be my
14 resume.
15 Q. Is this the CV that was appended to the most recent expert
16 report you submitted in this case?
17 A. That's correct, yes.
18   MS. COOKE: Your Honor, we would move the admission of
19 Defendants' H13A.
20   MR. CHARNEY: No objection.
21   THE COURT: H13A received.
22   (Defendants' Exhibit H13A received in evidence)
23 Q. Looking at H13A, Professor Purtell, is it presently an
24 accurate resume containing your professional and experience?
25 A. It is with one exception. This academic year I decided to

D529flo2   Purtell - direct
1   resign as the head of the MPA program. I'm actually planning
2   to retire at the end of this year, well actually to go to
3   what's essentially a sabbatical year.
4   Q. Professor Purtell, would you briefly describe for the court
5   your formal education.
6   A. I have a bachelor's degree in mathematics from Manhattan
7   College.
8   I have a MBA from the Stern Business school at NYU.
9   I have master of philosophy and Ph.D. degrees from the
10 Wagner Graduate School of Public Service at NYU.
11 Q. Are you familiar with the field of statistics?
12 A. Yes.
13 Q. What is statistics?
14 A. Well, in sort of its broadest categorization, it is the
15 part of mathematics that deals with describing data, analyzing
16 it to see whether certain factors are similar or different,
17 analyzing the level of variation in data, and analyzing the
18 relationships among and between data elements.
19 Q. Do you have formal training in the field of statistics?
20 A. Yes. I have taken courses in both probability theory,
21 mathematical statistics, regression analysis, time series
22 analysis, and, in fact, I sat -- I also audited quite a number
23 of classes at NYU because I was a former mathematician, this is
24 an interest of mine, and I sat through a class by Professor
25 Greene there. And Bill Greene was the I believe the first
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D529flo2   Purtell - direct
1 person to develop the software that does this type of analysis.
2 Q. When you're referring to this type of analysis, what do you
3 mean?
4 A. The generalized estimating equation sort of analyses,
5 including Poisson regressions and negative binomial
6 regressions. It was meant to handle situations where ordinary
7 least-squares regressions, or even variations on it, were
8 inadequate to do the analysis.
9 Q. Do you also have professional nonacademic experiences?
10 A. Yeah. I spent I guess over 30 years as a -- in the
11 business world. That's why I'm a pracademic as opposed to an
12 academic.
13   I began as a research mathematician where I literally
14 wrote the kind of code that would be used to run regression
15 analyses and, in fact, I've written code to do exactly that for
16 one employer.
17   I spent a significant portion of my life after that --
18 one portion as a analyst in a department -- for one of the
19 airlines that needed capital budgeting issues which required
20 the substantial use of statistics.
21   I worked at American Express first as a product --
22 project manager in an operations research group, which is the
23 business of mathematics; lots of statistics there. And then
24 for the vice chairman of American Express where I was
25 responsible for a number of projects, domestically and
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D529flo2   Purtell - direct

1   internationally, many of which required statistical -- use of
2   statistical techniques.
3   I went onto a company called A.G. Becker where I
4   helped build the first risk control -- one of the first risk
5   control systems for Wall Street.
6   And I, in parts of my career, throughout my career,
7   I've helped to develop and analyze complex financial
8   structures, all of which requires the use of statistical
9   techniques, many of which are far more complicated than what's
10   being used here.
11   Q. Have you ever conducted any research involving the use of
12   statistics?
13   A. Well I've done both research and I've done practical
14   exercises to inform decisions that senior managers in
15   organizations were taking into, as I said, to produce financial
16   products that are meant to manage risk.
17   And I've done several studies in finance. And I've
18   done an additional number of studies with Professor Smith
19   looking at issues in policing.
20   Q. Have those areas of research applied statistical techniques
21   in different forms of modeling?
22   A. Yes. All them required extensive use of statistical
23   methods.
24   Q. Have you published any of your research and analysis?
25   A. I have. I published a few papers. I have two revised

D529flo2   Purtell - direct

1   and --
2   THE COURT: Let me just interrupt. You put the CV in
3   evidence and it lists every single publication, I would hope.
4   THE WITNESS: It does.
5   THE COURT: Working papers, dissertation, articles --
6   you've got it all there. There is no point repeating it.
7   THE WITNESS: I agree completely.
8   THE COURT: Once you put this in evidence.
9   THE WITNESS: Yeah.
10   MS. COOKE: All right.
11 Q. Are any of those articles peer reviewed?
12 A. Yes. All the published articles are peer reviewed.
13 Q. Are you ever asked to review articles of others as part of
14 a peer review process?
15 A. On a regular basis I'm asked to look at articles that are
16 in journals that relate to public finance and the use of
17 managerial finance for public service organizations.
18 Q. Do you know what a UF 250 form is?
19 A. Yes. It's the form that the police department uses to
20 collect data on stops and frisks.
21 Q. Have you worked with the UF 250 data of the NYPD?
22 A. I have. In electronic format.
23 Q. And is your work in this case --
24   THE COURT: Does that mean the database?
25   THE WITNESS: Yes. It was given to us as a computer

D529flo2   Purtell - direct
1   readable record.
2   Q. Have you worked with that data outside of the context of
3   this case?
4   A. I also worked with that data in the Davis versus --
5   THE COURT: Housing Authority.
6   THE WITNESS: Housing Authority. Thank you. I'm
7   horrendously bad with names, your Honor. Sorry.
8   Q. In what period of time of UF 250 data did you review for
9   this case?
10 A. I believe the data was from January of 2004 through June of
11 2012.
12 Q. And are you aware of approximately how many UF 250
13 worksheets are contained in that electronic data?
14 A. I think something in excess of 4.4 million individual
15 records.
16 Q. Did you work with any other data from the NYPD in
17 connection with your work in this case?
18 A. Yes. We worked with crime data. We worked with data that
19 described suspect descriptions from the merged file. And we
20 also used patrol strength data to replicate the analysis that
21 Professor Fagan first did at a precinct level.
22 Q. Did you prepare reports in connection with your work as an
23 expert in this case?
24 A. We did. I was the coauthor on I believe two responses in
25 this case.

D529flo2   Purtell - direct
1   Q. And have you reviewed the reports submitted by the
2   plaintiffs' expert Professor Fagan in this case?
3   A. I have.
4   Q. Other than your work in this case and the Davis case, have
5   you worked on any other evaluations or studies involving NYPD
6   policing data?
7   A. Yes. With Professor Smith we -- we've been working on
8   three major areas of research. First we looked at the efficacy
9   of the data control and quality control procedures for crime
10 data from the NYPD.
11   We did an analysis of operation impact, which has been
12 published by one of the areas at NYU's law school and is now an
13 invited article in a journal.
14   And we've been doing a series of analyses on the
15 efficacy of stop and frisk.
16   MS. COOKE: Your Honor, defendants --
17   THE COURT: The efficacy meaning what?
18   THE WITNESS: The effectiveness, your Honor, whether
19 it works or doesn't work.
20   THE COURT: Works for?
21   THE WITNESS: Whether it has an impact on the rate of
22 crime, reduces crime. Sorry.
23   THE COURT: That's okay. I just wanted to understand.
24   THE WITNESS: I'm too technical for most people.
25   MS. COOKE: Defendants would move to qualify Professor
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D529flo2   Purtell - direct

1 Purtell as a mathematician and statistician, who is an expert
2 in statistical methodology and analysis.
3   MR. CHARNEY: Your Honor, if we could reserve our
4 objection because I will have some cross questions that I think
5 go to his qualifications so I'm not prepared to stipulate to
6 his qualifications at this point.
7   THE COURT: Right. I agree. He's certainly an expert
8 in some things for sure, no doubt about it, but maybe not in
9 all the things you said. I have some concerns also. For
10 example, he uses statistics in his work but that's not his
11 primary field.
12   You're not a statistician?
13   THE WITNESS: I was trained by statisticians.
14   THE COURT: Were you?
15   THE WITNESS: Oh, yes. Trained by statisticians and
16 econometricians. I've actually had the normal training of
17 somebody who would think of himself as a statistician would
18 have. But my approach is to do practical research and help
19 managers. So I use a tremendous -- I'm as much a statistician
20 as Professor Fagan certainly is.
21   THE COURT: I don't doubt that.
22   THE WITNESS: Sorry.
23   THE COURT: I don't doubt that.
24   But I don't think he was asked to be qualified as a
25 statistician.

D529flo2   Purtell - direct
1   THE WITNESS: No. I'm a user of, practical user of
2   statistical techniques.
3   THE COURT: I know you use it in an applied fashion.
4   But that didn't seem to be your academic training.
5   THE WITNESS: Actually, some of my academic training
6   was in the theory behind statistics, in mathematical statistics
7   and in probability theory at the doctorate level, of course.
8   THE COURT: It's a little hard to find it on your
9   resume. But anyway, I have no problem conditionally, so to
10   speak, accepting him as an expert subject to whatever argument
11   you want to make after you've had a chance to question him.
12   MR. CHARNEY: Thank you, your Honor.
13   MS. COOKE: Thank you, your Honor.
14   Q. Professor Purtell I'm handing you what are already in
15   evidence as Plaintiffs' Exhibits 411, 412, and 417. Those are
16   Professor Fagan's reports in this case.
17   A. Yes. I recognize and have reviewed all three.
18   Q. Those are for your reference as we go through your
19   examination but this question is not specific to any one.
20   What types of models did Professor Fagan use in his
21   analyses in the reports provided in this case?
22   A. Well in general terms he used two type -- in general terms
23   he used two types of models. One are called categorical models
24   and the other are models that are meant to handle count data.
25   Q. What are categorical models?

D529flo2   Purtell - direct
1   A. Categorical models are models that are used to determine
2   whether something is in one group or another.
3   And sort of historically they came out of biology
4   where people were trying to -- they were discovering a plant or
5   an animal, and they were trying to decide what phylum of flora
6   or fauna it might fit into. They've been since extended pretty
7   dramatically to be used in credit analysis. And they're used
8   in any circumstance where you're trying to decide what group
9   somebody might fit into; for example, whether or not a stop is
10 to be made is a categorical question. They can be used for
11 just yes or no categories. And they can be used for as many
12 categories as you want and I won't get into the technical
13 names.
14 Q. And what are count models, Professor Purtell?
15 A. Count models are one of the subset of general estimating
16 equation models that are meant to handle situations where
17 you're looking at data that represents someone's literal count
18 of the numbers of things that happened.
19   Two strong characteristics. One is that you can't
20 have a count less than zero. And most other regression
21 techniques assume the data can go on forever and ever.
22   And the second is that all the results are whole
23 numbers. One happens. Two happens. There's nothing in
24 between. So because of that, it creates some statistical
25 issues when you try to estimate things.

D529flo2   Purtell - direct
1   There are really two major subcategories there.
2   Something called a Poisson model and another called a negative
3   binomial model.
4   Q. What is a Poisson model?
5   A. A Poisson model is one of the methods to handle count data
6   that's used when the data is pretty tightly packed. So let me
7   try to explain this.
8   One of the measures of how widely disbursed data is
9   something called the standard deviation. Most people know that
10   for normal distributions. If the mean extended deviation in
11   the data are essentially equal, then the Poisson model is the
12   one you use.
13   MR. MOORE: Judge, I know that you're the most
14   important person, but when he turns to you and speaks to you
15   it's hard for us to hear.
16   THE COURT: I agree. It's best to face them. That's
17   where the mic is anyway.
18   THE WITNESS: Sure.
19   THE COURT: I know that.
20   THE WITNESS: I'm brand new to this.
21   THE COURT: Just address them. I'll hear you.
22   MR. MOORE: Thank you, Judge.
23   Q. Have you used Poisson models in your academic or
24   professional --
25   A. I have. I've used those. And I've used negative binomial

D529flo2   Purtell - direct
1   models which are for data that is over-disbursed, where the
2   mean is bigger than the standard deviation.
3   But I actually use them mostly to test for robustness
4   rather than as a primary analysis method. I would rather use
5   panel data models that use counts or rates rather than using
6   the pure count data. It gives results that are much more
7   easily interpreted. And as long as running the account data
8   models in addition --
9   MR. CHARNEY: Your Honor, I'm going to object to this
10   because this is not in his report -- any of the reports as to
11   his preference as to which model is better than another. So I
12   would move to strike that testimony.
13   THE WITNESS: I'm not actually saying either is
14   better. I'm simply saying I have a preference for one.
15   THE COURT: That wasn't his objection.
16   His objection is that your opinion should be limited
17   to what's in your written report. And this particular opinion
18   wasn't there. That's his objection. It's legal mumbo jumbo,
19   just like what you're saying is statistical mumbo jumbo.
20   THE WITNESS: Oh, yeah, we all have our own mumbo and
21   jumbo.
22   MS. COOKE: He was explaining the two subcategories of
23   categorical models; and in doing so, he was talking about
24   strengths and weaknesses.
25   THE COURT: Unless I understand the purpose of that
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D529flo2   Purtell - direct

1   with respect to what's been done in this case it's all over my
2   head anyway.
3   Can you relate it to this case?
4   THE WITNESS: It's actually in the documents we
5   produced.
6   THE COURT: Somebody used one model and you would
7   think another model is better and why?
8   THE WITNESS: Actually the issue we sought in this
9   case is that Professor Fagan used these models interchangeably
10   and they're meant for different kinds of data. Frankly, that's
11   curious to me.
12   MR. CHARNEY: That's also not there, your Honor.
13   I would object on two grounds. One, he's again
14   testifying about an opinion that's not in any of the reports;
15   and secondly, he's referring to two models, but I'm not sure
16   which ones he's referring to. I know he's referring to the
17   ones that Professor Fagan used, but then is he referring to the
18   panel data model or the Poisson model?
19   THE COURT: Which two did you --
20   THE WITNESS: Professor Fagan, when he talked about
21   using general estimating equations, was using a negative
22   binomial model. In other of his analyses, he used a
23   hierarchical Poisson model. And given the fact that the
24   underlying data is identical, you simply can't switch back and
25   forth. It's mathematically problematic.

D529flo2   Purtell - direct
1   MR. CHARNEY: I move to strike. This opinion is not
2   in either of the two defendants' experts' reports.
3   THE COURT: When did you reach this conclusion? We're
4   kind of wondering why it wasn't in the report.
5   Is this something you came across recently?
6   THE WITNESS: No. It's something that, frankly, we
7   thought was so obvious we didn't put it in there because --
8   MR. CHARNEY: It's not obvious to lawyers or to the
9   court, I don't think. So I would move to strike it -- maybe
10   it's obvious, because your Honor is better at statistics.
11   THE COURT: No, it's not obvious to me, no.
12   In any event I don't know why it wasn't in the report.
13   But since it's not based on anything that happened in the last
14   couple weeks, there's really no excuse for it not having been
15   in the report, giving the plaintiffs time to react to it, and
16   respond to it, and talk to their expert about it, I think it's
17   inappropriate to allow it.
18   MS. COOKE: My only point --
19   THE COURT: He had plenty of time to write out
20   criticisms to Dr. Fagan's report. This is a major criticism
21   that there's been no notice of.
22   MS. COOKE: Your Honor, my point would be that to the
23   extent that Professor Purtell is -- the last piece of it. But
24   the fact that the Poisson hierarchical model was used and I
25   don't know, the multi-- whatever, that was testified to by

D529flo2   Purtell - direct
 1   Professor Fagan.
 2   THE COURT: But not for the first time. You can see
 3   that in his data. He's found that curious all along. He saw
 4   that when he reviewed the data.
 5   You saw that he used these two methods interchangeably
 6   one at one time and one at another, right?
 7   THE WITNESS: Well we didn't see all of it because we
 8   didn't have the code so see which method --
 9   THE COURT: Right. When you got the code in the
10   second report, you saw this used interchangeably.
11   I must remind you, you're under oath. When did you
12   first notice that he used these two methods interchangeably?
13   THE WITNESS: Actually when I was listening to his
14   testimony.
15   THE COURT: That's the first time you realized --
16   THE WITNESS: I did.
17   THE COURT: Let me finish my question for the record.
18   I want to be quite sure of what you're saying now.
19   You did not notice until you reviewed his testimony
20   here at trial that he had used these two methods
21   interchangeably that you considered a flaw? That's the first
22   time you noticed that flaw?
23   THE WITNESS: It was because I hadn't looked at that
24   specific code before then.
25   MR. CHARNEY: Your Honor, they have had the code since

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1   December.
2   THE COURT: I understand that. I'm troubled by the
3   answer. That's why I reminded him he's under oath.
4   You've had these codes a long time, right?
5   THE WITNESS: I think we got the final code in
6   January.
7   THE COURT: He didn't testify until April.
8   MR. CHARNEY: Also their second report wasn't produced
9   until February, and then he was deposed in March.
10   So, again, there were many opportunities to bring
11   these criticisms to our attention and they were never brought
12   to our attention.
13   THE COURT: Right. I'm sorry. But I don't think it's
14   fair to raise a new criticism now for the very first time that
15   he could have raised in December, January, February, and March.
16   The plaintiffs could have been prepared to meet. So I must
17   strike this.
18   MS. COOKE: Your Honor, I just ask that the comments
19   regarding the opinion, I guess as it is, regarding the use of
20   the two models stricken.
21   But the testimony by Professor Fagan that two models
22   were used stands and his acknowledgment that he understands
23   Professor Fagan used two models should also stand.
24   MR. CHARNEY: That's fine.
25   THE COURT: Professor Fagan said he did. It's in the
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D529flo2   Purtell – direct
1   evidence. It's in the evidence. It's in the record.
2   MS. COOKE: That's what I'm just clarifying. Thank
3   you.
4   Q. Professor Purtell, based on your review of the expert
5   reports produced by Professor Fagan in this case do you have an
6   understanding of the conclusions he drew based on his
7   statistical analysis?
8   A. I do. And I have serious reservations about them.
9   Q. And what generally were those conclusions Professor Fagan
10   drew regarding racial disparity?
11   A. He drew a conclusion that race was a statistically
12   significant determinant of the number of stops that might be
13   made in a geographic location.
14   Q. Did you understand that Professor Fagan drew some
15   determination of statistical significance for those findings?
16   A. Yes. In fact, that was the only determination he used.
17   THE COURT: What was the only determination he used?
18   THE WITNESS: He based his claims completely on
19   statistical significance.
20   Q. Professor Purtell, can you explain what an objective
21   analyst must do to build a statistical model?
22   A. There are actually three steps to this.
23   You need to describe the situation that you're trying
24   to analyze in some way that's realistic and that also includes
25   alternative explanations for the hypothesis you're testing.
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 1   The -- I think back to my own -- that actually turns
 2   out to be the easiest of the three steps. And I can think back
 3   to some of my own experience. I remember people as early as
 4   1970 trying to define risk in finance. And it took 30 years
 5   and four Nobel Laureates to finally figure out what that meant
 6   really.
 7   And that brings us to the second stage. Which you
 8   need to take these concepts. And you need to be able to
 9   convert them into data that fairly represents each of the
10   elements of the model you're trying to prepare.
11   And then the third piece of it is that you need to be
12   able to estimate that in some way that does not produce biased
13   estimates.
14   Q. In your opinion do the models presented by Professor Fagan
15   do that?
16   A. No. I think he, frankly, he has significant and major
17   issues with all three areas.
18   Q. Are there any other elements that factor into a valid
19   statistical analysis?
20   A. Yes. It's -- you know mathematicians talk about things --
21   conditions being both necessary and sufficient. So you would
22   never look at a statistical finding that was not statistically
23   significant. But that's not a sufficient condition for someone
24   to take a real world action based on it.
25   Plus, as I mentioned, the findings have to be

D529flo2   Purtell - direct
 1   unbiased. They have to fairly represent the thing you're
 2   trying to measure.
 3   Q. So are you saying that something has to be practically
 4   significant as well?
 5   A. Yes.
 6   Q. And what is an unbiased estimate?
 7   A. An unbiased estimate is one that is not pushed in one
 8   direction or the other by extraneous factors. So it is one
 9   that would not be too large or too small. And it's one that
10   would not have a sign that differed from the sign it should
11   have.
12   MR. CHARNEY: Could I actually have that question read
13   back. The answer, I'm not objecting to the answer. I just
14   wanted to know what the question was.
15   (Record read)
16   Q. What does statistical significance mean, Professor Purtell?
17   A. I will try to put this in sort of simple language because I
18   know most people here don't have much in the way of statistical
19   background.
20   You can think of it in terms of sort of a game of
21   chance. As the statistical significance gets lower, the chance
22   of your actually losing if you were to make a bet or take a
23   risk gets smaller. So if the statistical significance of
24   something is at the .05 level, it means that 95 times out of a
25   hundred you would win; or in statistical terms, it means that
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D529flo2   Purtell - direct
1   you could rely on the results not being the event of some
2   random occurrence 95 times out of a hundred.
3   If it's at the .01 level, we're looking at 99 times
4   out of a hundred.
5   If it's at the .001 level, we're looking at 999 times
6   out of a thousand.
7   So the smaller that number is, the less likely the
8   results you're looking at are just driven by pure chance.
9   Q. I'd like to direct your attention to table 5 at page 18 in
10 Plaintiffs' Exhibit 417 which is Professor Fagan's second
11 supplemental report. We'll put it on the screen.
12   Do you understand -- what do you understand table 5 to
13 be, Professor Purtell?
14 A. Well, the title says he used general estimating equations,
15 the codes that he used, negative binomial model, to estimate a
16 total of eight different regressions; looking at the impact of
17 the predictors in the left column on the likelihood of a stop
18 occurring. And that's, by the way, is a stop in general. It's
19 not a stop of any specific group. It's just the likelihood
20 that the number of stops might change or increase.
21 Q. And do you understand that Professor Fagan has reported
22 statistically significant findings in table 5?
23 A. Yes.
24 Q. How are those identified?
25 A. He identifies them with stars.

