

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

IN RE READY-MIXED CONCRETE) 1:05-cv-979-SEB-JMS
ANTITRUST LITIGATION)
_____)
THIS DOCUMENT RELATES TO)
ALL ACTIONS)
_____)

The videotape deposition upon oral examination of JOHN C. BEYER, Ph.D., VOLUME I, a witness produced and sworn before me, Patrice E. Morrison, RMR, CRR, Notary Public in and for the County of Marion, State of Indiana, taken on behalf of the Defendants at the offices of Cohen & Malad, LLP, One Indiana Square, Suite 1400, Indianapolis, Indiana, on March 27, 2008, at 9:21 a.m., pursuant to the Federal Rules of Civil Procedure.

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1 A From the author?
 2 Q Uh-huh.
 3 A It depends on the journal. Sometimes they are and
 4 sometimes they are not.
 5 Q Have you ever published in a journal any
 6 peer-reviewed article?
 7 A Yes. One is -- was in the -- both of these are
 8 some time ago -- in the Journal of Economic
 9 Development and Cultural Change, which is published
 10 out of Chicago, University of Chicago, and the
 11 other is the University of Yorkshire; it's a
 12 bulletin of economic studies.
 13 Q How long ago were those?
 14 A In the 1960s or early 1970s, I don't recall without
 15 going to my resume.
 16 Q Are those set forth in the attachment to your
 17 affidavit in this case?
 18 A They probably are, but I don't know for a fact
 19 whether they are.
 20 Q Now, you're not an expert in econometrics, are you?
 21 A I would not put forward myself as an expert in
 22 econometrics, but as an applied micro-economist, I
 23 use econometrics frequently, as do most
 24 micro-economists who are doing empirical work. And
 25 therefore, it is part of what I would consider the

1 arsenal analysis that many economists today use.
 2 Q So you are not an expert in econometrics; is that
 3 correct? Yes or no?
 4 A As a court determines an expert, I would not
 5 proffer myself as an expert. But I would hasten to
 6 add, I use it all the time as a tool of analysis in
 7 applied economics.
 8 Q Other than this case, have you had any experience
 9 in ready-mix concrete?
 10 A Yes.
 11 Q When was that, sir?
 12 A In one -- during one of the summers when I was in
 13 college, which I would like to forget.
 14 Q Were you a hod carrier?
 15 A No. I pulled concrete. And let me tell you, that
 16 is a hard job.
 17 Q I carried hod.
 18 A Good for you. How much did it weigh?
 19 Q It depended on the nature of the mortar and whether
 20 it was going for block, brick, or otherwise.
 21 A And we both got paid probably the same slave wages;
 22 right?
 23 Q I didn't consider it that.
 24 A I got paid slave wages.
 25 Q I didn't consider it that at all. Anyway...

1 A You must have been an union employee.
 2 Q Indeed. International Brotherhood of Hod Carriers
 3 and Laborers.
 4 A See, you were lucky. I couldn't get a card.
 5 MR. SHEVITZ: I can't let the occasion pass,
 6 Dan, without telling you that I, too, at least --
 7 it's questionable whether I'm still a member, but
 8 I, too, was a member of that very same --
 9 MR. BURNS: Is there a secret handshake?
 10 MR. KELLEY: No. But I'll tell you what you
 11 got, you got your medical. Because back then,
 12 about 18, you no longer had medical, no matter what
 13 your parents did. Right?
 14 MR. SHEVITZ: Made a difference.
 15 MR. KELLEY: Excuse us for going this way.
 16 MS. STEINER: Well, I'm just wondering if
 17 you're going to get along now better that you know
 18 you're in the same brotherhood here, so...
 19 MR. KELLEY: I wasn't aware that we didn't get
 20 along.
 21 MS. STEINER: No, no, no.
 22 THE WITNESS: These two.
 23 MR. KELLEY: Oh, us. We get along fabulously.
 24 MR. SHEVITZ: We get along fine, but I decline
 25 to be associated in any brotherhood with

1 Mr. Kelley.
 2 MS. STEINER: For the record.
 3 MR. KELLEY: All right.
 4 Q So other than our rudimentary involvement with
 5 ready-mix, neither you nor I have had any
 6 involvement with ready-mix before this case; right?
 7 A Well, that's not quite the case for me.
 8 Q Okay.
 9 A I don't know about you.
 10 Q Yes.
 11 A One of the important, or the most important raw
 12 material in a ready-mixed concrete is cement, and I
 13 have looked at the cement industry, studied it, not
 14 only in the United States but a number of other
 15 countries around the world.
 16 Q And in regard -- when have you looked at the cement
 17 industry?
 18 A Last year or two.
 19 Q For whom?
 20 A For several different entities, one being a group
 21 of Mexican users of cement, because they were
 22 concerned -- direct purchasers of cement, concerned
 23 that Cemex -- whether there was a concern there or
 24 not, I don't know, but that Cemex was in a monopoly
 25 position in Mexico, and wanted to see if there was

1 the objection out. Object as to form,
 2 mischaracterizes his testimony, mischaracterizes
 3 the report which has citations to lots of other
 4 sources of information.
 5 MR. KELLEY: Concerning the conspiracy?
 6 Go ahead.
 7 A As I said earlier, my understanding of the alleged
 8 conspiracy or cartel is informed -- was informed by
 9 the complaint and by the 302s, the FBI
 10 investigations, interview notes.
 11 Q My understanding of your previous testimony was
 12 that you used the 302s only for the purpose of
 13 informing yourself as to the industry. I
 14 understand from your last answer that is now not
 15 correct.
 16 A No, that's not. I -- in reading the interview
 17 notes for the purpose of understanding the
 18 industry, there were also statements about this
 19 alleged conspiracy.
 20 Q Yes.
 21 A And I did not close my eyes when I came to those
 22 words. I read them.
 23 Q Yes.
 24 A And what the FBI agents included in there, often in
 25 the same paragraph that they're talking about the

1 economic characteristics of the industry and the
 2 product, is about the alleged cartel.
 3 Q Okay. And you relied upon whatever you read in the
 4 302s concerning the conspiracy in coming to your
 5 understanding of the conspiracy for purposes of
 6 your report. Is that correct?
 7 A Let me state it as I said earlier in response to an
 8 almost identical question. I take the cartel as
 9 given. I assume that it existed. I have no choice
 10 at this stage. I'm not doing an independent
 11 investigation of the reality of the cartel, who
 12 participated, when it occurred, and what forms it
 13 took. But I am informed about the allegations,
 14 first, by the amended complaint; and second, which
 15 in this case just happens to occur as I'm informing
 16 myself about the economic characteristics of the
 17 industry, in the interview notes of the 302s that I
 18 read.
 19 Q So did you assume the facts concerning the
 20 conspiracy set forth in the 302s for the purposes
 21 of forming your opinion in this case?
 22 A I don't think one needs to.
 23 Q No, that wasn't my question. I asked if you did.
 24 A I don't recall making a conscious decision that
 25 that was the case. I took the cartel as it

1 existed, as given. That is a framework for my
 2 analysis.
 3 Q As it existed, as given, based on what facts, sir?
 4 A Based primarily on the amended complaint.
 5 Q And the word "primarily" suggests that it was not
 6 exclusive, so what else other than the complaint?
 7 A As the 302 notes were made available to me, and as
 8 I reviewed them for purposes of understanding the
 9 industry, I learned about dimensions of the cartel
 10 that the FBI agents asked the various interviewees.
 11 And therefore, my knowledge, the background, was
 12 expanded.
 13 Q And you relied upon that knowledge for the purposes
 14 of your report.
 15 A No, I could reach the same and did reach the
 16 conclusions I reached without the FBI notes with
 17 respect to the cartel.
 18 Q But you didn't because you had it in your brain.
 19 You couldn't wipe it out; right?
 20 A I did not close my eyes.
 21 Q So you didn't wipe it out.
 22 A I haven't figured out how to do that yet.
 23 Q Okay. So you've answered my question, that you
 24 didn't wipe it out.
 25 A I did not.

1 Q Was there anything that you read in the 302s that
 2 you disregarded about the cartel?
 3 A That I disregarded about the cartel?
 4 Q Uh-huh.
 5 A I can't recall of any specific fact one way or the
 6 other. But I can't recall any that I explicitly
 7 said I'm not going to take this into account, or
 8 I'm going to somehow disregard the reporting of
 9 this.
 10 Q Have you assumed that the conspiracy was
 11 implemented?
 12 A I assumed what is in the complaint for purposes of
 13 my analysis in the report that was submitted in
 14 July of 2007.
 15 Q Did you or did you not assume that the conspiracy
 16 was implemented? Yes or no?
 17 A I didn't assume that it was, other than what is in
 18 the complaint.
 19 Q And what's in the complaint about whether the
 20 conspiracy was implemented, please, sir? Look at
 21 Exhibit --
 22 A Well, the language is that there was a conspiracy.
 23 It's stated as it is a fact.
 24 Q Yes.
 25 A Whether it had an effect, if that's what you're

1 getting at --
 2 Q No. The question is, did you or did you not assume
 3 that the conspiracy was implemented.
 4 A I don't understand that question. As an economist.
 5 I understand the plain words, but I don't, as an
 6 economist, understand that.
 7 Q Well, you understand that some of the defendants
 8 are alleged to have attended meetings at which it
 9 is alleged in the complaint that they agreed to fix
 10 prices.
 11 A I'm aware of that, yes.
 12 Q And my question is, after they left the meeting,
 13 what did you assume with respect to when they went
 14 back to their own shops as to whether they
 15 implemented that conspiracy?
 16 A Nothing, either way.
 17 Q You assumed nothing either way.
 18 A No. The comp- --
 19 Q So we now understand what we mean by --
 20 A May I -- could I --
 21 Q Excuse me. We now understand what we mean by
 22 implemented?
 23 MR. SHEVITZ: Dan.
 24 Q Right?
 25 MR. SHEVITZ: First let him answer.

1 MR. KELLEY: I just want to make sure he
 2 understands my question.
 3 MR. SHEVITZ: No. You're interrupting his
 4 answer.
 5 MR. KELLEY: Excuse me. I just want to make
 6 sure he understood it.
 7 A The only -- the stage --
 8 You want to win a debating contest? Be my
 9 guest.
 10 Q No, I just want to make sure you understand what
 11 you said you didn't understand.
 12 A The effectiveness of the cartel, which has to do
 13 whether or not the members of the alleged cartel
 14 did do something that they agreed to --
 15 Q Agreed to do.
 16 A -- can only -- agreed to do.
 17 Q Okay.
 18 A -- will only come about when there is an estimation
 19 of damages and the demonstration of whether or not
 20 there is impact from this cartel on the prices that
 21 purchasers paid. And that is -- my understanding
 22 is, that will be at a subsequent stage of the
 23 litigation, if there is a subsequent stage of
 24 litigation.
 25 Q Did you consider whether or not any member of the

1 conspiracy said that he had withdrawn from the
 2 conspiracy?
 3 A In some other venue or some other means? No. I
 4 took the complaint as it is -- as it is
 5 articulated, that there are certain firms that
 6 are -- that participated in the alleged cartel.
 7 Q Were you influenced by Mr. Hughey's statements, or
 8 statement, in his 302 that he informed some of the
 9 persons who had been at the meetings that he was no
 10 longer going to participate in the conspiracy
 11 because everybody was cheating?
 12 MR. SHEVITZ: Object to form.
 13 A I don't recall reading explicitly that component of
 14 Mr. Hughey's interview notes or interview. I may
 15 have, but I don't recall reading it.
 16 Q So you can't recall whether or not you were or were
 17 not influenced by reading that.
 18 A Well, I can clearly say I was not influenced since
 19 I'm having trouble even remembering whether or not
 20 I read it.
 21 Q I see. That's an interesting answer. Excuse me.
 22 Do you remember what you remembered in June of
 23 2007 when you --
 24 A As we say in my part of the world, a lot of water
 25 has flown under the bridge since --

1 Q I think I understand your answer.
 2 A -- since July of 2007.
 3 Q When you wrote your report.
 4 A When it was finally signed and submitted, yes.
 5 Q Well, then, when was it you were writing your
 6 report?
 7 A In the months before that.
 8 Q And do you remember what you remembered when you
 9 were writing your report?
 10 A Some of it, yes; some of it, no.
 11 Q So you really can't tell me what you remembered
 12 about the 307s that informed you while you were --
 13 strike 307s -- 302s while you were writing your
 14 report.
 15 MR. SHEVITZ: Seems we all have memory
 16 problems. 302, 307.
 17 A Purely from memory, no. If I were looking at my
 18 report, I could. Because there are specific
 19 citations to specific parts of, at times, very
 20 lengthy interview notes.
 21 Q At the time, though, did you remember anything
 22 about what you had read in the 302s that you didn't
 23 put in your report?
 24 MR. SHEVITZ: Object to form.
 25 A There were parts of the 302s that I read that

1 A Not that I have attempted, that it has been made
2 available. I attempted to collect it beforehand.

3 Q And are you assuming that that is the entirety of
4 the production and sales of ready-mixed concrete in
5 the ten-county area?

6 A The sales by the defendants in the ten-county area
7 does not represent 100 percent of the sales, but
8 close to it.

9 Q And on what do you add the word, or words, quote,
10 close to it, end quote, based on?

11 MR. SHEVITZ: Object to form but I think we
12 get it.

13 A What are those ofs and ins called? There's a word
14 for that.

15 Q I'm asking you about the things you don't know
16 about that you think you know about and, ergo, say
17 close to it now, so what's close to it all about?

18 MR. SHEVITZ: Now I object to form and mean
19 it.

20 MR. KELLEY: Thought I'd give you something.

21 MR. SHEVITZ: And I object to Latin.

22 A From my review of ready-mixed concrete plants that
23 are near but not in the central Indiana area, there
24 are relatively few of them, and many of them are
25 owned by the defendants here, so that is the basis

1 for my statement.

2 Q And how did you become informed as to the
3 ready-mixed plants within the ten-county area that
4 the defendants do not own?

5 A Not within, without it. Outside but not in.

6 Q So it's your understanding that there were no
7 non-defendant-owned ready-mix plants within the
8 ten-county area during the alleged conspiracy
9 period.

10 A I didn't say that.

11 Q So you agree there are, or were?

12 A There may have been.

13 Q There may have been. You don't know about them,
14 though. Is that it?

15 A Well, I attempted to find out, but it's very hard.

16 Q But you don't know of any as you sit here today.

17 A You have one set of materials that identifies,
18 prospectively, two or three firms, but our
19 inability to gain any information from them is an
20 indication that they were small or in existence for
21 a very short time; and therefore were in the
22 totality of this marketplace an insignificant part
23 of the market, generally fringe players.

24 Q And you got all of those conclusions from your
25 inability to gain anything or know anything about

1 them from which you concluded all of those things.
2 Is that it?

3 A I don't understand your question. You like to --
4 you like to be very flamboyant, but why don't you
5 make it in simple English that a good country boy
6 like me can understand.

7 MR. KELLEY: I move to strike your statement
8 as unresponsive to anything, much less reality.

9 Q Now, you have indicated from the absence of
10 knowledge, you concluded certain things, and I'm
11 wondering how, from the absence of knowledge, you
12 can make a conclusion. Would you like for me to
13 read your prior answer as to how I got that?

14 A If there is a supplier in the central Indiana area
15 that is other than a fringe producer, and of any
16 significance, then I would learn about it either
17 through the publicly available knowledge or through
18 the Internet, because firms who are in business
19 want to take advantage of their presence to attract
20 customers.

21 Q Is the term "fringe producer," is that a term of
22 art in economics?

23 A It is used by economists in the field of industrial
24 organization.

25 Q I see.

1 (A discussion was held off the record.)

2 Q Is there a publisher of construction data in the
3 Midwest?

4 A Well, the Midwest, there is a publisher -- there
5 are several publishers of firms who are engaged in
6 the construction industry, and it depends on their
7 locality.

