

**HX 36**

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PURSUANT TO  
STIPULATED  
PROTECTIVE ORDER**

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
SAN DIEGO DIVISION

--oOo--

IN RE: BANK OF AMERICA

CALIFORNIA UNEMPLOYMENT

BENEFITS LITIGATION

Case Number:

21-MD-02992-GPC-MSB

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This document relates  
to All Actions

\_\_\_\_\_/

VIDEO-RECORDED DEPOSITION OF DAVID I. LEVINE, Ph.D.  
SAN FRANCISCO, CALIFORNIA  
WEDNESDAY, MAY 28, 2025

Reported by:

Anrae Wimberley, CSR No. 7778

Job No. 7309212

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HIGHLY CONFIDENTIAL - UNDER PROTECTIVE ORDER

Transcript of video-recorded deposition  
of DAVID I. LEVINE, Ph.D., taken at Goodwin Procter  
LLP, 525 Market Street, 31st Floor, San Francisco,  
California 94105, and also on Veritext Virtual Zoom,  
beginning at 9:27 a.m. and ending at 3:45 p.m. on  
Wednesday, May 28, 2025, before Anrae Wimberley,  
Certified Shorthand Reporter No. 7778.

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13 VERITEXT LEGAL SOLUTIONS

14 -- oOo --

|    |                                                                                                                                                                                     |                                                                                                                                      |      |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------|
| 1  | I N D E X                                                                                                                                                                           |                                                                                                                                      |      |
| 2  | EXAMINATION BY:                                                                                                                                                                     |                                                                                                                                      | PAGE |
| 3  | Mr. Levenberg                                                                                                                                                                       |                                                                                                                                      | 8    |
| 4  | --oOo--                                                                                                                                                                             |                                                                                                                                      |      |
| 5  | E X H I B I T S                                                                                                                                                                     |                                                                                                                                      |      |
| 6  | EXHIBIT                                                                                                                                                                             | DESCRIPTION                                                                                                                          | PAGE |
| 7  | Exhibit 1                                                                                                                                                                           | Expert Report of Dr. David I. Levine, dated March 4, 2025; 41 pages                                                                  | 15   |
| 8  |                                                                                                                                                                                     |                                                                                                                                      |      |
| 9  | Exhibit 2                                                                                                                                                                           | Expert Class Certification Report of Greg J. Regan, CPA/CFF, CFE, dated August 29, 2024; 76 pages                                    | 35   |
| 10 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 11 | Exhibit 3                                                                                                                                                                           | Third Amended Master Consolidated Complaint; 266 pages                                                                               | 83   |
| 12 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 13 | Exhibit 4                                                                                                                                                                           | Plaintiff Stephanie Moore's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories; 42 pages  | 90   |
| 14 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 15 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 16 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 17 | Exhibit 5                                                                                                                                                                           | Expert Report of Professor Justin McCrary, Ph.D., dated April 4, 2025; 100 pages                                                     | 95   |
| 18 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 19 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 20 | Exhibit 6                                                                                                                                                                           | Plaintiff Kuang Ting Chong's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories; 40 pages | 99   |
| 21 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 22 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 23 | REPORTER'S NOTE: All quotations from exhibits are reflected in the manner in which they were read into the record and do not necessarily indicate an exact quote from the document. |                                                                                                                                      |      |
| 24 |                                                                                                                                                                                     |                                                                                                                                      |      |
| 25 | --oOo--                                                                                                                                                                             |                                                                                                                                      |      |

1 WEDNESDAY, MAY 28, 2025;

2 SAN FRANCISCO, CALIFORNIA;

3 9:27 A.M.

4 - - -

5 THE VIDEOGRAPHER: Good morning. We are going 09:27:52  
6 on the record. The time is 9:27 a.m. on May 28th,  
7 2025.

8 Please note that the microphones are  
9 sensitive, may pick up whispering and private  
10 conversations. Please mute your phones at this 09:28:08  
11 time. Audio and video recording will continue to  
12 take place unless all parties agree to go off the  
13 record.

14 This is Media Unit 1 of the video-recorded  
15 deposition of Dr. David Levine taken by counsel for 09:28:22  
16 defendant in the matter of In Re: Bank of America  
17 California Unemployment Benefits Litigation, filed  
18 in the United States District Court, Southern  
19 District of California, San Diego Division, Case  
20 No. 21-MD-02992-GPC-MSB. 09:28:44

21 The location of the deposition is  
22 525 Market Street, 31st Floor, San Francisco,  
23 California 94105.

24 My name is Cameron Tuttle representing  
25 Veritext, and I'm the videographer. I am not 09:29:11

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1 authorized to administer an oath. I am not related 09:29:16  
2 to any party in this action nor am I financially  
3 interested in the outcome.

4 If there are any objections to proceeding,  
5 please state them at the time of your appearance. 09:29:25  
6 Counsel will now state their appearances and  
7 affiliations for the record beginning with the  
8 noticing attorney.

9 MR. LEVENBERG: Good morning. This is Keith  
10 Levenberg with Goodwin Procter representing Bank of 09:29:35  
11 America.

12 MS. BRYN: Good morning. Laura Bryn, also  
13 representing Bank of America.

14 MS. HUNSICKER: I'm Caroline Hunsicker with  
15 Altshuler Berzon for the plaintiffs. 09:29:46

16 MS. CHAN: Connie Chan from Altshuler Berzon on  
17 behalf of the plaintiffs.

18 THE VIDEOGRAPHER: Will the court reporter  
19 please introduce yourself and administer the oath to  
20 the witness. 09:29:57

21 THE REPORTER: We are on the record. My name  
22 is Anrae Wimberley, CSR No. 7778, and I will now  
23 swear in the witness.

24 //

25 // 09:30:01

1                   DAVID I. LEVINE, PH.D.,                   09:30:01  
2           sworn in personally as a witness by the Certified  
3           Shorthand Reporter, testified as follows:  
4                   EXAMINATION  
5   BY MR. LEVENBERG:                   09:30:01  
6           Q.   State your name.  
7           A.   David Levine.  
8           Q.   And you've been retained by plaintiffs to  
9   offer an expert opinion in this case?  
10          A.   Yes.                   09:30:32  
11          Q.   Have you had a deposition taken before?  
12          A.   Yes.  
13          Q.   About how many times have you previously  
14   sat for a deposition?  
15          A.   Three or four.                   09:30:40  
16          Q.   When was the last time?  
17          A.   A dozen or 15 years ago, I think.  
18          Q.   Okay. So I'll go through some of the  
19   things, which you've probably already heard, even  
20   though it's been a while.                   09:30:57  
21               I'll ask the questions. Your attorney may  
22   or may not object to those questions, but unless  
23   your attorney tells you not to answer them, you  
24   should answer them.  
25               Does that make sense to you?                   09:31:06

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1 A. Yes. 09:31:07

2 Q. If you don't understand any question that

3 I ask, you can ask me to repeat it, and I'll do my

4 best to repeat or rephrase it, but if you do answer

5 a question, I'll assume you've understood it. 09:31:15

6 Does that make sense?

7 A. Yes.

8 Q. For the sake of the transcript and the

9 reporter trying to get everything down, you should

10 wait until I finish my question before you start 09:31:25

11 answering.