D529flo2   Purtell - direct
1   So one star means that the finding is significant at
2   the .1 level. And a lot of statisticians would not accept that
3   as really being statistically valid.
4   Two stars means that they are significant at the .05
5   level; so, 95 times out of a hundred it would not be a random
6   event.
7   And three stars means that it's significant at the
8   .001 level or 999 times out of a thousand this is not a random
9   event.
10   Q. So looking at table 5, Professor Purtell, you mentioned
11   that there were eight regressions contained in this table?
12   A. Yes.
13   (Continued on next page)
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D528FLO3   Purtell - direct
1   Q. When you say eight, what are you referring to?
2   A. If you look across the column, the first column is for
3   total stops, that is a separate and distinct regression
4   independent of all the other analyses.
5   Q. That's a vertical regression?
6   A. That's right. The vertical, as you go down the column, you
7   get what I will call impact measures for each of the factors he
8   included in the model.
9   Q. Then the remaining seven?
10 A. That total stops is all stops regardless of the reason the
11 stop was conducted. If you go to the second column, he is
12 looking at all stops where the reason was a violent crime. And
13 the third column, all stops where the reason was a property
14 crime. And so on across.
15 Q. Each of those columns is vertically a regression analysis?
16 A. And each one independent of the others.
17 Q. The items on the far left under the heading predictors,
18 what are those?
19 A. These are the variables that he is putting here in an
20 attempt to explain the stop process. These are models of
21 process.
22   So the first element is total complaints, and that is
23 the total number of complaints in the geographic area that he
24 is looking at from the prior calendar month logged.
25   MR. CHARNEY: For the record, is the witness talking
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D528FLO3   Purtell - direct
 1   about crime complaints?
 2   THE WITNESS: Those are total complaints.
 3   THE COURT: What kind of complaints? Who complained
 4   about what?
 5   THE WITNESS: That's the total crime complaints in
 6   that geographic area reported to the police. That's straight
 7   from the police data.
 8   THE COURT: OK.
 9   Q. So looking on the total complaints lagged and logged
10   predictor, looking across to total stops, the number there is
11   0.23?
12   A. Yes.
13   Q. What does that mean?
14   A. Well, this is a very complex model. I would like to
15   describe it in two dimensions. First, to talk about the
16   direction, whether that coefficient means that the likelihood
17   of a stop occurring -- again, just a general stop occurring --
18   is going up or going down.
19   If that number -- later on I think we are going to
20   talk about how to think about the magnitude of these numbers.
21   But if that number is greater than zero, it means that the
22   likelihood of a stop occurring for one additional crime
23   complaint is increasing. If that number is less than zero, it
24   means that the likelihood of a stop occurring for one
25   additional complaint is less than zero, it's going to go down.

D528FLO3   Purtell - direct
1   And in the second it would .225. And each of those
2   coefficients, the first thing to notice is the sign on them,
3   whether it is saying that the likelihood of a stop will
4   increase or decrease.
5   THE COURT: Just to make sure I understand it, in the
6   simplest possible terms, if I look across, the highest one is
7   trespass. Does that simply mean that one is more likely to be
8   stopped for trespass than for anything else?
9   THE WITNESS: It means that as the total number of
10   crime increase, the largest increase in stops for trespass
11   will -- the largest increase, based upon that estimate, will be
12   in trespass. It's just relative sizes.
13   MR. CHARNEY: I don't know if I would call this an
14   objection or a clarification of the record. The witness is not
15   accurately describing what this table demonstrates. He is
16   using the phrase "likelihood of a stop occurring." Professor
17   Fagan testified that what this table shows is not the
18   likelihood of a stop occurring. It's whether or not more stops
19   will take place in that geographical area if you raise each of
20   these predictor variables by one level. In other words, if one
21   more crime complaint, if you increase the crime complaints by
22   one, will the number of stops in that area go up by, whether
23   it's one or two or whatever the case may be? So it's not the
24   likelihood. That's a different concept.
25   THE WITNESS: Actually, Professor Fagan was in error.

D528FLO3   Purtell - direct
1   This is a model that produces what are called log odds ratios.
2   And log odds ratios impact the likelihood of something
3   happening not directly to the number.
4   THE COURT: That's his testimony.
5   MR. CHARNEY: That's fine.
6   BY MS. COOKE:
7   Q. Professor Purtell, looking at the next line below total
8   complaints, it reads, "Percent crime complaints of specific
9   crime type lagged." What does that predictor represent?
10 A. It's not applicable of total stops because there is no
11 specific crime. But under violent crime, it would be the
12 number -- the percentage of the total complaints that were
13 related to violent crimes in the prior month.
14   THE WITNESS: And the same across the rest of the row,
15 your Honor.
16 Q. For each of the crime categories?
17 A. For each of the crime categories.
18   So the impact on likely stops for crime complaints
19 would be in trespass, the largest impact.
20 Q. Because that number is --
21 A. That's the largest number.
22 Q. The next row below that reads, "Total complaints, spatial
23 and time lag."
24 A. This was an attempt by Professor Fagan to control for the
25 fact that people and crimes don't always occur in the same

D528FLO3   Purtell - direct
1   location and there could be a little seepage across geographic
2   lines and across time.
3   Frankly, given my understanding of GIS and spatial
4   modeling, this is a relatively weak complaint -- weak control.
5   MR. CHARNEY: I am going to object and move to strike.
6   This is not in any of the reports produced by the defendants in
7   this case, this particular critique.
8   MS. COOKE: I think he is reading the table, and he is
9   representing the numbers reflect a weak control.
10   MR. CHARNEY: He is opining about the strength of a
11   control. He has never offered that opinion in writing at any
12   time in this case.
13   THE COURT: What does a weak control mean?
14   THE WITNESS: It means that it doesn't actually solve
15   the problem it's meant to solve.
16   MR. CHARNEY: Again, not in any report.
17   THE COURT: What does "it" refer to?
18   THE WITNESS: "It" would be the way he attempted to
19   make an adjustment for total complaints to reflect the fact
20   that crime may be in another time period or might be in a
21   different geographic area. Literally, it's just a technical
22   factor to correct the model. It's very difficult to interpret
23   it in any practical way.
24   THE COURT: I will allow it.
25   Go ahead.
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D528FLO3   Purtell - direct
 1 BY MS. COOKE:
 2 Q. I guess we will move down to -- we will leave the percent
 3 black, Hispanic and other race, and go to the SES factor. What
 4 is SES factor?
 5 A. That is Professor Fagan's weighted average of a number of
 6 socioeconomic factors that he derived from what is called a
 7 factor analysis. Frankly, I have never quite understood what
 8 the theme behind that is and most analysts, when they do factor
 9 analysis, would tie it to some theme.
10 Q. When you look across from the SES factor predictor into the
11 regression, what are we seeing there with respect to the
12 results?
13 A. The first of the coefficients says that the likelihood of
14 an increase in stops actually goes down as the SES factor goes
15 up by one unit. Although it's not clear to me what one unit
16 is.
17 Q. So it goes down because of the negative?
18 A. Because of the negative coefficient. They all have exactly
19 the same format.
20 Q. And patrol strength, that predictor?
21 A. Patrol strength, we wrote extensively about this in our
22 analysis. This is an estimate of patrol strength in a census
23 tract based upon the number of officers who made at least one
24 stop during the month.
25   MR. CHARNEY: Objection and move to strike. The first

D528FLO3   Purtell - direct
1   report did not use that measure of patrol strength. It used
2   data produced directly by the police department.
3   MS. COOKE: We are looking at table 5 from the second
4   supplemental report. I think it's clear. He is referring to
5   patrol strength as it's represented in table 5.
6   THE COURT: All right.
7   A. So what this says, and again we will look at the total
8   stops column, is that as patrol strength goes up, the
9   likelihood of stops goes up, because the number is greater than
10 zero. And it's consistent all the way across.
11 Q. The percent foreign born?
12 A. That is the percentage of people who were born outside the
13 United States, and the coefficient under total stops says that
14 the likelihood of a stop, of an increase in the number of stops
15 will actually go down because it's a negative number.
16 Q. What is the purpose of including the predictor for percent
17 foreign born in the general estimating equation regression?
18 A. I assume he did it because they are somehow different from
19 people who are born in the United States.
20 Q. And the constant, what is that?
21 A. To quote Professor Fagan, it is something the model
22 generates. It is a level below which the likelihood of a stop
23 occurring never goes. I am not quite sure what the negative
24 numbers would mean. It's not something that anybody would use
25 to evaluate the regression, in most cases. In some cases it is
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D528FLO3   Purtell - direct

1   meaningful.
2   Q. It's something that is generated when you run this type of
3   estimating equation regression?
4   A. Unless you in your code estimate the model without a
5   constant.
6   Q. Returning to the percent black, percent Hispanic, and
7   percent other race predictors, what are those?
8   A. Well, percent black is the percentage of black people
9   residing in an area, not necessarily seen on the streets, but
10   residing in an area during the month, the observed month, and
11   the coefficient tells you whether or not the percentage black
12   has an impact on the likelihood of a stop occurring in that
13   geographic area in that time period. Actually, at this
14   regression level, these are what are called population average
15   results. It's the impact on the number of average stops in the
16   city, not necessarily stops of black individuals, but just
17   stops in general.
18   Q. So looking at the percent black predictor and under the
19   total stops regression, the number represented there is 0.883.
20   What does that tell us?
21   A. That says that as the percent black goes up in the
22   population, and the way most people would interpret these
23   results, and this is sort of basic statistics, is you would
24   take the percentage black and look at what it would mean to
25   have a very small increase in that variable. Every one of

D528FLO3   Purtell - direct
1   these results has to be taken -- you can only interpret them
2   with respect to small changes in the variable. Because if
3   there are large changes, say, in percent black, the racial
4   makeup of the area would change. But it says, because the
5   coefficient is greater than zero, that as the percentage of
6   black people in an area increases, the likelihood of more stops
7   occurring goes up.
8   Q. Does that mean the likelihood of more stops of black people
9   goes up?
10   A. It's the likelihood of stops in general. To interpret this
11   coefficient in terms of its impact on the black population, you
12   need to do some work and some simple math.
13   By the way, if you go all the way over to other
14   crimes, you will see that, as the percentage black goes up, the
15   likelihood of a black person being stopped --
16   Q. The likelihood of a black person?
17   A. The likelihood of additional stops -- this even confuses
18   me. This is one of the most complicated of the models you can
19   possibly use. The likelihood of additional stops goes down,
20   and the same for quality of life disorders.
21   Q. So the explanation you have just described for percent
22   black, it would be a similar reading for the percent Hispanic
23   and the percent other race predictors?
24   A. Exactly right. In fact, for any of the factors -- it will
25   be similar for any of the factors of using percentages. For

D528FLO3   Purtell - direct
1   the other measures, since the units are so different, you can't
2   just compare them directly.
3   Q. Do you have an understanding as to why percent white is
4   left out as a race in this?
5   A. Actually, it's a statistical requirement. In models like
6   this, you have to have a comparison group. In this case, that
7   percent black number is compared to white people who would be
8   in the same geographic area at the same time.
9   Q. It would be the same case for the percent Hispanic and the
10   percent other race, it's a comparison to percent white?
11   A. Yes. If percent white were included, it would be
12   impossible to estimate the model accurately.
13   Q. Was a similar version of the regression represented in
14   Table 5 of Exhibit 417 contained in Professor Fagan's first
15   report?
16   A. It was, but there were some significant differences. He
17   was using crime data that was lagged by a quarter, and his
18   patrol strength number was not estimated, it was done at the
19   precinct level, and his patrol strength measure was actually
20   reported by the police.
21   Q. Professor Fagan's first report, that's Exhibit 411 in front
22   of you, correct? Not in the binder, the stack.
23   A. Yes. That's correct.
24   Q. In that first report, directing your attention to page 33
25   of Plaintiffs' Exhibit 411.

D528FLO3   Purtell - direct
1   THE COURT: Which report is this?
2   MS. COOKE: Plaintiffs' Exhibit 411, page 33. It's
3   also called table 5.
4   THE COURT: The first report?
5   MS. COOKE: First report.
6   Q. Is this the similar regression you just referred to?
7   A. It is, yes.
8   Q. Does Professor Fagan also report statistically significant
9   findings in this regression analysis?
10   A. He does, although the percent other race is not
11   statistically significant in this model and it was in the first
12   one. And the statistical significance for percent Hispanic is
13   actually lower than it was in the second supplemental report.
14   Q. Turning your attention to the second supplemental report,
15   which is Plaintiffs' Exhibit 417, table 7, which is on page 20,
16   is this also a regression analysis?
17   A. Yes. But in this case, he is using a poisson regression
18   and not a negative binomial model. And he has now tried to
19   isolate at the top the effects at the census tract level, and
20   then the rest are the general effects across the city to the
21   population average effects.
22   Q. Again, are there statistically significant findings
23   reported in his regression analysis?
24   A. There are.
25   Q. And those are indicated as well by the asterisks?

D528FLO3   Purtell - direct
1   A. They are.
2   Q. Professor Purtell, is statistical significance a sufficient
3   reason for accepting the results of a regression analysis?
4   A. No.
5   MR. CHARNEY: Object to the form of the question. I
6   don't know what accepting the results of an analysis means.
7   THE COURT: I guess accepting the results means you
8   find the results are valid.
9   THE WITNESS: From my perspective, would I be willing
10 to use them in the real world to make a decision.
11   THE COURT: That's a validity analysis, right, a
12 particular way of analyzing whether or not the results are
13 valid?
14   THE WITNESS: Yes.
15   THE COURT: That's what acceptable means.
16   THE WITNESS: I am getting stuck on my statistics.
17   THE COURT: Regular language is better.
18   THE WITNESS: Regular people language, I can do that.
19   THE COURT: That's what acceptable means.
20 Q. Is a statistical significance a reason for accepting the
21 results?
22 A. It's not a complete reason. As I said before, results have
23 to be not only statistically significant, they have to have
24 practical significance.
25   When you have very, very large populations data sets,

D528FLO3   Purtell - direct
 1   extremely small practical results can appear -- can appear to
 2   be statistically significant. It doesn't mean that someone in
 3   the real world would act on that data.
 4   Q. What about bias, what role does bias play in your
 5   determination?
 6   A. In all of these statements, you really assume that the
 7   estimates are, in effect, unbiased, that the data is properly
 8   operationalized and there are no issues with estimation.
 9   Q. Returning to table 5 in the second supplemental report of
10   Professor Fagan, which is Plaintiffs' Exhibit 417, looking at
11   table 5 regression analyses, what are you able to report about
12   the size of the impact?
13   A. Well, from just these raw numbers, you really can't draw
14   any inferences. You have to do some work to convert them
15   into -- as I said, when you look at the impact of the percent
16   black coefficient, it talks about the total number of stops
17   that might happen, the likelihood that they might happen. But
18   it doesn't tell me anything about whether or not a black person
19   is more likely to be stopped than a white person.
20   Q. Professor Purtell, I am handing you what has been marked as
21   Defendants' Exhibit N14 for identification. Do you recognize
22   that?
23   A. I do.
24   Q. What is it?
25   A. It is a short analysis that we put together to convert the
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D528FLO3   Purtell - direct
1   coefficients reported in table 5 for percent black into
2   something -- into a measure of odds that most people I think
3   can understand.
4   Q. Is that a demonstrative that you prepared using table 12
5   from one of your reports?
6   A. It is. With the addition of one line. We converted the
7   bottom line in table 12 to a simple odds of something
8   occurring.
9   MS. COOKE: Your Honor, I move the admission of
10 demonstrative Exhibit N14.
11   MR. CHARNEY: Can we see it?
12   MS. COOKE: We are going to put it on the screen.
13   MR. CHARNEY: Do you have an extra copy?
14   Can I look at it?
15   THE COURT: Sure. You have seen this before now?
16   MR. CHARNEY: I think it's the one they e-mailed us
17 yesterday.
18   MS. COOKE: The day before I think.
19   MR. CHARNEY: That's fine. No objection.
20   THE COURT: N14 is a demonstrative exhibit?
21   MS. COOKE: Yes.
22   (Defendants' Exhibit N14 received in evidence)
23 Q. Professor Purtell, can you explain what each of the
24 variables in the exhibit are?
25 A. Look across the top row and you will see exactly the same
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D528FLO3   Purtell - direct
1   regression categories that Professor Fagan had in his table 5,
2   in table 5 in either the first or the second report.
3   Q. Is the percent black coefficient line read across, is that
4   derived directly from the percent black coefficient line in
5   Professor Fagan's table 5 of Plaintiffs' Exhibit 417?
6   A. Yes. We simply copied those numbers.
7   Q. So each of the columns starting with total stops and going
8   through QOL, quality of life disorder, those are the eight
9   regressions contained in table 5?
10 A. Those are the eight impact coefficients estimated by
11 Professor Fagan in table 5 in that analysis.
12 Q. The row below percent black coefficient that reads "1
13 percent log odds ratio impact," what is that?
14 A. We took the reported coefficient, and we are asking the
15 question, what would happen if there is a 1 percent increase or
16 decrease -- although we used increase here -- in the percentage
17 of black people in the geographic area on average across the
18 city?
19   THE COURT: Say that again.
20   THE WITNESS: We took --
21   THE COURT: Just say the words again.
22   THE WITNESS: We took the coefficients from Professor
23 Fagan's analysis -- we took the numbers in the top row.
24   THE COURT: Could you read back his last answer?
25   (Record read)
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D528FLO3   Purtell - direct
 1   THE COURT: Thank you.
 2   Do you mean a 1 percent increase in black population
 3   in a certain area?
 4   THE WITNESS: Yes, ma'am.
 5   THE COURT: That's all you mean?
 6   THE WITNESS: That's all I mean.
 7   THE COURT: More blacks in that area.
 8   THE WITNESS: The proportion of blacks has increased.
 9   THE COURT: Not necessarily. I will accept that, but
10   not necessarily, because it could also be more Hispanics, more
11   whites, more Asians. You're assuming the rest stays static and
12   the black population increases, therefore they are a higher
13   percentage of the population.
14   THE WITNESS: In fact, the restrictions on these
15   models require me to do that.
16   THE COURT: Good.
17   THE WITNESS: That's exactly what I am doing.
18   This log odds ratio is a complicated concept.
19   THE COURT: I am trying to deconstruct it and make it
20   simpler so I can understand it.
21   I got the part about the black population is
22   increasing the percentage of the population of that geographic
23   area. Next.
24   THE WITNESS: This next line tells you what the
25   impact -- what the order of magnitude of that would be, in
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D528FLO3   Purtell - direct
1   terms of something called the log odds ratio, and I can give
2   you an interpretation of it.
3   A log odds ratio of zero means even money. A log odds
4   ratio greater than zero means that the chances of stops
5   increasing for a 1 percent increase in black population would
6   be greater than zero. And a number of less than zero means
7   that the chances of stops increasing for an increase in the
8   black population would be less than zero.
9   THE COURT: What does your chart show?
10   THE WITNESS: Our chart shows that all of these
11   numbers are approximately zero.
12   BY MS. COOKE:
13   Q. You're reading across on the line of 1 percent log odds
14   ratio impact, and the numbers are all very small numbers,
15   0.00883 --
16   THE COURT: I can see them.
17   Q. When you were saying they are all close to zero?
18   A. They are all very close to do zero.
19   Q. The last two columns are negative numbers?
20   A. That's right.
21   On the next line, I converted that log odds ratio to
22   something called an odds ratio. To do that you need to take
23   the .00883 and use that to raise the base of the natural log.
24   If I had the number 10 and raising it to the first power, the
25   answer would be 10. 10 squared is 100. It's the same idea