8 Dodge Report is one for the -- really is
9 national in scope, although it reports industries
10 of various firms of various kinds on a more local
11 geographic basis. There are several other industry
12 reports available, most of them national, I just
13 don't recall the name, but most of them are
14 national in scope, but they report industries by
15 states or by local geography because most
16 construction firms that are involved in
17 construction tend to be more local in character.

18 Q What was -- what was the one you mentioned?

19 A Dodge.

20 Q Who publishes that?

21 A I don't know who owns the Dodge Report.

22 Q Is that something you can find online?

23 A You can find it online, too.

24 Q Did you find it online?

25 A Yes.

1 not the construction industry but of construction,
 2 changes that occur over time, both residential and
 3 commercial, which is -- and I did not find in
 4 that -- those indices any substantial difference,
 5 either up or down, from what had been reported in
 6 either the Ready-Mix Concrete Association of
 7 Indiana's Indiana-wide ready-mixed concrete
 8 production, or in the broader measure of GDP in
 9 construction for Indiana.

10 Q Ready Mix Concrete Association numbers that you
 11 just referred to, are they cited in your report?

12 A There's a table in the report, yes. I'm not sure
 13 of the source. I assume -- if I could look at the
 14 report, I can quickly tell you that source.

15 Q I'll show you what's been marked as Exhibit 164,
 16 and ask you if that's your report.

17 A It is.
 18 (Exhibit 164 was marked for identification.)

19 A It's Table 2 in the appendix -- it's referred to in
 20 the text as well, but it shows the source of this
 21 is the National Ready Mix Concrete Association,
 22 which is shown in the table.

23 Q For the whole state of Indiana, if I understand it?

24 A Yes.

25 Q The Bureau of Census data for the nine counties

1 that you say you referred to, is that cited
 2 anywhere in this report?

3 A No, I don't think so. It's more than nine
 4 counties. The statistical -- the standard
 5 metropolitan statistical area of Indianapolis is 11
 6 or 12 counties.

7 Q In a Bureau of Census report of some sort; is that
 8 right?

9 A The Bureau of the Census reports a lot of
 10 information online, and there are various sources,
 11 categories, and --

12 Q Which one did you look at?

13 A The information that's related to SMSAs, standard
 14 metropolitan statistical areas.

15 Q And what report, with respect to that area, was it
 16 that -- or group of statistics was it that you were
 17 relying on?

18 A It was a measure of construction activity in the
 19 SMSA as a whole over a period of time.

20 Q What period of time was this with respect to, sir?

21 A SMSA?

22 Q Yes. That you looked at.

23 A That I -- actually there's quite a history
 24 available for a number of the indices on the SMSA,
 25 but I was focusing mainly from 1999 through 2005.

1 Q According to your investigation, what are the
 2 variable cost components insofar as manufacturing
 3 ready-mixed cement?

4 MR. SHEVITZ: You mean concrete.

5 Q Excuse me, ready-mixed concrete.

6 A It's good that we get the right product.

7 Q It's difficult for a poor old man like me.

8 A I understand that completely. I can identify that.

9 Q Yes.

10 A The largest variable cost is cement. The next
 11 largest variable cost is aggregates, which is a
 12 combination of sand, different size gravel and
 13 stone. And usually the next component will be
 14 labor, that may or may not be a variable cost.
 15 Some of the labor is fixed, or what economists
 16 would consider a fixed cost. Energy tends to be an
 17 important cost, variable cost. And then after
 18 that, the variable costs become numerous but very
 19 small in their proportion.

20 Q And did you make any attempt to determine the labor
 21 and energy costs as you did cement and aggregates?

22 A There are indices available; I didn't report on
 23 them, but if there is an estimation of damages,
 24 most likely labor and energy will be incorporated
 25 along with these two inputs into a variable cost

1 index measured over time. Whether national indices
 2 are used or if we are able to obtain a more
 3 complete set of information, the financial
 4 statements of the defendant suppliers, that will be
 5 determined subsequently. But the data are
 6 available.

7 Q In any event, the variable cost information set
 8 forth in your report, if I understand your
 9 testimony, has nothing to do with respect to the
 10 issue of whether there is common proof of any
 11 impact.

12 A True. It has to do with the feasibility of
 13 estimating damages.

14 Q Did you conduct an investigation concerning what
 15 was, or what were geographic markets for
 16 ready-mixed concrete in the ten-county area?

17 A On a preliminary basis, but I did not define a
 18 relevant geographic market since whether it's
 19 necessary in this particular instance will be
 20 determined by the court of law, and will in any
 21 event be done at a later stage of this litigation,
 22 assuming that there is a later stage.

23 Q So it's your testimony that any determination as to
 24 geographic markets in the ten-county area is not
 25 relevant to the question of whether there's proof,

1 common proof of any impact with respect to any
 2 class member.
 3 A Defining a relevant geographic market is different
 4 from looking at the transportation of ready-mixed
 5 concrete and the effectiveness of suppliers in
 6 price competition with one another, which I do
 7 discuss at some length in my report.
 8 Q I'll ask you again. I have no understanding of
 9 what you just said with respect to my question.
 10 Is it your testimony that any determination as
 11 to geographic markets in the ten-county area is not
 12 relevant to the question of whether there's proof,
 13 common proof of any impact with respect to any
 14 class member?
 15 A Let me try answering in a slightly different way.
 16 Defining a relevant geographic market is not, in my
 17 judgment, a precondition to identifying a common
 18 proof of impact. However, the economics of
 19 transportation of this product do define the
 20 elements of competition of suppliers, and that was
 21 addressed in considerable detail in my report.
 22 Q So is your statement, "defining a relevant
 23 geographic market is not, in my judgment, a
 24 precondition to identifying a common proof of
 25 impact," the equivalent of saying it's not relevant

1 to that inquiry?
 2 A Yes.
 3 MR. KELLEY: Thank God for technology; we
 4 might have never communicated.
 5 MR. BURNS: Dan, you need a bigger screen.
 6 MR. KELLEY: I do.
 7 MR. BURNS: I'm worried about you.
 8 MR. KELLEY: And glasses. I have a hard time
 9 looking at the lines on the screen, it's horrible.
 10 You'd think my partners would buy me a bigger
 11 screen, wouldn't you?
 12 MR. BURNS: I would.
 13 MR. MIXDORF: We heard you're retiring.
 14 MR. BURNS: It's wishful thinking.
 15 MR. SHEVITZ: Of course, the downside of
 16 technology is you spend a lot of your deposition
 17 reviewing the computer screen instead of asking
 18 questions.
 19 Q Is it your testimony that -- excuse me.
 20 Is it your testimony that defining the role of
 21 the product markets is not necessary to the
 22 question of whether there is common proof of any
 23 impact to any class member?
 24 A It is -- it is relevant only in the sense that in
 25 the context of looking at whether or not the

1 defendant suppliers collectively have market power
 2 and whether purchasers of ready-mixed concrete in
 3 the central Indiana area could avoid any -- an
 4 artificial increase in ready-mixed concrete,
 5 assuming a cartel existed, the availability of
 6 substitutes becomes an important question.
 7 If there are substitutes readily available,
 8 then that would question whether -- would raise a
 9 question as to whether or not these defendant
 10 suppliers collectively do have market power. So in
 11 that sense, one is getting to a definition of a
 12 ready -- of a relevant product market by asking the
 13 question, are there substitutes.
 14 Q So you made no study concerning -- strike that.
 15 You made no study in order to establish
 16 whether there were one or more product markets
 17 concerning ready-mixed concrete in the ten-county
 18 area; correct?
 19 A As I understand your question, I did, because I
 20 examined potential substitutes of ready-mixed
 21 concrete and came to a conclusion, as I report in
 22 my affidavit, that there are no substitutes.
 23 If by your question you mean are there
 24 particular components of ready-mixed concrete that
 25 constitute separate, relevant antitrust markets,

1 that's a different question, and I did not
 2 investigate that.
 3 Q "Particular components of ready-mixed concrete,"
 4 what are you referring to?
 5 A Hypothetically, is 3000 psi a distinct, relevant
 6 product market compared to 4000 psi. For
 7 example --
 8 Q Well, let me just ask you a question right now
 9 about that. Is it your opinion that 3000 psi
 10 ready-mixed concrete is a substitute for 4000 psi
 11 ready-mixed concrete?
 12 A Of course not. Once it is made, they cannot be
 13 substitutes, except in rare circumstances.
 14 Q I'm not talking about once it's made. Once it's
 15 made, it better get where it's going. It ain't
 16 substituted for nothing; right?
 17 A Well, then be clear in your questions.
 18 Q Yes.
 19 MR. SHEVITZ: I think it's your turn, Dan.
 20 MR. KELLEY: Yes, indeed.
 21 Q Is it your understanding that --
 22 A I want to make sure I can see you.
 23 Q -- in the sense of the word "substitute," as
 24 economists use it, is it your understanding that
 25 3000 psi is a substitute product for 4000 psi?

1 idea you always went back and watched baseball.
 2 A Any sport.
 3 Q Oh, any sport, okay. I stand corrected. Excuse
 4 me.
 5 A Even the Indiana Colts.
 6 Q You got that wrong, too.
 7 MR. JONES: Indianapolis.
 8 THE WITNESS: Oh, Indianapolis? Okay.
 9 Q Just kind of like Boone County and Hamilton, but
 10 that's all right. Anyway...
 11 Going back to your last answer about two
 12 versus three competitors not always resulting in a
 13 lower price, the necessary predicate for your
 14 answer was the assumption or the potential for
 15 there being a homogeneous product; correct?
 16 A An undifferentiated product, which may or may not
 17 be homo- --
 18 Q An undifferentiated product.
 19 A It may or may not be homogeneous, but it is
 20 perceived by both suppliers and purchasers as being
 21 interchangeable among suppliers.
 22 Q But assuming it's not homogeneous, your answer
 23 would be different.
 24 A Undifferentiated, to me, does not require that the
 25 products be exactly the same, which is homogeneous,

1 but that they be interchangeable; that a purchaser
 2 can buy a given product from any number of
 3 suppliers and be indifferent as to which supplier
 4 does provide the product.
 5 Q So I have to use the word undifferentiated --
 6 correct? -- and then your answer would be
 7 different.
 8 A I don't -- I'm not sure --
 9 MR. SHEVITZ: Why don't you ask the question.
 10 Q Assuming that these products are differentiated
 11 products --
 12 A Undifferentiated.
 13 Q I'm saying let's assume that, with respect to the
 14 two versus three competitors, the product we're
 15 talking about is a differentiated product, not an
 16 undifferentiated product.
 17 MR. SHEVITZ: And just so I'm clear for the
 18 purpose of this hypothetical, have you
 19 hypothetically -- have you identified the
 20 hypothetical product or is that --
 21 MR. KELLEY: No, we haven't.
 22 MR. SHEVITZ: That's fine.
 23 MR. KELLEY: I'll do it.
 24 Q We're going to assume for this purpose that it's a
 25 differentiated product, and if that were the case,

1 the two versus -- or the three versus two
 2 competitors would most likely result in a lower
 3 price -- correct? -- all other things being equal.
 4 A It may or may not, because a differentiated product
 5 may have competition on issues other than price.
 6 Q All right. Did you do any analysis of the
 7 transactions in order to determine whether there
 8 were product markets in the ten-county area?
 9 A Relevant product markets? Clarification. Because
 10 I don't know what you're talking about if it's not.
 11 Q If it's not, quote, relevant product markets?
 12 A Yeah.
 13 Q Well, let's start thataway.
 14 A I think I answered that earlier. Other than
 15 looking at whether there are substitutes to which
 16 purchasers of ready-mixed concrete can turn, as a
 17 way of avoiding artificially elevated prices
 18 assuming that the cartel existed, I did not define
 19 a relevant product market.
 20 Q So you did no analysis of the transaction data --
 21 A No, that's not correct. I did do analysis of the
 22 transaction data but not for that purpose.
 23 Q Well, I hadn't finished my question.
 24 A Oh, I'm sorry. I'm sorry.
 25 Q You did no analysis of transaction data with

1 respect to the question of product markets.
 2 A I did not look at all relevant product markets
 3 other than the availability of substitutes.
 4 Q So you did no statistical analysis with respect to
 5 the question of whether there are product markets,
 6 relevant or otherwise. Is that correct?
 7 A I don't know what you mean by product markets
 8 otherwise. Maybe you could be a little bit more
 9 specific.
 10 Q Did you do any statistical analysis to determine
 11 the existence of product markets in the ten-county
 12 area?
 13 A To me, as an economist, the only -- other than what
 14 the complaint says, and which I accepted as true,
 15 there is a ten-county area called the central
 16 Indiana area in which this cartel took place, that
 17 if there is a need to define markets, it is only in
 18 the antitrust sense that there is a relevant
 19 product and geographic market, and we've already
 20 discussed that. You've asked me a number of
 21 questions and I provided my answers to it.
 22 Q Did you do any statistical analysis to determine
 23 the existence of product markets in the ten-county
 24 area, yes or no?
 25 A As long as the answer is understood in the context

1 Spurlino during the class period came in and
 2 did a project with a portable plant, did it not?
 3 A Yes, it did.
 4 Q So it had gone one step further than Shelby had and
 5 actually used a portable plant.
 6 A During the class period, yes, in the central
 7 Indiana area.
 8 Q And immediately after the class period, as a matter
 9 of fact, bidding as the class period was closing,
 10 Spurlino bid on the new stadium. Are you aware of
 11 that?
 12 MR. SHEVITZ: Object to form. Lack of
 13 foundation.
 14 A I'm not.
 15 Q And are you aware that they bid for some of the
 16 work on the new stadium based on using a portable
 17 plant?
 18 MR. SHEVITZ: Same objection.
 19 A They'd have to have a portable plant because they
 20 had not yet acquired American's assets.
 21 Q Are you aware of it?
 22 A No, I'm not aware of it.
 23 Q But assuming that a competitor were aware of
 24 Spurlino having a portable plant that it was
 25 capable of using in and around the ten-county area,

1 the bidder would have had that in mind and
 2 bid -- his bid would have been influenced by
 3 that fact, all else being equal.
 4 A All else being equal.
 5 Q Like you all say.
 6 A I'm glad you -- like you all say.
 7 Q I've just picked that up from you guys. I've never
 8 heard of all else being equal, but you economists
 9 must because I've heard that time and again.
 10 Excuse me.
 11 A I won't say that. I may say you all, but I don't
 12 say --
 13 Q All else being equal? Okay.
 14 A Spurlino is different than Shelby during the class
 15 period because Spurlino was not, so far as the
 16 complaint alleges, not a member of the alleged
 17 cartel. Spurlino could, and did, bid on large
 18 projects when it would pay for Spurlino to come
 19 into an area with his portable plant.
 20 But the portable plant is not an everyday
 21 occurrence. It is not able to supply, day in and
 22 day out, the multitude of needs of customers in the
 23 central Indiana area. It's a very expensive way,
 24 because of the cost of moving the plant and its
 25 relative inefficiency, for a variety of small

1 customers.
 2 Q So --
 3 A So --
 4 Q Excuse me.
 5 A -- it would only be in those cases where Spurlino,
 6 like Shelby, considered an intensive use of
 7 ready-mixed concrete that a portable facility would
 8 be available.
 9 Q So --
 10 A And only in those cases would Spurlino compete.
 11 Q So it would depend on the nature of the end user
 12 project, so to speak.
 13 A Like Shelby and Central Soya with the grain
 14 elevator, and Spurlino to bid on part of the
 15 ready-mixed concrete requirements of the new dome.
 16 Q So your answer to my question is yes, it would
 17 depend on the nature of the end use.
 18 A Only for the large end use, yes.
 19 Q So your -- thank you. So you'd consider large end
 20 use being a separate product market.
 21 A Would I?
 22 Q Yes.
 23 A No. From what I've seen thus far, no.
 24 Q Would you agree with this statement, that the
 25 production and distribution -- strike that -- the

1 production, distribution, and sale of ready-mixed
 2 concrete for use in large projects is a line of
 3 commerce and a relevant product market?
 4 MR. SHEVITZ: Are you reading from the
 5 complaint, Dan?
 6 MR. KELLEY: Pardon?
 7 MR. SHEVITZ: You appear to be reading from
 8 one of the exhibits, and I wanted you to identify
 9 it, if you could.
 10 MR. KELLEY: I haven't marked this yet.
 11 Sorry.
 12 MR. SHEVITZ: Oh, okay.
 13 MR. KELLEY: Would you like to hear the
 14 question again?
 15 THE WITNESS: Oh, please.
 16 MR. SHEVITZ: My question still stands,
 17 though. Even if it's unmarked, can you identify
 18 the document you're reading from?
 19 MR. KELLEY: No, not yet.
 20 MR. SHEVITZ: Okay.
 21 Q Do you agree with this statement? The production,
 22 distribution, and sale of ready-mixed concrete for
 23 use in large projects is a line of commerce and a
 24 relevant product market?
 25 A What I know -- what I know to this date, and I

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1 haven't analyzed the relevant product markets, as
2 I've stated four or five times already in the
3 deposition, is that I would not agree with that
4 statement.
5 Q Would you agree that the geographic market for
6 large commercial projects of the nature of the
7 15-story hypothetical we used before with the
8 continuous pour, 10,000 yards, would constitute a
9 separate geographic market?
10 A Again, I have not defined relevant geographic
11 market, but from what I know about ready-mixed
12 concrete, the answer is no, I don't agree with
13 that.
14 Q Did you instruct your people to research concerning
15 anything they could find relevant to the issue of
16 ready-mixed concrete product in geographic markets?
17 A No. It was about the economic -- as I said
18 earlier, it's about the economics of transporting
19 and delivering the product, and that's reported on
20 in my affidavit at length.
21 Q Have you read the competitive impact statement by
22 the DOJ in a merger case where the United States of
23 America took on Cemex and the Rinker Group in the
24 southeast?
25 A No.