12 It's difficult sometimes, but she will let

13 you know if we are stepping on anything we shouldn't

14 be stepping on.

15 Is there any reason you can think of why 09:31:34

16 you wouldn't be able to give complete and truthful

17 testimony today?

18 A. No.

19 Q. For example, you're not taking any kind of

20 medication or anything that would affect your 09:31:44

21 memory?

22 A. No.

23 Q. Not short of sleep or anything like that?

24 A. No.

25 Q. I am. 09:31:50

1                   What were the previous cases that you                   09:31:54  
2 testified in depositions for?

3           A.    There were -- 15 or 20 years ago, there  
4 were several class action lawsuits about wage and  
5 hours classification with some large companies,                   09:32:10  
6 Walmart, Best Buy and Home Depot, I think.

7                   And then there was one executive  
8 compensation case.

9           Q.    And who retained you in those cases?

10          A.    I have no idea.                                   09:32:34

11          Q.    Do you remember if it was the plaintiffs  
12 or the defendants?

13          A.    I'm sorry. On the classification wage and  
14 hour cases, they were the plaintiff.

15                   On the executive compensation -- just a                   09:32:47  
16 minute. I'm mixing up who -- which one -- who was  
17 also the plaintiff.

18          Q.    What was the Walmart case about?

19          A.    Whether assistant managers were similar  
20 enough in their conditions to have a class action                   09:33:13  
21 for a dispute about whether they were hourly or  
22 management.

23          Q.    And what opinion did you offer in that  
24 case?

25          A.    That there was similarities sufficient. I                   09:33:27

1 don't know if I said sufficient for the law, but 09:33:31  
2 there was -- I pointed out there were lots of  
3 similarities in policies and practices to keep their  
4 jobs similar and lots of evidence.

5 Q. Do you remember the name of that case? 09:33:41

6 A. No.

7 Q. Did you testify at trial?

8 A. No.

9 Q. Besides issuing a report and sitting for a  
10 deposition, did you do anything else in that case? 09:33:55

11 MS. HUNSICKER: Objection; vague.

12 THE WITNESS: I mean, it's possible I gave them  
13 advice on deposing the other expert. I don't recall  
14 the other experts.

15 I did that in at least one of the cases -- 09:34:22  
16 wage and hour cases.

17 (Whereupon, David Hollenberg, Esq. entered  
18 the proceedings via zoom.)

19 BY MR. LEVENBERG:

20 Q. Okay. And what about the Best Buy case? 09:34:26

21 A. The same work.

22 Q. That was also a wage and hour case?

23 A. Yeah.

24 Q. And who were you retained by in that case?

25 A. By the plaintiffs. 09:34:48

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1 Q. And what opinions did you give in that 09:34:49  
2 case?  
3 A. The same, that there was evidence and that  
4 there were policies that would make them have very  
5 similar conditions. 09:35:00  
6 Q. And you wrote an expert report in that  
7 case?  
8 A. Yes.  
9 Q. And testified in a deposition?  
10 A. Yes. 09:35:10  
11 Q. Did you do anything else in that case?  
12 A. Again, in at least one of the cases, I  
13 gave some feedback to prepare for deposing the other  
14 experts or expert, I don't remember.  
15 Q. Did you testify at trial? 09:35:24  
16 A. No.  
17 Q. And do you remember the name of this case?  
18 A. I have no idea.  
19 I mean, some of this is on my CV, the case  
20 names, I think. 09:35:37  
21 Q. Sure.  
22 A. I just -- sitting here, I don't remember.  
23 Q. The Home Depot case, was that also a wage  
24 and hour case?  
25 A. Yes. 09:35:46

1 Q. And who were you retained by in that case? 09:35:47

2 A. The plaintiffs.

3 Q. And what was the opinion that you offered  
4 in that case?

5 A. Again, that they had a tremendous number 09:35:54  
6 of policies to create uniformity across stores and  
7 that there was a lot of evidence of uniformity in  
8 the evidence that both the company and the  
9 plaintiffs had gathered.

10 Q. But was your opinion in this case that a 09:36:15  
11 class should be certified?

12 A. I can't recall exactly. I pointed out  
13 there was a lot of commonality. I don't think I  
14 gave a -- class being certified sounds more like a  
15 legal opinion, and I try to avoid those because I'm 09:36:30  
16 not a lawyer.

17 But I was pointing out there were a  
18 tremendous number of policies pointing towards  
19 uniformity and that each side had gathered evidence.  
20 There was tremendous uniformity. 09:36:46

21 Which side of the 50/50 line they were on  
22 was different, but they both presented evidence that  
23 it was very uniform, and I wasn't saying anything  
24 about the merits.

25 I was just saying everyone seems to agree 09:36:57

1 that these folks are all both treated similarly, 09:36:58  
2 have policies creating uniformity, and that the  
3 evidence each side had gathered showed very, very  
4 high levels of uniformity.

5 Q. Were your opinions in those cases -- or I 09:37:10  
6 should say, were your reports in those cases used in  
7 connection with a motion for class certification?

8 A. I assume so.

9 This was both a long time ago, and you're  
10 also using legal language that is beyond my 09:37:30  
11 understanding.

12 At the time, I might have understood that  
13 question better, but I -- they were submitted to the  
14 court or just -- I would assume.

15 Q. And in all of these cases, you wrote a 09:37:44  
16 report and sat for a deposition but did not testify  
17 at trial?

18 MS. HUNSICKER: Objection; compound.

19 THE WITNESS: I don't believe any of them went  
20 to trial. 09:37:59

21 I did not testify at trial, I can say  
22 that.

23 BY MR. LEVENBERG:

24 Q. When did you do these opinions?

25 Let's start with the Walmart case. When 09:38:11

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1 was that? 09:38:14

2 A. On the order of 15 years ago, but I can't

3 recall.

4 Q. Same answer for the other two?

5 A. I think Best Buy was probably the first, 09:38:28

6 so it might have been 20 years ago.

7 If I could look at my CV, I could nail it

8 down a little bit closer, but I don't remember.

9 MR. LEVENBERG: Do you want to mark that

10 exhibit, if it would help you to look at the report? 09:38:49

11 Are we starting at 1? Did we cover that

12 already?

13 MS. BRYN: Um-hum.

14 (Deposition Exhibit 1 was marked.)

15 (Witness reviews document.) 09:39:47

16 THE WITNESS: Let's see, they must have been

17 more than 20 years ago. Because I wrote a chapter,

18 I think, after I had done all three, so I would say

19 20, 25 years ago is when I did these is my best

20 guess. 09:40:20

21 BY MR. LEVENBERG:

22 Q. Okay. And Keker & Van Nest, Tjian versus

23 Westamerica Bancorporation, that's the executive

24 compensation case?