D528FLO3   Purtell - direct
1   here, except we are using the natural log base, which is 2.7.8.
2   And that gives me an odds ratio. And all these
3   numbers are equivalent. So the odds ratio says that the
4   chances of a black person being stopped are slightly higher
5   than one. An odds ratio of exactly one means even money. An
6   odds ratio slightly bigger than one means a black person is
7   more likely to be stopped. An odds ratio of less than one
8   means a black person is less likely to be stoped.
9   Q. The bottom line, the odds of a black person being stopped
10   as a percentage, how did you arrive at those figures?
11   A. Remember, all of these numbers are comparing the
12   probability of a black person being stopped to the chances of a
13   white person being stopped. And even money would mean that the
14   chances of a white being stopped were 50 percent and the
15   chances of a black being stopped were 50 percent, and the odds
16   ratio is just 50 percent divided by 50 percent, which is why
17   one means even money.
18   Q. The bottom row represents what?
19   A. The bottom row represents, we took the odds ratio and did a
20   simple mathematical conversion, and we calculated the relative
21   percentage that a black person might be stopped given the
22   results of this regression equation.
23   So for total stops, the chance of a black person over
24   a white person being stopped is 50.22 percent, in other words,
25   .22 percent above random chance.

D528FLO3   Purtell - direct
 1 Q. Going back to table 5, and the top line being percent black
 2 coefficient, and that line is drawn directly from table 5.
 3 A. That's correct.
 4 Q. So table 5 represents the magnitude of a black person being
 5 stopped as 50.22 percent compared to a white person, is that
 6 correct?
 7 A. That's right. We have now looked at both dimensions of
 8 that variable, one is direction and the other is magnitude.
 9   MR. CHARNEY: I am going to object and move to strike
10 both the question and the answer because nowhere in table 5 is
11 there anything about the likelihood of a black or a white
12 person being stopped. Even accepting his earlier testimony
13 about using likelihood versus counts, it was the likelihood of
14 stops occurring in a precinct. Table 5 does not address the
15 likelihood of a particular person of a particular race being
16 stopped.
17 A. Our response --
18   THE COURT: I am not sure I understand this analysis
19 at all because I thought this analysis is based on a
20 hypothetical increase in the black population.
21   THE WITNESS: That's correct.
22   THE COURT: So if there is a hypothetical increase by
23 one?
24   THE WITNESS: One percent.
25   THE COURT: Right. All you're calculating is the
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D528FLO3   Purtell - direct
1   likelihood in that case of a black person being stopped more
2   often than a white person.
3   THE WITNESS: But that result, your Honor, is exactly
4   the same for any interpretation of that variable. This is the
5   only way you can find the order of magnitude of these
6   coefficients.
7   THE COURT: It doesn't make any sense to me.
8   MR. CHARNEY: My objection is that the coefficients he
9   is using are taken from table 5, and those coefficients do not
10   measure this issue, the likelihood of a black or a white person
11   to be stopped. They are measuring -- whether we want to use
12   the word likelihood or count -- whether stops just in a
13   particular place are more likely to happen to anybody in that
14   place regardless of what their race is. And whether or not the
15   percent black population in that place affects whether or not
16   there are going to be more stops in that place. That's what
17   the analysis and what the coefficients in table 5 represent.
18   So that's why we have an objection to this line of questioning.
19   MS. COOKE: To the extent his objection is a
20   disagreement with an interpretation by --
21   THE COURT: I don't know that that's fair because this
22   is not Dr. Purtell's research. This is Dr. Purtell's use of
23   Dr. Fagan's research to show something else. This is not his
24   own research. This is, taken what Dr. Fagan did, here is where
25   I would come out. So if he has a fundamental misunderstanding
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D528FLO3   Purtell - direct

1   of what Dr. Fagan did in table 5, then we are comparing apples
2   and oranges and it's an impermissible opinion. That's the
3   point of the objection.
4   MS. COOKE: I don't believe we have a fundamental
5   misunderstanding. I believe Professor Purtell testified that
6   the percent black, percent Hispanic, percent other race in
7   table 5, the control variable was white.
8   THE COURT: There is no question the control variable
9   was white. But that wasn't what that chart was intended to
10 show. It was not a predictor of stops by race, as I understand
11 it.
12   MS. COOKE: Correct. But the control variable was
13 compared to percent white and Professor Purtell --
14   THE COURT: But it never reached a conclusion of the
15 likelihood of stops by race in table 5. That was not the point
16 of table 5. That was not the conclusion of table 5. So it
17 seems it's a misuse of the table, and the data in that table,
18 to reach a conclusion that is not based on any of his own work.
19 If he is misinterpreting Dr. Fagan's use of the numbers, then
20 this has no basis.
21   MS. COOKE: If we could ask Professor Purtell --
22   THE WITNESS: This is a standard interpretation of
23 these numbers.
24   THE COURT: I don't know what you mean by "these
25 numbers." These are not numbers that you created. You're

D528FLO3   Purtell - direct
 1   taking them out of table 5 of Dr. Fagan's work, right?
 2   THE WITNESS: That's correct. Then we are
 3   interpreting, your Honor, in accordance with standard
 4   statistical practice.
 5   BY MS. COOKE:
 6   Q. When you're referring to the interpreting, you're referring
 7   to the percentage --
 8   MR. CHARNEY: I object and move to strike the prior
 9   answers regarding how he is interpreting these coefficients
10   because, again, the coefficients in table 5 do not measure the
11   likelihood of a particular person of a particular race to be
12   stopped in a particular area.
13   THE COURT: I think that's true and probably conceded,
14   but that's not his point. What Dr. Purtell is saying is, using
15   those numbers, this is the analysis he can make from those same
16   coefficients, whether or not that's what Dr. Fagan was doing.
17   Forget about what Dr. Fagan did. He is saying, I am using the
18   same coefficients he worked out, and I am saying, I can predict
19   something, I can work the numbers a totally different way.
20   MR. CHARNEY: I understand. But the part that we are
21   struggling with is he is taking a result of an analysis that
22   didn't measure or didn't even address the question --
23   THE COURT: He is using the data. He is using the
24   coefficients developed in that table and analyzing them in a
25   different way.
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D528FLO3   Purtell - direct
 1   MR. CHARNEY: But the coefficient is the result of an
 2   analysis of data. That's a different thing. He is not just
 3   taking the data, in other words, he is not taking the stop data
 4   and the crime data and running a new analysis. He is taking
 5   the result of an analysis that Professor Fagan did, and the
 6   result measures something that is completely different than
 7   what he is now using the result for. There is a difference
 8   between using data to come up with that result and taking a
 9   result and then running an analysis on a result and coming up
10   with a new interpretation of that result. That's the part we
11   are struggling with.
12   MS. COOKE: This is presented, in response to the
13   second supplemental report, by Dr. Purtell in table 12, if
14   counsel wants to cross-examine Professor Purtell about his
15   conclusions here.
16   THE COURT: This is a summary exhibit and maybe it's
17   difficult to understand it and we would be better off looking
18   at table 12.
19   MS. COOKE: Table 12 is the same.
20   THE COURT: Let's see it.
21   MS. COOKE: Can we pull up table 12?
22   I offer that into evidence. It's Exhibit H13,
23   Defendants' Exhibit H13. It's in your binder, your Honor.
24   It's the last tab. Before I show it on the screen.
25   THE COURT: It's the whole report.

D528FLO3   Purtell - direct
1   MS. COOKE: In order to get to table 12, I need to
2   admit H13.
3   THE COURT: Maybe I am confused now. We didn't take
4   the report of another recent expert.
5   MR. CHARNEY: To be fair, that was Mr. Reiter. For
6   the statistical experts, we are going to have them.
7   THE COURT: H13 is admitted.
8   (Defendants' Exhibit H13 received in evidence)
9   THE COURT: What is table 12?
10   MS. COOKE: Table 12 appears on page 86. There's
11   several pages of text before.
12   Table 12 is the same as the demonstrative, but
13   Professor Purtell has converted the bottom --
14   Q. Is it correct, Professor Purtell, the bottom row into the
15   percentage of 50.22 and so forth that we saw on the
16   demonstrative?
17   Is that correct, Professor Purtell?
18   A. Yes. This interpretation is directly derived from the
19   analysis that Professor Fagan did, and it includes all the
20   controls he had in his original model. It's simply an attempt
21   to go beyond just the direction of the impact and to look at
22   the size of the impact. As I said, it's a standard statistical
23   technique.
24   MR. CHARNEY: Our problem is not with what is
25   reflected in table 12.

D528FLO3   Purtell - direct
1   THE COURT: I do understand that it's the prediction
2   then on that new last line.
3   MR. CHARNEY: The odds of a black person being
4   stopped, this is something coming out of left field. I don't
5   know why it's here, and we would object and move to strike it
6   from this demonstrative and strike any testimony about it.
7   THE COURT: Did you see that for the first time last
8   night?
9   MR. CHARNEY: Two days ago. If you noticed, the odds
10   of a black person being stopped is not in there.
11   THE COURT: I see that. So it was not the subject of
12   deposition either.
13   MR. CHARNEY: No.
14   MS. COOKE: Your Honor, if I may.
15   BY MS. COOKE:
16   Q. The percentage odds represented in the bottom row is just a
17   different way to say the same numbers that are already
18   represented in table 12, is that correct, Professor Purtell?
19   A. Yes. The log odds ratio, the odds ratio, and the relative
20   odds are all the same numbers. They are just mathematical
21   transformations.
22   MR. CHARNEY: Once again, we have no record of how
23   those are done. Maybe it's obvious to a statistician, but to
24   the plaintiffs' attorneys and the laypeople, we have no idea
25   how you get from 1.00887 to 50.22 percent.
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D528FLO3   Purtell - direct
1   THE COURT: Because they are so near zero.
2   MR. CHARNEY: I understand. But obviously there is a
3 calculation to do and it may be very basic.
4   THE COURT: It is so near zero, it's just going to
5 come out 50/50. It's not a large enough number, positive or
6 negative, to affect the likelihood.
7   MS. COOKE: It's just a more accessible way. For
8 purposes of presenting this evidence at trial, Professor
9 Purtell added that line to make the information more accessible
10 to non-statisticians.
11   MR. CHARNEY: The other problem is that Professor
12 Fagan, if he were here, would have a completely different
13 interpretation of what 1.00887 means. I don't think he would
14 contest the accuracy of it, but I think his interpretation of
15 what it means --
16   THE COURT: 1.00 what?
17   MR. CHARNEY: 1.00887, the 1 percent odds ratio
18 impact.
19   THE COURT: Where is that? 1.0089.
20   MR. CHARNEY: In the demonstrative it's a different
21 number.
22   Let's go back to table 12. I'm sorry.
23   So Professor Fagan would not have a problem with the
24 accuracy of 1.0089. I think he would take issue with -- and
25 this goes back to our objection to the testimony -- the way
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D528FLO3   Purtell - direct
1   that number is being interpreted, in other words, this
2   likelihood of a black person being stopped, because that's not
3   what these coefficients express. That's not what the results
4   of table 5 express. That was not the question that's being
5   answered by the results in table 5.
6   THE COURT: I am going to allow it because I think it
7   is just another way of saying what to him these numbers show.
8   It may not be what Dr. Fagan did, but to Dr. Purtell, when
9   you're so close to zero in the middle column, and so close to
10 one in the lowest column, that means that it's a 50/50
11 likelihood. I understand his point. You can argue later that
12 it is basically a misuse of the coefficients worked out by
13 Dr. Fagan for a different purpose, but adding that one line at
14 the bottom really is the same as looking at columns 2 and 3.
15   MS. COOKE: I would add that the text that precedes
16 table 12 in the report in fact does reference the log odds
17 ratio of a black person being stopped and the odds that table
18 12 is representing. So plaintiffs were fairly on notice of
19 this opinion. This report was served on February 1, 2013.
20 Professor Fagan has had an opportunity to testify.
21   THE COURT: I have already ruled I accepted it.
22   MS. COOKE: To the extent that Mr. Charney has raised
23 a fairness issue.
24   MR. CHARNEY: This isn't about fairness. This is
25 about, first of all, lack of transparency because we still

D528FLO3   Purtell - direct
1   don't know how you get to 50.22.
2   THE COURT: I just told you how.
3   MR. CHARNEY: We realize it's near 50 percent. Again,
4   I can't assess whether, first of all, whether that's true.
5   THE COURT: What do you mean you can't assess?
6   MR. CHARNEY: We don't have the math that was used to
7   get to it.
8   THE COURT: You don't need any math. The most it
9   could be, if it's not 50, it's 50.05. It's hovering around 50
10   is what he is saying.
11   MR. CHARNEY: First of all, that would mean you would
12   have to know what 1.0087 means.
13   THE COURT: It means it's terribly close to one.
14   MR. CHARNEY: Putting that aside, again, the problem
15   we have with this line of questioning and this line of
16   testimony is it's not simply taking data and running your own
17   analysis, which of course Dr. Purtell has every right to do.
18   It's taking the results of an analysis --
19   THE COURT: I understand the critique, and all I am
20   saying is adding the column of the 50/50 likelihood, which is
21   described in words on page 86 of the report anyway, is the same
22   as lines 2 and 3. And so when you cross-examine him, and when
23   you give a summation, you can point out the flaws. But it's
24   not as if it is really adding anything new, which is what I
25   first thought. But now I see it in the report and now I

D528FLO3   Purtell – direct
1   understand the math of it. So there is nothing about this that
2   is inappropriate. But I understand your attack on it, and we
3   will get to that. You will have plenty of time to make that
4   attack.
5   MR. CHARNEY: The only thing I would say, and I
6   realize you have ruled and I am not trying to question it, we
7   just maintain our objection that this table represents a
8   mischaracterization of what Professor Fagan's analysis did.
9   THE COURT: OK. I don't think he is saying that any
10   longer. He is saying this is what he does with the same
11   numbers. I have heard your point.
12   It would be better if we had lunch. So that's what we
13   will do until 10 after 2.
14   (Luncheon recess)
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D528FLO3   Purtell - direct
1   AFTERNOON SESSION
2   2:10 p.m.
3   ROBERT PURTELL, resumed.
4   BY MS. COOKE:
5   Q. Professor Purtell, looking at Exhibit N14, the
6   demonstrative of table 12 from your expert report, as a
7   statistician and analyst, what does that bottom row of results
8   represented as odds mean to you?
9   A. It means that the relative odds of a black person being
10   stopped were essentially random, a coin toss. So for total
11   stops blacks are .22 percent more likely than whites to be
12   stopped, and for other crimes they were .13 percent less likely
13   to be stopped.
14   Q. Do those results have any practical significance?
15   A. Most statisticians, certainly the ones that I know, would
16   say no. They would say that this is the result of just having
17   a very large sample. With very large samples, very small
18   results can appear to be statistically significant, but if this
19   were an epidemiology study looking at the efficacy of the
20   drugs, the drugs would not be accepted for use.
21   Q. What are the implications of this lack of practical
22   significance?
23   A. Well, there really are two of them. One is that I think
24   most managers seeing results like this would be unlikely to
25   take an action from them. The second is that any error in the
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D528FLO3   Purtell - direct
1   way the model was structured, the way the variables were
2   operationalized, or the way things were estimated, could easily
3   eliminate results of this size, impacts of this size.
4   Q. Table 5 from Professor Fagan's second supplemental report
5   in Plaintiffs' Exhibit 417, do you know what time period that
6   report covered?
7   A. That was 2004 to -- I have to look at the exhibit.
8   Q. Is it 2010 through the second quarter of 2012?
9   A. The second exhibit, yes, that's correct.
10 Q. Do you know approximately how many stops were included in
11 that data set for that period?
12 A. I would have to look at the end for a sample.
13   Actually, I don't. I do know the sample size there,
14 which is approximately 60,000.
15 Q. You testified earlier there was more than 4.4 million stops
16 total?
17 A. In total stops across the entire time period.
18 Q. Do you recall that it was somewhere close to 2 million
19 stops in that second quarter?
20 A. That sounds about right.
21 Q. So that's what you were referring to when you were
22 referring to the large sample size?
23 A. Actually, we are referring to the fact that he had some
24 64,000, if I remember correctly, incidents of total stops in a
25 geographic area in a specific month.