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1 Q Would you find it authoritative if the competitive
2 impact statement had determined that there were
3 separate product markets with respect to
4 ready-mixed concrete as it applied to large
5 commercial buildings as separate geographic markets
6 in that respect also?
7 MR. SHEVITZ: Object to form. Lack of
8 foundation.
9 A It would depend on the empirical analysis that they
10 did.
11 Q The one that you cited? FTC mention ready-mixed
12 concrete?
13 A In the Phoenix -- I think it was the Phoenix
14 market, yes.
15 Q Right. What backed that up?
16 A Their recitation of the basic facts in the Phoenix
17 market concerning the likely market power that
18 would be acquired by Cemex in its purchase of one
19 of the suppliers, I don't recall the name, one of
20 the large suppliers in the Phoenix market.
21 Q Do you agree that the geographic scope of
22 competition in the ready-mixed concrete industry is
23 circumscribed by the perishable nature of the
24 product?
25 A In broad terms, yes. And I address that in my

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1 report.
2 Q And the travel distance of a ready-mixed concrete
3 truck when it's 50 degrees versus 90 degrees,
4 what's the difference?
5 A The hydration will occur, unless there are systems
6 that are used in the truck or in preheating the mix
7 at the batching plant, will occur more quickly in
8 the colder weather, and therefore the distance to
9 be traveled is less. But -- at least my
10 understanding of the chemistry of concrete. But
11 that just about exhausts my understanding of the
12 chemistry of concrete. I'm not a chemical
13 engineer. I just read what I've -- what's
14 available.
15 Q Are you aware that the travel distance as between
16 50 degrees and 90 degrees is almost 50 percent?
17 MR. SHEVITZ: Object to form. Lack of
18 foundation.
19 A No, I'm not.
20 Q Is it your opinion that the central Indiana area,
21 the ten-county area, is a single relevant
22 geographic market?
23 A Haven't we gone over this exhaustively in the
24 last -- in the deposition already? I'll be glad to
25 answer it again but you'll --

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1 Q I'd like for you to answer that --
2 A -- but you'll strike it as unresponsive and
3 argumentative.
4 Q I would like for you to answer that yes or no.
5 MR. SHEVITZ: And go ahead and answer it
6 however you want.
7 A This morning, I stated --
8 Q No. I didn't get to it this morning, but go ahead.
9 A Well, no, you didn't.
10 Q After lunch.
11 A At some point in this deposition, I stated that I
12 had not attempted to identify or analyze relevant
13 product or geographic markets. I took the
14 geographic area as part of the framework because
15 it's so -- in the amended complaint in terms of the
16 allegations.
17 I also stated that I was not certain that in
18 this case, even at a later stage, that a relevant
19 product or geographic market would need to be
20 identified.
21 MR. KELLEY: Move to strike the answer as
22 unresponsive.
23 Q Is the answer to my question no?
24 A The answer to the question is the answer to the
25 question.

1 Q Are you refusing to give me a yes or no answer. Is
2 that right?
3 A Well, you can take the answer I gave, strike it,
4 whatever you wish, but that's the answer.
5 Q Are you refusing --
6 A And I gave it earlier.
7 Q Are you refusing to give me a yes or no answer to
8 my question?
9 MR. SHEVITZ: Kind of like your client used to
10 do? He's answered the question. You've asked it
11 repeatedly. As you instructed your clients in the
12 earlier depositions, just because you ask the
13 question different times doesn't mean you have to
14 get different answers.
15 MR. KELLEY: I like that one.
16 MR. SHEVITZ: Came from a wise old man.
17 Q So you're not going to give me a yes or no answer.
18 A Repeat the question. I don't -- I've forgotten it.
19 Q Is it your opinion that the central Indiana area,
20 the ten-county area, is a single relevant
21 geographic market, yes or no?
22 A I can't answer that yet because I haven't studied
23 it.
24 Q Thank you.
25 A Which I think I already said many times.

1 Q Are suppliers of concrete differentiated from each
2 other?
3 A In the central Indiana area?
4 Q Excuse me. Yes. Thank you. Much better question.
5 A No.
6 Q Have you heard of spatial differentiation?
7 A I understand those two words. I've not seen them
8 together in this particular context.
9 Q It's not terms that an economist might use.
10 A I've not seen them. I can infer what they might
11 mean in the context of the ready-mixed concrete
12 industry.
13 Q From the standpoint of contractors buying from
14 ready-mix suppliers, you would agree that a plant
15 one mile from a project is differentiated from a
16 plant that's 15 miles from that project.
17 A With or without --
18 Q In the --
19 A With or without a cartel?
20 Q In the eyes of the supplier, either way.
21 A In the eyes of the supplier or the purchaser?
22 Q Excuse me. In the eyes of the purchaser.
23 A With or without a cartel?
24 Q Either way.
25 A Well, without the alleged cartel, if there is price

1 competition and the proximity of supplier A is
2 likely to be -- there is likely to be more price
3 competition because the supplier has more profit,
4 if you will, to reflect in his price.
5 With a --
6 Q So -- excuse me. I don't mean to interrupt. Go
7 ahead.
8 A With a cartel, with the alleged cartel, that price
9 difference is not going to be reflected.
10 Q So in the eyes of the consumer, the contractor for
11 this project, is there differentiation --
12 A What I was --
13 Q Excuse me. Let me finish.
14 -- is there differentiation between the plant
15 one mile from the project and the plant ten miles
16 from the project?
17 A From what I have seen among the purchasers, and
18 admittedly, this is a population of seven
19 purchasers, the answer is no. Because they always
20 looked, and they said they did, except what you
21 read from Mr. Salazar, but there are other parts of
22 his deposition that are relevant also.
23 Q So you think you've got a good sampling of seven on
24 which to base your opinion, is that it?
25 MR. SHEVITZ: Would you let him finish his

1 answer.
2 MR. KELLEY: Yes. Excuse me.
3 THE WITNESS: Thank you.
4 MR. KELLEY: Surely. Proceed.
5 A Purchasers received price bids from more than two
6 suppliers.
7 Q So -- are you through or should I give you a moment
8 to get untangled?
9 A I am. I'm just trying to figure out these
10 different wires going where.
11 Q So is your answer yes or no as to the question of
12 is there differentiation between a plant one mile
13 from a project and a plant ten miles from a project
14 insofar as the purchaser of this concrete is
15 concerned?
16 MR. SHEVITZ: And I'll just interpose the same
17 objection, which he's not required to submit a yes
18 or no answer just to appease the questioner.
19 You've asked him for his opinion and he'll answer
20 accordingly.
21 A With the alleged cartel, it may have no bearing.
22 Without the alleged cartel, it is likely to have a
23 bearing.
24 Q So there will be --
25 A In the form of price competition.

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

IN RE READY-MIXED CONCRETE) 1:05-cv-979-SEB-JMS
ANTITRUST LITIGATION)
_____))
THIS DOCUMENT RELATES TO)
ALL ACTIONS)
_____)

The videotape deposition upon oral examination of JOHN C. BEYER, Ph.D., VOLUME II, a witness produced and sworn before me, Patrice E. Morrison, RMR, CRR, Notary Public in and for the County of Marion, State of Indiana, taken on behalf of the Defendants at the offices of Cohen & Malad, LLP, One Indiana Square, Suite 1400, Indianapolis, Indiana, on March 28, 2008, at 9:08 a.m., pursuant to the Federal Rules of Civil Procedure.

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1 Q And do economists have methods or means of testing
2 conclusions about undifferentiated or
3 differentiated products other than talking to
4 buyers or reading materials?
5 MR. SHEVITZ: Object as to form.
6 A If one has access to the full range of purchasers,
7 there are possible -- possible ways in which
8 surveys can be undertaken and the results of those
9 surveys subjected to various statistical tests. A
10 very costly, seldom done exercise.
11 Q Does the transaction data inform an economist as to
12 anything about homogeneity, undifferentiated, or
13 differentiated products?
14 A By themselves, no.
15 Q Did you rely upon the transaction data in arriving
16 at your opinion as to undifferentiated?
17 A In one sense, yes, where there were records in the
18 transaction data of sales of ready-mixed concrete
19 from one defendant supplier to another, which
20 identifies -- and those are identified in my
21 report; which is one reflection of the
22 interchangeability of the concrete without respect
23 to who produces it.
24 Q Did you rely on anything else in the data, other
25 than the \$50,000 of sales over four years from one

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1 to another?
2 A I relied on them for many things but I think you're
3 asking it about the conclusion concerning -- on
4 undifferentiation, right?
5 Q Yes.
6 A No.
7 Q That would extend to your conclusion about
8 undifferentiated products and the buyers of
9 ready-mix making their decision based on price.
10 MR. SHEVITZ: Object as to form.
11 A Are you asking that about my prior answer?
12 Q Yes.
13 A Yes. That's correct.
14 Q Just to be sure, so that transaction data did not
15 inform you as to whether the purchase and sale of
16 ready-mixed concrete in the ten-county area was of
17 an undifferentiated product, and that the buyers
18 made their decision to purchase based principally
19 on price.
20 MR. SHEVITZ: Object as to form. Asked and
21 answered. Mischaracterizes his former answer.
22 A Other than the swaps that took place, and those
23 were derived --
24 Q The swaps, yes.
25 A -- were derived from the transaction data.

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1 Q You make a statement in paragraph 22 of your report
2 that no supplier was able to successfully brand,
3 and by that I mean no supplier of ready-mixed
4 concrete in the ten-county area was able to
5 successfully brand to gain a pricing premium. Do
6 you recall that?
7 A Yes.
8 Q And on what did you base that statement?
9 A On several sources. First, the depositions of the
10 purchasers. My reading of the suppliers'
11 perception in the marketplace.
12 Q 302s?
13 A 302s. Which is important because they -- a
14 supplier knows the marketplace well, so they know
15 what their purchasers, or the range of potential
16 purchasers want, because they're close to them.
17 Q Anything else?
18 A And the transaction database, because I did -- and
19 you have some examples of this -- selective
20 comparison of pricing, and there did not appear to
21 be any premium that was systematic, consistent on
22 the part of any of the major suppliers.
23 Q Anything else as to no price premium for any
24 supplier based on branding?
25 A Those were the principal sources that I can recall

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1 right now.
2 Q Have you ever been present when --
3 A I'm sorry?
4 Q Have you ever been present when a 302 interview was
5 going on?
6 A No.
7 Q Is a 302 interview something that an economist
8 normally relies upon?
9 A It depends on the circumstances. It's a source of
10 information provided under oath by -- I think it's
11 under oath, from what I understand in reading the
12 302 interviews by the suppliers. And as a source
13 of information, I think it can be relied on.
14 Q Have you ever done that before?
15 A I don't know. I'd have to -- from memory, I don't
16 know.
17 Q And on what do you base your opinion that it's
18 under oath?
19 A By reading -- by reading the comments of the
20 interviewer, or the FBI agent, reminding the
21 interviewee that if you don't provide the truth
22 now, you're going to be in trouble, or something to
23 that effect.
24 MR. SHEVITZ: I think the Beaver brothers may
25 have a view on that issue.

1 MR. KELLEY: You misperceive the issue,
 2 Counsel.
 3 Q What's a price premium?
 4 MR. SHEVITZ: Object as to form.
 5 A A price premium, as I use it in the context of
 6 branding, would be --
 7 THE VIDEOGRAPHER: Excuse me, somebody's got a
 8 BlackBerry on. We need to go off the record.
 9 (A discussion was held off the record.)
 10 THE VIDEOGRAPHER: We are back on the record.
 11 It's 9:53.
 12 Q Pending question, I thought, was, what's a price
 13 premium, in your use of the term?
 14 A Price premium would be where for the exact same
 15 product at a given point in time, a supplier, a
 16 producer of that product, is able to consistently
 17 achieve a higher price, therefore, a premium, than
 18 its erstwhile competitors.
 19 Q And you attempted to determine from the transaction
 20 data whether there was any price premium with
 21 respect to any ready-mix product?
 22 A In part, but that information was already available
 23 to me through a reading of the 302s and the
 24 purchaser depositions, interviews, and in terms of
 25 the third -- the information that was available

1 from the Ready Mix Concrete Association, ASTM, and
 2 others who are providing information about the
 3 ready-mixed concrete industry.
 4 Q They provided -- this latter ASTM and the
 5 associations provided you information as to whether
 6 there was any sale in the Indianapolis area of
 7 ready-mixed concrete at a premium?
 8 A No, not that specific --
 9 Q Thank you.
 10 A -- but when the ASTM says and specifies that every
 11 cubic yard of a certain kind, type of cement, must
 12 meet these specifications, it is defining with very
 13 considerable precision what every supplier must do.
 14 Q Does the ASTM specify the nature of the
 15 relationship of the buyer/seller as to what it's
 16 got to be?
 17 A No, of course not.
 18 Q Does it specify as to the timing of delivery?
 19 A Yes, it does.
 20 Q And does it specify what happens if it isn't
 21 delivered on time?
 22 A No, it does not, but --
 23 Q Does it --
 24 A But the ASTM -- but the ASTM and other
 25 specifications that are put out there, by

1 identifying what should be done in order to have a
 2 particular form of concrete delivered, is a metric
 3 within which the product is manufactured and
 4 delivered.
 5 Q Does the ASTM inform you as to how a buyer is going
 6 to feel if he orders ten trucks at 10:00 and it
 7 doesn't get delivered until 10:05?
 8 A No.
 9 Q And it doesn't tell you that ASTM has a hoot to do
 10 with such a problem; right?
 11 MR. SHEVITZ: Object as to form.
 12 MR. KELLEY: I'll withdraw that question.
 13 Q What transaction data did you examine with respect
 14 to whether any seller of ready-mix in the
 15 ten-county area was getting a premium with respect
 16 to any product?
 17 A I examined the prices by different suppliers for
 18 standard, by which I mean the large purchase or
 19 sale item from each of the suppliers, calculated
 20 average prices, and examined the relationship. And
 21 what I saw -- been a number of both for preparation
 22 of the report and subsequent to it; and what I saw
 23 was the absence of any persistent, as I've just
 24 defined it, price premium by one supplier compared
 25 to others.