25 A. Yes. 09:40:42

1 Q. And who retained you for that case? 09:40:43  
2 A. It looks like it's the law firm  
3 Keker & Van Nest.  
4 Q. Were they representing the plaintiff or  
5 the defendant? 09:40:56  
6 A. The plaintiff.  
7 Q. And what was the nature of the opinions  
8 you offered in that case?  
9 A. It was just explaining how stock options  
10 work. 09:41:08  
11 I don't think I was deposed in that case.  
12 It was a -- I don't recall being deposed in that  
13 case. It was a -- just one plaintiff against an  
14 employer and a dispute about compensation.  
15 I must have been -- I don't know if I was 09:41:30  
16 deposed. I do not recall being deposed.  
17 Q. And when was this one?  
18 I'm sorry, did you want to say more?  
19 A. No.  
20 Q. When was this case? 09:41:40  
21 A. Roughly 20 years ago is my best guess, but  
22 I really don't know.  
23 Q. Have you been retained as an expert in any  
24 matters other than the ones listed here?  
25 A. I mean, this mentions -- I was a legal 09:42:17

1 consultant on two cases that didn't get far enough. 09:42:21

2 Q. Those are the ones listed right above --

3 A. Yes.

4 Q. -- Goldman and Goldman and Morgenstein &

5 Jubelirer? 09:42:34

6 What did you do in those matters?

7 You can start with the first one.

8 MS. HUNSICKER: Objection; vague.

9 THE WITNESS: I believe that case was -- they  
10 were thinking about doing a class action for wage 09:42:57  
11 and hours for some -- a chain of gas station  
12 stores -- gas station managers, I believe.

13 Yeah, and I think that -- and that didn't  
14 get very far.

15 BY MR. LEVENBERG: 09:43:24

16 Q. When you say it "didn't get very far,"  
17 what do you mean?

18 A. They didn't work with me very long, so I  
19 assume they decided not to proceed.

20 But I -- again, this was 20 years ago, and 09:43:37  
21 I don't recall.

22 Q. What did you do for them?

23 A. I don't recall in detail. I discussed  
24 what sort of evidence they would need to gather, but  
25 I don't recall. 09:44:01

1 I didn't work for them very long. 09:44:05

2 Q. And what about the next one, Morgenstein &  
3 Jubelirer, what was that about?

4 (Whereupon, Brian Danitz, Esq. entered the  
5 proceedings via zoom.) 09:44:17

6 THE WITNESS: I don't recall.

7 Again, I didn't work for them very long.

8 What was that?

9 Okay. I don't recall.

10 BY MR. LEVENBERG: 09:44:50

11 Q. Do you recall anything about it?

12 MS. HUNSICKER: Objection; vague.

13 THE WITNESS: No.

14 BY MR. LEVENBERG:

15 Q. Have you been hired as an expert in 09:45:10  
16 anything other than the things that we've talked  
17 about so far?

18 A. Expert in the legal sense?

19 Q. Well, we'll start there, in connection  
20 with litigation. 09:45:25

21 A. No.

22 Q. More broadly, have you been hired by a law  
23 firm or anybody representing -- strike that.

24 Have you been hired by a law firm to  
25 provide expert services in any other matter that we 09:45:47

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1 haven't talked about? 09:45:50

2 A. No.

3 Q. Have you testified either in a deposition  
4 or at trial in anything other than what we've talked  
5 about with your expert work? 09:46:09

6 A. I've testified in two trials, I believe.

7 Q. What were those?

8 A. Let's see, when I was an undergraduate, my  
9 landlord took a shot at my roommate. I testified in  
10 that trial, I believe. 09:46:43

11 And a few years later, I was across the  
12 street from where a murder was committed, and I  
13 testified about the timing of gunshots in that  
14 trial.

15 Q. Exciting, perhaps too exciting. 09:47:02

16 Have you testified under oath in any other  
17 scenarios that we haven't talked about yet?

18 A. Not that I recall.

19 Q. What were you hired to do in this case?

20 A. Plaintiffs' attorney asked me to come up 09:47:39

21 with a conservative lower bound on a discount rate  
22 for damages for a few class of people who hadn't  
23 received their full unemployment insurance benefits  
24 and a conservative lower bound for the value of time  
25 for people who were kept on hold for unusually long 09:48:04

1 periods of time. 09:48:15

2 Q. Okay. I'm looking in your report -- you  
3 can refer to it, too. It will probably be helpful  
4 as we get through these questions.

5 I'm looking at the way you phrase those 09:48:27  
6 topics in paragraph 5.

7 The first one you described as "an  
8 appropriate methodology for determining the value of  
9 the lost opportunity costs to the class members  
10 whose access to UI benefits was delayed or denied." 09:48:41

11 Explain to me what you mean by "lost  
12 opportunity costs" in that phrase.

13 A. So you kind of misused the term  
14 "opportunity cost" of choice A as being the value of  
15 A compared to what your next best choice, B. 09:49:00

16 So if you choose A, you forego B, and  
17 that's the opportunity cost. Or if you would like  
18 to choose A and someone takes that option away from  
19 you and you're stuck with B, the difference in that  
20 value is the opportunity cost itself. 09:49:18

21 A check is supposed to come in the mail  
22 today for you, and whoever is sending it says, Oh,  
23 it will be a month. So instead of having 1,000 days  
24 now, you have 1,000 -- \$1,000 today, you'll have  
25 \$1,000 in a month. 09:49:35

1 And you take out a loan for let's say \$986 09:49:37  
2 today, which you repay \$1,000 in a month when you  
3 get the check. Today you have \$986, that's \$14  
4 less -- \$14 interest would be about a 20 percent  
5 interest rate in this example -- that \$14 is the 09:49:56  
6 opportunity cost of the delay.

7 You had to take out a loan and pay \$14 in  
8 interest, so you only got \$986 today instead of the  
9 \$1,000 the check was worth.

10 So that's -- the opportunity cost of the 09:50:11  
11 delay is, if your next best alternative was taking a  
12 loan, would be that \$14 in interest.

13 Q. So -- and I'm not an economist here, so  
14 bear with me.

15 When I hear the phrase "opportunity cost," 09:50:24  
16 what I've tended to associate it with is choosing  
17 between two options, right?

18 And you choose one option and deliver  
19 certain benefits, but you give up the benefits that  
20 you would have received had you chosen the other 09:50:39  
21 option.

22 So isn't that a fair explanation of the  
23 concept?

24 A. Absolutely.

25 And I was simply saying, if somebody takes 09:50:45

1 away one option, then the opportunity cost is, oh, 09:50:49  
2 exactly the same inside, as you had just explained.

3 Q. Okay. So what is -- clarify for me again  
4 what the two options are that you're considering  
5 here. 09:51:00

6 A. Getting the \$1,000 today versus in a  
7 month.

8 Q. Okay.

9 A. If I -- if -- and getting it in a month  
10 and taking out the loan so that I have as close to 09:51:09  
11 \$1,000 as I can today and repay the loan with the  
12 \$1,000 in a month.

13 Q. And it's still accurate to use the phrase  
14 "opportunity cost" even though the person didn't  
15 have the option between getting the money now and 09:51:24  
16 getting the money in a month?