D528FLO3   Purtell - direct
 1   MS. COOKE: Would you put up table 5 from Plaintiffs'
 2   Exhibit 417?
 3   Q. Are you referring to the observation line in the bottom?
 4   A. Yes. So there were 63,249 observations in that analysis
 5   for total stops, and 57,178 observations for all the other
 6   types of stops.
 7   Q. What does that mean, an observation?
 8   A. It would be a -- I am trying not to use the same words. It
 9   would be the number of census tract months that were included
10   in that data set over that time period.
11   Q. Is that because Professor Fagan used a geographic area of
12   census tract?
13   A. Yes. That's correct.
14   Q. And the time period he used was calendar month?
15   A. That's correct.
16   THE COURT: I don't understand the relationship
17   between the 63,000 and the 57,000.
18   Q. In the observation line, Professor Purtell.
19   THE WITNESS: When he looked at stops, your Honor,
20   that were only for listed violent crimes as a complaint, some
21   6,000 stops did not fit that category. It appears to be the
22   same for all the others.
23   THE COURT: It can't be. You can't be reading it
24   right.
25   MR. CHARNEY: It is my understanding that what those

D528FLO3   Purtell - direct
 1   numbers, the 63,000 and 57,000, those are observations, and
 2   what an observation is a census tract for a particular month.
 3   So, in other words, since he looked at a 30 month period, there
 4   are about 2200 census tracts in the City of New York. If you
 5   looked at each of them 30 times, you would be making about
 6   63,000 observations.
 7   With respect to violent crime, I think as the
 8   professor was explaining, there are certain census tracts in
 9   which stops on suspicion of violent crime didn't happen at all
10   on particular months.
11   THE COURT: It can't be the same number for every
12   crime, violent crime, property, drugs, weapons, it's always
13   57,178. It can't always be 57,178, Mr. Charney. Somebody is
14   not understanding that line at all.
15   MR. CHARNEY: We can have --
16   THE COURT: You don't remember.
17   MR. CHARNEY: I understand what observations mean and
18   how you calculate them, and I understand there are 2181 total
19   census tracts in the City of New York. I don't understand why
20   the numbers are the same.
21   THE COURT: Maybe I know. I was going to guess that
22   the 63,000 represented other crimes, but that can't be it. It
23   seems like the number of census tracts differs. For some
24   reason the total stops are calculated on 2,181 census tracts so
25   maybe some of those tracts don't break it out by type of crime.

D528FLO3   Purtell - direct
1   Some of those tracts don't break out the type of crime.
2   BY MS. COOKE:
3   Q. Professor Purtell, is it your understanding that certain
4   census tracts were excluded if they didn't have a stop --
5   A. There wasn't a clear explanation for why that might have
6   happened.
7   Q. There was not?
8   A. There was not, in my recollection.
9   Q. Did you run alternate regression models?
10   THE COURT: 200 of them must have just had total
11   stops, not broken out by type of crime.
12   THE WITNESS: It could be. It wasn't clear in the
13   documents.
14   THE COURT: It's not unclear to me. 2,181 census
15   tracts. Total stops were 63,000. So the 972 broken out by
16   type of crime, there were 57,000 stops. It's self-explanatory.
17   Next.
18   Q. Did you run alternate regression analyses?
19   A. We did.
20   Q. What was the purpose of doing that?
21   A. As I said, when you build a model, you have to control for
22   alternative explanations. And you also needed to control for
23   all of the elements of a proper benchmark. So we added
24   criminal descriptions. We added a measure of the mix of crimes
25   based upon the categories that Professor Fagan used.

D528FLO3   Purtell - direct
 1   Q. Directing your attention to Defendants' Exhibit O8, which
 2   is in the binder before you, not yet in evidence. And
 3   specifically directing your attention to the last exhibit,
 4   Exhibit I to that document O8.
 5   THE COURT: What document?
 6   MS. COOKE: O8. It's the first document in the binder
 7   of defendants' expert report.
 8   Q. Professor Purtell, do you recognize O8, specifically, the
 9   final exhibit to O8, two pages labeled Exhibit I?
10   A. I was not back at the exhibits yet. Yes.
11   Q. What do you recognize this Exhibit O8 to be?
12   A. It is one of the alternative regressions that we ran. It's
13   based upon the 2009 to 2000 -- 24 month period starting January
14   2009 through December 2010, for which we had information from
15   the merged file on suspect descriptions. We replicated
16   Professor Fagan's model.
17   MS. COOKE: I believe Exhibit I was admitted during
18   Professor Fagan's testimony. I would now offer the entirety of
19   Defendants' Exhibit O8 into evidence.
20   MR. CHARNEY: No objection.
21   THE COURT: O8 is received.
22   (Defendants' Exhibit O8 received in evidence)
23   Q. Professor Purtell, you were explaining the alternate
24   regression, the additional variables you added?
25   A. Yes. We added variables to reflect the percentage of
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D528FLO3   Purtell - direct
1   black -- the count of black suspects, the count of Hispanic
2   suspects, the count of other suspects, and the count of white
3   suspects.
4   Q. Why did you do that?
5   A. To test to see whether the model was robust to including
6   the racial component of crime as a measure of the pattern of
7   crime that might be related to reasonable stops.
8   Q. So looking at Exhibit O8, Exhibit I, I see two columns, one
9   is titled "Fagan" and the second column is titled
10 "alternative," is that correct?
11 A. Yes.
12 Q. And the reason that there are no figures represented in the
13 Fagan column for black suspects, Hispanic, other or white, why
14 is that?
15 A. It's because he didn't include them in any of his models.
16 Q. So you included them in your alternate regression, and what
17 do you see as the difference in results?
18 A. Well, if you look at the percent black in precincts row,
19 Professor Fagan showed a statistically significant result of
20 7.99. When we included the suspect description, that variable
21 became statistically insignificant and, in fact, it was a
22 negative number. So that's a dramatic change. It suggests
23 that the underlying regression is not robust to alternative
24 specifications for other reasons for this process, for the stop
25 and frisk process.
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D528FLO3   Purtell - direct

1   Q. This was an initial alternative regression you prepared,
2   correct?
3   A. That's correct.
4   Q. Did you subsequently prepare more alternative regression
5   analyses?
6   A. We did, yes.
7   Q. Directing your attention to what has been admitted as
8   Exhibit O8 -- I'm sorry, H13.
9   A. Page?
10   THE COURT: H13, the last exhibit in the book.
11 Q. Specifically directing your attention to pages 68, 69 and
12 70. There are tables therein identified as table 8, 9 and 10.
13 A. I am still having trouble finding it.
14 Q. Pages 68 --
15 A. It's exhibit?
16 Q. The very last document in the binder.
17 A. H13. OK. All right. And page?
18 Q. 68.
19   (Continued on next page)
20
21
22
23
24
25

D529flo4   Purtell - direct

1   Q. Do you see tables 8, 9 and so on; pages, 68, 69 and 70?
2   A. I do.
3   Q. What do those tables represent?
4   A. They represent additional alternative regressions that we
5   ran to test the robustness of the model that Professor Fagan
6   developed and also to test to see whether or not the process
7   related to a zero stop count was different from the process
8   related to the stop count of a positive number.
9   Q. So beginning with table 8. Would you explain what was done
10   in terms of the regression analysis presented in table 8?
11   A. Well, we did two things here.
12   First, we removed all of the zero count observations.
13   I will talk about some of that later.
14   Q. What is a zero count --
15   A. It is a census tract and month where there were no stops
16   and we included the racial descriptive information for each of
17   the races.
18   Q. And looking at the title of table 8 I see that it indicates
19   the time period.
20   A. I'm sorry. I read the wrong part.
21   We included -- in addition to total complaints, we
22   included a rough measure of the mix of crimes, the variation in
23   crimes, which type of crimes were included in each period.
24   Q. And is that what you're referring to when I see percent
25   filing complaints, percent property and so on?

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       D529flo4                Purtell - direct
 1  A.  That is exactly correct.
 2  Q.  Looking at the title of 2008 it indicates in parentheses
 3  2010 to 2012?
 4  A.  That's correct.
 5  Q.  Is this including the same data set that is represented in
 6  Professor Fagan's table 5 in Plaintiffs' Exhibit 417?
 7          MR. CHARNEY:  I'm going to object because that
 8  mischaracterizes the testimony as well as what table 5 said.
 9          THE COURT:  I have to hear the question again because
10  it was interpreted.
11  Q.  Table 8 indicates it covers a timeframe 2010 to 2012,
12  correct?
13  A.  Correct.
14  Q.  Is table 8 the regression analysis analyzing the same set
15  of data from 2010, the 30 months from 2010 to 2012 as Professor
16  Fagan's table 5?
17          MR. CHARNEY:  I'm going to object to the form.  Which
18  data are we talking about?
19          MS. COOKE:  UF 250 data.
20          THE WITNESS:  UF 250 data as used to generate the
21  results in his table 5 with the exception of the exclusion of
22  patrol strength in this model.  That's correct.
23  Q.  With respect to the UF 250 data compares the same UF 250
24  data contained in your regression in table 8 as contained in
25  Professor Fagan's regression in table 5?
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D529flo4   Purtell - direct
1   A. That's correct.
2   Q. So the two regressions are comparable?
3   THE COURT: Except you eliminated the zero
4   observation?
5   THE WITNESS: As I said.
6   THE COURT: I know you said it.
7   THE WITNESS: We eliminated the zero observations.
8   And we did not include patrol strength.
9   THE COURT: Right.
10   Q. In this regression represented in table 8 did you include a
11   variable for suspect description?
12   A. We did.
13   Q. You did?
14   A. I'm sorry. We did not. We just included variables for the
15   mix of crimes.
16   Q. So what does your regression analysis represented in table
17   8 --
18   THE COURT: So when you say percentage by race you're
19   talking about in the population?
20   THE WITNESS: That's exactly the way Professor Fagan
21   defined it, your Honor.
22   THE COURT: Those are the census data?
23   THE WITNESS: That's correct.
24   THE COURT: What's the total end there?
25   THE WITNESS: That's the number of observations that

D529flo4   Purtell - direct
1 were used in the estimation of the model.
2   THE COURT: Is that all stops for two-and-a-half
3 years?
4   THE WITNESS: No. That is the number of census tracts
5 by month that had other than zero counts.
6   THE COURT: Thirty months times two thousand census
7 tracts essentially?
8   THE WITNESS: Yes. That's correct.
9 Q. What is the result of the regression analysis presented in
10 table 8 with respect to race?
11 A. Well, what -- when you look at the results for percent
12 black it has an impact estimate of 1.627 but it's no longer
13 statistically significant.
14 Q. So what does that lead you to conclude?
15   THE COURT: Where is this -- there.
16   Okay. Go ahead.
17   THE WITNESS: It tells me that once you control for
18 property, controlling for the mix of crime and all of the other
19 factors except for patrol strength, that the process that is
20 determining the positive stop count is very different from the
21 process for the combined data set which suggests to us that you
22 should model the zero condition, the zero process differently
23 from the count process.
24   THE COURT: I don't understand why you drop the zero
25 observation months.

1   THE WITNESS: Well your Honor we were literally trying
2   to see whether or not the zero -- the count observations were
3   different in some way. And one of the methodologies used for
4   this model is to separate -- is the to model zero counts
5   differently from the count process. Because there are --
6   there's a hypothesis is they're different processes. I can
7   expand on that if you'd like.
8   THE COURT: No. I wouldn't like.
9   Q. Directing your attention to table 9 on page 69.
10   A. Okay.
11   Q. This is also alternate regression analyses, correct?
12   A. That's correct.
13   Q. And what did you do to model this regression analysis?
14   A. We -- first of all, we used the panel data model as opposed
15   to using a negative binomial model which allows us to model
16   rates directly.
17   We included the rate of Hispanic, black, white, and
18   other suspects per ten thousand people. And we included all of
19   the other factors except for patrol strength.
20   Q. Why did you include the rates for Hispanic suspects, black
21   suspects, white, and other?
22   A. We were trying to see if the model was robust, the results
23   were essentially the same if you included description --
24   suspect descriptions from the merged data file.
25   Q. Had you criticized Professor Fagan's regression analysis

D529flo4   Purtell - direct
1   for failing to include control for suspect description?
2   A. We did. We argued that suspect description, crime and race
3   are all interrelated. And if you're trying to measure the
4   impact of crime on stop likelihoods and race on stop
5   likelihoods, that each of those two variables include a racial
6   component. This is what a statistician would call an
7   interaction term.
8   So we were trying to pull apart -- pull out of the
9   race coefficient and out of the crime coefficients those things
10   that had to do with the description of suspects from the merged
11   data file.
12   Q. And what were the results of the table 9 regression
13   analysis which included the suspect description variable?
14   A. In all cases for percent black and percent Hispanic, the
15   impact estimates were not statistically significant. And for
16   percent other race they were significant at the .05 level,
17   which is lower than we found in the other models.
18   Q. And then turning to table 10 on page 70 of Exhibit H13.
19   This is the third alternate regression analysis contained in
20   this report.
21   What was done to prepare the regression analysis in
22   table 10?
23   A. For this analysis, we included both the racial descriptions
24   of suspects but on a rate basis, logged and lagged. We
25   included a -- we used the categories -- the crime categories

1   that Professor Fagan used to describe the mix of crimes in each
2   period. And we included all of the other variables that
3   Professor Fagan did in his analysis including patrol strength.
4   Q. And what were the results of this table 10 regression
5   analysis?
6   A. The result is that the impact coefficients for percent
7   black had gotten even smaller as they did for Hispanic and for
8   I believe -- and for other race too. This is all for -- just
9   the total stops regression.
10   Q. So what did that lead you to conclude about the regression
11   analysis?
12   A. It led me to conclude that the regressions -- the results
13   of the regression were susceptible to changes in the way the
14   model was specified.
15   And that by changing -- adding just these two elements
16   of crime pattern, that already small practical results got even
17   smaller.
18   Q. Moving on to the operationalization item.
19   Are you familiar with an analysis of benchmarks used
20   in the measurement of racial disparity in policing that the
21   Department of Justice study funded?
22   A. I am.
23   Q. What is your understanding of that?
24   A. My understanding that the Department of Justice funded
25   study suggested, strongly suggested that the benchmark must

D529flo4   Purtell - direct
1   include the probability of an officer encountering a person
2   exhibiting a behavior that justified a stop. That includes
3   three components. It's the patrol strength. It is the
4   observed population on the street. And it's observed behavior.
5   Q. And in your opinion has Professor Fagan accurately met
6   those standards in the benchmark used in his analysis?
7   A. No.
8   What my -- if I were to characterize Professor Fagan's
9   benchmark, I would call it a population benchmark that has been
10   adjusted for crime. But it doesn't include all of the other
11   elements that the DOJ report suggested in a single measure, nor
12   does it allow for what statisticians would call interactions.
13   THE COURT: Why did you drop patrol strength in table
14   8 and table 9?
15   THE WITNESS: We dropped it because it is what's
16   called an endogenous variable and it biases estimates.
17   THE COURT: Even though the justice department says --
18   THE WITNESS: We dropped it because of the way it was
19   measured. It's what's call endogenic circular logic.
20   THE COURT: That's beyond me. But the justice
21   department said you should use patrol strength, resources being
22   applied in that area?
23   THE WITNESS: That's correct.
24   THE COURT: Then you didn't in tables 8 and 9.
25   THE WITNESS: Because we don't believe patrol strength

D529flo4   Purtell - direct
1   was properly measured. And because of the way it was measured
2   it actually biases the results.
3   THE COURT: How was it measured?
4   THE WITNESS: It was measured by looking at a --
5   looking at the stop data, looking at the officers who performed
6   stops, and calculating patrol strength by looking at the number
7   of officers in a given month, who made -- unique officers who
8   made at least one stop. And that was the estimate of patrol
9   strength.
10   So if an officer made a hundred stops, he was counted
11 once. If he made one stop, he was counted once. If he made no
12 stops, he was not counted. And that's exactly how he estimated
13 the patrol strengths.
14   And then he took that patrol strength measure and he
15 used it to predict the number of stops.
16   Well, that's circular logic. And a statistician would
17 call that variable endogenous. And endogenous variables lead
18 to biased estimates.
19   So we dropped it because we wanted to see what
20 happened without the biased estimate. We brought it back in to
21 this additional analysis just to show that even including
22 this -- what we believe is an endogenous variable, it biases
23 estimates, we were getting results in essentially the same
24 direction.
25 Q. With respect to the Department of Justice benchmark for

1 observed behavior, what do you understand that to be?
2 A. It has to do with what the police officer encounters when
3 seeing a person on the streets.
4 Q. And is it sufficient just to include elements in a
5 regression analysis or do they need to interact in some way?
6 A. They do need to interact because -- as I said before if
7 you're looking at population, crime and race, there are strong
8 correlations between crime and race and between crime and
9 stops. So if you measure the -- try to measure the effects of
10 crime individually and race individually, each of those two
11 variables, each of the estimates of impact for those two
12 variables will include some element of race. The interaction
13 helps you to extract that element of crime and of population
14 that is related to race. So now the result becomes a pure
15 estimate of the actual impact of race without regard to crime
16 pattern.
17   THE COURT: Okay. I'm a little lost on crime, what
18 you call crime.
19   THE WITNESS: Crime is the crime counts, your Honor.
20   THE COURT: What does that mean?
21   THE WITNESS: Is the number of incidents of a crime
22 that occurred in a census tract within a given month.
23   THE COURT: Based on reported crime or suspect --
24   THE WITNESS: Based on reported crime, your Honor.
25   THE COURT: Reported crime. Whether or not anybody

D529flo4   Purtell - direct
1   was caught or identified?
2   THE WITNESS: That's correct.
3   THE COURT: So one doesn't have race data for that,
4   does one?
5   THE WITNESS: Well the point is that whether we
6   include it in the model or not, there are still racial
7   components to that.
8   THE COURT: Whoa, whoa. Your answer, I don't think,
9   responded. If it's a reported crime, we do or don't have race
10 data for that reported crime?
11   THE WITNESS: We do for -- for about 63 percent of
12 those crimes. But in the way Professor Fagan specified the
13 model he didn't include any of that data to account for that.
14 That's what we call an interaction. You're exactly on target.
15 It is the fact that by knowing the description of suspect by
16 race, I now modify my understanding of the crime count.
17   THE COURT: You know, you're saying it's known
18 two-thirds of the time?
19   THE WITNESS: It's known two-thirds of the time across
20 all crimes. And of course in violent crime about 98 percent of
21 the time, you pointed out.
22 Q. Is it your understanding that Professor Fagan's benchmark
23 interacted in the way you've described?
24 A. No. He includes separate measures for the reported crime
25 and for race. But he doesn't have any way to control for their

D529flo4   Purtell - direct
 1   interactions.
 2   Q. Why does that matter?
 3   A. Well as I've just said, the reported crime is not just
 4   reported crime. It's reported crime with some amount of
 5   descriptive information describing the race of the suspect.
 6   And the population also includes measures of race, as do the
 7   racial percentage numbers. And the racial percentage numbers
 8   include both -- the crime numbers include both crime and some
 9   portion of the racial description. And the percent race
10   numbers include percent race. And they also relate to the
11   suspect description information that is available through the
12   merged file.
13   Q. So how would any analyst know whether these interactions
14   should or should not be included in their regression model?
15   A. That's an empirical question. It's one that has to be
16   tested.
17   So typically an analyst, before rejecting something,
18   would estimate the model with and without these factors using a
19   variety of specifications, would report on the results with and
20   without those factors, and then make a determination of whether
21   they were statistically and practically significant.
22   Q. Did Professor Fagan do empirical analysis?
23   A. Not that we saw. Not for these factors anyway.
24   Q. You testified a few moments ago in response to your Honor's
25   questions about patrol strength.