1 Q So is there some -- strike that.
 2 I'm trying to get an understanding as to if
 3 you in your own mind as an economist have
 4 parameters for how much a price difference has to
 5 be before it qualifies as a price premium.
 6 A There is no absolute amount. The question is
 7 whether the supplier, whoever it is, is able to
 8 maintain that price premium on a systematic and
 9 sustained basis.
 10 And what I saw is that, recognizing that the
 11 transaction data also reflect changes in volumes,
 12 changes in customer mix, but even so, there are --
 13 there is not any evidence from these large sales,
 14 say, 4000 psi and 6 bag cement, which are the --
 15 two of the largest, or 3000 psi, there is no
 16 sustained price premium by suppliers.
 17 And you have in the material that I provided
 18 yesterday more specific examples, though the work
 19 was done for other reasons, but it shows that the
 20 suppliers were unable to have a sustained premium.
 21 Q The information you're speaking of in your report,
 22 what charts is that on?
 23 A Well, it would be the various price comparisons
 24 that are done, referred to in my report, and then a
 25 series of figures that are presented in the

1 appendix.
 2 Q The information you're talking about is set forth
 3 on Figure 8, 9, and 10, 11; is that correct?
 4 Obviously not the stuff you were referring about
 5 your return to the subpoena yesterday, but insofar
 6 as what's in your report is my question.
 7 A Be Figure 7 through 11, where there is comparison
 8 of the price behavior among two or more suppliers
 9 for a given product.
 10 (A discussion was held off the record.)
 11 MS. WOODS: Can we take a short break?
 12 MR. KELLEY: Why don't we take a break.
 13 MR. SHEVITZ: Sure.
 14 THE VIDEOGRAPHER: We're off the record at
 15 10:02.
 16 (A brief recess was taken.)
 17 (Exhibit 165, Exhibit 166, Exhibit 167, and
 18 Exhibit 168 were marked for identification.)
 19 THE VIDEOGRAPHER: We're back on the record.
 20 This is a continuation, it's 10:19.
 21 Q Let me show you what's been marked as Exhibit 165,
 22 Exhibit 166, Exhibit 167, and Exhibit 168, and ask
 23 you if these are true and correct copies of your
 24 Figures 8, 9, 10, and 11 in your report which you
 25 just pointed out.

1 MR. KELLEY: And Exhibit 165, for the record
 2 and my compatriots here, is -- -65 is 8, -66 is 9
 3 and so on, which --
 4 MR. MIXDORF: Richard, that's all one. Pass
 5 them down.
 6 MS. CELLA: Same one. Here's the next set.
 7 MR. KELLEY: If I'd had time, I would have
 8 collated these for you. I just couldn't get there.
 9 MR. SHEVITZ: Don't interrupt me while I'm
 10 concentrating. It takes my full powers.
 11 A The answer is yes.
 12 MR. SHEVITZ: So this set is 165 through 168;
 13 correct?
 14 MR. KELLEY: Correct. Of Figures 8, 9, 10,
 15 and 11 from his report.
 16 Q In terms of a price premium, the moving average,
 17 would it be fair to state that that distorts
 18 relationships on particular transactions, that is
 19 to say, I can't find individual transactions?
 20 MR. SHEVITZ: Object as to form.
 21 A In none of these figures, whether it's a
 22 three-month moving average or not, you would not be
 23 able to identify individual transactions because
 24 average prices, weighted average prices are being
 25 used in every instance which usually involves a

1 number of purchasers for a given supplier for a
 2 given product.
 3 Q How does the index inform us as to anything about
 4 price premium?
 5 A Well, the index is simply one way of presenting the
 6 information. What -- with respect to price
 7 premiums, what Figures 8, 9, 10, and 11, or
 8 Exhibit 165 through Exhibit 168, reveal is that
 9 there is not a price premium for at least these
 10 products, which are the major products in terms of
 11 dollars or cubic yards by the suppliers in the
 12 central Indiana area.
 13 Q Has the indexing served to disguise anything?
 14 MR. SHEVITZ: Object as to form.
 15 A No. It's a way of presenting -- one could convert
 16 this and present it in terms of actual dollars and
 17 you'd have the same results. An index is a neutral
 18 way of presenting, in this case, price information
 19 over time.
 20 Q So if I -- you said "convert." You mean took the
 21 index out?
 22 A No. It is possible to present all of these -- I'm
 23 not sure all of them are in index form; I guess
 24 they are. In every case, it would be possible to
 25 present this information on dollars per cubic yard

1 basis, because that's the way in which the
 2 underlying data has been calculated.
 3 Q And we'd see the same thing.
 4 A Yes.
 5 Q A three-month moving average, is that an average of
 6 an average?
 7 A In this case, it is.
 8 Q Would you explain that for me?
 9 A Yes. A three-month moving average means that, for
 10 example, the value in May '01 for IMI looks at and
 11 takes the three prior months and calculates that,
 12 so it's a moving -- and the next observation, which
 13 would be June 2001, takes the three observations
 14 prior to that -- the two prior to that and April,
 15 average them, and that becomes the value that is
 16 presented on Figure 8 and so forth.
 17 Q So to make sure I understand, each month you don't
 18 just take all the transactions for the three months
 19 at issue and average them again.
 20 A I'm not sure I understand that.
 21 Q If I got a hundred -- if I got a thousand
 22 transactions in April, a thousand transactions in
 23 May, a thousand transactions in June and a
 24 thousand -- and that's a very poor example. Forget
 25 what I just said.

1 In any event, I think the mathematicians in
2 the background will understand what you said better
3 than I did.

4 Did you do these, or did you and your people
5 do these -- and I'm saying Exhibit 165 through
6 Exhibit 168 -- without an index?

7 A The underlying data is calculated, and you have
8 that.

9 Q I don't think that's my question.

10 A And that's taken from -- well, the underlying --
11 let me --

12 Q I asked what you and your people did.

13 MR. SHEVITZ: He's explaining.

14 A I'm telling you.

15 Q Excuse me.

16 A Yeah. The electronic transaction database for,
17 let's take an example, IMI, for this particular
18 product, has in a given month the sales to
19 particular customers in cubic yards and in dollars.
20 And for that particular month, the cubic yards are
21 added up and the dollars are added up and from that
22 there's a weighted average price.

23 That weighted average price is calculated and
24 then an index has been prepared from that
25 particular data with two thousand -- June 2002

1 equals a hundred.

2 Q Okay. So your answer, as I understand it, is that
3 you literally had to do these, Exhibit 165 through
4 Exhibit 168, without an index before you indexed
5 them, so to speak.

6 MR. SHEVITZ: Object as to form.

7 A Yes.

8 Q Thank you.

9 (Exhibit 169, Exhibit 170, Exhibit 171, and
10 Exhibit 172 were marked for identification.)

11 Q While I'm thinking of it, in the 18 reports that I
12 went through, it appeared to me that you didn't
13 start using the three-month moving average until
14 about the last two, by date. Why was that? And it
15 appeared you were using a monthly moving average
16 before that. That makes no sense -- does it? -- a
17 monthly moving average.

18 A No, it doesn't.

19 Q Thank you. It appeared that you were using, in the
20 earliest ones, clear up through about 12, a monthly
21 average as opposed to a three-month moving average.
22 And so my question is, why did you switch?

23 MR. SHEVITZ: Object to form. Lack of
24 foundation.

25 A I didn't switch due to time. I used a three-month

1 moving average as I have in ready-mixed concrete
2 when the volumes of sales are relatively small and
3 therefore changes in customer mix or in quantity
4 purchased will cause volatility in what appears to
5 be the price, but without reflecting the underlying
6 price.

7 So if each -- if you move from a small -- from
8 one month to the other with a small universe of
9 sales, and the customer mix changes and you sell
10 more at a lower price, larger volumes, less at a
11 higher price, there will be an observed change, but
12 it doesn't reflect a price change.

13 And therefore a three-month moving average is
14 a means to understand better the underlying
15 behavior of prices. Because it's difficult, if not
16 impossible, to hold customer mix and quantities
17 constant.

18 Q Is there some standard as to amounts or volumes
19 that are insufficient by which you move from one
20 month to a three-month?

21 A No. It depends on the behavior of the data. But,
22 for example, there are a number of articles that
23 have been published dealing with national prices --
24 oil and gas products are an example -- where there
25 is a lot of volatility from one month to the next.

1 And the researchers have used either a three- or
2 six-month moving average as a way to understand
3 better the underlying price behavior over time.

4 Q You call oil and gas a homogenous product, right,
5 as opposed to an undifferentiated product?

6 A I haven't studied oil and gas. I would expect
7 that -- my hypothesis is -- would be that it is an
8 undifferentiated product.

9 Q As opposed to a homogeneous product.

10 MR. SHEVITZ: Object as to form.

11 A Undifferentiated, but I haven't studied the oil and
12 gas industry.

13 Q Let me show you Exhibit 169 which is, I'll
14 represent to you, your Figure 8 with the price
15 index removed and ask you to examine that, please.

16 With respect to Prairie's price on this Figure
17 8, the green line, it appears to me that Builder's
18 and IMI regularly receive a price in excess of
19 Prairie's price. Is that correct, Doctor?

20 MR. SHEVITZ: Let me interject for a second
21 just so I'm clear. This Exhibit 169, as I
22 understand it, Dan, is -- the top half of it is a
23 replication of Exhibit 8 from Dr. Beyer's report?

24 MR. KELLEY: Correct.

25 MR. SHEVITZ: And the bottom half of it is a

1 different table that's been prepared by someone
 2 else?
 3 MR. KELLEY: Yes.
 4 MR. SHEVITZ: And who prepared the other
 5 table?
 6 MR. KELLEY: It's just been prepared. We just
 7 took the index out. It's the same data.
 8 MR. SHEVITZ: All right. Well --
 9 MR. KELLEY: We just took the index out.
 10 MR. SHEVITZ: Without having a chance to
 11 review it, I would just -- what I'll do is I'll
 12 just object to any questions based on this document
 13 to the extent that they lack of foundation, we
 14 haven't had a chance to analyze the document or
 15 determine the accuracy of the information.
 16 We'll just have that as a standing
 17 objection --
 18 MR. KELLEY: Sure.
 19 MR. SHEVITZ: -- to the questions here, it
 20 will save me from interrupting each time.
 21 MR. KELLEY: Want to read the question back.
 22 (The requested material was read back by the
 23 reporter as follows: "With respect to Prairie's
 24 price on this Figure 8, the green line, it appears
 25 to me that Builder's and IMI regularly receive a

1 price in excess of Prairie's price. Is that
 2 correct?")
 3 A Yes.
 4 Q With respect to Exhibit 1- -- strike that.
 5 Do you have any reason to believe that
 6 Figure 8 without the price index is not an accurate
 7 representation of the numbers appearing with the
 8 price index, but with it removed?
 9 A Unless I see the data, I can't really say.
 10 Q Let me show you Exhibit 170 which is your Figure 9.
 11 And again, on the bottom of the page index removed,
 12 and ask you to look at that, please.
 13 MR. SHEVITZ: Same objection on my part.
 14 Q Once again --
 15 MR. KELLEY: Did I give him a question or not?
 16 Q With respect to Exhibit 170, once again, Builder's
 17 and Prairie's price, average prices, as it were, on
 18 your three-month moving average, are in excess
 19 of -- strike that. IMI and Builder's are in excess
 20 at all times of Prairie's. Correct?
 21 A That's what the bottom half of Exhibit 170 shows,
 22 yes.
 23 Q Let me show you Exhibit 171, which is the
 24 comparison of your Figure 10 with and without a
 25 price index and ask you to look at that, please.

1 MR. SHEVITZ: Same objection as I raised with
 2 respect to Exhibit 169 and Exhibit 170.
 3 By the way, Dan, earlier you said we removed
 4 the data. Who is the we, if you would be so kind?
 5 MR. KELLEY: I couldn't accurately tell you.
 6 MR. SHEVITZ: Okay. Then my objection is
 7 renewed with even greater vigor.
 8 MR. KELLEY: That's fine. I don't think it
 9 makes any difference who removed it. The question
 10 is whether it was done right. I represent it's
 11 done right.
 12 MR. SHEVITZ: I'm sure you believe it is.
 13 MR. KELLEY: Okay. Well, we'll find out about
 14 it, won't we? You can look at it. He's got it in
 15 his shop because he said he had to do this in order
 16 to do it with an index. He can go back and ask his
 17 people.
 18 Q Have you seen these types of things before, without
 19 the index?
 20 A No. I've seen the underlying raw -- raw data, but
 21 not -- not price comparisons done without an index.
 22 Q You find that informative?
 23 MR. SHEVITZ: Object as to form.
 24 Q Now that you see it?
 25 A What? "That" is what?

1 Q Now that you see these exhibits, do you find them
 2 informative?
 3 A No difference than -- doesn't detract from the
 4 conclusions that I've reached at all.
 5 Q Okay. And on Exhibit 171, once again, Builder's
 6 price is in excess of Shelby's generally, in excess
 7 of IMI's for long periods of time, and all three of
 8 them are -- that being Builder's, IMI, and
 9 Shelby's -- are in excess of Prairie substantially;
 10 right?
 11 A Well, substantially -- you have to look at the
 12 index. Or you have to look at the, I'm sorry, at
 13 the --
 14 Q Price.
 15 A -- vertical.
 16 Q Yeah.
 17 A And substantially here means 2 or \$3, \$4 per cubic
 18 yard.
 19 Q Really?
 20 A It looks like --
 21 Q 58 -- I'm just starting over here on the left-hand
 22 column. Prairie's at 58 and I got two of them up
 23 at 64, and that's 6 bucks; right? On your far
 24 left.
 25 A Well, I see Prairie at 59 and change starting out.

1 Q Yeah. Okay, 5 bucks; right?
 2 A Five bucks, yeah.
 3 Q Yeah. You don't consider, in the ready-mixed
 4 industry, that to be substantial?
 5 A Well, what these -- and this is true with whether
 6 it's presented as an index or as a price, is that
 7 we're not able to hold constant the customer mix
 8 and the quantity being purchased.
 9 Q Okay. Let me show you what has been marked as
 10 Exhibit 172 and ask you to look at that, please.
 11 MR. SHEVITZ: Same objection on my part.
 12 Q And once again, you would agree that, would you
 13 not, that Prairie's price is lower than IMI's at
 14 all times and lower than Builder's at all times;
 15 correct?
 16 A If this -- if the underlying data that have been
 17 used have been used correctly, and I haven't seen
 18 that so I can't tell; and I would say that whoever
 19 prepared this did not take into account the volume
 20 of purchases and the customer mix.
 21 Q Other than the absence of a price premium, did you
 22 use Figures 8, 9, 10, and 11 in your report for any
 23 other purpose?
 24 A Well, I would include -- yes.
 25 Q And what purpose was that, sir?