17 MS. HUNSICKER: Objection; confusing.

18 BY MR. LEVENBERG:

19 Q. Is that confusing?

20 A. Can you just say it one more time? 09:51:33

21 Q. Is it still accurate to use the phrase  
22 "opportunity cost" if the person isn't making the  
23 choice?

24 It just struck me as a little weird.

25 Maybe it's not weird, but it struck me as a little 09:51:52

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1 confusing because there was no other opportunity; 09:51:55  
2 right?  
3 They only had the one opportunity that  
4 they were going to get the money when the money was  
5 sent. 09:52:03  
6 MS. HUNSICKER: Objection; confusing.  
7 THE WITNESS: We can say I can choose between  
8 the A and B, and the opportunity cost of choosing A  
9 is the difference in value of A and B.  
10 Or we can say I would choose A. That 09:52:18  
11 option disappeared, I'm stuck with B, and it's the  
12 same opportunity cost. It's the same arithmetic --  
13 BY MR. LEVENBERG:  
14 Q. Okay.  
15 A. -- as in your example. So that's how I'm 09:52:28  
16 using it, and I think that's standard economics.  
17 Q. Okay. And you draw a distinction between  
18 access to UI benefits being delayed or denied.  
19 What do you mean when you say "delayed"?  
20 A. If my debit card is supposed to have 09:52:55  
21 \$1,000 of credit on it and it doesn't have that  
22 \$1,000 for an extra month, then I would call that a  
23 delay in access to benefits.  
24 Q. And what would you mean when you say  
25 "denied"? 09:53:07

1 A. If the benefits disappeared and you didn't 09:53:10  
2 have access to them ever.

3 Q. Do you use the same method for evaluating  
4 the lost opportunity costs in the delayed scenario  
5 as you do in the denied scenario? 09:53:25

6 MS. HUNSICKER: Objection; compound.

7 THE WITNESS: Yeah, this is -- the word  
8 "denied" is not relevant because I only look at  
9 delayed in this report.

10 That's sort of a leftover from a -- the 09:53:47  
11 word "denied" is an unnecessary word because I don't  
12 look at that.

13 (Reporter seeks clarification.)

14 THE WITNESS: Because my method only looked at  
15 delayed. 09:54:15

16 BY MR. LEVENBERG:

17 Q. So you're not offering any opinion on the  
18 value of lost opportunity costs to people whose  
19 access to benefits was denied?

20 A. No. 09:54:33

21 Q. Did you evaluate any data on how many  
22 class members had delayed access to UI benefits?

23 A. I very briefly looked at one spreadsheet,  
24 but I didn't analyze it in any depth.

25 Q. And what spreadsheet did you look at? 09:55:00

1           A.    I think McCrary had -- for this report, I           09:55:07  
2        did not look at any data.  And after this report I  
3        looked at some.

|   |                                          |          |
|---|------------------------------------------|----------|
| 4 | I forget what your question was. Can you |          |
| 5 | repeat it?                               | 09:55:21 |

6 Q. Did you look at any data on the value of  
7 lost opportunity cost whose access to UI was  
8 delayed?

9 MS. HUNSICKER: Objection; confusing.

|    |                   |          |
|----|-------------------|----------|
| 10 | BY MR. LEVENBERG: | 09:55:35 |
|----|-------------------|----------|

11 Q. You're right, that was confusing.

12 Did you evaluate any data on how many  
13 class members had delayed access to UI benefits?

|    |                                              |          |
|----|----------------------------------------------|----------|
| 14 | A. And are you asking for this report or for |          |
| 15 | my --                                        | 09:55:48 |

16 Q. At any point did you evaluate that data --  
17 those data?

18           A.    I looked briefly at a spreadsheet that had  
19           some of those data on it, but I didn't analyze it in  
20           detail. 09:55:58

21 Q. And that spreadsheet came to you after you  
22 wrote this report?

|    |         |
|----|---------|
| 23 | A. Yes. |
|----|---------|

24 Q. And that was a spreadsheet referenced in

25 Professor McCrary's report? 09:56:08

1           A. I assume it was the basis of some of his                 09:56:10  
2      opinions. It came with some files that he turned  
3      over.

|   |                                                     |          |
|---|-----------------------------------------------------|----------|
| 4 | He did have some data on duration, so I             |          |
| 5 | assume he used that spreadsheet -- durations of     | 09:56:25 |
| 6 | delays, so I assume he used that spreadsheet, but   |          |
| 7 | I'm not -- I didn't explore in detail what his code |          |
| 8 | was or -- so analyzing that spreadsheet, I just     |          |
| 9 | looked at it briefly.                               |          |

10 Q. Did you form any opinions at all about the 09:56:38  
11 information in that spreadsheet?

|    |    |     |
|----|----|-----|
| 12 | A. | No. |
|----|----|-----|

13 Q. Did that -- did you consider that  
14 spreadsheet relevant to any of the opinions you  
15 express in this report? 09:57:06

16 MS. HUNSICKER: Objection; vague.

17 THE WITNESS: Can you ask that question -- are  
18 you -- since I saw it after this report, are you  
19 asking does it change my opinions?

20 Is that what you're saying or -- 09:57:23

21 BY MR. LEVENBERG:

22 Q. Well, I was going to get there.

23 Did it change any of your opinions?

|    |        |
|----|--------|
| 24 | A. No. |
|----|--------|

|    |                                           |          |
|----|-------------------------------------------|----------|
| 25 | Q. Did you consider it relevant to any of | 09:57:45 |
|----|-------------------------------------------|----------|

1 your opinions? 09:57:50

2 MS. HUNSICKER: Objection; vague.

3 THE WITNESS: I didn't look at it in detail.

4 BY MR. LEVENBERG:

5 Q. Okay. Can you tell me what kind of 09:58:00

6 information was in there?

7 A. These sorts of recall questions are very

8 uncomfortable for me. I have a very bad memory.

9 My vague recollection is it had a

10 scrambled ID for individuals and several dates, and 09:58:27

11 probably amounts.

12 But I want to make clear that I would

13 normally have to look at the spreadsheet to answer a

14 question like this, and I'm -- working off of

15 memory, it's very proximate. 09:58:48

16 Q. In writing this report, did you consider

17 any data about the class members?

18 MS. HUNSICKER: Objection; vague.

19 THE WITNESS: Which types of data are you --

20 BY MR. LEVENBERG: 09:59:02

21 Q. Any types of data.

22 MS. HUNSICKER: Same objection.

23 THE WITNESS: Yes.

24 BY MR. LEVENBERG:

25 Q. What did you look at? 09:59:16

A. One of Mr. Regan's earlier reports had  
data and, also, I saw one of Dr. Stango's reports  
had some data on duration and either mean or median  
or maybe both of the claim size and the counts of  
the several classes.

6 And if memory serves, Dr. Stango's earlier  
7 report -- "earlier" meaning it was -- the report was  
8 available by February -- had some discussion of  
9 either short or small claims or both.

|    |                 |          |
|----|-----------------|----------|
| 10 | I believe both. | 10:00:21 |
|----|-----------------|----------|

11 Q. Did you look at any of the underlying data  
12 themselves or just the discussion of it in the Regan  
13 and Stango reports?

14 MS. HUNSICKER: Objection; compound.

|    |                                                     |          |
|----|-----------------------------------------------------|----------|
| 15 | THE WITNESS: Again, remind me, are we               | 10:00:34 |
| 16 | discussing in creating this report or preparing for |          |
| 17 | this deposition?                                    |          |

18 BY MR. LEVENBERG:

19 Q. We'll start with the report. And then if  
20 the answer is different after the report, we'll get 10:00:52  
21 to that next.

22           A.    Let's see, at some point, there were  
23           excerpts from some of the either depositions and --  
24           or interrogatories of the -- some of the plaintiffs.  
25           So if those were in the earlier reports, I would

10:01:13

1 have seen a few excerpts. 10:01:15

2 And plaintiffs' counsel would have told me  
3 various numbers on the size of classes and so forth  
4 as well. And some of the dates.