1   You were here when Professor Fagan testified, correct?
2   A. I was, yes.
3   Q. And you recall that Professor Fagan testified that his
4   patrol strength measures were highly correlated with precinct
5   patrol strength?
6   A. Yes. That's true.
7   Q. Is that enough to support the claim that Professor Fagan
8   makes that his estimates correctly measure patrol strength for
9   the census tract level?
10 A. No. To be correlated just means that things move in the
11 same way.
12   So, one of might have favorite stories about
13 correlation and meaninglessness is the correlation between
14 stock market performance and sun spots. It also turns out
15 there's a correlation between stock market performance and the
16 distance to Jupiter. But they have nothing to do with accurate
17 measurement.
18   So just having something move in the same way doesn't
19 mean that they are, in fact, accurate measurements.
20 Q. And what do you understand some of the other problems with
21 respect to Professor Fagan's calculation of patrol strength?
22 A. Well, he made an assumption that an officer in an area
23 making one stop during a month represented the full patrol
24 strength in that area and it's not clear that that's the case.
25   There are certainly partners. There are crime teams.

D529flo4   Purtell - direct
 1   There are other reasons why the police might or might not
 2   increase the patrol strength in a specific area.
 3   And also it's not clear that because a single officer
 4   was in a single location on one specific day to make one stop
 5   that they were there for the remainder of the month.
 6   Q. So if cops work with a partner, could you fix the patrol
 7   strength problem by doubling them?
 8   MR. CHARNEY: Your Honor, I'm going to object to this
 9   line of questioning. The city is not offering this witness as
10   an expert on police practice or how officers are deployed.
11   He's solely here to talk about statistics, statistical
12   techniques. He's going into benchmarking. He's going into
13   patrol strength. This witness has absolutely no expertise in
14   these areas and I don't think he should be testifying about
15   this.
16   THE COURT: One second. Let me read something.
17   I'm going to sustain the objection for now. But I'm
18   going to permit you to start again and let me see if you can
19   rephrase it so that you don't try to have him opine about
20   police practices.
21   MS. COOKE: No problem.
22   Q. Is your opinion that Professor Fagan's patrol strength
23   variable underestimates patrol strength?
24   A. It is my opinion that it doesn't consistently estimate
25   patrol strength. It may in some census tracts underestimate

D529flo4   Purtell - direct
1   and in some census tracts it may overestimate it.
2   And it's the variation, the relative variation of
3   patrol strength with all the other variables that determines
4   all of these co-efficiencies reported. So unless he has an
5   accurate and consistent way of measuring patrol strength it is
6   really problematic.
7   THE COURT: What's your understand of the way in which
8   he measured patrol strength?
9   THE WITNESS: My understanding -- if an officer made a
10   stop in one --
11   THE COURT: You explained that. If he made one stop
12   or made a hundred stops, it was all counted --
13   THE WITNESS: It was all one officer. And if an
14   officer did not make a stop, the officer did not exist. And
15   that to me is problematic.
16   THE COURT: Okay.
17   Q. How could Professor Fagan have corrected for this
18   endogeneity that you indicate is caused by his measurement in
19   his patrol strength --
20   A. I'll reiterate again that endogeneity is a circular logic.
21   So he used the number of stops to estimate the number of patrol
22   officers. And then he used the number of patrol officers to --
23   in his analysis of the number of stops. So it's perfectly
24   circular logic.
25   He had, I think, two options to handle that problem.

D529flo4   Purtell - direct
 1   One is a practical option. He could have gone to the NYPD. He
 2   could is asked for patrol strength by its patrol sector.
 3   MR. CHARNEY: Objection. This is not in the report
 4   that the city submitted. There is no discussion of what he
 5   could have done as an alternative.
 6   THE COURT: Objection sustained. I'm sure he could
 7   have done other things. But this is what he did. Okay.
 8   Q. Are you aware that Professor Fagan addressed the
 9   endogeneity component of his patrol strength variable in any
10   way?
11   A. No. There is no indication that he managed the problem of
12   endogeneity.
13   Q. What impact would this endogeneity of a patrol strength
14   variable have had on his reported impact measures in the
15   regression analysis?
16   A. It would have led to biased estimates.
17   Q. With respect to Professor Fagan's population measure, did
18   you identify issues you saw with how he measured the
19   population?
20   A. Yes. I think the primary one is that he is using census
21   tract information which is the number of residents in an area
22   as a very weak proxy for the number of people a patrol officer
23   might see on the street.
24   In addition, he -- all of his population measures are
25   from one frozen point in time, one sample in 2007, rather than

D529flo4   Purtell - direct
 1   estimates that would change with time.
 2   And, again, it's the relative variation among these
 3   factors, all the factors in the model that lead to these
 4   determinations that he's made.
 5   Q. You said it was from 2007. Did the second supplemental
 6   report use a different population data point?
 7   A. The second supplemental report I think used the 2010 census
 8   data.
 9   Q. Did Professor Fagan's population data change over the time
10   period covered by each of his analyses?
11   A. No. Once he picked the population from either the 2007
12   sample or the 2010 census he assumed that it was the same
13   throughout the entire period he was doing analysis.
14   Q. What does that mean to you as a statistician with respect
15   to the regression analysis performed?
16   A. Well, the key in a regression analysis is to match the
17   data. So I'd like to match the population as it existed in
18   each year with the number of stops, the crime rates, and all of
19   the other factors that change year to year.
20   Q. And are you aware that, in fact, there were variations in
21   the number of stops year to year?
22   A. Yes.
23   Q. Do you believe that Professor Fagan's population estimates
24   are likely to be accurate for the minority population in New
25   York City?

D529flo4   Purtell - direct
1   A. No. There is a very substantial literature that talks
2   about the tendency of census data to underestimate population
3   and we know certainly from --
4   THE COURT: You mean to underestimate minority
5   population?
6   THE WITNESS: Minority population, your Honor.
7   And we know for housing developments, for example,
8   that there's a ghost population that is typically thought to be
9   about 50 percent of the total population.
10   Q. In his trial testimony Professor Fagan stated he uses
11   trended population data that would have required him to make
12   unrealistic assumptions about patterns and changes in
13   population.
14   Did using data from a single year eliminate this
15   problem for Professor Fagan?
16   A. No. In fact, he made the assumption that the pattern was
17   absolutely flat, that no changes occurred over that period.
18   And we know from the census data that that's not true.
19   Q. How so?
20   A. Well, there's a recent report by the city department of
21   planning based on census estimates suggested that population
22   grew by between .6 and one percent, between 2000 and 2010. And
23   by roughly one percent per year 2010 to 2012.
24   THE COURT: That's the total population or minority
25   population?

 1   THE WITNESS: That's the total population, your Honor.
 2   THE COURT: So that doesn't show much because then the
 3   distribution might remain constant? Total growth doesn't tell
 4   us much.
 5   THE WITNESS: Well but we were just talking about his
 6   total population measure to begin with, your Honor.
 7   THE COURT: I understand. But if the distribution
 8   remains the same, it doesn't matter.
 9   THE WITNESS: But it does -- it's unlikely to remain
10   the same for every census tract.
11   Remember, there are two variables in his model. One
12   is for population as a total. That's what we addressing now.
13   And that number frozen in time doesn't reflect changes in
14   overall population, which would impact the likelihood of a
15   police officer seeing someone on the street. And the racial
16   components of neighborhoods were also changing at the same
17   time, as were SES factors, as was unemployment. All of these
18   things were changing.
19   And without change -- the only variation in Professor
20   Fagan's data is for the -- is across geography in the year for
21   which he has the data. And even in that year, it's unlikely
22   that any single month is exactly accurate.
23   So this is an example of a missing data issue.
24   THE COURT: But then have you the problem of the
25   perfect being the enemy of the good. If we don't have the

D529flo4   Purtell - direct
1   data, we don't have the data. We don't run a census every
2   year. We don't run a census every quarter. There's only so
3   many ways to get an accurate census figures.
4   THE WITNESS: There are, in fact, reports by the
5   bureau of the census every year on city population by borough.
6   THE COURT: That are census-based counts?
7   THE WITNESS: No. They are estimates based upon
8   administrative data and some other information, which is
9   essentially the same -- it's a slightly less rigorous approach
10 than they use in their sampling, but it gets to the same sort
11 of thing.
12   So certainly we know the pattern of the stops. And
13 most analysts would simply assume a linear change because
14 that's the way population changes. I mean it grows or it
15 doesn't grow and it tends to grow in pretty consistent ways.
16   THE COURT: My point was if the distribution is
17 consistent --
18   THE WITNESS: But it would not -- it would -- the
19 growth by borough is different and the growth by census tract
20 is different.
21   THE COURT: Okay.
22   THE WITNESS: So all of those variations really matter
23 when you come up and try to estimate variables.
24 Q. You mentioned socioeconomic factors SES factors. Professor
25 Fagan used those, correct?

D529flo4   Purtell - direct
1   A. Yes, he did.
2   Q. Could you explain the issues with his SES factors in his
3   regression analysis?
4   A. It's the same sort of issue. He chose to measure those SES
5   factors at one point in time and then hold them absolutely
6   constant. The point in time he chose was 2007. And we know
7   that in 2008 the financial markets collapsed and really
8   significant things happened. Homeownership dropped.
9   Unemployment rates rose. Poverty levels rose. All -- a wide
10 range of those measures changed and they changed in radical
11 ways.
12   And if you think about unemployment, the -- if you
13 want to think of it as a victim, the victim of unemployment
14 were young males of color. They were -- they had far higher
15 rates of unemployment than did the general population.
16 Q. What would change --
17   THE COURT: Again, was that particularly more true in
18 2008? It's always been true. In other words, the unemployment
19 rates have always been racially skewed, right?
20   THE WITNESS: But they got larger after that.
21   THE COURT: The disparity got larger?
22   THE WITNESS: Yes, it did.
23   THE COURT: The disparity?
24   THE WITNESS: The disparity got larger.
25   THE COURT: Because the disparity was always there.

 1   THE WITNESS: Agreed.
 2   THE COURT: But you're saying it increased?
 3   THE WITNESS: That's right.
 4   And, in fact, young people in general found themselves
 5 unemployed. You know --
 6   THE COURT: I know that. But young people are both
 7 black and white.
 8   THE WITNESS: Yes, that's true.
 9   The disparity issues became greater.
10   THE COURT: By race is what I'm asking.
11   THE WITNESS: That's true, yes.
12 Q. And how might the changes in the unemployment numbers over
13 the years of Professor Fagan -- including Professor Fagan's
14 analyses impact the estimates in the observed population?
15 A. Well one possible hypothesis is that unemployed people are
16 more likely to be on the streets. So they would change the
17 observed population and that, of course, is an empirically
18 testable issue. And it's one of the reasons why criminal
19 justice scholars discuss observed data as part of this measure.
20   MR. CHARNEY: Object and move to strike. This is not
21 a criminology expert. He's really talking about criminology
22 sociology. He's not talking about math anymore.
23   THE COURT: I understand.
24   Is this projection on unemployment changes in the
25 report?

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1   MS. COOKE: Yes.
2   MR. CHARNEY: Well it is but I guess the part I'm
3   struggling with there are two experts that are going to testify
4   for the city. They have one who is much more of an expert on
5   some of these issues that Professor Purtell is now talking
6   about.
7   THE COURT: It's a joint report?
8   MR. CHARNEY: I tried at a deposition to get a sense
9   of what he would testify about.
10   THE COURT: So this is the Smith and Purtell report.
11 So it's in the report, but you're saying this witness --
12   MR. CHARNEY: This is not --
13   THE COURT: -- should not be the one to talk about
14 changes in unemployment rates.
15   MR. CHARNEY: Exactly.
16   MS. COOKE: But he's talking about the
17 operationalization of the variable in the regression analyses
18 and how that impacts the results of those regression analyses
19 for which he is the expert qualified to testify.
20   So to the extent that there is a change in the
21 unemployment -- numbers of unemployment over the period of time
22 he would be the one to talk about --
23   THE COURT: The problem is I don't know the relative
24 change. He's telling me about a generalized notion that in
25 2008 with the financial crisis there was a rise in

D529flo4   Purtell - direct
1   unemployment. Well known.
2   I asked whether the disparity in the ratio between
3   white and nonwhite changed. He said yes, but I don't know by
4   how much. So actually this is not helpful to me because I
5   don't know the numbers. He's supposed to be the numbers
6   cruncher. I'm getting a generality here that is not useful to
7   me.
8   MS. COOKE: I guess, your Honor, with respect to the
9   alternative regression analyses, the included variables
10   demonstrate that, Professor Purtell has testified, a very small
11   change or adjustment in the model creates a significant
12   difference in the results. So to the extent he's talking about
13   the operationalization of these variables, any change --
14   THE COURT: Which variable are you talking about know?
15   MS. COOKE: SES factors. Socioeconomic factors.
16   So any change in either direction of those factors
17   Professor Purtell is talking about would have an impact on the
18   regression, and he's talking about what that means to him in
19   terms of a statistician's analysis of regression results.
20   MR. CHARNEY: May I respond, your Honor? I know we
21   don't want to keep going back and forth.
22   THE COURT: Yes.
23   MR. CHARNEY: In order to discuss the proper way to
24   operationalization a variable that's based on a theory and it's
25   based on a substantive knowledge of a subject area.

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1   In other words, to determine the best way to measure
2   unemployment you have to understand unemployment. You have to
3   understand those factors. This witness is not qualified to
4   talk about that.
5   So I will again move to strike any testimony about how
6   to most appropriately measure patrol strength or how to most
7   appropriately measure unemployment or why this measure is not a
8   good measure of unemployment.
9   THE COURT: I can still take the generality that if
10   the unemployment figures rise in a particular population and
11   therefore -- I don't know where he's assuming this but from
12   studies -- that therefore the unemployment would be more
13   visible on the streets because they wouldn't be in the job, he
14   thinks this affects the figures. And even a small change in
15   the figures affects the outcome. I mean I would take that
16   generality. I don't know for how much weight I'd give it, but
17   I'd take it.
18   MS. COOKE: Your Honor, it's not my intention to try
19   and get this expert to testify about the substance of
20   Mr. Charney's objection.
21   THE COURT: Nor do I think he's quantifying what he's
22   saying. I just think he's saying it would have an impact.
23   MS. COOKE: Yes. That's the purpose of my eliciting
24   this information and these questions.
25   THE WITNESS: Your Honor, may I add something?

D529flo4   Purtell - direct
1   That impact is what people call an empirical question.
2   It needs to be tested. And, in fact, after 30 years on Wall
3   Street I can actually testify to things that impact the
4   economy. Unemployment --
5   THE COURT: You and many others. And most of them
6   disagree. I just finished a huge financial case, very big
7   experts, Nobel prize winners, and they all disagreed with each
8   other.
9   THE WITNESS: Everybody disagrees, absolutely.
10   THE COURT: Okay.
11   THE WITNESS: But we all monitor those factors.
12   THE COURT: But nobody agrees.
13   THE WITNESS: No one ever agrees.
14   THE COURT: As far as I can tell there is no right
15   answer.
16   THE WITNESS: The only we all agree on is I have
17   nothing to do with the crisis.
18   THE COURT: I understand that. Okay.
19   Q. With respect to observed behavior, did Professor Fagan
20   include a variable to measure observed behavior?
21   A. He did not.
22   One of the elements of that that I found somewhat
23   disturbing was the fact that the -- in his first report roughly
24   20 percent of the 250 forms showed meets description as -- fits
25   description as the reason for the stop. And in his later

D529flo4   Purtell - direct
1   analysis overall was 13.7 percent. At the very least, I would
2   have expected him to control for those factors in some way in
3   his regression analysis.
4   Q. Did Professor Fagan include any controls in his regression
5   analyses for possible relationships between observed behavior,
6   crime patterns, and race?
7   A. None that I could see.
8   Q. In light of the manner in which Professor Fagan structured
9   his regression analyses, do you believe he would have been able
10 to separate the effects of race from the other components of
11 crime patterns?
12 A. Not without including the interactions among all of the
13 elements of the benchmark or in some way coming up with a
14 single benchmark.
15 Q. Did Professor Fagan control for the differences between
16 radio run stops and other stop encounters between the police?
17 A. No. He did not.
18 Q. In your opinion could that have had an impact on the
19 estimates he reported in his regression analyses?
20 A. Yes. I would assume again, just as a citizen, that a
21 police officer on a radio run has significantly more
22 information than one who is not on a radio run.
23   MR. CHARNEY: Objection.
24   THE COURT: Sustained. Sustained. That's really
25 outside the area he's here for.

D529flo4   Purtell - direct
 1 Q. Directing your attention to page 78 of Exhibit H13.
 2   THE COURT: Is that the last one?
 3   MS. COOKE: Yes.
 4   THE COURT: Page of text?
 5   MS. COOKE: Yes.
 6 Q. In this portion of the report you stated that Professor
 7 Fagan used aggregated crime counts. What do you mean by that?
 8 A. He -- instead of looking at each crime individually and
 9 measuring its impact on the pattern of crime and the variables
10 of interest, the impact measures, he simply added all crimes
11 together.
12   THE COURT: Where is that?
13   THE WITNESS: It is that paragraph.
14   THE COURT: No I don't mean that, but I mean table 5,
15 for example, broke out every crime. Which one aggregates?
16   THE WITNESS: Well in his first regression he had just
17 total crimes.
18   THE COURT: In the first report?
19   THE WITNESS: In the first regression.
20   In each of the others, he had big classifications of
21 crime.
22   But he didn't account for the fact that there were
23 multiple crimes in that. So for violent crime, certainly
24 murder, rape, robbery, all manner of other things. And the
25 police response is likely to be different. In each of those.

 1   THE COURT: Again, I don't know that you know that
 2 police response is likely to be different. That sentence is
 3 stricken. You're not a police expert.
 4   MR. CHARNEY: Is just not the right witness for this
 5 testimony.
 6   THE COURT: You won the point. You don't have to say
 7 anything.
 8   So he's not an expert in policing. I'm not allowing
 9 that last line. Up until then, I understand what he meant by
10 desegregating the types of crimes within violent crimes.
11   THE WITNESS: May I add something that is, in fact,
12 statistical. The question of whether those differences matter
13 is an empirical question.
14 Q. How else could Professor Fagan have handled crime counts in
15 his regression analyses without aggregating them?
16   THE COURT: Keeping them the way he has them, violate
17 crimes is one category, not desegregating? How else -- that's
18 a funny question. That's the way he did it. I don't
19 understand.
20   MS. COOKE: I guess he aggregated crime counts. Is
21 there another way to include crime in a regression analysis?
22   THE COURT: Desegregate -- hold on. He told us.
23   Violent crime could be four different crimes. I
24 understand. He could do every crime separately.
25   THE WITNESS: There is one -- another way he could

D529flo4   Purtell - direct

1 have done it in a data sense, your Honor, he could have
2 developed a crime index the way he developed an SES index and
3 then weighted that index. So statistically that's a
4 possibility too.
5 Q. Professor Fagan testified that he did not include suspect
6 descriptions by race because a portion of that data was
7 missing.
8   Do you recall hearing that?
9 A. Yes, I do.
10 Q. Do you see that missing suspect description data as an
11 issue for regression analyses?
12 A. Not if you think about what these models are meant to do.
13 They're meant to model the process behind a stop. So the fact
14 that there was incomplete data doesn't mean that a police
15 officer wouldn't act on it. It just means that all the data
16 wasn't there.
17   MR. CHARNEY: Again, your Honor, the last part about
18 what a police officer would do, how a police officer would act
19 on data, I think that should be stricken. This is not an
20 expert in policing.
21   THE COURT: Right. I thought he was going to say that
22 Professor Fagan could have used the two-thirds he had and not
23 worried about the missing third but whether a police officer
24 would act on it or not is not his area of expertise. So that
25 portion is stricken.