1 A And that includes Figure 7.
 2 Q Excuse me, Figure 7.
 3 A That, in fact, there -- even with the small volumes
 4 involved, and not holding customer mix and volumes
 5 constant, which we're not able to do, that there
 6 is -- appears to me to be a structure in prices
 7 that -- over time, so that what -- if the cartel --
 8 if the allegations of the cartel are true, then it
 9 would affect all prices of ready-mixed cement
 10 because they all behave similarly.
 11 Economic considerations lead me to that
 12 conclusion even without this price analysis because
 13 it's the same technology, same inputs, and
 14 interchangeable product, and the alleged defendants
 15 have market power which means that the purchasers
 16 could not avoid any artificially elevated prices.
 17 Q So you used these to determine whether there was
 18 price structure; right?
 19 MR. SHEVITZ: Object as to form.
 20 A As I've described in my report, yes.
 21 Q Did you use the concept -- strike that -- a price
 22 structure to test the conclusions you drew in the
 23 investigation?
 24 MR. SHEVITZ: Object as to form.
 25 Q You know, the reading of the complaint, the

1 depositions, so on. ASTM and all the rest.
 2 A I say this in my report and let me say it again.
 3 The analysis of prices confirms -- is a
 4 confirmatory analysis that -- of the investigation,
 5 as you've called it, that leads to conclusions of
 6 an undifferentiated product, interchangeability and
 7 so forth.
 8 Q Is that the same thing as the scientific method of
 9 hypothesis, etc., investigate and trying to test or
 10 confirm?
 11 MR. SHEVITZ: Object as to form.
 12 A It is, but we're having to work -- I'm having to
 13 work with contemporaneous business records of the
 14 defendants, which serve different purposes, and
 15 therefore the availability of information to test
 16 the hypotheses are subject to limitations. And I
 17 express what those limitations are in the report.
 18 Q Limitation of the records, is that what you're
 19 saying?
 20 A Of the electronic transaction database.
 21 Q Yeah. That's in a footnote somewhere; right?
 22 A I don't recall. It probably isn't a big footnote,
 23 if it is a footnote.
 24 Q All right. Well, usually you put that in all your
 25 reports in a footnote. Do you recall that?

1 MR. SHEVITZ: Is there a question?
 2 Q You generally put that caveat in a footnote in
 3 these 18 reports that I read. It's pretty much of
 4 a habit. You don't recall that?
 5 MR. SHEVITZ: Object to form. Lack of
 6 foundation.
 7 A It's not a habit. It's simply dealing with the
 8 reality that the use of these historical business
 9 records, the information that is reported is
 10 intended to serve the purposes of the particular
 11 firms. And sometimes there are limitations in the
 12 kind of information that is recorded. That's fine.
 13 Just have to deal with it and recognize it.
 14 Q And that's the same caveat you put in all those
 15 other reports, isn't it?
 16 MR. SHEVITZ: Object as to form. Lack of
 17 foundation.
 18 A I'm not sure that it is, but I -- you know, one
 19 thing I don't do is go back and review all these
 20 reports.
 21 You've -- you've -- I have to say -- I
 22 shouldn't say this; you have probably -- you are a
 23 unique person in this world. Somebody who --
 24 MR. SHEVITZ: In so many respects.
 25 A In so many respects, yes. But just in terms of

1 having read all these boring reports and
 2 depositions, nobody has ever done that. I haven't
 3 done it.
 4 Q No other attorney has ever asked you to provide all
 5 these for him?
 6 A No.
 7 Q Oh. Actually, it went fairly fast after the first
 8 one. It was quite repetitive.
 9 MR. SHEVITZ: Why don't you wait for the next
 10 question.
 11 Q Like this footnote we're talking about.
 12 A Really?
 13 Q In any event --
 14 THE VIDEOGRAPHER: Excuse me. I have about
 15 five minutes left.
 16 Q With respect to Exhibit 165, Exhibit 166, and
 17 Exhibit 167, could you explain to me how these
 18 exhibits -- well, let's just start with
 19 Exhibit 165. How does Exhibit 165 exhibit price
 20 structure, as you said?
 21 A Over a sustained period of time --
 22 Q Pricing -- excuse me, is it pricing structure or
 23 price structure?
 24 A Price -- the relationship of prices to each other,
 25 so it's a price structure.

1 Q As opposed to pricing structure. I've read your
 2 term "pricing structure" and I've never seen it in
 3 a report as, quote, price structure. And I'm
 4 wondering if there's a difference.
 5 A No.
 6 Q Okay. Thank you. Excuse me. Go ahead.
 7 MR. SHEVITZ: I think I've lost the question,
 8 unfortunately.
 9 Q Tell me about Exhibit 165 and how Exhibit 165
 10 informed you that it shows pricing structure.
 11 A Given the recognition that the volumes of
 12 ready-mixed concrete that is being sold every month
 13 by each supplier is a relatively small quantity and
 14 therefore can be affected or influenced by changes
 15 in composition of customers and volume,
 16 nonetheless, over a sustained period of time,
 17 beginning in September 1999 and at least through
 18 some point in 2004, prices moved in a similar
 19 manner over that five- or six-year period, as for
 20 this product and these particular customers.
 21 Q And is there some calculation that you did to
 22 inform yourself as to this?
 23 A It is a visual observation. The only statistical
 24 test, which is the use of correlation coefficients,
 25 in the end depends upon a subjective interpretation

1 of what is a good, or satisfactory, correlation
 2 coefficient.
 3 Q So your answer to my question is no, you did no
 4 calculation.
 5 MR. SHEVITZ: Once again --
 6 A I don't believe that was your question.
 7 Q My question is, so there is some calculation -- is
 8 there some calculation you did to inform yourself
 9 as to this? The answer to that question is no;
 10 right? You didn't do a calculation.
 11 MR. SHEVITZ: Object as to form. As we've
 12 discussed earlier, the question doesn't have to be
 13 a yes or no answer, it may not lend itself to a yes
 14 or no answer, the witness does not have to appease
 15 you by giving you the answer you're looking for.
 16 He's answered your question.
 17 MR. KELLEY: Not at all. Excuse me.
 18 Q I'll ask you again. Did you do a calculation to
 19 inform yourself as to whether there was price
 20 structure exhibited on Exhibit 165?
 21 MR. SHEVITZ: Asked and answered.
 22 But you can go ahead.
 23 A If you want a yes or no answer, as long as it is
 24 understood that my prior answer is an integral part
 25 of this, no, I did not do a calculation.

1 Q You can't calculate in your eyes, can you?
 2 A But it is a -- visual observation is a standard
 3 procedure in econometrics and price series, and I
 4 can point you to a number of textbooks where that
 5 is pointed -- is identified.
 6 Q What about cointegration?
 7 MR. SHEVITZ: Is there a question?
 8 Q Cointegration.
 9 A Never heard that term.
 10 Q Have you done that ever with respect to testing --
 11 A Do you mean --
 12 MR. SHEVITZ: Let me object as to form and,
 13 also, I'm not even sure it's a question. At least
 14 not -- maybe after you put it all together, add it
 15 up to a question.
 16 MR. KELLEY: No, no.
 17 (A discussion was held off the record.)
 18 MR. KELLEY: If I ask too many questions about
 19 it, I'll get lost like he's going to get lost.
 20 But, anyway...
 21 THE WITNESS: I don't get lost.
 22 MR. KELLEY: Oh, okay.
 23 Q How about cointegration?
 24 MR. SHEVITZ: What's your question?
 25 Q Have you heard the term "cointegration"?

1 A I have not.
 2 Q Pardon?
 3 A I have not.
 4 Q So you wouldn't know how to do a cointegration
 5 test.
 6 THE VIDEOGRAPHER: Are you --
 7 MR. KELLEY: What?
 8 THE VIDEOGRAPHER: Tape.
 9 MR. KELLEY: Oh. Everybody's -- you know, I
 10 thought you were trying to tell me something, too.
 11 MS. SHAPIRO: He is.
 12 MR. KELLEY: I'm kidding. Yeah, he is.
 13 MR. SHEVITZ: And Dan, when he tells you,
 14 probably the most important thing, you have to
 15 listen to him.
 16 MR. KELLEY: Yes, shut down, please.
 17 THE VIDEOGRAPHER: This is the end of Tape 1
 18 of the deposition of Dr. Beyer. We're off the
 19 record at 10:54.
 20 (A brief recess was taken.)
 21 THE VIDEOGRAPHER: We are back on the record.
 22 This is the start of Tape No. 2 of the deposition
 23 of Dr. Beyer. It is 11:04.
 24 Q Back to Exhibit 166, Exhibit 167, Exhibit 168,
 25 which are 9, 10, and 11 from your report, in terms

1 of pricing structure, did you examine those three
 2 exhibits and come to the same conclusion you
 3 testified about with respect to Exhibit 165, or
 4 Figure 8?
 5 A Yes.
 6 MR. SHEVITZ: Object as to form.
 7 A I did, yes.
 8 Q And again, this is a visual thing on your behalf.
 9 A Visual observation.
 10 Q Visual observation. Is there a protocol to this
 11 visual observation?
 12 A It is identified and specified in most of the good
 13 econometrics textbooks that it is one of the first
 14 steps that is done when there is a time series
 15 involved.
 16 Q But it's certainly not the last step, is it?
 17 MR. SHEVITZ: Object as to form.
 18 A As I said in one of my prior answers, the only
 19 other statistical application that I'm aware of is
 20 a correlation -- calculation of the correlation
 21 coefficient, but since there is no objective test
 22 to tell the researcher whether the resulting
 23 correlation coefficient is acceptable or not, that
 24 is a subjective judgment. It doesn't enhance, does
 25 not enhance an understanding about the

1 relationship.
 2 Q So your visual inspection is not governed by any
 3 protocol that anyone else could repeat.
 4 MR. SHEVITZ: Object as to form.
 5 Mischaracterizes the testimony.
 6 A That's correct.
 7 Q So it's subjective also, as you would accuse
 8 correlation of.
 9 A Well, in the end, it is a subjective analysis.
 10 Q Is this -- well, strike that.
 11 As I look upon Exhibit 166, Exhibit 167, and
 12 Exhibit 168, I can find substantial periods of time
 13 where prices of various suppliers are moving
 14 directly opposite each other.
 15 A That's true. What you describe as substantial
 16 periods of time, however, may differ depending on
 17 other observers.
 18 Q I see, okay. I can understand that. The mind is
 19 not the eye, as it were.
 20 A Is that a question?
 21 MR. SHEVITZ: I was going to say --
 22 Q Do you agree with that?
 23 A I didn't understand it.
 24 Q All right. You have closely examined Figure 8, 9,
 25 10, and 11 in your report?

1 A Yes.
 2 Q So it wouldn't surprise you that many of these
 3 lines with respect to each other show -- what's the
 4 term? -- negative correlation?
 5 MR. SHEVITZ: What's your question, Dan? Are
 6 you asking him to define a term?
 7 MR. KELLEY: No. Question mark. Do you want
 8 me to do that again?
 9 MR. SHEVITZ: Yeah. I didn't understand the
 10 question.
 11 MR. KELLEY: Okay. I'll read it again.
 12 A You stated something and put a question mark.
 13 Q Yes. So it wouldn't surprise you that many of
 14 these lines with respect to each other show --
 15 what's the term? -- negative correlation, question
 16 mark.
 17 MR. SHEVITZ: Do you want a definition of
 18 negative correlation?
 19 MR. KELLEY: No. He understands what I want.
 20 A Are you referring to a specific -- a defined period
 21 within -- defined number of months within this
 22 whole period?
 23 Q No, I'm just referring to how you economists would
 24 do a correlation between these lines and the fact
 25 that the correlation probably shows, just from a

1 visual inspection, that these lines can't possibly
 2 be moving in the same, and that's what a negative
 3 correlation would say, isn't it?
 4 MR. SHEVITZ: Object as to form.
 5 Q Over time.
 6 A It may.
 7 Q It may?
 8 A It may.
 9 Q Yeah.
 10 A That's why its value is suspect.
 11 Q You would agree with me that the numbers that go
 12 into the calculation to come up with a correlation
 13 are objective numbers; correct?
 14 A They are -- yes.
 15 Q And the resulting number from the formula is an
 16 objective number; correct?
 17 A It measures what it can measure, but it doesn't --
 18 is not able to hold constant a number of factors
 19 that need to be held constant.
 20 Q No one can dispute that minus 0.10 is an objective
 21 number. Right?
 22 MR. SHEVITZ: Object as to form.
 23 A It is a number.
 24 Q And it is an objective number, isn't it?
 25 A That is a horrible redundancy.

1 Q So we don't even really have to say that, do we?
 2 That it's an objective number, because all numbers
 3 are objective; correct?
 4 MR. SHEVITZ: Is that your question? Whether
 5 numbers are objective?
 6 MR. KELLEY: No. The witness is accusing me,
 7 as rightfully he should, being just a poor country
 8 lawyer dealing with numbers like this, that I asked
 9 a redundant question, and I'm trying to understand
 10 my redundancy.
 11 Q Can you help me?
 12 MR. SHEVITZ: And you proceeded with a long
 13 introduction that I got lost. I'm asking you to
 14 restate your question.
 15 MR. KELLEY: I'll withdraw all that.
 16 Q The numbers that result from the correlation
 17 formulae, as it were, are objective.
 18 MR. SHEVITZ: Object as to form.
 19 A You mean the correlation coefficient.
 20 Q Yes.
 21 A Given the underlying data that are used, yes.
 22 Q Okay. And so what you're arguing about is what
 23 those numbers mean.
 24 A And is it --
 25 MR. SHEVITZ: Object as to form.

1 Q Correct?
 2 A More directly -- that is correct.
 3 Q Thanks.
 4 A More directly -- wait. Let me finish.
 5 Q That's all right.
 6 A More directly it means that in the absence of an
 7 objective test for correlation analysis, the
 8 resulting number is meaningless.
 9 Q Is there any peer-reviewed writing where I could go
 10 and read about your theory of visually eyeballed
 11 determined price structure?
 12 A You mean visual observation?
 13 Q Or eyeballed, however you want to say it.
 14 MR. SHEVITZ: Object as to form.
 15 A I prefer to use it as other authors have used it,
 16 visual observation. You could go to Gujarati in
 17 his textbook, Basic Econometrics; you could go to
 18 William Greene, also basic econometrics; and there
 19 are several others. These are textbooks that are
 20 used in most graduate courses on statistical
 21 analysis.
 22 Q And these are the ones that all talk about
 23 visualization as being the first step; is that
 24 correct?
 25 MR. SHEVITZ: Object as to form.

1 Q It will save a lot of time.
 2 A Gujarati does.
 3 Q And he says, "A visual plot of the data is usually
 4 the first step in the analysis of any time series."
 5 Is that your recollection?
 6 A I don't know if he says it that way, but --
 7 Q Close to it?
 8 A Close to it, yes.
 9 Q Okay. And again, page 807, "Before one pursues
 10 formal tests, it's always advisable to plot the
 11 time series under study. Such plot gives an
 12 initial clue about the likely nature of the time
 13 series." That's what you're referring to, the
 14 initial clue?
 15 A No.
 16 MR. SHEVITZ: Object as to form. I'm kind of
 17 lost.
 18 Q Gujarati.
 19 MR. SHEVITZ: You've quoted from a book and
 20 I'm not sure what your question is to the witness.
 21 MR. KELLEY: Well, he's the one that cited me
 22 the book. I'm just trying to read what the guy
 23 says about it. He's talking about visualization as
 24 being an initial clue.
 25 Q Is that what you're referring to?