5 And I saw what was ever in the consent 10:01:51  
6 decree about the classes -- about -- they weren't  
7 class at that point -- about those who were in --  
8 many of whom became part of these classes.

9 Q. And when you say, "some of the dates,"  
10 what dates are you referring to there? 10:02:09

11 MS. HUNSICKER: Objection; vague.

12 THE WITNESS: The dates of when the bank  
13 started using the several screens and stopped using  
14 them and when they were, I believe, an injunction,  
15 and I assume dates of various legal actions, as well 10:02:38  
16 as the dates of the consent decree and so forth  
17 related to that.

18 I don't remember exactly which dates were  
19 discussed but several dates.

20 BY MR. LEVENBERG: 10:03:10

21 Q. And what do you mean by "dates of various  
22 legal actions"?

23 A. There were dates when the consent  
24 decree -- the government says something and then the  
25 bank comes up with a plan and the plan is endorsed, 10:03:35

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1 I don't remember what these are all called in 10:03:39  
2 detail, but those various stages of that process I  
3 assume we discussed.

4 Q. Backpedaling a little bit, did you  
5 consider or were you given any data about class 10:03:57  
6 members themselves?

7 MS. HUNSICKER: Objection; vague.

8 THE WITNESS: No. The class members -- I'm  
9 sorry, the class members, the 109,000 or the named  
10 plaintiffs? 10:04:34

11 BY MR. LEVENBERG:

12 Q. Any.

13 A. The plaintiffs' attorneys explained to me  
14 they had very limited data on the class members  
15 themselves, and the named plaintiffs were a 10:04:47  
16 nonrandom sample that was small.

17 So I didn't look at their -- any evidence  
18 about them when preparing this report.

19 Q. You didn't look at any evidence about the  
20 named plaintiffs when preparing this report? 10:05:07

21 MS. HUNSICKER: Objection; vague.

22 THE WITNESS: Unless something was mentioned in  
23 the available -- the Stango report available to me  
24 last February, I did not.

25 BY MR. LEVENBERG: 10:05:28

1 Q. What information relevant to class members 10:05:28  
2 did you consider from the Stango report?  
3 MS. HUNSICKER: Objection; vague.  
4 BY MR. LEVENBERG:  
5 Q. If any. 10:05:36  
6 A. Nothing that I recall. You just asked if  
7 I had seen any, and if he had quoted any, I would  
8 have seen it.  
9 Q. But you didn't consider it in preparing  
10 your report? 10:05:48  
11 MS. HUNSICKER: Objection; vague.  
12 THE WITNESS: I did not consider evidence from  
13 a small and nonrandom sample that was -- if he did  
14 any, it would have been excerpted by proposedly -- I  
15 don't know how to say that word -- excerpted with an 10:05:59  
16 intent to be informative, no.  
17 BY MR. LEVENBERG:  
18 Q. And what about the unnamed class members,  
19 did you look at any information about them in  
20 preparing your report? 10:06:18  
21 MS. HUNSICKER: Objection; vague.  
22 THE WITNESS: Those 100-plus thousand?  
23 BY MR. LEVENBERG:  
24 Q. That certainly would be one of the  
25 classes, yes. 10:06:31

1 A. No. 10:06:33

2 Q. Now, for any of the other classes, is the

3 answer the same?

4 MS. HUNSICKER: Objection; compound.

5 THE WITNESS: I did not look at information on 10:06:41

6 class members for any of the classes.

7 BY MR. LEVENBERG:

8 Q. You mentioned a few numbers that you said

9 plaintiffs' counsel told you about.

10 What assumptions did the plaintiffs' 10:06:59

11 counsel ask you to make in forming your opinions?

12 MS. HUNSICKER: Objection; vague.

13 THE WITNESS: Can you ask that again? It's

14 a -- I'm not sure what you mean "what assumptions."

15 BY MR. LEVENBERG: 10:07:27

16 Q. Did plaintiffs' counsel ask you to make

17 any assumptions in doing your report?

18 MS. HUNSICKER: Objection; vague.

19 THE WITNESS: They asked me to prepare a

20 conservative lower bound on the cost of not having 10:07:45

21 access to the funds and of the time.

22 So any assumptions implicit in those, but

23 something that would apply to the vast majority of

24 the class members.

25 But they didn't state any particular 10:08:08

1 assumptions about -- that I can think of. 10:08:11

2 BY MR. LEVENBERG:

3 Q. Were there any facts that they asked you  
4 to assume true for purposes of conducting your  
5 analysis? 10:08:21

6 A. I mean, the description of the classes  
7 that were in the first few pages of the Regan report  
8 that I had access to in February.

9 You know, the number -- I . . .

10 And then some other description of the 10:09:24  
11 case that was consistent with what was in the  
12 consent decree.

13 I don't think there was much else they  
14 mentioned.

15 Q. When you refer to the "description of the 10:09:43  
16 classes," how were the classes described?

17 MS. HUNSICKER: Objection; vague.

18 THE WITNESS: Would you be kind enough to share  
19 the Regan report that was available last February?

20 I don't know when it was created. 10:10:03

21 MR. LEVENBERG: Do we have the Regan report?

22 MS. BRYN: Yes, we do.

23 BY MR. LEVENBERG:

24 Q. Before we look at the report, can you tell  
25 me what your understanding is of the classes that 10:10:16

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1 are at issue in this case? 10:10:19

2 MS. HUNSICKER: Objection; compound.

3 THE WITNESS: There were people who complained

4 there was a fraudulent withdrawal or expense on

5 their debit card. The bank had agreed with the 10:10:41

6 State to resolve these promptly and give credit in

7 the meantime, and they -- the bank didn't do so.

8 In some cases, they gave credit and then

9 later rescinded it.

10 In some cases, if people had credit on 10:11:09

11 their debit card, that was frozen. And future UI

12 benefits couldn't be added to the debit card but

13 with some delay, the State mailed checks.

14 Modern credit cards have a chip in them,

15 and -- almost all cases, and the bank didn't issue 10:11:48

16 cards with a chip, so they were less secure. And

17 the bank had agreed with the State to provide --

18 I'll just use the vernacular term -- "good customer

19 service."

20 There was a more detailed agreement which 10:12:19

21 they failed to uphold, so people had extremely

22 lengthy hold times and measured in hours in many

23 cases.

24 I think those are the five classes.

25 MR. LEVENBERG: Do you want to exhibit Regan? 10:12:40

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1 MS. BRYN: This is the August 2024 one. There 10:12:42  
2 are three Regans. I'm not sure which one he's  
3 referring to.

4 THE WITNESS: It was available to me in  
5 February of this year, so probably this one. 10:12:51

6 MR. LEVENBERG: Mark this one as an exhibit.  
7 (Deposition Exhibit 2 was marked.)

8 MS. HUNSICKER: Is this Exhibit 2?

9 MR. LEVENBERG: Yes, despite the confusing  
10 "Exhibit 4" label. I assume it was Exhibit 4 to 10:13:29  
11 something else.

12 MS. HUNSICKER: The class certification.

13 BY MR. LEVENBERG:

14 Q. Take as much time as you need to look  
15 through this, but my question is, when you were 10:13:42  
16 referring to a Regan report that you reviewed, is  
17 this that report?