D529flo4   Purtell - direct
1   Q. Professor Purtell are you aware that the suspect
2   description -- the available suspect descriptions for the crime
3   categories represented in Professor Fagan's table 5 are known
4   at different rates?
5   A. Yes, I am.
6   Q. Directing your attention to Professor Fagan's second
7   supplemental report which is Exhibit 417, appendix B, table 2.
8   Do you recognize appendix B, table 2?
9   A. I do.
10 Q. What information is table 2 representing?
11 A. It tells us what percentage of suspect race was known for
12 each of his aggregated categories of crime.
13 Q. An is this data or is this information derived from the two
14 years of merged file data provided by the NYPD in this case?
15 A. To my understanding, that's correct.
16 Q. And that's for years 2010 and 2011?
17 A. That's my understanding.
18 Q. And the percent suspect race known column in the middle of
19 the chart indicates the percentage for each of those crime
20 categories, correct?
21 A. Again, that's my understanding. That's correct.
22 Q. The property, the felony property and minor property, are
23 the two lowest known suspect categories, correct?
24 A. That's correct.
25 Q. Could Professor Fagan have conducted each of his regression

D529flo4   Purtell - direct
1   analyses using the suspect race known for each of these crime
2   categories?
3   A. He could have.
4   A standard statistical technique for doing that would
5   have been to include the percentage that was known and then to
6   include something called a quadratic term which is literally,
7   your Honor, the square of that number to determine whether or
8   not knowing more -- having a higher percentage of known
9   suspects would increase the level of stops or whether having a
10 lower might decrease it.
11 Q. Did Professor Fagan control in any way for the fact that
12 his regression analyses included all stops and notwithstanding
13 the fact some of those stops he determined in the Fourth
14 Amendment analyses were apparently justified?
15 A. He did not.
16   THE COURT: One second. Let me reread that.
17 Q. Did you criticize Professor Fagan's use of lagged quarterly
18 crime data in his original report?
19 A. We did.
20 Q. Did Professor Fagan respond in a second report?
21 A. He did in part. He -- instead of lagging his crime data by
22 quarter, he lagged it by month.
23 Q. What reason did he give for moving to monthly intervals?
24 A. He said it was in response to our criticism -- original
25 criticism of his use of quarterly lags.

D529flo4   Purtell - direct
1   Q. And would that have solved serial correlation of
2   autoregression problems in his analyses?
3   A. Not necessarily.
4   Q. In Professor Fagan's second supplemental report, Exhibit
5   417, does he continue to use a monthly -- calendar month lag
6   for crime data?
7   A. He does.
8   Q. I've handed you what's been marked for identification as
9   Defendants' Exhibit 014. Do you recognize that?
10 A. I do.
11 Q. And what is it?
12 A. It is a demonstrative to -- that we produced to demonstrate
13 the implications of using one-month lags.
14   MS. COOKE: Your Honor I would move the admission of
15 the demonstrative exhibit 014 into evidence.
16   THE COURT: Is a two-page exhibit?
17   MS. COOKE: Yes.
18   MR. CHARNEY: Your Honor, the only problem that I have
19 with this is that I don't -- for it to be admissible it would
20 have to be derived from an opinion in one of their reports and
21 I don't believe that there is an opinion in the reports about
22 what these demonstratives are going to discuss. If defense
23 counsel --
24   THE COURT: Is there an opinion about the use of lag
25 data?

D529flo4   Purtell - direct
 1   MS. COOKE: Yes, your Honor.
 2   MR. CHARNEY: There is. But not for the point that --
 3   not for this point, which is -- I'm aware what they're going to
 4   try to show with this. And I don't believe that that opinion
 5   is anywhere.
 6   If defense counsel can point to me where in the
 7   report, beyond a general lag crime data is bad, the opinion
 8   that is reflected in this demonstrative is, if they can point
 9   me to where that is I'm willing to obviously drop my objection.
10   MS. COOKE: We've sourced both the original
11   November 15, 2010 report and the February 2013 report and the
12   pages in which the conversation or the opinions expressed with
13   respect to the lags occurred, and this is a demonstrative aid
14   to demonstrate what is the opinion about --
15   THE COURT: The bottomline is she's giving you the
16   pages.
17   MR. CHARNEY: Your Honor, those pages do not discuss
18   this particular issue in this demonstrative. What they discuss
19   is that the lag is too long or too short.
20   THE COURT: Right. They're showing you with the red,
21   they're saying if the stop occurs on the last day of January
22   the data is now 30 days old. But if it's the first day of
23   January it's only two days old. It's pretty obvious anyway.
24   MR. CHARNEY: That opinion or whatever opinion can be
25   drawn from that critique of the analysis of Professor Fagan is

D529flo4   Purtell - direct
1   not anywhere on those pages that are cited there.
2   All they simply say is the month is too long because
3   the police looks at data on a weekly basis, or a quarter is too
4   long because the police look at data on a shorter basis. There
5   is no discussion: Well, if a stop is on the first day of the
6   month and the last day of the next month it's actually a much
7   longer period.
8   THE COURT: Honestly, that is kind of obvious. If the
9   stop is the first day of January --
10   MR. CHARNEY: I understand that.
11   THE COURT: -- the data is pretty current. And if
12 it's the last day of January, the data is less current. I can
13 take notice of that. I don't need a beautiful chart.
14   MR. CHARNEY: Beyond that if he's going to offer any
15 opinions as to how that undermines the validity of an analysis,
16 those opinions --
17   THE COURT: I thought that's the very thing that isn't
18 there.
19   MS. COOKE: Yes, it is there.
20   MR. CHARNEY: I'm going to reserve my right to object
21 depending on what the testimony is going to be.
22   THE COURT: Okay. That's fine.
23 Q. So is this demonstrative --
24   THE COURT: Subject to a motion to strike after your
25 questions. That's what he's saying.

D529flo4   Purtell - direct
1   (Defendants' Exhibit 014 received in evidence).
2   Q. Professor Purtell, looking at the demonstrative exhibit 014
3   can you explain what the first page of the demonstrative
4   reflects.
5   A. Yeah. It shows the information that would be included in
6   the regression analysis as a proxy for crime -- one of the
7   proxies for crime pattern. And it shows that if the stop
8   occurred on the first day of the month, the information that
9   would be used would be from the entire month of December.
10   Q. And the second page of the demonstrative?
11   A. The second page of the demonstrative shows that if the stop
12   occurred on the 31st of the month, you would still be using
13   the December data but you will have ignored everything that
14   happened in January.
15   Q. And what impact is the lag -- the calendar month lag having
16   in Professor Fagan's regression analysis?
17   A. Well the regression analysis assumes that the stop is
18   related in some way, some direct way to the data about crime.
19   And this shows that it is not.
20   Q. You also were critical of Professor Fagan's decision to log
21   the crime data in his models. Why was that?
22   A. Well logging anything reduces the impact of spikes, of any
23   sort of -- short-term, short duration changes in the numbers
24   that are being measured.
25   Q. In his testimony in this trial Professor Fagan stated his

D529flo4   Purtell - direct
1   choice of estimation models controlled for crime spikes which
2   he described as outliers.
3   Do you recall hearing that?
4   A. I do.
5   I disagree with his characterization of crime spikes
6   or any change in data as an outlier.
7   An outlier is an unusual point that's not
8   representative. This is real data. The crime count is the
9   crime count.
10   I also don't -- that class of model allows for --
11 Q. What class of model are you referring to?
12 A. The general estimations equations, the Poisson models, the
13 negative binomial models allow for a fairly wide distribution
14 of data. Logging it simply pulls the right-hand side of the
15 distribution in. It makes it appear to be more compact than it
16 is. But if there is an outlier somewhere in the middle of the
17 data, it makes no adjustments for that outlier.
18 Q. You opined in your second supplemental report in this case
19 that Professor Fagan should have controlled for trends in his
20 regressions. Why is that?
21 A. Well, Professor Fagan has produced what are called --
22   MR. CHARNEY: Objection, your Honor. As to the form
23 of the question. Trends of what?
24   MS. COOKE: Trends of data. The variables included in
25 his regression analyses.

D529flo4   Purtell - direct
1   MR. CHARNEY: Are we talking about every single
2   variable?
3   MS. COOKE: Yes.
4   MR. CHARNEY: Maybe if you could clarify that with
5   your question then.
6   THE WITNESS: Could you repeat the question again.
7   THE COURT: Basically she's saying you opined in your
8   second supplemental report that Professor Fagan should have
9   controlled for trends in the data in doing his regressions.
10   THE WITNESS: I'm sorry, your Honor. I just lost my
11   train of thought there for a second.
12   What Professor Fagan has produced in these models is
13   something called a population averaged effect which means that
14   the results he's reporting is the average result for all census
15   tracts for all time periods without regard to what happened in
16   any individual time period, any individual census tract.
17   You, in fact, can't draw any conclusions about whether
18   majority minority precincts were different from majority white
19   precincts. You simply can't do it. The model doesn't allow
20   you to do that.
21   And it's possible that the results he's seeing could
22   have recur -- occurred in just one period. It's possible that
23   the police have taken action that have reduced the number of
24   stops that might have had a racial component over time. And I
25   know during this period there have been two rounds of training

D529flo4   Purtell - direct
1   for the police in relation to stop, question and frisk.
2   So what we suggested is that he include a variable
3   that tells us how these racial measures and perhaps some of the
4   others change with time. So not only an average result, but a
5   result over time.
6   Because when you look at his analysis of the
7   apparently unjustified, the percentages were coming down. And
8   it's an empirical question as to whether the same thing is
9   happening here.
10   So I would argue, and a lot of people would argue that
11   when you run these models you have to include that, and also
12   some more complex analysis.
13   Q. In his testimony Professor Fagan said that the model he
14   chose to use allowed him to have time variant data. Is that
15   sufficient?
16   A. No. It allowed -- what he said was that the data -- he's
17   allowed to use what's called panel data models. And panel data
18   includes observations about the same unit, census tract, across
19   time. It allows him to do that, but it does not in any way
20   control for the possibility of trends.
21   Q. What is the likely impact of not including those trends?
22   A. It is likely to bias the estimates. It's what's called a
23   missing variable bias. It's likely to bias the estimates of
24   all the other factors in the model.
25   Q. Did Professor Fagan control for the presence of impact

D529flo4   Purtell - direct
1   zones in his regression analyses?
2   A. He did not. I believe in his testimony he said that he
3   didn't need to because the areas he was looking at were so
4   small that it may have covered an impact zone. But if to the
5   extent that different things were happening in impact zones
6   than in other parts of the city, he should have controlled for
7   it because the question of whether impact zones were different
8   and might have had an impact on his measure of racial disparity
9   that's, again, an empirical question.
10   Q. Did Professor Fagan control for the presence of public
11   housing locations in his regression analyses?
12   A. No. In fact, that was surprising to me because I read his
13   report in the Davis case and he makes quite a strong argument
14   about how crime is different and sort of racial patterns and
15   other things are different in public housing.
16   And, again, to the extent that that might have had an
17   impact on crime pattern or it might -- it could impact all of
18   the measures that we've got here. And it is, again, an
19   empirical question.
20   Q. Regarding the element of estimation in the modeling
21   process, you've talked about how you criticized Professor Fagan
22   for not controlling for zero counts. Did you hear Professor
23   Fagan's rejection of that criticism during his testimony?
24   A. I did.
25   Q. He used the batting average example. Do you recall that?

D529flo4   Purtell - direct
1   A. I do, yes.
2   Q. Do you have a response to Professor Fagan's batting average
3   example?
4   A. Yeah. Let me -- if the only issue were calculating
5   someone's batting average, that's a trivial problem and I have
6   no problem with the way he addressed it.
7   But these models are models of process. So if I
8   wanted to understand the hitting process, I would need to look
9   at the things that contributed to a strikeout. And that could
10   be high fast balls, curve balls, right-hand pitchers, left-hand
11   pitchers, type of ball. It could be a hundred things. And in
12   order to get to the point where that batter might get a hit, he
13   has to overcome all those hurdles, all those obstacles to
14   hitting.
15   So the process that is related to strikeouts is
16   different from the process related to hits. And if I wanted to
17   understand the entire process I would need to control for,
18   first, the strikeout piece and then the hitting piece.
19   Q. In his testimony Professor Fagan stated that your expert
20   reports suggested zero counts to be dropped from the analysis.
21   Is that an accurate representation?
22   A. No. We never suggested that.
23   What we suggested was that the zero process should be
24   measured separately. And if you'd like I can extend his
25   batting average example to stops.

D529flo4   Purtell - direct
1   Q. Sure.
2   A. I'll do this not as a policing expert but as somebody who
3   has lived in the city -- lived in the city for 60 years.
4   THE COURT: No. No. I can't allow that.
5   But you did drop the zero observation from your
6   alternative regressions.
7   THE WITNESS: We did, your Honor.
8   THE COURT: You did.
9   THE WITNESS: Just to demonstrate that the process
10 appeared to be different, which suggests that the zero count
11 model should be -- zero count should be modeled separately.
12 And it's modeled using something called the logit model. And
13 then you would model the count process. Without that control,
14 the tendency is to inflate all of the estimates in the either
15 negative binomial or Poisson models.
16 Q. Professor Fagan testified that the models he used
17 controlled for the incidences of zero counts.
18   Do you agree with that statement?
19 A. I think control is a very strong term.
20   They allow you to have data that is bounded by zero
21 but they don't control for zero counts.
22   In fact, statistically one of the -- one of the things
23 you need to do when using these types of models is first to
24 test to see whether the zero process is different. And then
25 you would apply these models using either a zero inflated

1 approach or what's called a hurdle rate approach. And you can
2 apply that to either to a negative binomial model or a Poisson
3 model.
4 Q. Did Professor Fagan do either of those approaches?
5 A. It was not -- from our examination of his code, no.
6 Q. Professor Fagan included what he called tests for
7 robustness in his regression analyses. Do you have an
8 understanding of what he did to test for robustness?
9 A. Yes. He added and subtracted several variables. But he
10 did not, other than changing the location of his analysis, or
11 the time lag in his analysis, he didn't control for any of the
12 other alternative explanations we suggested in our rebuttal.
13 And good statistical practice requires that when you build a
14 model you have to include in the model alternative explanations
15 of the process.
16 Q. Did Professor Fagan address your concerns with the SES
17 variables in his regression analyses and later reports?
18 A. No. They were still frozen in time.
19 Q. You testified that you conducted a number of alternative
20 regression analyses to demonstrate the fragility of Professor
21 Fagan's reported results when suspect description was added.
22 Were there any other issues you found with Professor Fagan's
23 regression analyses?
24 A. Well, we also added the -- a rough estimate of crime mix.
25 And when we added either of those two elements to the model,

D529flo4   Purtell - direct
1 either the size of the already small result went down or the
2 results became statistically insignificant.
3 Q. In your opinion would a trained analyst be comfortable
4 drawing meaningful inferences regarding racial disparate impact
5 from the results Professor Fagan reported?
6 A. No. Although there is strong statistical significance,
7 that is likely to be the result of the large data set that he
8 had.
9   But the small practical significance in those models
10 suggests that -- no, I don't think anybody in the real world
11 would use them to make a decision.
12 Q. Professor Purtell are you familiar with sampling theory?
13 A. I am.
14 Q. Have you taken any course work in that area?
15 A. I've taken course work in probability theory which is the
16 foundation of sampling. And I've also taken course work in
17 qualitative research and qualitative sampling.
18 Q. What is the distinction between qualitative and
19 quantitative sampling?
20 A. Quantitative sampling is the technique used to select
21 specific observations from a larger population. And
22 qualitative sampling is what happens -- is the technique that
23 is used to sample data that is contextual, that is -- sort of
24 text data or information from an interview, or focus group or
25 something like that.

D529flo4   Purtell - direct
1   Q. And are there times where you would be required to use both
2   qualitative and quantitative sampling?
3   A. Yes. In fact, in a number of the projects I did when I was
4   an executive, we would draw samples of population. And then we
5   would go into that sample and contact people, get information
6   from them, take that information, code that information, sample
7   from that information, and try to draw inferences about what
8   these people were saying in some generalized way. Although
9   qualitative sampling really restricts your ability to
10 generalize.
11 Q. Are you aware that Professor Fagan attempted sampling his
12 second supplemental report in this case?
13 A. I am.
14 Q. Did you review the approach that Professor Fagan used to
15 draw the sample in the second supplemental report analysis?
16 A. I did.
17 Q. Were you able to draw any conclusions about how Professor
18 Fagan drew his sample?
19 A. Yes. I'm fairly comfortable that his sample was randomly
20 selected. In fact, I looked at the code and he did what you
21 would normally do.
22   But I have severe reservations about whether that
23 sample was representative.
24 Q. Why is that?
25 A. Well, when you're looking -- the question of why a sample

D529flo4   Purtell - direct
 1 is representative is -- when you ask that question why a sample
 2 is representative, you're asking whether it accurately reflects
 3 the entire population in all material ways. And when we looked
 4 at the make-up of his sample, it was supposed to come from
 5 cases that were not generalizable. 4.9 percent of that sample
 6 was apparently unjustified.
 7   And by definition, if the population was only -- only
 8 included the -- those that couldn't be classified, there should
 9 have been none of the apparently unjustified in it.
10 Q. Were there other ways in which you identified Professor
11 Fagan's sample was not representative of the population it was
12 drawn from?
13 A. Well it was difficult for us to do that because he didn't
14 provide general characteristics of the entire population.
15   But if it's not representative at that gross a level,
16 level suggesting that the population was not what he said it
17 was, I could -- I would be very uncomfortable claiming that it
18 was representative in other dimensions.
19 Q. Do you understand that Professor Fagan claims the example
20 was stratified across crime categories?
21 A. I do.
22 Q. Does that alleviate any of your concerns about the
23 representative nature of the sample?
24 A. No. Because Professor Fagan only stratified his sample in
25 one dimension and that was the reported crime on the U250.