1 A If you want to dispute Gujarati, talk to him. It's
 2 a basic textbook --
 3 Q I understand.
 4 A -- that is used widely in universities in the
 5 United States.
 6 Q He talks about your initial visualization as a
 7 clue, does he not?
 8 A If you've read that particular quotation
 9 correctly --
 10 Q The answer would be yes.
 11 A -- yes, but he describes this in a number of places
 12 in his text.
 13 Q The same way, as the first step or the initial
 14 clue; right?
 15 A I don't know. I'd have to look at the rest of his
 16 description of visual observation.
 17 (Exhibit 173, Exhibit 174, Exhibit 175, and
 18 Exhibit 176 were marked for identification.)
 19 Q Let me show you what's been marked as Exhibit 173,
 20 Exhibit 174, Exhibit 175, Exhibit 176, which I'll
 21 represent to you are --
 22 MR. SHEVITZ: Is this a package?
 23 MS. CELLA: Exhibit 173.
 24 MR. SHEVITZ: Okay.
 25 Q -- monthly averages without an index of your Figure

1 8, 9, 10, and 11, and I'd ask you to look at these,
 2 please. And as you look upon them, my question is
 3 going to be, do these lines, in their movement
 4 relative to each other, have the same look that
 5 your three-month indexed moving average does.
 6 MR. SHEVITZ: Before he answers, I haven't had
 7 a chance to look at these. Are these another set
 8 of -- are these documents from his report or are
 9 these documents that have been prepared by you or
 10 someone working under your direction for the
 11 purposes of the deposition?
 12 MR. KELLEY: I'd like to say that I prepared
 13 these documents.
 14 MR. SHEVITZ: That's why I add the --
 15 MR. KELLEY: That would be the world's biggest
 16 accident if that ever happened, but these are
 17 documents that I requested to have prepared based
 18 on Figure 8, 9, and 10.
 19 MR. SHEVITZ: Okay. So I would interpose --
 20 MR. KELLEY: And they used his data for this,
 21 so... I'll represent that.
 22 MR. SHEVITZ: That may be.
 23 MR. KELLEY: Right.
 24 MR. SHEVITZ: I'll interpose the same
 25 objection I did before.

1 MR. KELLEY: Sure.
 2 MR. SHEVITZ: To save time --
 3 MR. KELLEY: Sure.
 4 MR. SHEVITZ: -- will you --
 5 MR. KELLEY: Absolutely.
 6 MR. SHEVITZ: -- stipulate --
 7 MR. KELLEY: Sure. You can incorporate by
 8 reference --
 9 MR. SHEVITZ: Thank you so much.
 10 MR. KELLEY: -- the whole world and any other
 11 objection you might think of overnight.
 12 MR. SHEVITZ: I don't think there will be an
 13 overnight.
 14 MR. KELLEY: Okay.
 15 MR. SHEVITZ: And then also --
 16 MR. KELLEY: You're not going to think about
 17 this tonight?
 18 MR. SHEVITZ: -- I would say that -- further
 19 object to questions about this document because the
 20 document speaks for itself.
 21 MR. KELLEY: Yeah.
 22 Q So have you looked at it?
 23 A Briefly.
 24 Q Exhibit 173, Exhibit 174, Exhibit 175? And my
 25 question is, do they look the same in terms of

1 moving similarly over time as 8, 9, 10, and 11 do
 2 where you indexed and put them in a three-month
 3 moving average?
 4 MR. SHEVITZ: And again I would just object.
 5 The documents speak for themselves. Dr. Beyer has
 6 not had a chance to review them and they say what
 7 they say. He can then offer whatever comments he
 8 has.
 9 MR. KELLEY: Well, I'll wait for him to review
 10 them, because I'd like for -- I want to know about
 11 his visualization technique.
 12 Q We can take a break if you --
 13 A No, not necessary.
 14 Q Okay.
 15 A The reason for using a three-month moving average
 16 is because of the volatility in prices due to
 17 customer and quantity variation from one period to
 18 another. And that's the reason. So there is bound
 19 to be a difference in this. But as I look --
 20 Q Is it going to look different?
 21 MR. SHEVITZ: Please don't interrupt him.
 22 Please don't interrupt him.
 23 A May I finish?
 24 Q Surely. Oh, absolutely.
 25 A Oh, absolutely.

1 Q Please do.
 2 A Please do. I will.
 3 MR. SHEVITZ: Would it be helpful for her to
 4 read back where you were?
 5 THE WITNESS: I know.
 6 MR. KELLEY: He knows where.
 7 A And if you look at --
 8 THE WITNESS: Are we going to talk over each
 9 other?
 10 MR. KELLEY: No, no. I was talking to your
 11 counsel. Excuse me. Go ahead.
 12 A If we look at Exhibit 173, even with the volatility
 13 from one period to the next, these, in my judgment,
 14 these prices are moving similarly over time. They
 15 are increasing and then remaining stable. These
 16 prices are not moving in opposite directions.
 17 Similarly with Exhibit 174, the large declines
 18 in Prairie at several points and increases are
 19 undoubtedly due to changes in composition,
 20 customers or product, the quantities. And thus a
 21 three-month moving average is an attempt to remove
 22 those basic changes. But even without that, what
 23 is happening to prices over the period September
 24 1999 through late 2004 is that the prices are
 25 moving upward and then stable over time.

1 Exhibit 175. Again, the three-month moving
 2 average is a way to take into account non-price
 3 behavior, which is composition of changes. And
 4 without taking -- of customers and quantity of
 5 product mix. So that the observation of Shelby in
 6 particular periods, where there are sharp declines
 7 or increases, is undoubtedly due to compositional
 8 change, and a three-month moving average is
 9 intended to reflect that. But even so, the same
 10 effect is occurring with all prices from the
 11 beginning of the period to mid-2004. There's a
 12 rise and a stabilization in prices.
 13 And in Exhibit 176, my comments would be the
 14 same. There's a need to deal with the volatility
 15 of Prairie observations, which I am confident, by
 16 looking at the data, are due to small volumes and
 17 pronounced changes in customer or -- customer mix
 18 from one month to the next, or in the quantities
 19 that are being sold. But taking that into account,
 20 if you look at the beginning and at the end of the
 21 period, January-May '04, there is a reasonably
 22 similar alignment of these prices over time.
 23 MR. KELLEY: I think I agree with your
 24 counsel; these exhibits speak for themselves. I
 25 have no further questions. Pass the witness.

1 EXAMINATION
 2 BY MS. WOODS:
 3 Q Dr. Beyer, my name is Judy Woods. I represent the
 4 Builder's defendants. I'm going to ask you some
 5 questions about Part IV of your report.
 6 A Can you wait just a moment till I -- I'm not sure
 7 what Part IV is and I just want to --
 8 Q You don't even have to have it in front of you.
 9 We'll get to it. It's -- Part IV is labeled
 10 "Feasibility of Assessing Damages on a Class-Wide
 11 Basis."
 12 A Oh, okay.
 13 Q Okay?
 14 A Okay.
 15 Q All right. I'll just give you that as a point of
 16 reference.
 17 Am I correct that you were charged by the
 18 plaintiffs with attempting to determine whether
 19 there were one or more feasible approaches for
 20 estimating damages on a classwide basis?
 21 A Yes, that was one of --
 22 Q Is that a fair statement of your assignment?
 23 A -- one of two tasks, yes.
 24 Q And you concluded that there were one or more
 25 feasible approaches for estimating damages on a

1 classwide basis; correct?
 2 A Yes.
 3 Q What are they?
 4 A Both -- the ultimate question is whether the price
 5 of ready-mixed concrete during the class period was
 6 artificially higher due to the alleged cartel than
 7 it would be absent the alleged cartel.
 8 Q I asked you what the methods were though.
 9 A I know. And I'm --
 10 MR. SHEVITZ: Judy, please.
 11 A And the most important part of this is estimating
 12 the overcharge, what I refer -- if there is such a
 13 difference. And the approaches to estimating the
 14 overcharge is to use two that I identified in the
 15 report: A temporal benchmark, which means time,
 16 and I define -- identified that as most likely
 17 being the period subsequent to the alleged cartel;
 18 and potentially a geographic benchmark, another
 19 geographic area that is not subject to the alleged
 20 cartel.
 21 Q Have you considered any other approaches for
 22 estimating damages on a classwide basis?
 23 A The use -- the question of the overcharge, that's
 24 ultimately, because the other parts of the damage
 25 estimation are common: The volume of sales, the

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1 to conduct a regression analysis at this point with
2 respect to those factors relative to those items
3 you just listed?
4 MR. SHEVITZ: Object as to form.
5 A That still has to be reviewed, but my preliminary
6 judgment is that additional transaction data for
7 months in the remainder of 2005, for some suppliers
8 who have not provided that, defendant suppliers,
9 and 2006 would probably be required.
10 Q Have you experienced any difficulties in the
11 electronic transaction database with respect to
12 comparability of data from supplier to supplier?
13 MR. SHEVITZ: Object to form.
14 A After the questions and answers which occurred
15 early, prior to the preparation of this report,
16 there may be some still ongoing with American and
17 Builder's, because we received that data fairly
18 recently. But with those exceptions which have
19 been, by and large, answered, no.
20 Q Do you know when the Builder's transactional
21 database was provided to plaintiffs' counsel?
22 A There was an initial set of electronic transaction
23 data that was provided in, I think, sometime in
24 2006 or early 2007. There was a subsequent set of
25 data provided, subsequent to my report, which was

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1 late 2007, early 2008, but I don't -- that is
2 dependent -- is based on my memory.
3 Q Do you know what information was provided by
4 Builder's to plaintiffs' counsel in late 2007 or
5 early 2008?
6 A I believe it was explained to me as a more complete
7 dataset for essentially the same period.
8 Q If there are differences in the electronic database
9 with respect to a particular transaction, let's say
10 there's a difference between the delivery ticket
11 and the invoice, how will you reconcile those
12 differences?
13 MR. SHEVITZ: Object as to form. Calls for
14 speculation. Lack of foundation.
15 A I am relying upon the electronic transaction
16 database, which is a historical record of each
17 supplier's transactions. If there are differences
18 and you wish to point them out at some point, then
19 I will take -- between the ticket that's delivered
20 to the purchaser and the recording of that
21 transaction subsequently by the supplier, I'll take
22 that difference into account.
23 Q How will you do that?
24 MR. SHEVITZ: Object. The same objection. I
25 mean, you're asking him about a speculative

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1 problem, and he's saying he would address it, and
2 now you're asking him how he would address a
3 problem that hasn't been presented to him yet?
4 Q Do you understand the question? If there's a
5 difference between the invoice and the delivery
6 ticket with respect to the amount of concrete
7 delivered in a particular transaction, which are
8 you going to rely on?
9 A I thought I just answered that question. Let me
10 state it again. I will rely upon the electronic
11 transaction data as being an accurate
12 representation of the quantity of cement and the
13 value of the cement represented by the dollars that
14 the invoice shows.
15 And if it turns out that there is a
16 discrepancy between the supplier's historical
17 records and the ticket, then -- and it can be
18 demonstrated that the ticket is a more accurate
19 representation of the quantity and dollars
20 involved, I would -- I would take that into
21 account.
22 Q Do you intend to include the place of delivery as
23 one of the variables to be included in your
24 analysis?
25 A Presently, no.

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1 Q So the place where the concrete was delivered is
2 not going to be included in your regression
3 analysis; correct?
4 A Based -- well, I don't know for a fact, but
5 presently, no.
6 Q You've proposed what you term to be a, quote, fixed
7 effects model; correct?
8 A I may use it. I didn't say I would.
9 Q Tell us what you mean by that term.
10 A A fixed effects model, which is described in most
11 econometric books, is a segment of the regression
12 model which takes into account customer
13 identification, supplier identification, and
14 potentially product identification, and therefore
15 is incorporated -- those variables are specifically
16 incorporated in the analysis.
17 Q Do you intend to run separate regressions by
18 product?
19 A I haven't thought -- if I'm selected, I will
20 obviously address that question. If a fixed
21 effects model is used, probably not, because fixed
22 effects model would be able to take into account
23 price formation for the particular product type,
24 but that is something that is yet to be determined.
25 Q Have you given any consideration as to how you're

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1 others, but this -- those are ones that come to
 2 mind.
 3 Q I'd like you to modify the fixed effects model in
 4 the carbon black case.
 5 A Carbon black -- and again, this is a function of
 6 the industry. Carbon black is produced out of the
 7 same, for a given supplier, out of the same
 8 facility, but it's sold to, broadly, two different
 9 categories of purchasers: Those who manufacture
 10 automobile tires and those who use carbon black in
 11 various other industrial uses.
 12 And because there was a judgment made by me
 13 early on that there might be a differential impact
 14 depending on that end use, automobile and all
 15 other, I divided the fixed effects into these
 16 two -- so there were two: Automobile tires/all
 17 other.
 18 Q Do you have an opinion as to whether or not such
 19 approach would be appropriate with respect to
 20 ready-mixed concrete?
 21 A What I know so far is that it would not. And this
 22 is a function, like I've just explained, of the
 23 technology, the characteristics of the industry.
 24 Q Have you ever critiqued someone else's use of a
 25 fixed effects regression model?

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1 A Yes.
 2 Q On what occasion?
 3 A On the occasion where an expert that is opposite me
 4 has applied, in my judgment, incorrectly a fixed
 5 effects model to the same dataset.
 6 Q Do you recall the case?
 7 A One that comes to mind fairly recently is polyester
 8 staple fibers.
 9 Q Any others?
 10 A I'd have to look again and see, but you have the
 11 reports.
 12 Q Do you agree with me that even if you have a
 13 successful application of a regression analysis,
 14 that, at most, you can only establish a correlation
 15 between the dependent and the explanatory variables
 16 that are specified in the model?
 17 MR. SHEVITZ: Object as to form.
 18 A Multiple regression analysis is not a correlation
 19 analysis. There is an association of a change in
 20 one or more of the independent variables with
 21 changes in the dependent variable, in this case,
 22 the price. And that is not a correlation analysis.
 23 Q Do you agree that regression analysis does not
 24 establish a causal relationship?
 25 MR. SHEVITZ: Object as to form.

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1 A That is correct, though there is considerable
 2 debate in the econometrics profession as to
 3 whether, as a simple statement, that, in fact,
 4 holds.
 5 Q Do you know what a spurious correlation is,
 6 Dr. Beyer?
 7 A Oh, yes. I've had that term thrown at me, I've got
 8 pinholes all over. But I would consider a spurious
 9 correlation to be one where the signs -- multiple
 10 regression analysis, not correlation; where the
 11 signs of the independent variables are contrary to
 12 what one would expect in economics, so it's not
 13 consistent with economic theory.
 14 There may also be extraneous, independent
 15 variables which can lead to artificial results or
 16 spurious results. There are a variety of other
 17 factors that can lead to the same thing, but there
 18 is such a thing as a spurious --
 19 Q In the model that you have suggested as the most
 20 suitable approach to calculating damages in this
 21 class action case, how will you control or take
 22 steps to make sure that there is not a spurious
 23 correlation?
 24 MR. SHEVITZ: Object to form. Lack of
 25 foundation.

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1 A What I would -- the steps I mentioned before, and
 2 I'll just repeat them. And you'd find this in most
 3 econometrics books. If the model is economically
 4 well specified, that means if it comports with
 5 economic theory, if it comports with the particular
 6 industry or subject of the investigation, and if
 7 the data are reasonably -- judged to be reasonably
 8 accurate, then the output of the regression
 9 analysis will tell the researcher whether it is a
 10 good, i.e., a non-spurious result.
 11 And the outputs are the science of the
 12 independent variables, their statistical
 13 significance, and there are objective guidelines
 14 for those, the F-statistics.
 15 Q I'm sorry?
 16 A The F-statistics. And there are also objective
 17 guidelines for those; maybe the R-squared, although
 18 there is not an objective test for the values of
 19 that.
 20 So if the output passes muster by objective
 21 tests, I would say that one can conclude that the
 22 result of the analysis is sound; i.e., not
 23 spurious.
 24 Q What objective tests or guidelines do you propose
 25 would be appropriate in this case?

1 MR. SHEVITZ: Lack of foundation.
 2 A They are the same ones. What I'm describing is a
 3 general approach to the application of multiple
 4 regression analysis, whether it be of the
 5 ready-mixed concrete industry in the central
 6 Indiana area or trying to measure corn yields on
 7 farms in Indiana or trying to look at health
 8 outcomes and explain what makes one area better
 9 than another.
 10 These are all areas in which multiple
 11 regression analysis is applied, and the same set of
 12 considerations also apply.
 13 Q Do you agree that failure to include a major
 14 explanatory variable that's correlated with a
 15 dependent variable may actually cause an included
 16 independent variable to be credited with an effect
 17 that is actually caused by the excluded variable?
 18 MR. SHEVITZ: Object as to form.
 19 A I can't help but observe that that question was
 20 written for you by somebody.
 21 Q Actually it was not.
 22 A Oh, then I apologize. I apologize.
 23 Q Can you answer the question?
 24 A The answer is, it may or it may not.
 25 Q So you don't know.