18 A. The table on page 3 is the same, so I  
19 assume the report is.

20 Yes. 10:14:06

21 Q. Okay. And my original question, rewinding  
22 a little bit, I believe you testified in response to  
23 my questions about looking at information about  
24 class members, that you had considered information  
25 from the Regan report. 10:14:17

1 Is that a fair characterization of what 10:14:19  
2 you told me?

3 A. Yes, from this Regan report since . . .

4 Q. Can you point me to the portions of the  
5 Regan report that had the information about class 10:14:36  
6 members that you were referring to?

7 MS. HUNSICKER: Objection; vague.

8 THE WITNESS: Definitely the definitions on the  
9 top of page 3.

10 If I can go back to an earlier answer, you 10:15:21  
11 asked what was in this spreadsheet that I looked at.

12 It is quite likely it's the spreadsheet  
13 Regan refers to on page 14 of this report, in which  
14 case, in addition to several dates, it also had  
15 which, if any, fraud filters applied. 10:15:47

16 I said I couldn't recall what else was in  
17 it. It looks as if it has fraud filters.

18 So in paragraphs 35 and 36, there's some  
19 of the counts that I referred to about the number of  
20 people in classes. 10:16:10

21 And paragraph 80 has some of the dates.

22 And I must have skipped one, but on --  
23 paragraph 84 has some of the dollar amounts,  
24 which -- and if you take the total amount times the  
25 class size, you can get the average claim. And 10:17:32

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1 presumably has similar dollar amounts for all the 10:17:35  
2 classes, I just . . .

3 Yeah, in paragraph 76 and . . .

4 Paragraph 100 and 108. And there must be  
5 a count. 10:18:28

6 And in paragraph 97, there's a count.

7 And paragraph 111, there's a count and  
8 114 -- or paragraph 111 and 112, there's a count,  
9 and paragraph 114 is an amount.

10 And paragraph 119 has a count. 10:19:36

11 After page 54, excerpts from this  
12 spreadsheet, it looks like, and I assume this is the  
13 spreadsheet I looked at, but I . . .

14 I'm not 100 percent certain. I don't  
15 think it -- as I said, I looked at it pretty 10:20:32  
16 quickly.

17 So I can't promise I found every class  
18 size or sum of claims, but that's the sort of data I  
19 extracted from the Regan report.

20 And then the Stango report may have had 10:20:50  
21 mean or median claim, and it definitely had some --  
22 the early Stango report had something about small  
23 claims or short claims, I believe.

24 BY MR. LEVENBERG:

25 Q. Now, did you review any of the underlying 10:21:09

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1 data in the portions of the report you just 10:21:13  
2 mentioned or was your review limited to the report  
3 itself?

4 MS. HUNSICKER: Objection; vague.

5 THE WITNESS: After the rebuttal reports from 10:21:30  
6 McCrary, I received some of the underlying data and  
7 I looked at it briefly.

8 And -- yeah.

9 BY MR. LEVENBERG:

10 Q. But you didn't look at any of that data in 10:21:50  
11 creating your own report?

12 MS. HUNSICKER: Objection; asked and answered.

13 THE WITNESS: I did not.

14 BY MR. LEVENBERG:

15 Q. So in paragraph 34, when it references -- 10:22:01

16 A. I'm sorry, which report?

17 Q. I'm looking at the one with the green,  
18 Mr. Regan.

19 In paragraph 34, when it references [REDACTED]

[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]

25 You did not consider any of that data in 10:22:33

1 creating your report, did you? 10:22:37

2 A. I was asked to derive a methodology to  
3 create a conservative lower bound that would apply  
4 to the vast majority of the class members.

5 I didn't look at data for each of the 10:23:04  
6 109,000.

7 Q. So does that mean I should understand that  
8 you did not look at any of the data referenced in  
9 paragraph 34?

10 A. Correct. 10:23:22

11 Q. And then I'm looking at the data -- or the  
12 spreadsheet that follows the signature page after  
13 page 54.

14 Did any of the data here factor in the  
15 conclusions in your report? 10:24:14

16 MS. HUNSICKER: Objection; vague.

17 THE WITNESS: I did not look at the microdata,  
18 the individual level data.

19 BY MR. LEVENBERG:

20 Q. And why not? 10:24:40

21 A. I was asked to derive a methodology to  
22 derive a conservative lower bound, and my  
23 methodology is appropriate for the vast majority of  
24 the class members. These data would not have helped  
25 in that project. 10:25:03

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1 Q. What portion of the class would your 10:25:06  
2 methodology not be appropriate for?

3 MS. HUNSICKER: Objection; confusing.

4 THE WITNESS: Can you . . . the methodology I  
5 used applies to the vast majority of the class. I 10:25:31  
6 don't have a specific numeric number.

7 BY MR. LEVENBERG:

8 Q. Aside from a numeric number, what would  
9 make somebody belong to the class but have your  
10 methodology not be applicable to them? 10:25:48

11 MS. HUNSICKER: Objection; confusing, misstates  
12 testimony.

13 THE WITNESS: I have a couple of different  
14 opinions. I actually can't answer that. I have two  
15 different methods for two different questions. 10:26:38

16 So can you ask that again?

17 BY MR. LEVENBERG:

18 Q. Okay. Well, how would you describe the  
19 first of those two methods?

20 A. That the credit card interest rate is a 10:26:56  
21 conservative measure of the value of not having  
22 access to funds for the vast majority of the class  
23 members.

24 Q. And your testimony still is that your  
25 methodology is appropriate -- your methodology in 10:27:21

1 reference to the credit card interest rate is 10:27:26  
2 appropriate for the vast majority of the class  
3 members?

4 MS. HUNSICKER: Objection; misstates testimony.

5 MR. LEVENBERG: It didn't. 10:27:35

6 THE WITNESS: Can you say it again?

7 BY MR. LEVENBERG:

8 Q. Is your testimony still that your  
9 methodology in reference to the credit card interest  
10 rate is appropriate for the vast majority of the 10:27:48  
11 class members?

12 MS. HUNSICKER: Same objection.

13 THE WITNESS: Say it one more time. Let me  
14 just see if I can hear it.

15 BY MR. LEVENBERG: 10:27:59

16 Q. You testified before, "my methodology is  
17 appropriate for the vast majority of the class  
18 members."

19 Is that correct?

20 MS. HUNSICKER: Same objection. 10:28:06

21 THE WITNESS: Now, we're talking about the  
22 delays in payment?

23 BY MR. LEVENBERG:

24 Q. Well, I was just talking about that  
25 particular statement that you made. 10:28:18

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1 A. There's the two methods I used. 10:28:21

2 Q. Right.

3 A. What the plaintiffs' attorney asked me to

4 do was answer two questions with a conservative

5 lower bound on the cost of delayed funds and the 10:28:30

6 opportunity cost, the value of time being on hold.

7 Q. Right. Which means you had two methods

8 to --

9 A. Yes.

10 Q. -- to answer the two questions. 10:28:41

11 A. So I prefer you just do them one at a

12 time.

13 Q. Right.

14 So as to the first method, is that method

15 appropriate for the vast majority of the class 10:28:49

16 members?