D529flo4   Purtell - direct
1   There are other issues that might have to do with geography,
2   the race of the population, the timing of the sample and other
3   characteristics that would relate to the types of questions he
4   was trying to ask. And he never attempted to stratify the
5   sample in those dimensions.
6   Q. Why would an analyst choose to stratify a sample?
7   A. You would stratify a sample if you thought that certain
8   dimensions of the population were especially important to the
9   analysis you were going to do. And you'd want to make sure
10 that the sample, in fact, represented -- was representative of
11 those important dimensions.
12 Q. In your opinion was Professor Fagan's stratification
13 strategy sufficient for his sample?
14 A. It does not appear to be. Certainly it's only stratified
15 in one dimension and there's so many other things, for example,
16 the text strings would differ from U250 to U250. And by his
17 admissions I think there were, I think, 1.1 million
18 permutations of possible information on the U250s. It would be
19 hard to imagine that any sample like the one he drew could be
20 representative in all of those dimensions.
21   (Continued on next page)
22
23
24
25

D528FLO5   Purtell - cross
1   Q. Did Professor Fagan provide evidence that the assumptions
2   in his stratification sample were sufficient?
3   A. He did not provide any evidence about the stratification
4   strategy.
5   Q. What about the sample size? Professor Fagan drew a sample
6   of 3,710 observations from a population of 84,000, correct?
7   A. That's correct.
8   Q. Is that a sufficient sample size in your opinion?
9   A. Again, Professor Fagan didn't provide any evidence to
10 suggest that it was. He merely drew it and then began to draw
11 inferences from it, but he didn't provide any justification for
12 why that sample might have had statistical power, nor did he
13 report the --
14   THE COURT: That's not quite answering her question.
15 In any body of 84,000 is 3700 a significant sample size, an
16 appropriate sample size, just in a theoretical model?
17   THE WITNESS: I'm sorry, your Honor. The answer to
18 that question would be it could be if it were representative.
19   THE COURT: That's what I would have thought by the
20 way.
21 Q. Why is statistical power important, Professor Purtell?
22 A. Statistical power and the related concept of margins of
23 error are two elements that you have to consider when drawing a
24 sample.
25   So everybody knows the normal example of election

1   polls. You have a poll that comes in that says candidate A was
2   supposed to get 44 percent of the vote, and according to the
3   poll, candidate B would be getting 48 percent of the vote. But
4   then they talk about the margin of error, and they say it's
5   plus or minus 8 percent. So now what I know is that the two
6   candidates are tied in the statistical sense. Statistical
7   power reduces the margins of error and it makes the results
8   drawn from the sample more reliable and more consistent.
9   Q. Did Professor Fagan provide statistical power for his
10   sample?
11   A. He did not provide any measure of statistical power for his
12   sample.
13   THE COURT: I am not sure I understand what
14   statistical power is.
15   THE WITNESS: Your Honor, it would be -- it's
16   something that would enable me to convert the representative
17   nature of the sample into the margins of error. It's the
18   technical -- I apologize. We keep going back to that stuff.
19   It's the technical name for it. The more powerful a sample --
20   THE COURT: More powerful doesn't mean large.
21   THE WITNESS: The more it is representative of the
22   population.
23   THE COURT: Then you're back to representative.
24   THE WITNESS: I will use representative from now.
25   THE COURT: That's the important word.

D528FLO5   Purtell - cross
 1   THE WITNESS: That is the important word.
 2   THE COURT: It's not the size of the sample; it's the
 3   representative nature.
 4   THE WITNESS: That is exactly correct.
 5   THE COURT: So if Nate Silver got it right every time,
 6   that's because he had the best representative sample?
 7   THE WITNESS: Yes. In fact, people that poll for
 8   elections spend enormous amounts of money and time trying to
 9   adjust the way they choose their samples so they can improve
10   their margins of error. And those are closely guarded secrets.
11   Q. In his expert report, did Professor Fagan report a margin
12   of error for his sample findings?
13   A. He did not.
14   Q. Should he have reported a margin of error?
15   A. Yes. Any reasonable analyst would report a margin of error
16   for any estimate drawn from the sample.
17   Q. Did you hear Professor Fagan address margins of error
18   during his trial testimony?
19   A. I did not.
20   Q. Professor Fagan testified that margins of error weren't
21   necessary for his sample. Do you agree with that?
22   A. That's essentially the same as saying that his sample was
23   perfect, that it was perfectly representative in all critical
24   dimensions of the population from which it was drawn. And we
25   know at least 4.9 percent of the sample was not representative.

D528FLO5   Purtell - cross
1 Q. Do you understand Professor Fagan's justification for
2 over-sampling certain crime categories in his 3,710 sample?
3 A. I do.
4 Q. What is your understanding of his justification of that
5 over-sampling?
6 A. Well, he talked about those groups being particularly
7 important to his analysis. An analyst will often over-sample
8 if by over-sampling they can be assured of getting elements in
9 the sample that will improve the degree to which the sample is
10 representative.
11   THE COURT: Say that again.
12   THE WITNESS: An analyst would choose to sample
13 something more than something else because sampling that thing
14 would cause the sample to be more representative.
15   THE COURT: So it's a good thing.
16   THE WITNESS: That's a good thing. But you have to be
17 extraordinarily careful when you choose over-sampling
18 strategies because over-sampling in dimensions that are not
19 important create samples that are not representative.
20   THE COURT: OK. But you agree that if you do it
21 right, it will be more representative.
22   THE WITNESS: Every textbook I have ever read and
23 every piece of work I have ever done, I agree with that.
24 Q. Did Professor Fagan provide information as to why he
25 believed over-sampling the trespass crime category would

 1   improve his sample representation?
 2   A. He did not. In fact, it seemed to me that his
 3   over-sampling was for categories that he believed were
 4   questionable.
 5   THE COURT: In other words, not apparently justified
 6   or apparently unjustified?
 7   THE WITNESS: Yes. They were areas where he was
 8   looking to reclassify something. Since he didn't provide any
 9   justification for the strategy, your Honor, I just --
10   THE COURT: You can't have it both ways. You seemed
11   to have said earlier he shouldn't have included apparently
12   unjustified.
13   THE WITNESS: That should never have been included.
14   THE COURT: So by over-sampling the group that's not
15   classifiable, that's the right thing to do.
16   THE WITNESS: The group that is not classifiable
17   should not have included his apparently unjustified.
18   THE COURT: I understand. But if you over-sample the
19   group that is not apparently justified or apparently
20   unjustified, you're in the right area.
21   THE WITNESS: Except those things were not -- he
22   didn't know that prior to sampling, your Honor. He could only
23   have drawn that inference after he looked at the sample and did
24   the analysis. So he would need ex post knowledge to do that.
25   BY MS. COOKE:

1   Q. It's your understanding that Professor Fagan took the
2   results from his sampling analysis and then applied it back to
3   the population from which it was drawn?
4   A. Yes.
5   Q. In your expert opinion, would an experienced qualitative
6   research analyst be willing to draw the types of conclusions
7   that Professor Fagan drew from that sample?
8   A. There are really two issues here. One is whether even a
9   quantitative analyst would draw those conclusions. But a
10   qualitative analyst would argue that their data is only
11   relevant in the context from which it was drawn. And as
12   Professor Fagan has stated, there are approximately 1.1 million
13   permutations of information on those forms. So qualitative
14   analysts would have been extremely, extremely cautious in
15   trying to draw a broad generalization from a sample of that
16   size and to suggest that it was representative of all other
17   stops within the category he sampled from given all of the
18   permutations that are possible in those.
19   THE COURT: Are you criticizing the size now or again
20   the representative nature?
21   THE WITNESS: All representative nature, your Honor.
22   THE COURT: Not the size per se?
23   THE WITNESS: No. A sample properly structured at
24   that size could work.
25   MR. CHARNEY: Also, just to make the record clear,

D528FLO5   Purtell - cross
1   Professor Fagan testified that he only computed the sample to
2   about 50,000 of the stops, not the entire other categories. So
3   it's not accurate to say that he was trying to compute it to
4   the entire accurate category. I believe the transcript
5   reflects that.
6   MS. COOKE: Professor Fagan's sample was drawn from an
7   84,000 item, and he testified that he couldn't apply it back to
8   the entire universe of 84,000.
9   MR. CHARNEY: He said about 57,000.
10   THE COURT: If the record says 57,000 or so, that's
11   what it was. But it was drawn from the 84,000.
12   MR. CHARNEY: Yes.
13   THE COURT: How much longer is your direct? I'm just
14   curious.
15   MS. COOKE: Maybe four more questions.
16   THE COURT: Great.
17   Q. Professor Purtell, Professor Fagan testified that the text
18   strings that he excluded when analyzing his sample might not be
19   found in the other not generalizable stops and were anomalous.
20   Would you agree with that statement?
21   A. Again, that's an empirical question. The question of
22   whether those text strings were unique and anomalous can only
23   be determined by going back to the sample and doing additional
24   analysis.
25   Q. Did Professor Fagan provide any empirical evidence

D528FLO5   Purtell - cross
 1   supporting his claim?
 2   A. None that I saw.
 3   MS. COOKE: No further questions at this time, your
 4   Honor.
 5   THE COURT: I thought, even though we haven't been
 6   taking an afternoon recess, maybe just five minutes before we
 7   start because one has to concentrate hard.
 8   (Recess)
 9   CROSS-EXAMINATION
10   BY MR. CHARNEY:
11   Q. Good afternoon, Professor Purtell.
12   A. Good afternoon, Mr. Charney.
13   Q. I just want to start, I have a question about something you
14   testified to on direct, at the very beginning of your
15   testimony, with respect to your understanding of which
16   regressions Professor Fagan -- models Professor Fagan used.
17   And I believe you testified that, with respect to the first
18   report, it was not clear to you that he had used a negative
19   binomial regression?
20   A. That's correct.
21   Q. Are you aware that he states in the body of his first
22   report that he used a negative binomial regression?
23   A. If I was, I just didn't recall it at the time. I was
24   looking at the title at the top of the chart and that said
25   general estimating equation.

D528FLO5   Purtell - cross
1   Q. Would you agree with me that in the body of the first
2   report that Professor Fagan did he did specifically mention
3   that he used a negative binomial regression?
4   A. If you're pointing to it, I will agree to it.
5   THE COURT: He says he trusts you.
6   A. I trust you.
7   Q. I want to go to Defendants' Exhibit H13A, which was
8   admitted into evidence. This is your CV.
9   Now, you talked at length about your training in
10 statistics. But you have never taken any courses at the
11 graduate or undergraduate level in policing, correct?
12 A. Correct.
13 Q. And you have never taken any courses at the graduate or
14 undergraduate level in criminology, correct?
15 A. Correct.
16 Q. Nor have you taken any courses at the graduate or
17 undergraduate level that dealt with issues of racial
18 discrimination, correct?
19 A. That's correct.
20 Q. And you have never taught any courses on those topics in
21 your time?
22 A. I need to back up. I did take a couple of policy courses
23 that did touch on issues of racial discrimination.
24 Q. I am going to hand you a copy of your deposition. Do you
25 remember being deposed in case on March 1?

 1   A. Yes.
 2   Q. I will hand this to you.
 3   You swore to tell the truth at that deposition?
 4   A. Yes.
 5   Q. I want to direct your attention to page 13, line 22. I am
 6   going to read the following questions and answers starting at
 7   page 13, line 22.
 8   Actually, we can skip to page 14, line 6.
 9   A. Sorry?
10   Q. Page 14, line 6.
11   A. Right.
12   "Q. What about classes that study discrimination, race
13   discrimination?
14   "A. No."
15   A. Yes. The answer is I never took a full class that studied
16   that, but there were a case or two in one course that I audited
17   that covered the issue.
18   Q. You have never taught any courses at SUNY Albany in
19   criminology?
20   A. No.
21   Q. Or policing?
22   A. No.
23   Q. Or classes that deal with issues of racial discrimination?
24   A. No.
25   Q. Your employment experience, is it fair to say that from

D528FLO5   Purtell - cross
1   1968 to 2005, you worked in the private sector, primarily in
2   the financial industry?
3   A. About two-thirds financial industry and one-third other
4   areas.
5   Q. What were those other areas?
6   A. I worked for Sikorsky Aircraft, a manufacturer of
7   helicopters. I have worked for Eastern Airlines. I spent some
8   time on loan to the City of New York helping with fiscal issues
9   for their Department of Human Services.
10   Q. But none of those positions involved focusing on
11   criminological issues?
12   A. No.
13   Q. Or policing issues?
14   A. No.
15   Q. Or issues related to racial discrimination?
16   A. No.
17   Q. Now, prior to 2006, you never published any studies dealing
18   with policing, correct?
19   A. That's correct.
20   Q. Or racial discrimination, right?
21   A. That's correct.
22   Q. Or criminology?
23   A. Correct.
24   Q. Now, since 2006, you have published, is it five -- not
25   published. You have worked on five statistical studies with

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      D528FLO5                 Purtell - cross
 1    Professor Dennis Smith, correct?
 2    A.  That's correct.
 3    Q.  And those are statistical studies that are related to the
 4    New York Police Department, correct?
 5    A.  That's correct.
 6    Q.  But none of those five studies involved analyzing racial
 7    disparities of any kind?
 8    A.  That's correct.
 9    Q.  In fact, prior to your work in this case, and in the Davis
10    v. City of New York case, you have never conducted a
11    statistical study analyzing racial disparities in police stops,
12    correct?
13    A.  That's correct.
14    Q.  Or any statistical study analyzing racial disparities in
15    any other policing activity?
16    A.  That's correct.
17    Q.  Or a study analyzing racial disparities in any other
18    context, correct?
19    A.  That's correct.
20    Q.  Now, Ms. Cooke asked you a lot of questions about the way
21    or the three -- I guess it was three elements to developing a
22    statistical model?
23    A.  That's correct.
24    Q.  It's correct that when you and Professor Smith work on a
25    project together, you go through these three steps together,
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1 right?
2 A. We do. We spend a significant amount of time on the first
3 step together. We spend a significant amount of time on the
4 second step together. And the third step, I begin to take more
5 of a lead because now we are talking about technical issues and
6 statistics.
7 Q. The first step was describing a situation that you want to
8 analyze in realistic terms, in other words, trying to figure
9 out how to best model the situation in a way that would best
10 reflect reality, right?
11 A. That's correct.
12 Q. So your testimony is that for that step, with respect to
13 the studies you do with Professor Smith, you would rely more on
14 him to take the lead in that area, right?
15 A. That's correct. We have extensive discussions to justify
16 each of the things we do.
17 Q. So with respect to the work you did in this case, in
18 response to Professor Fagan, is it fair to say that Professor
19 Smith took the lead in trying to define the situation that you
20 guys were going to analyze?
21 A. That's correct.
22 Q. Now, you're aware that Professor Smith has prior to this
23 case never conducted a statistical study that analyzes racial
24 disparities in any area of policing?
25 A. That's correct. But it's just another evaluation study.

1   Q. I'm sorry?
2   A. It's effectively just another evaluation study.
3   Q. My question is though -- but you agree with me?
4   A. I agree, yes.
5   Q. I am correct that neither you nor Professor Smith has ever
6   worked as a police officer, right?
7   A. That's correct.
8   Q. Now, of the five studies that you have done with Professor
9   Smith that have focused on the New York Police Department, none
10   of these five studies involved the use of a negative binomial
11   regression, correct?
12   A. Well, actually, the last one we presented at APPAM this
13   year we used a negative binomial regression as a test of
14   robustness, but we did not include in the paper because of some
15   specification issues.
16   Q. Can you please turn to your deposition, page 40, line 16.
17   I am going to read the question.
18   "Q. Did any of those --" and it's referring to the five
19   studies, and I can read earlier if you want to get the context.
20   "Q. Did any of those include or involve negative binomial
21   regressions?
22   "A. No."
23   A. I interpreted that to mean, did we include the results of
24   those analyses in the reports that we wrote?
25   Q. That's how you interpreted the question, did any of those

D528FLO5   Purtell - cross
1 include negative binomial regressions?
2 A. Yes.
3 Q. Now, some of these studies did involve general estimating
4 equations, is that true, some of the five that you did with
5 Professor Smith?
6 A. They include things that could be put in that category,
7 yes.
8 Q. But none of those five used robust standard errors, right?
9 A. No.
10 Q. And you would agree that Professor Fagan did use robust
11 standard errors, correct?
12 A. I would agree, but probably in 90 percent of cases they
13 don't make any difference.
14 Q. But you would agree, right?
15 A. Yes, I would agree.
16 Q. In addition, you would agree that Professor Fagan's
17 analyses that you critiqued in this case involved the use of
18 explanatory variables, right?
19   THE COURT: Involved the use of?
20   MR. CHARNEY: Explanatory variables.
21 A. Yes. Many studies do.
22 Q. But again, the five studies that you have done with
23 Professor Smith did not use explanatory variables, correct?
24 A. They did not report on them, but we did test the impact of
25 explanatory variables prior to writing the report up.

D528FLO5   Purtell - cross
1   MR. CHARNEY: Can you read back that last answer?
2   (Record read)
3 Q. Can you turn to page 130 of your deposition, line 24? I am
4 going to read your answer. I believe you're referring to your
5 analyses.
6   You say, "If you looked at --"
7   MS. COOKE: Can you read the question and answer?
8   MR. CHARNEY: The question is:
9 "Q. So do you and Professor Smith in your work employ this R
10 square test sometimes when there is disagreement about whether
11 you should remove or --
12 "A. If you looked at our underlying equations, they are
13 extremely parsimonious. We don't have explanatory variables."
14 A. Except for intervention variables. That doesn't mean we
15 didn't test for them to make sure they didn't have an effect
16 before reporting. That's standard modeling practice.
17 Q. But even though they are not in your equation?
18 A. They were in some of the analyses we did. They were not in
19 the final model we reported on.
20 Q. So when you say that you don't have explanatory variables
21 in your underlying equations, you're talking about the final --
22 A. That's the final ones after we have done all the model
23 selection efforts. The stack of preliminary analysis we did
24 probably is 150 to 200 pages long. There are many alternative
25 models in there.

D528FLO5   Purtell - cross
1   Q. So I want to talk to you about this critique that you have
2   about Professor Fagan's use of logging of the crime data. You
3   talked about that on direct examination, right?
4   Now, you would acknowledge that logging crime data is
5   actually a common practice amongst criminologists, right?
6   A. I would acknowledge that some people do it and some don't.
7   It has the advantage of scaling data to population without
8   having to scale to population.
9   Q. My question was simply, you are aware that many
10 criminologists do do it, right?
11 A. I am aware that they do. I am also aware that Professor
12 Greenberg in his latest article suggests that it may not be the
13 best thing to do.
14 Q. My question is, you agree that many criminologists do do
15 it?
16 A. From my limited knowledge of the criminal justice
17 literature, yes, not all, some portion of them do use it.
18 Q. You mentioned one scholar who thinks it's a bad idea,
19 right?
20 A. That's correct.
21 Q. Dr. Greenberg.
22   Would it be fair to say that this issue about logging
23 crime data is really just a reasonable disagreement amongst
24 scholars, in other words, some people think it's better to do
25 it that way, some people think it's not better to do it that

D528FLO5   Purtell - cross
1   way?
2   A. The more you're trying to match things to very short
3   periods of time, as there may be significant variations --
4   MR. CHARNEY: I would move to strike that answer.
5   THE COURT: Sustained. That wasn't his question.
6   His question was, some scholars criticize it and
7   others use it. Is that true?
8   THE WITNESS: But that's the same for all things in
9   academic research.
10   THE COURT: As I pointed out earlier.
11   THE WITNESS: You can't get two people to agree on
12   anything.
13   THE COURT: There you go.
14   MS. COOKE: I would raise an objection to the extent
15   that this line of questioning is going to continue around
16   criminal justice scholarly literature. Mr. Charney has raised
17   objections --
18   THE COURT: It's how to conduct the statistical
19   studies. I am going to allow that.
20   MS. COOKE: But to his knowledge of a criminal justice
21   nature.
22   THE COURT: It had to do with conducting statistical
23   studies in that area, which he now has done. So that's fair
24   ground.
25   Ask your next question.