1 A It is a function of the analysis.
 2 Q But it is possible for that to happen; correct?
 3 A Oh, it's possible, in the sense that everything is
 4 possible, yes.
 5 Q So we come back to the point that you've made a
 6 couple of times and I've made a couple of times
 7 that the success of the multiple regression
 8 analysis to determine damages in a case such as
 9 this really depends on specification of the model;
 10 correct?
 11 A Well, it depends more on the specification. It
 12 also depends on the data, and it depends on the
 13 output that can be tested against objective means,
 14 objective tests, that are used in econometrics.
 15 Q You're familiar, I'm sure, with the interplay among
 16 variables that can be both linear and nonlinear in
 17 regression analysis; correct?
 18 MR. SHEVITZ: Object as to form.
 19 A Potentially, yes.
 20 Q Okay. Have you made any determinations or reached
 21 any conclusions with respect to the need to account
 22 for nonlinearity in a regression analysis for
 23 ready-mixed concrete?
 24 A That is something that would be determined later,
 25 though at this point my investigation of the

1 ready-mixed concrete industry and the demand and
 2 costs suggests that there are no nonlinear
 3 relationships.
 4 Q Okay. Do you expect to find any sort of feedback
 5 loop between your dependent variable, the price,
 6 and any of the explanatory variables that you would
 7 propose to use in this case?
 8 MR. SHEVITZ: Object to form. Lack of
 9 foundation. Calls for speculation.
 10 Go ahead.
 11 A If the model is well specified, there should be no
 12 feedback effects. The independent variables should
 13 be exogenous, or independent, of the price.
 14 Q Now, generally, multiple regression analysis is
 15 used to reject a null hypothesis, that there's no
 16 impact; in this case, we would say there's no
 17 impact from the defendants' alleged cartel behavior
 18 on prices of ready-mixed concrete; correct?
 19 MR. SHEVITZ: Object to form.
 20 A If that were the null hypothesis, it could be
 21 satisfied, and then you would have to -- be able to
 22 interpret the various statistics, what I've
 23 described as a multiple regression output,
 24 accordingly.
 25 Q Is that what you propose to do here?

1 MR. SHEVITZ: Object to form.
 2 A That is usually the way it is done.
 3 Q What I've described is sometimes referred to as a
 4 one-tailed test; correct?
 5 A I did not interpret it that way. It can be done as
 6 a one-tailed test, but quite often, and what we
 7 would be looking at here, is probably a two-tailed,
 8 or imposing the threshold of statistical
 9 significance of a two-tailed test.
 10 Q Is that what you would propose to use here, would
 11 be a two-tailed test?
 12 A I probably would unless I had reason to the
 13 contrary. There have been a few cases where, in
 14 the nature of the multiple regression analysis, the
 15 test has been one tail.
 16 Q And what would be the alternative hypothesis you
 17 would propose for your two-tailed test?
 18 MR. SHEVITZ: Calls for speculation.
 19 A It is -- it is the level of significance that is
 20 imposed by a two-tailed test. A one-tailed test,
 21 if it were to apply, could be 90 percent, for
 22 example; passes a test that is generally accepted
 23 within the social sciences as being a suitable
 24 test. A two-tailed test is more rigorous. It is
 25 95 percent. That's really --

1 Q Which do you propose to use?
 2 MR. SHEVITZ: Same objection.
 3 A Unless -- I just answered that question. Unless
 4 there is something that is -- that I don't know at
 5 present, it is to use the two-tailed test, to the
 6 95 percent, as a means of testing the statistical
 7 significance of each independent variable.
 8 Q You would agree that if you're able to reject the
 9 95 -- reject with 95 percent competence levels a
 10 null hypothesis that cartel behavior affected price
 11 in this case, that that still does not establish
 12 legal liability.
 13 MR. SHEVITZ: Object to form. Calls for
 14 speculation. Calls for a legal conclusion.
 15 A In measuring the damages, which is what we've been
 16 talking about and what I've discussed in my report,
 17 I am taking as given the alleged cartel, as it is
 18 identified in the complaint.
 19 I'm not intending that, and I don't think
 20 other economists, if they're involved, would intend
 21 to use the regression results and interpret them as
 22 a means of expressing opinions about the presence
 23 or absence of the cartel.
 24 Q So the answer is yes; correct?
 25 MR. SHEVITZ: Objection. Asked and answered.

1 You don't have to give a yes or no answer to
 2 please the questioner.
 3 A You would have to repeat the question again.
 4 Q She can read it back if you need to hear it again.
 5 A Yes.
 6 (The requested material was read back by the
 7 reporter.)
 8 MR. SHEVITZ: Same objection.
 9 A If it's under- -- if my answer is understood in the
 10 context of the previous answer, yes.
 11 Q Now, would you agree with me that the results of
 12 any particular regression analysis would be
 13 sensitive to even a slight variation in the
 14 specification of the independent variables?
 15 MR. SHEVITZ: Lack of foundation. Calls for
 16 speculation.
 17 A I don't know how to answer that. A slight
 18 difference.
 19 Q One variable, two variables.
 20 A With the addition of one variable, if you consider
 21 that slight, may make a tremendous difference in
 22 the outcome.
 23 Q And isn't the same true, isn't it true that the
 24 results of a regression analysis can also be
 25 sensitive to differences in measurement of those

1 variables? In other words, differences in the
 2 data.
 3 MR. SHEVITZ: Same objection.
 4 A For the same -- same variable? For example, if --
 5 if housing permits are used as a demand variable
 6 for the ready-mixed concrete, are you asking the
 7 question, if two different researchers measure that
 8 variable and get different --
 9 Q In a different way. That can have an effect on the
 10 outcome; correct?
 11 A It could and it couldn't. It may not. Depends on
 12 how large the difference is.
 13 Q Now, do you propose to do a regression analysis in
 14 this case? Or let me ask you this a different way.
 15 Strike that.
 16 Do you think that the most suitable regression
 17 analysis for assessing damages on a classwide basis
 18 in this case would be one that used the entire
 19 population of transactional data, or used some
 20 subset?
 21 MR. SHEVITZ: Same objections.
 22 A Define -- tell me what you have in mind about the
 23 entire transaction.
 24 Q In other words, are you going to use all the
 25 transactional data that has been supplied to you by

1 the defendants in this case or are you going to do
 2 some sampling of the transactional data to --
 3 MR. SHEVITZ: Again, calls for speculation.
 4 Go ahead.
 5 A Because of the ease of working with the data once
 6 it is in electronic form, the data will be used in
 7 their entirety for the relevant periods.
 8 However, just to make sure that it's clear, it
 9 is unlikely that I would include data prior to the
 10 alleged class period because -- even though it is
 11 available for some but not all of the suppliers;
 12 because, as I've said earlier, that may be affected
 13 by statements that there was explicit coordination
 14 of prices in that prior time period.
 15 Q Are you concerned at all in conducting the type of
 16 regression analysis that you've proposed for this
 17 case about how to control for outliers in the data?
 18 In other words, aberrant data points?
 19 MR. SHEVITZ: Object to form. Calls for
 20 speculation.
 21 A One of the standard procedures that I and Nathan
 22 Associates use is to remove outliers through a
 23 standard approach. Usually it is three standard
 24 deviations from the mean over which the -- the mean
 25 of the period that it is used, and therefore

1 outliers are removed. I don't -- if somebody else
 2 is doing this analysis, I don't know. But what --
 3 Q Is that what you would propose to do in this case
 4 if you were doing the analysis --
 5 MR. SHEVITZ: Same objection.
 6 Q -- is remove three data points that are more than
 7 three standard deviations from the mean?
 8 A I haven't thought about that, but that is likely to
 9 be the approach.
 10 Q Have you given any consideration as to what effect
 11 that will have in terms of the number of data
 12 points that might be removed from the database?
 13 MR. SHEVITZ: Same objection.
 14 A I haven't done that so I don't know.
 15 Q Now, when Mr. Kelley asked you questions about your
 16 Figures 8, 9, 10, and 11, you had some discussion
 17 about the use of rolling averages or moving
 18 averages; correct? Remember that?
 19 A Yes.
 20 Q And you suggested that you use rolling averages
 21 because you're not able to hold constant customer
 22 mix and the quantity of ready-mixed concrete being
 23 purchased; correct?
 24 A That's correct.
 25 Q Why do you believe that it's necessary to hold

1 those two factors constant?
 2 A Because the changes of customer mix from one month
 3 to the next, or the quantity at which ready-mixed
 4 cement is sold may have a considerable influence on
 5 the observed price but not reflect what the
 6 underlying price is.
 7 So, for example, we'll use an illustration.
 8 If for your client, in one month, the bulk of the
 9 customers are large purchasers, the price for a
 10 given type of ready-mixed concrete is going to be
 11 lower; but if in the next month, if the number of
 12 customers is half who buy at that lower price, and
 13 there are more customers who are smaller buying at
 14 a higher price, the observed average price will be
 15 higher.
 16 That does not reflect the underlying changes
 17 in the price of cement. It reflects a change in
 18 the composition of the customers, or of the
 19 quantities being sold.
 20 Q By using that approach and trying to control for
 21 the customer mix in this way, aren't you masking
 22 the fact that there may be significant differences
 23 in the customer bases of different suppliers?
 24 MR. SHEVITZ: Object to form.
 25 A For the comparison of price structure, whether

1 there is price structure, a structure to prices,
 2 no. In the regression analysis, that information
 3 will be reflected in the analysis itself. So it's
 4 not masking it; it's taking that information and
 5 making an explicit recognition of it.
 6 Q Do you intend to use rolling average prices as your
 7 dependent variable in the regression analysis?
 8 MR. SHEVITZ: Calls for speculation. Lack of
 9 foundation.
 10 Q Or would you recommend using that?
 11 MR. SHEVITZ: Same objection.
 12 A I would not.
 13 Q Now, one of the other reasons you said that you
 14 used three-month moving averages is because there
 15 was a small universe of sales or a small universe
 16 of transactions; correct?
 17 A Yes.
 18 Q Is that the case with respect to ready-mixed
 19 concrete?
 20 MR. SHEVITZ: Object to form.
 21 A When you look at a given supplier and a given
 22 customer, for example, for one month, the amount of
 23 observations, the transactions that are involved,
 24 may be nonexistent, very small, or very large.
 25 Q Well, I guess I'm asking you, do you know that to

1 be a fact in this case, or is that just an
 2 assumption that you're making?
 3 A I know that to be a fact because it's reflected
 4 through an analysis of the transaction database.
 5 Q Where does that analysis appear in your report?
 6 A It doesn't, except by my stating that it is so. A
 7 small customer isn't going to be purchasing
 8 necessarily from the same supplier every month.
 9 Q Now, the second part of your estimation of damages,
 10 after you've done the regression analysis and
 11 you've come up with some overcharge price, is to
 12 apply that to classwide sales; correct? That's the
 13 second part of what you propose to do.
 14 A Yes.
 15 Q What data are you going to use for classwide sales?
 16 A The defendants' sales, which are based off of the
 17 electronic transaction base.
 18 Q Are you going to use yards sold?
 19 MR. SHEVITZ: Calls for speculation.
 20 A Yes, because the electronic database reflects
 21 transactions that have occurred.
 22 The electronic -- let me just be clear. The
 23 electronic transaction database is simply a
 24 recording of what has actually taken place by
 25 paper; invoices that go from your client, for

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1 example, to a particular customer. And for ease of
 2 various kinds, the suppliers have chosen to record
 3 that information electronically. That's all that
 4 it is.
 5 So I would expect that anything that appears
 6 in the electronic transaction records of the
 7 defendant suppliers represent transactions;
 8 concrete, ready-mixed concrete that has been sold.
 9 Q Have you considered any other way of defining sales
 10 other than yards sold?
 11 A No.
 12 Q Other than the exclusions that are in the
 13 definition of the class, do you intend to include
 14 all sales in this damage calculation that you
 15 propose?
 16 A All sales of ready-mixed concrete.
 17 Q Will there be any exclusions other than those
 18 exclusions from the class in the class definition?
 19 MR. SHEVITZ: Calls for speculation.
 20 A I haven't examined that question because I'm not
 21 yet there, but my present inclination is no.
 22 MS. WOODS: Oh, five minutes? Okay. Let's
 23 take a short break so he can change the tape.
 24 THE VIDEOGRAPHER: This marks the end of Tape
 25 2. We're off the record at 12:27.

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1 (A lunch recess was taken.)
 2 THE VIDEOGRAPHER: We are back on the record.
 3 This is the start of Tape No. 3 of the deposition
 4 of Dr. Beyer. It is 1:27.
 5 Q Dr. Beyer, your conclusions about the price
 6 structure based on the figures attached to your
 7 report, Figures 8 through 11, you've testified
 8 earlier that you had reached your conclusions based
 9 upon visual inspection of those charts. Correct?
 10 A For that information, yes.
 11 Q Yes. Yes. Is that visual inspection such that
 12 it's so apparent that you think that anyone who
 13 looks at those charts should be able to see the
 14 price structure that you observed?
 15 A Yes.
 16 Q You also testified that to be competitive, all
 17 producers would have to meet certain minimum
 18 standards, minimum quality standards. Correct?
 19 A Yes.
 20 Q And in your report and in your testimony you talked
 21 about certain minimum standards as specified by
 22 such organizations as the ASTM; correct?
 23 A Yes. But there are others.
 24 Q There are others.
 25 A It may be the architects involved --

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1 Q Right. Right.
 2 A -- who are themselves following --
 3 Q I was just using that as an example.
 4 A Yes.
 5 Q All right. Could buyers or purchasers of
 6 ready-mixed concrete specify higher standards than
 7 any of those industry-specified standards?
 8 A Yes, they can. Although, let me just say, most
 9 builders know that if they specify higher standards
 10 it's going to cost them something.
 11 Q Okay. And could suppliers also exceed such
 12 standards even if not specified by a buyer?
 13 MR. SHEVITZ: Calls for speculation.
 14 A If they did so knowingly and systematically, their
 15 profits would be reduced over time, and they may go
 16 out of business.
 17 Q Unless they charged a premium for that. Correct?
 18 A If their purchasers of ready-mixed concrete were
 19 prepared to pay a premium for that basis.
 20 Q Do you believe that firms that consistently
 21 exceeded minimum standards and were able to market
 22 their product as exceeding such standards could
 23 have a competitive advantage over other firms?
 24 MR. SHEVITZ: Object to form. Lack of
 25 foundation. Calls for speculation.

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1 THE WITNESS: Could I have the question read
 2 back.
 3 (The requested material was read back by the
 4 reporter.)
 5 A At any given price, if those firms were willing to
 6 sacrifice that higher standard for less profit.
 7 Q You've also testified that you believe price is the
 8 primary or most determinative factor in terms of
 9 making purchase decisions with respect to
 10 ready-mixed concrete; correct?
 11 A That's my observation. My conclusion, after the
 12 economic -- identifying the economic
 13 characteristics of the product and the comments and
 14 observations of a set of purchasers and of the
 15 suppliers.
 16 Q Would you expect a firm that consistently charges
 17 more for its ready-mix products to have an
 18 increasing, decreasing, or stable volume of sales?
 19 A With or without a cartel?
 20 Q Without.
 21 A Without a cartel, such a firm is likely, in the
 22 present -- what I've analyzed this to be, that firm
 23 is likely to lose market share over time.
 24 Q And with a cartel, would your answer be the same?
 25 A No. With a cartel -- with a cartel, if there's

1 A No.
 2 Q Okay.
 3 A The conclusion is based upon my analysis about the
 4 economic characteristics of the product,
 5 ready-mixed concrete, namely that is
 6 undifferentiated, interchangeable product; that
 7 there is supply substitution in the industry; that
 8 with the exception of the extremes that you just
 9 pointed out in distance, that there are, for most
 10 purchasers, two or more suppliers of ready-mixed
 11 concrete and therefore potentially price
 12 competition; that there is sufficient market power
 13 that purchasers would not be able to avoid price
 14 increases; and that the character and nature of
 15 price announcements further reinforce that
 16 conclusion.
 17 The analysis empirically of the price
 18 structure is a confirmatory analysis of that
 19 conclusion. So I don't need the price structure
 20 analysis. It is -- but it is a confirmatory
 21 analysis, from my point of view.
 22 Q If we didn't have a price structure analysis a part
 23 of your report, would you reach the same conclusion
 24 about common proof of impact?
 25 A Yes.