17 MS. HUNSICKER: Objection; confusing.

18 THE WITNESS: The credit card interest rate is

19 a conservative lower bound for the vast majority of

20 the class members, yes. 10:28:59

21 BY MR. LEVENBERG:

22 Q. What portion of the class members is that

23 methodology not appropriate for?

24 MS. HUNSICKER: Objection; confusing.

25 THE WITNESS: I don't have a numeric answer to 10:29:14

1       that question. 10:29:17

2           MS. CHAN: Mr. Levenberg, can we go off the

3       record for just a second?

4           MR. LEVENBERG: Sure.

5           THE VIDEOGRAPHER: We're going off the record. 10:29:23

6       The time is 10:29 a.m.

7           (Discussion off the record.)

8           (Recess taken.)

9           THE VIDEOGRAPHER: We're back on the record.

10       The time is 10:45 a.m. 10:45:56

11       BY MR. LEVENBERG:

12           Q. So before we took our break, we were

13       discussing your opinion that the credit card

14       interest rate is a conservative lower bound for the

15       vast majority of the class members. 10:46:12

16           Is that still your opinion?

17           A. Yes.

18           Q. And my question was, what portion of the

19       class members is it not appropriate for?

20           MS. HUNSICKER: Objection; confusing. 10:46:28

21           THE WITNESS: So the method I use is

22       appropriate for the entire class. It's a

23       conservative lower bound. I was asked to come up

24       with a conservative lower bound that would apply to

25       the vast majority, and that method applies to the 10:46:48

1 entire class. 10:46:53

2 BY MR. LEVENBERG:

3 Q. Well, you said before, "my methodology is

4 appropriate for the vast majority of the class

5 members." 10:46:59

6 A. I apologize for the imprecise language.

7 My methodology is appropriate for the

8 entire class. The lower bound applies to the vast

9 majority of the class members.

10 And there's a . . . yeah. 10:47:22

11 Q. Explain what that means, "the lower bound

12 applies to the vast majority of the class members."

13 A. Plaintiffs' attorneys asked me to find a

14 method that would estimate lower bound on the

15 opportunity cost of not having access to funds that 10:47:54

16 would apply to the vast majority of class members,

17 meaning that the vast majority would have an

18 opportunity cost equal to or greater than that bound

19 that I opined on.

20 And so the methodology applies to 10:48:21

21 everyone. The lower bound applies to the -- is the

22 opportunity cost for --

23 Q. What portion of --

24 A. -- the credit card interest rate that I

25 proposed using is a lower bound of the opportunity 10:48:35

1 cost for the vast majority of the class members. 10:48:44

2 Q. What portion of the class would have an  
3 opportunity cost less than that lower bound?

4 A. I don't have a numeric number.

5 Q. What characteristics of a class member 10:48:55  
6 could cause them to have an opportunity cost less  
7 than that lower bound?

8 MS. HUNSICKER: Objection; incomplete  
9 hypothetical.

10 THE WITNESS: I was asked to create -- to 10:49:12  
11 estimate an opportunity cost that would be a lower  
12 bound for the vast majority. I didn't do an  
13 analysis of each of the 100,000 plus to say the  
14 characteristics.

15 So it's -- I'm glad to go into the basis 10:49:28  
16 of my opinion, and -- but I can't sum up all that in  
17 one answer easily.

18 BY MR. LEVENBERG:

19 Q. Well, if the lower bound applies to the  
20 vast majority of the class members, then there is a 10:49:48  
21 portion to whom it does not apply; is that correct?

22 MS. HUNSICKER: Objection; misstates testimony.

23 THE WITNESS: There's two answers, and it's  
24 just -- my hesitation, it's a little bit hard for me  
25 to respond. 10:50:11

1           My method applies to the entire class           10:50:14  
2       because I was supposed -- I was asked to get  
3       something that would create an estimate of aggregate  
4       harm that was appropriate for the class.

5           So I -- that's what I was asked to do, and           10:50:32  
6       that's what I did.

7           Most people would have a higher  
8       opportunity cost, some would have that opportunity  
9       cost and a small minority could be different.

10           But that wasn't what I was asked to look           10:50:49  
11       at. I was asked to look at what would create an  
12       estimate of the aggregate harm.

13       BY MR. LEVENBERG:

14           Q.    What would cause somebody to belong to  
15       that small minority?           10:51:02

16           MS. HUNSICKER: Objection; incomplete  
17       hypothetical.

18           THE WITNESS: It's hard for me to answer  
19       because there's so many ways to be above the bound,  
20       and if I start listing them, I'm afraid -- off the           10:51:42  
21       top of my head, I'm afraid I would be missing some.

22           So I would go through the basis of the  
23       opinion and at the end, we can return to that.

24           Is that reasonable?

25       BY MR. LEVENBERG:           10:51:53

1 Q. No, I still want to figure this out. 10:51:54

2 I understand that there are a lot of ways  
3 somebody could be above the bound, but I'm trying to  
4 ask about what ways could somebody be below that  
5 bound. 10:52:06

6 What ways can you think of?

7 MS. HUNSICKER: Objection; vague.

8 THE WITNESS: I had mentioned I don't like to  
9 rely on my memory. So if you . . .

10 Not have any liquidity constraints, not 10:53:07  
11 have concerns about precautionary savings, not have  
12 a high subjective discount rate, not be overly  
13 concerned about the duration of the delay, not be  
14 facing uncertainty in the pandemic about income or  
15 expenses or correlated shocks that might increase 10:53:46  
16 the need for precautionary savings.

17 I'm sure there's several I'm forgetting  
18 asking me to go through all the bases of the report.

19 Not have transaction costs be a large  
20 portion of the opportunity cost of not having access 10:54:31  
21 to funds, not have credit card debt that they could  
22 be repaying or any other high-interest rate debt  
23 they could be repaying, and anything I'm forgetting.

24 BY MR. LEVENBERG:

25 Q. Well, take your time. Search your memory. 10:55:30

1 If there's anything else that you want to mention 10:55:33  
2 there, I do want to hear it.

3 So if there are any other factors that  
4 could make someone a member of the small minority  
5 that have an opportunity cost less than the bound, 10:55:44  
6 let me know what you can think of.

7 A. I mean, not be reducing consumption in  
8 things that are hard to substitute across time, not  
9 be relying on sources of credit with high  
10 nonmonetary costs in terms of reputation or status 10:56:46  
11 or social obligation.

12 And that's what comes to mind.

13 Q. Anything else you can think of?

14 A. No. But I'm pretty sure I'll want to add  
15 to this list as the day proceeds. 10:57:16

16 Q. Okay. Well, if you do think of anything  
17 more as the day proceeds, feel free to let me know  
18 and I'll put in a note to self to ask you if  
19 anything else occurred to you.

20 One of the things that you listed was not 10:57:37  
21 having transaction costs be a large portion of the  
22 opportunity cost of not having access to funds.

23 I think I know what that means, but can  
24 you clarify it?

25 A. So you asked whether I had looked at the 10:58:02

1 microdata on the claims, and I said it wasn't 10:58:04  
2 necessary for my methodology.

3 But, ultimately, one would take the  
4 interest rate that I defend as appropriate -- I  
5 don't know you would, one could, I guess a jury will 10:58:21  
6 decide what to do if this goes to trial -- and  
7 multiply it times the size of the claim and the  
8 duration.