D528FLO5   Purtell - cross
1 BY MR. CHARNEY:
2 Q. You would agree with me that it is a matter upon which
3 people that do this kind of statistical work would have a
4 reasonable disagreement about, right?
5   MS. COOKE: Objection to form. I'm not sure what we
6 are talking about.
7   THE COURT: I have no problem with it. Academics who
8 conduct studies, pollsters who conduct studies, however you
9 want to put it, they disagree at times how to do this, is that
10 true?
11   THE WITNESS: There is disagreement across all
12 academic literature. That's why knowledge moves forward.
13 Q. You can't, to your knowledge, you can't -- you have no
14 basis to conclude that the majority -- the vast weight of the
15 opinions in this field on whether or not to log crime data or
16 not weighs in favor of not logging crime data, right?
17 A. Nor can I say it weighs in favor of logging crime data.
18 Q. So the answer is, no, you can't say that it weighs against
19 logging crime?
20 A. The answer is I can't opine in either direction.
21 Q. Now, with respect to the log crime data critique, would you
22 agree that when you're trying to analyze a pattern of behavior
23 over time, you don't want the interpretation of your results to
24 be overly influenced by a particular spike in a particular
25 short period of time during that study, right?

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D528FLO5              Purtell - cross
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1 A. No.
2 Q. You don't want it?
3   THE COURT: You don't agree with it?
4   THE WITNESS: I don't agree with it.
5 A. If those spikes represent real data, they must be included
6 in the analysis, and any attempt to minimize them can lead to
7 biased estimates. And when we estimated the model in a
8 different way, it showed that it was not robust to change in
9 that specification.
10 Q. Maybe you're misunderstanding my question. My question was
11 not whether or not you think that the spikes should be
12 eliminated or minimized. My question was, you would agree that
13 the spikes should not be -- the interpretation of the results
14 should not be overly influenced by the spikes?
15 A. I would ask what do you mean by overly influenced?
16 Q. I guess I can give you an example.
17   Let's say you're analyzing data for a ten year period,
18 which we are in stops. And let's say there was a three month
19 period after Hurricane Sandy where there were very few stops
20 because there were very few people on the street and there were
21 very few officers patrolling. You wouldn't want what happened
22 in those particular three months to overly influence the way
23 you interpret the other ten years of data, correct?
24 A. What you have just done is identify a very specific thing
25 that happened. And then you're asking me whether I would want

D528FLO5   Purtell - cross
1   to in some way control for that. And the answer is yes, but I
2   would control for it statistically, I would not eliminate it.
3   THE COURT: He didn't ask you if you would eliminate
4   it. He just said you wouldn't want to focus on it.
5   A. I wouldn't want to overweigh it. I would want to know the
6   relative proportions and want to have a way of isolating the
7   impact of that event on the overall estimates.
8   MR. CHARNEY: Just to make the record clear, I never
9   said eliminate. Maybe I am misspeaking.
10 Q. Now, isn't it true that when you're logging the crime data,
11 as Professor Fagan did, you're not ignoring spikes, correct?
12 A. You're minimizing their effect.
13 Q. But you're not ignoring them, right?
14 A. You're not completely ignoring them, but you are not
15 including their full impact in the analysis.
16 Q. OK.
17   THE COURT: How is that?
18   THE WITNESS: When you log a number like 100, the log
19 of 100 is 2. So the difference between 10 and 100 is the
20 difference between 1 and 2 and it's a very small variation.
21   THE COURT: I don't understand what you're talking
22 about.
23   I asked him to explain. I don't really understand
24 this point and you were conferring.
25   MR. CHARNEY: I'm sorry.

D528FLO5   Purtell - cross
1   THE COURT: That's OK. I didn't want him to talk
2   while you were conferring so you couldn't hear his answer. I
3   was saying I don't understand this point about the logging.
4   A. Suppose crimes went from 10 to 100 from one period to the
5   next. If I don't log the data, I have a difference between 10
6   and 100. And remember, it's a relative variation in the
7   variables that determine all of these results. If I log them,
8   I am looking at the difference between number 1 and 2. That's
9   very different.
10   THE COURT: I don't understand.
11   THE WITNESS: The log of 100 is 2. It's a base 10.
12 The log of 10 to the base 10 is 1. So if I log them, I am
13 converting the number 10 to the number 1, the number 100 to the
14 number 2. Now my differences are very small.
15   THE COURT: OK.
16 BY MR. CHARNEY:
17 Q. I just want to go back for a second to your CV and your
18 professional background.
19   We have established that prior to this case you have
20 never conducted a statistical study that analyzes racial
21 disparities, correct?
22 A. That's correct.
23 Q. And you don't see that as a problem with respect to your
24 ability to assess the reliability of Professor Fagan's methods?
25 A. No. You just explained why. Because you asked me about

1 whether I could opine on the reliability of his methods. And
2 that I can do. It's just statistics.
3 Q. Your testimony is that the choice of methods and variables
4 does not depend on the phenomenon that you're studying?
5 A. My testimony is that the model depends upon the process,
6 and then after that you have to operationalize all of these
7 variables correctly. Issues of operationalization are issues
8 of mathematics and statistics.
9 Q. What do you mean by process?
10 A. As I explained, the difference between strikeouts, between
11 batting averages and the hitting process, we are trying -- in
12 this model, you're trying to describe the process the police
13 use to arrive at the decision to stop someone or not stop
14 someone, and then the process that has to do with the number of
15 stops. So it's a process. It's how each one of these things
16 affects that decision process.
17 Q. You would agree that you have no expertise in what that
18 process is, correct?
19 A. Individually, no. But remember, I worked with Professor
20 Smith on this, and we did consult extensively to think about
21 the process and what it might look like. Professor Smith is
22 familiar with the literature. So, remember, it's a joint
23 effort to come up with a model.
24 Q. I understand. And maybe the trouble I am having is again I
25 am trying to understand process. The process that police use

D528FLO5   Purtell - cross
1   to decide to stop somebody, that's the process you're talking
2   about?
3   A.   That's right.
4   Q.   I am having a hard time understanding. Do you mean what
5   factors they consider in deciding whether to make a stop?
6   A.   Right. Which is what you have included -- Professor Fagan
7   included in his model, and we suggested alternative methods
8   that they might include. That's something that would appear in
9   the DOJ, which I have read.
10   Q.   Are you talking about his Fourteenth Amendment or his
11   Fourth Amendment analysis?
12   A.   His Fourteenth Amendment analysis.
13   Q.   So your testimony is that he is trying to define the
14   process of what police officers, what factors they use in
15   deciding to stop people?
16   A.   He is trying to define the process to determine what
17   factors influence those stops, or under what conditions they
18   might stop, one of which happens to be race.
19   Q.   And you would agree that in order to determine what those,
20   or to even have a theory or hypothesis from which to begin your
21   analysis about what those factors are, you would actually have
22   to have a substantive knowledge of the area of policing,
23   correct?
24   A.   Correct. That's why Professor Smith and I worked together.
25   My role was not to analyze these things in a vacuum. I have

 1   someone who has got 30 years of policing analysis experience to
 2   work with.
 3   Q. Wouldn't you also have to have the knowledge of how to
 4   measure statistically racial bias?
 5   A. You mean how do I operationalize that? That's a
 6   statistical issue. That I can do.
 7   Q. If you could just tell me what you mean by operationalize.
 8   A. I mean turn a concept into data.
 9   Q. What I am asking is, before you get there, in other words,
10   you're trying to determine what the situation is on the ground
11   so that you can figure out what variables you want to use?
12   A. Correct.
13   Q. So if you're going to do that with respect to a study of
14   racial bias, don't you have to have experience in studying
15   racial bias?
16   A. You have to have some way of developing the model.
17   Remember, we did all of our analysis based upon what Professor
18   Fagan did, which I assume you believe are valid models to
19   measure racial bias, and we simply offered alternative
20   explanations as to crime pattern and other elements.
21   Q. Wouldn't you agree you also offered what you say are
22   alternative explanations for why the stop patterns look like
23   they look, right?
24   A. Yes. We offered alternative explanations for why stops may
25   have occurred.

D528FLO5   Purtell - cross
1   Q. Your alternative explanations were disputing and
2   discounting the factor of race as a reason for stops, right?
3   A. No. They were trying to make sure that the measure of race
4   was purely measured -- was only measuring race and not some
5   confounding factor.
6   Q. My question is, in order to know how to do that, don't you
7   have to have a substantive understanding of issues of racial
8   discrimination, racial bias by police, how racial bias
9   operates, don't you have to have a knowledge of how that --
10   A. I think what we need to know is how race might impact each
11   of the variables in the equation and how we might isolate it in
12   some ways so that at the end the racial measure actually
13   measures racial bias, or it measures what you claim to be
14   racial bias.
15   Q. To know that, you have to have an understanding of the
16   phenomenon of racial bias, right, how it works?
17   A. Since we are modeling a police decision practice, I need to
18   understand the decision practice, and you measured racial bias
19   as --
20   Q. I didn't measure anything.
21   A. Professor Fagan measured racial bias as the impact measure
22   for percent race. We simply added additional variables that
23   had to do with the policing process that might have influenced
24   those decisions.
25   Q. But you would agree that Professor Fagan has studied racial

D528FLO5   Purtell - cross
1 bias not only in the NYPD, but in capital punishment and other
2 areas of criminal justice, so he has prior experience measuring
3 those kinds of things, right?
4 A. I would agree, but I am not sure I would agree to the fact
5 that he did all of those analyses correctly.
6 Q. That's not my question. My question is he has experience
7 doing such analyses, right?
8 A. I would agree that he has done such analyses.
9 Q. Neither you nor Professor Smith has any prior experience
10 doing those type of analyses, right?
11 A. That's correct.
12   MR. CHARNEY: At this point, plaintiffs would move to
13 preclude the testimony of Professor Purtell. We don't believe
14 he is qualified to opine on these issues.
15   THE COURT: Denied.
16 Q. So let me go back to the log issue.
17   THE COURT: The reason for that ruling primarily is
18 this is a joint effort between him and Dr. Smith, so it's the
19 two brains that is one. So whatever experience he may lack in
20 certain areas, Dr. Smith has, and whatever expertise Dr. Smith
21 might lack, Dr. Purtell might have. So for those reasons, I
22 have already said they are qualified to testify.
23 Q. I just want to make sure I understand. With respect to
24 Professor Fagan's SES factor, which is one of the independent
25 variables -- control variables he used in his analysis, right?

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        D528FLO5                   Purtell – cross
 1      A.  It is one of the elements that he used to explain that
 2      process, correct.
 3      Q.  By process, you mean the process in which officers decide
 4      whether to stop people or not?
 5      A.  Yes.
 6      Q.  I just want to make sure whenever you use the word process
 7      I understand what you are saying.
 8              When you use the word process, can we agree, unless
 9      you say otherwise, you're talking about the decision-making
10      process about whether to stop somebody or not?
11      A.  I think we have a deal.
12      Q.  Thank you.
13              With respect to the SES factor, is it your testimony
14      that he did not include unemployment as a part of that?
15      A.  It's our testimony that he included unemployment, but that
16      the measure of unemployment was frozen at a point in time it
17      wasn't representative, and that unemployment is a highly
18      volatile variable and it's likely to impact the number of
19      people who are not working, which means they could be in other
20      locations, yes.
21      Q.  Let me ask you this.  Professor Fagan did two separate --
22      he ran his analysis -- he actually ran them three times, right?
23      A.  Yes.
24      Q.  And he did them for two different time periods?
25      A.  Correct.
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D528FLO5   Purtell - cross
1   Q. The first time period was 2004 through 2009, right?
2   A. Right.
3   Q. And the second period was 2010 through 2012, right?
4   A. Correct.
5   Q. And for the 2004 to 2009 period, the measure of
6   unemployment that he used was using data from 2006, correct?
7   A. I thought it was the 2007 survey, but it could be. 2007
8   was when the survey was published.
9   Q. For the second study he actually used data from 2010,
10   correct?
11   A. That's correct.
12   Q. So with respect to the first study, is it your testimony
13   that unemployment is going to change so much between 2004 and
14   2007 that the 2007 measure is not going to be a reliable
15   measure?
16   A. Yes. Unemployment changes month by month.
17   THE COURT: He said so much. In other words, of
18   course it changes all the time. But he is saying was the
19   change from 2004 to 2007, do you recall the unemployment
20   statistics during those three years --
21   THE WITNESS: They were actually going down during
22   that period because of the economic growth.
23   THE COURT: They were going down during those years?
24   THE WITNESS: Yes.
25   THE COURT: Then they were going up.

D528FLO5   Purtell - cross
 1   THE WITNESS: It helped young men of color
 2 disproportionately because they were the most likely to be
 3 unemployed.
 4 Q. Are you aware that Professor Smith has stated on previous
 5 occasions that the social and economic conditions in census
 6 tracts don't change that rapidly or dramatically over time?
 7 A. Yes. But I think what he was saying is they do change, and
 8 each one changes in -- they actually change in a relatively
 9 linear fashion. The population changes in a compound growth
10 fashion and the others change in a linear fashion. But the
11 fact is that they do change and those changes are not reflected
12 in the data that Professor Fagan used.
13   THE COURT: How many points in time do you think he
14 has to run it? Does he have to run it monthly, quarterly,
15 annually? How often does he have to do it since it's
16 constantly changing, particularly unemployment? Again, I
17 talked earlier about the perfect being the enemy of the good.
18 How often do you have to run this? It's not an inexpensive
19 process. Do you do it every month, every quarter, every year?
20   THE WITNESS: Running the population data on a monthly
21 basis is just a mathematical issue.
22   THE COURT: It's one variable amongst many. How often
23 would it have to be done for you to be satisfied?
24   THE WITNESS: It would have to match the periods for
25 the analysis.

1   THE COURT: That's not an answer I understand.
2   THE WITNESS: It would have to be monthly.
3   THE COURT: From 2004 through 2012, your view is he
4   had to run this thing every month?
5   THE WITNESS: He had to allow these measures to vary
6   each month.
7   BY MR. CHARNEY:
8   Q. Professor Purtell, have you ever read a study of racial
9   disparities in police stops that uses unemployment data and
10   reevaluates it every month?
11   A. I have actually never read anything much beyond what is in
12   the case.
13   Q. So you have never read a study of racial disparities in
14   police stop patterns other than what Professor Fagan has
15   written in this case?
16   A. That's correct. But in our studies of crime, we have in
17   fact allowed population to vary by month using fitting
18   techniques.
19   Q. But none of your studies address racial disparities, right?
20   A. No. But they are using a lot of the same data sets and
21   making a lot of the same underlying assumptions.
22   Q. You didn't use unemployment in any much your studies,
23   right?
24   A. We did not because unemployment was not a significant
25   variable in any of our studies.

D528FLO5   Purtell - cross
1 Q. And you never used an SES factor?
2 A. No, because they turn out to be co-lineal with a number of
3 other things.
4 Q. Now, I want to ask you about -- if we can pull up
5 Plaintiffs' Exhibit 411. This is Professor Fagan's first
6 report.
7   Actually, that's not right. Let's pull up Defendants'
8 Exhibit T8, which is Professor Smith's and now your November
9 2010 report.
10   MS. COOKE: I would ask that we move this into
11 evidence.
12   THE COURT: Is it in the notebook?
13   MS. COOKE: Yes. It's the second to last tab.
14   MR. CHARNEY: We have no objection.
15   THE COURT: Defendants' Exhibit T8 is received.
16   (Defendants' Exhibit T8 received in evidence)
17   MS. COOKE: It's redacted.
18   MR. CHARNEY: As long as it's the version in the
19 binder, we are fine. There are some redactions pursuant to
20 your Honor's prior rulings.
21 Q. I want to ask you about this.
22   THE COURT: What page is that?
23   MR. CHARNEY: Page 61.
24 Q. Professor Purtell, there is a statement here, "Some of the
25 interpretations of findings in the Fagan report are flawed,

D528FLO5   Purtell – cross
1   such as the reports claim (page 32) that it is also noteworthy
2   that the size of the coefficients for percent black and percent
3   Hispanic are more than three times greater than the size of the
4   coefficient for the crime rate." Do you see that?
5   A. Yes.
6   Q. Now, it's correct that this critique is a critique that you
7   made, right?
8   A. It's a critique that we jointly made, yes.
9   Q. But you remember at your deposition that you testified that
10 at trial you would be the one to testify about this?
11 A. That's correct.
12 Q. So you're referring here to the coefficients that are in
13 the now infamous table 5, right?
14 A. Correct.
15 Q. Of Professor Fagan's report.
16   So let's look at Plaintiffs' Exhibit 411, page 32.
17 Page 32, which I believe is table 5. It might be page 33.
18   You know what, this might be easier to put here, just
19 because I can then it around.
20   So the critique that we just read that you have of
21 Professor Fagan relates to the coefficients in this table,
22 right?
23 A. That's correct.
24 Q. It's your testimony that you cannot compare the magnitude
25 of the coefficients for the various predictor variables here?

1   A.   That's correct.
2   Q.   Now, you're aware that the numbers in brackets are standard
3   errors?
4   A.   That's correct.
5   Q.   You're aware that if -- first of all, you were here for
6   Professor Fagan's trial testimony, right?
7   A.   And I know how to calculate statistical significance.
8   Q.   But you remember him testifying that if you divide the
9   coefficient by the standard error, you can get a sense of the
10   relative magnitudes between these variables, right?
11   A.   Well, I doubt he said that. What you can get by doing that
12   is you can get an idea of the relative statistical significance
13   of those variables. To look at relative magnitudes, he would
14   have to do one of a couple of other things, develop what is
15   called an IRR report or look at the impact of a one standard
16   deviation change in each of the variables and compare that.
17   Q.   But you could measure whether or not one of these variables
18   is more or less statistically significant than another in terms
19   of its predictive ability, right?
20   A.   No. In terms of its statistical significance.
21   Q.   So your testimony is that the number you would get -- first
22   of all, the asterisks already tell us if something is
23   statistically significant?
24   A.   That's correct.
25   Q.   And it already tells us at what level?

D528FLO5   Purtell - cross

1   A. Yes.
2   Q. So your testimony is, if you do the division of the
3   coefficient by the standard error, that's not going to give you
4   a magnitude of the --
5   A. What it gives me is a T statistic and that T statistic has
6   to be compared to a normal distribution to determine the level
7   of statistical significance.
8   Q. But you will get, you call it a T statistic for each of
9   these. And your testimony is that the larger number for a T
10   statistic does not mean that the magnitude of the correlation
11   between that variable and the dependent variable is greater
12   than a variable where the T statistic is smaller?
13   A. It simply means that it has stronger statistical
14   significance, lower probability that it would be a random
15   event.
16   Q. So you're aware then that in table 5, if you did the
17   division for percent Hispanic and percent black, the T
18   statistics for those two variables would be higher than if you
19   did the division for the crime complaints?
20   A. Well, actually, the T statistic for percent Hispanic would
21   be essentially the same as crime complaints, because they both
22   have two stars. They are both at the same level.
23   Q. But I am asking you about the number that you're going to
24   get. Isn't the percent Hispanic number going to be bigger than
25   the number you get when you do the total complaint division?

D528FLO5   Purtell - cross
1   A. It just means it will be slightly -- a larger number would
2   be slightly more statistically significant. All of these
3   things are just convenient points to put on a chart. If I talk
4   about something at the .05 level, it could be .045 or .043, but
5   people would still talk about it being significant at the .05
6   level.
7   Q. But you would agree with me that percent Hispanic and
8   percent black are more statistically significant predictors of
9   the stop volume in a precinct than is the crime complaints
10 according --
11 A. I would not agree with that because the relative strength
12 of those estimates, the statistical significance for percent
13 Hispanic and total complaints are essentially the same. They
14 are all within that margin of error.
15   THE COURT: We are going to stop. It's 4:30. I will
16 see you tomorrow at 10:00. We will go from 10 to 1.
17   (Adjourned to May 3, 2013, at 10:00 a.m.)
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