1 Q So you don't need that portion to reach your
 2 conclusion.
 3 A That's correct.
 4 MR. HARRIS: Okay. That's all the questions I
 5 have. Thank you.
 6 EXAMINATION
 7 BY MR. HURLEY:
 8 Q Dr. Beyer, you've used the term "cartel" throughout
 9 this deposition. What is your definition of that
 10 term?
 11 A By economists in the field of industrial
 12 organization, a cartel means an explicit
 13 arrangement, agreement among firms that would
 14 otherwise be competitors on prices, restriction of
 15 supply, or other anticompetitive behavior.
 16 Q And is that the way in which you've used the term
 17 throughout the deposition?
 18 A Yes.
 19 Q How many cartels have you assumed existed in the
 20 central Indiana area during the class period?
 21 A I've just made -- the one assumption I've made is
 22 based upon the second amended complaint.
 23 Q And how many cartels are referenced in the second
 24 amended complaint?
 25 A So far as I'm aware, one.

1 Q I want to ask, do you recall yesterday you
 2 referenced looking at some Bureau of Census data
 3 regarding metropolitan statistical areas?
 4 A Yes.
 5 Q And I believe you said that nine of the ten
 6 counties, plus two others, are in a metropolitan
 7 statistical area. Is that right?
 8 A Correct. At least as I recall from looking at it.
 9 Q So there's one county within the ten-county area in
 10 this case that's not in the same metropolitan
 11 statistical area as the nine others; is that right?
 12 A Yes. Monroe County is not part of the standard
 13 metropolitan statistical area, and I believe there
 14 are two other counties that are not part of -- that
 15 are not -- that are in addition to the other nine
 16 counties.
 17 Q Are you familiar with the term "component economic
 18 area"?
 19 A Could you say that again.
 20 Q Are you familiar with the term "component economic
 21 area"?
 22 A I've not seen it. I guess I could infer what it
 23 means. I've not seen that term, no.
 24 Q How does the Bureau of Census determine which
 25 counties to include in a metropolitan statistical

1 area?
 2 A The Bureau -- the Bureau -- Census Bureau has
 3 several techniques or criteria to determine
 4 whether -- how wide the geographic reach of the
 5 metropolitan statistical area is. Part of it is
 6 commuting patterns, and that is from census data,
 7 so it changes very infrequently; part of it is from
 8 other sources of information that the Census Bureau
 9 has about economic interaction between the core of
 10 the area, which would be Indianapolis, and the
 11 immediate surrounding counties and counties in the
 12 periphery.
 13 There may be a variety of other, but basically
 14 it is to decide, on the fringe of the area, which
 15 of the counties have a sufficient level of
 16 interaction that they should be incorporated as one
 17 geographic area in looking at various types of
 18 demographic and economic data.
 19 MR. HURLEY: I don't have any other questions.
 20 MS. WOODS: I have one omitted question, if I
 21 may.
 22 EXAMINATION
 23 BY MS. WOODS:
 24 Q Dr. Beyer, your mention of price announcements in
 25 response to Mr. Harris's question reminded me that

1 I omitted to ask you, have you done any empirical
 2 analysis with respect to any of the transaction
 3 data in this case relative to any of the price
 4 announcements?
 5 A No.
 6 Q And so you haven't done any analysis to determine
 7 if there were, in fact, any increases in prices
 8 following the price announcements?
 9 A As of this date, no.
 10 MR. KELLEY: Just a couple.
 11 EXAMINATION
 12 BY MR. KELLEY:
 13 Q Mr. Beyer, when did you get to town?
 14 A Let's see, basketball nights, I can define it --
 15 Tuesday night.
 16 Q When did you send to Mr. Shevitz and Mr. Levin the
 17 documents that were the return to our supplemental
 18 subpoena?
 19 A Wednesday morning I gave most of the documents to
 20 him, and others came by e-mail that morning, or
 21 were already here.
 22 MR. KELLEY: No further questions.
 23 THE VIDEOGRAPHER: That completes Volume II of
 24 the deposition of Dr. John Beyer, Tape 3 of 3.
 25 We're off the record at 2:09.

1 UNITED STATES DISTRICT COURT
 2 SOUTHERN DISTRICT OF INDIANA
 3 INDIANAPOLIS DIVISION
 4
 5 IN RE READY-MIXED CONCRETE) 1:05-cv-979-SEB-JMS
 6 ANTITRUST LITIGATION)
 7)
 8 THIS DOCUMENT RELATES TO)
 9 ALL ACTIONS)
 10)
 11)
 12 Job No. 41455
 13
 14 I, JOHN BEYER, PH.D., state that I have read
 15 the foregoing transcript of the testimony given by me
 16 at my deposition on March 27 and 28, 2008, and that
 17 said transcript constitutes a true and correct record
 18 of the testimony given by me at said deposition except
 19 as I have so indicated on the errata sheets provided
 20 herein.
 21
 22 _____
 23 JOHN BEYER, Ph.D.
 24
 25 STEWART RICHARDSON & ASSOCIATES
 Registered Professional Reporters
 One Indiana Square, Suite 2425
 Indianapolis, IN 46204
 (317)237-3773

1 STATE OF INDIANA
 2 COUNTY OF MARION
 3
 4 I, Patrice E. Morrison, a Notary Public in and
 5 for said county and state, do hereby certify that the
 6 deponent herein was by me first duly sworn to tell the
 7 truth, the whole truth, and nothing but the truth in
 8 the aforementioned matter;
 9 That the foregoing deposition was taken on
 10 behalf of the Defendants; that said deposition was
 11 taken at the time and place heretofore mentioned
 12 between 9:21 a.m. and 4:56 p.m. and 9:08 a.m. and
 13 2:09 p.m. respectively;
 14 That said deposition was taken down in
 15 stenograph notes and afterwards reduced to typewriting
 16 under my direction; and that the typewritten
 17 transcript is a true record of the testimony given by
 18 said deponent;
 19 And thereafter presented to said witness for
 20 signature; that this certificate does not purport to
 21 acknowledge or verify the signature hereto of the
 22 deponent.
 23 I do further certify that I am a disinterested
 24 person in this cause of action; that I am not a
 25 relative of the attorneys for any of the parties.

1 IN WITNESS WHEREOF, I have hereunto set my
 2 hand and affixed my notarial seal this _____ day of
 3 March, 2008.
 4
 5
 6
 7
 8
 9
 10 _____
 11 Patrice E. Morrison, Notary Public
 12 My commission expires:
 13 September 28, 2009
 14 Job No. 41455
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25

Start start John Beyer

MR. KELLEY: Is Mr. Kelley.

MR. SHEVITZ: Is Mr. Shevitz.

MR. HARRIS: Is here.

MR. HARRIS: Is here.

MR. JONES: Is here.

MR. HURLEY: Is here.

MS. CELLA: Is here.

MR. MIXDORF: Is here. Ad STAOEUPB STAOEUPB
is Ms. Steiner. Burns burns is Mr. Warren burns.

Test test

test test start start start start test test test

test start start start start test test test test

Mr. Beyer start start Mr. Beyer.

THE VIDEOGRAPHER: We are on the record. Here
begins the videotape deposition of Dr. John Barry,
being taken by the defendant. Today's date is
March the 27th of 2008, the time is 9:21 a.m. Note
TPHOEUT buyer. This deposition is being held at
the law OFLS of Cohen & Malad located at One
Indiana Square, Indianapolis, Indiana. This case
is filed in the United States District Court, the
Southern District of Indiana, Indianapolis
Division. Cause No. 105CV000979SE approximate
BJMS. This is the matter in re ready mix antitrust

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1 Q You can ask him the question the next time you talk
 2 to him.
 3 Q Did you to your the Shelby plants PHOET note TO*U
 4 the Shelby plants?
 5 A Only the Beech Grove plant.
 6 Q Who did you tour the plant with?
 7 A I think it was -- it's one of the Haehl brothers.
 8 I don't remember the first fame.
 9 Q Richard Haehl?
 10 A I don't -- as I said, I don't recall the first
 11 name.
 12 Q Is he pretty knowledgeable about the ready-mixed
 13 business?
 14 A Well, the person who led the TAO*UR around the
 15 plant seemed to be knowledgeable about it.
 16 (A discussion was held off the record.)
 17 Q Did you see the portable plant sitting there on the
 18 PWRO*E site?
 19 A Yes.
 20 Q And [NOTE Beech Grove.
 21 Q And that portable plant was ready to go about
 22 anywhere they wanted to take it; right?
 23 A If they had a profit making opportunity to do so.
 24 Q Did you discuss with Mr. Haehl the circumstances
 25 under which a portable plant would be useful to

1 compete with?
 2 A I remember asking him a question of why they bought
 3 a plant, and then didn't use it, because as an
 4 economist, that's an asset that's not producing
 5 any income.
 6 Q Or hadn't used it yet. You mean they bought it and
 7 didn't use it, just let it sit there? Was that
 8 your understanding?
 9 A That's what Mr. Haehl, I recall Mr. Haehl telling
 10 me. And he said two things: One, they were able
 11 to buy this plant at a very low cost. I don't know
 12 what the cost was, but that -- and it wasn't my
 13 business to know that anyhow. And secondly, that
 14 it would give Shelby an opportunity in the future
 15 to bid on contracts like your 15-story office
 16 building in the northwest corner of Boone County.
 17 Q You have any notes of that conversation?
 18 A No.
 19 Q I didn't think so. I didn't see any in your file
 20 either.
 21 A I didn't have any.
 22 Q So you don't remember that Mr. Haehl told you that
 23 they had bought this to do a job, I believe for
 24 Central Soya? He didn't tell you that or you don't
 25 remember that? Or are you just calling him a

fibber?
 A No. Central Soya, I do remember.
 Q All right.
 A They -- which was a grain facility, I don't recall
 where it was located, where where the grain
 facility was,
 and they were awaiting for another opportunity, if
 that came along.
 Q So they bought it to use for Central Soya for a job
 at Centra soya; right? Now you remember that?
 A I'm not sure they bought it for that specific
 purpose. They may have, but I recall.
 Q I see.?
 A From what he said, they bought it because the
 availability of that plant at the price that they
 had to pay for it was a good opportunity.
 Q So assuming that his competitors knew that he had a
 portable plant sitting there in Beech Grove, that
 would be something they'd have to take into account
 when they were making bids back then; right?
 A Back then meaning.
 Q Since he had it.
 A During the alleged.
 Q Class period?
 A Period?

Q Yes.
 A If you would be specific, back then, I don't know
 what you're talking about.
 Q Okay. Back when they had it. How's that?
 A If they had it then, and if there was no cartel,
 yes, it would be a factor that various firms who
 would be bying on a contract contract, large
 contract, would need to take into account.
 Q And under those same circumstances, they would have
 to take into account that Spurlino was ready,
 willing and able, based on a portable plant, to
 compete also during the class period.
 MR. SHEVITZ: Object to form. Lack of
 foundation.
 A Spurlino is in a different situation because he is
 not.
 Q So your answer is yes or no. Could you answer me
 yes or no before you go on. I just want to figure
 out what he's going to do I'm wasting a lot of time
 listening to this guy?
 MR. SHEVITZ: I'm remind of a deposition a
 couple WAOEPBGS ago when I had, you alerted me to a
 rule of law that you developed which was you
 couldn't demand the client answer a question yes or
 no and you're going to let him answer the questions

S*EPBZ test test test

THE VIDEOGRAPHER: We are back on record.

This is the beginning of volume No. 2 of the deposition of Dr. John Beyer, today's date is March the 28th of TWEUBLT. We're on the record at 9:08 a.m. The attorneys may state their appearance again for the record and you may begin.

MR. KELLEY: Richard Shevitz, Cohen & Malad for the plaintiff class Steiner, Hines millions and 0 SOL,.

MR. BURNS: , for the.

MR. LEVIN: Could had hen and Malad from the plaintiff class, Brian Hurley for Southfield formerly Prairie, Ed Harris, SPHOR bash in addition all Beaver defendants and Ma-Ri-Al -- Curtis Jones for the Builder's defendants,.

MS. WOODS: For the bids defendants,.

MR. MIXDORF: Mixdorf for the IMI defendants we also have Ed Steegmann on the phone and Paul Johnson, KHEL KHEL for the IMI defendants.

MR. KELLEY: Dan Kelley, IMI defendants.

MR. KELLEY: Is there anyone else on the phone besides those two?

MR. MIXDORF: Why don't you guys say something just could confirm.

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Q And I believe you said that nine of the ten counties plus two others are in a metropolitan statistical area. Is that right?

A Correct. At least as I recall from looking at it.

Q So there's one county within the ten-county area in this case that's not in the same metropolitan statistical area as the nine others; is that right?

A Yes. Monroe County is not part of the standard metropolitan statistical area, and I believe there are two other counties that are not part -- that are not -- that are in addition to the other nine counties.

Q Are you familiar with the term component economic area?

A Could you say that again.

Q Are you familiar with the term component economic area?

A I've not seen it. I guess I could infer what it means. I've not seen that term, no.

Q How does the bureau of census determine which counties to include in a metropolitan statistical area?

A The bureau -- the bureau -- census bureau has several techniques or criteria to determine whether -- how wide the geographic region of the

1 metropolitan statistical area is. Part of it is
 2 commuting patterns and that is from census data, so
 3 it changes very infrequently; part of it is from
 4 other sources of information that the census bureau
 5 has about economic interaction between the core of
 6 the area, which would be Indianapolis, and the
 7 immediate surrounding counties and county in the
 8 preferrry. There may be a variety of other, but
 9 basically it's to decide on the fringe of the area
 10 which of the
 11 counties have a sufficient level of
 12 interaction that they should be incorporated as one
 13 geographic area in looking at various types of
 14 demographic and economic data.

15 MR. HURLEY: I don't have any other questions.

16 MS. WOODS: I have one omitted question.

17 Q Dr. Beyer, your mention of price announcements in
 18 response to Mr. Harris' question reminded me that I
 19 omitted to ask you, have you done any empirical
 20 analysis with respect to any of the transaction
 21 data in this case relative to any of the price
 22 announcements?

23 A No. And.

24 Q And so you haven't done any analysis to determine
 25 if there were, in fact, any increases in prices

1 following the price announcements?

2 A As of this date, no.

3 MR. KELLEY: Just a couple.

4 Q Mr. Beyer, when did you get to town?

5 A Let's see, basketball nights, I can define it --
 6 Tuesday night.

7 Q When did you send to Mr. Shevitz and Mr. Left
 8 SREUPB the documents that were the return to our
 9 supplemental subpoena?

10 A Wednesday morning I gave most of the documents to
 11 him, and others came by e-mail that morning, were
 12 already here.

13 MR. KELLEY: No further questions.

14 MR. SHEVITZ: Okay.

15 THE VIDEOGRAPHER: That completes volume two
 16 of the deposition of Dr. John Beyer, tape 3 of 3,
 17 we're off the record at K-BG 2:09.

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