9 Some claims have very short duration or  
10 small amounts. And so if it's a \$1,000 claim for 10:58:42  
11 3 days or \$100 claim for a month, my interest rate  
12 would imply damages of a couple dollars or less.  
13 And the transaction costs of having your debit card  
14 balance be off is more than \$1.50, just in terms of  
15 the time involved, ignoring embarrassment or stress 10:59:19  
16 or whatever.

17 So the notion that a small or a claim or a  
18 short claim, even if none of the other criteria  
19 held, the transaction costs are larger than the  
20 interest rate I'm proposing, and so the interest 10:59:54  
21 rate remains a conservative lower bound.

22 Q. I'm trying to wrap my head around this  
23 scenario. Give me a moment.

24 So you referred to somebody who might need  
25 to access credit to cover a \$1,000 claim for 3 days. 11:00:34

1 A. No, no. I apologize for my lack of 11:00:39  
2 clarity.

3 If somebody losses access to \$1,000 for  
4 3 days -- let me just do the math real quick.

5 I think -- we can check my math more 11:01:07  
6 fully -- but I think that means the damages are on  
7 the order of \$1.50 using my method.

8 And the reason I say the credit card  
9 interest rate is lower bound to the opportunity  
10 cost, it is not necessarily that they would borrow 11:01:20  
11 the \$1,000 for 3 days but simply that \$1.50 is --  
12 the transaction cost of dealing with why your debit  
13 card isn't working as expected is more than \$1.50  
14 for the vast majority of the class.

15 And we haven't talked about my second 11:01:42  
16 opinion about the value of time, but just for the  
17 moment thinking of the minimum wage as the value of  
18 time, they would say, you know, a few minutes of  
19 time it takes to figure out why it's denied, even if  
20 customer service is working perfectly, if you have 11:02:02  
21 to go on a website or visit a -- call a call center  
22 to figure out why it was denied and figure it out,  
23 that that's more than \$1.50 worth of transaction  
24 costs.

25 Q. And what's the connection between that and 11:02:17

1 the credit card interest rate? 11:02:19

2 MS. HUNSICKER: Objection; vague.

3 THE WITNESS: The credit card interest rate  
4 says such a person has an opportunity cost of not  
5 having access to their funds, at least the credit 11:02:30  
6 card interest rate, of at least \$1.50.

7 And if you work out the transaction cost,  
8 they're well over \$1.50, so this is a lower bound.  
9 This is a conservative amount of damages they have  
10 suffered. 11:02:46

11 Even if they are not borrowing, they still  
12 suffered damage -- here, it's transaction cost --  
13 and this credit card rate is a conservative measure  
14 of their damage.

15 So it remains part of this -- this person 11:02:59  
16 remains part of this vast majority, even if they  
17 didn't need to borrow it for three days. And some  
18 would, but even if they didn't.

19 BY MR. LEVENBERG:

20 Q. So this person's damages are not based on 11:03:17  
21 the credit card rate, you're just certain that  
22 whatever damages those are, they are more than the  
23 credit card rate?

24 MS. HUNSICKER: Objection; misstates testimony,  
25 vague. 11:03:28

1 THE WITNESS: For the vast majority of people, 11:03:30  
2 the transaction cost would be more than what would  
3 be implied by the credit card interest rate, yes.

4 BY MR. LEVENBERG:

5 Q. But it's not the case that their damages 11:03:36  
6 are based on the credit card interest rate?

7 MS. HUNSICKER: Objection; vague, misstates  
8 testimony.

9 THE WITNESS: If we looked merely at the  
10 transaction costs, the credit card interest rate 11:03:47  
11 would be -- this \$1.50 in this example would be a  
12 very conservative estimate of the damages they would  
13 suffer.

14 BY MR. LEVENBERG:

15 Q. Well, by "very conservative," what do you 11:03:57  
16 mean? You mean the damages they suffered are  
17 greater than the credit card interest rate?

18 MS. HUNSICKER: Objection; vague.

19 THE WITNESS: Greater or equal to, yes.

20 BY MR. LEVENBERG: 11:04:08

21 Q. Do the damages they suffered have anything  
22 to do with the credit card interest rate other than  
23 being more than it?

24 MS. HUNSICKER: Objection; vague.

25 THE WITNESS: In this hypothetical, I'm 11:04:23

1 assuming that their only cost are these transaction 11:04:26  
2 costs.

3 They could also be -- they might have  
4 other costs and then some of those would be tied to  
5 the credit card interest rate. But I'm saying, in 11:04:38  
6 this simplest example where they have no other cost,  
7 the credit card interest rate remains a conservative  
8 lower bound.

9 BY MR. LEVENBERG:

10 Q. Where their only costs are their 11:04:54  
11 opportunity costs?

12 A. No. Their only costs are the transaction  
13 costs.

14 Did I say that wrong? Pardon me.

15 THE REPORTER: No, I wrote it wrong. 11:05:06

16 THE WITNESS: Oh, okay. Thank you both for the  
17 correction.

18 BY MR. LEVENBERG:

19 Q. I know this is a complicated concept. I'm  
20 just trying to break it up into all of its parts. 11:05:14

21 Where their only costs are the transaction  
22 costs, their costs are greater than the credit card  
23 interest rate; is that your opinion?

24 A. Yes, for these small or short claims.

25 I mean, if we look at \$100 claim for a 11:05:30

1 month, again, it's -- again, it's about \$1.50, and 11:05:34  
2 so it's a longer claim but it's a smaller amount of  
3 money --

4 (Reporter seeks clarification.)

5 A. -- the transaction costs are going to be 11:06:04  
6 higher.

7 Let me just check my math here.

8 I think that's right, yeah.

9 So the point is, even for small or short  
10 claims, the credit card interest rate, even if they 11:06:20  
11 have no need to borrow, remains a very conservative  
12 lower bound.

13 Q. Can the credit card interest rate be used  
14 to calculate their transaction costs?

15 MS. HUNSICKER: Objection; confusing. 11:06:36

16 THE WITNESS: I'm using it as a conservative  
17 lower bound.

18 Does that answer your question?

19 BY MR. LEVENBERG:

20 Q. Not quite. 11:06:50

21 So I understand your opinion that the  
22 interest rate is a conservative lower bound, meaning  
23 the transaction costs are higher than the figure  
24 produced by the interest rate.

25 Am I stating that accurately? 11:07:04

1 A. Yes. 11:07:06

2 Q. Can the interest rate be used to figure  
3 out what the transaction costs are?

4 MS. HUNSICKER: Objection; vague.

5 THE WITNESS: That's not part of how I 11:07:25

6 calculated the transaction costs, using the credit  
7 card interest rate. It's not necessary for it in  
8 this extreme case.

9 BY MR. LEVENBERG:

10 Q. When you say how you calculated the 11:07:34  
11 transaction costs, you're just talking about the  
12 calculation you did just now, not any calculation  
13 you did in your report; right?

14 A. Correct.

15 Q. Okay. What factors make somebody a member 11:07:50  
16 of the vast majority of people for whom you said the  
17 interest rate is a conservative lower bound?

18 MS. HUNSICKER: Objection.

19 THE WITNESS: Can you ask that one more time?

20 Pardon me. 11:08:09

21 BY MR. LEVENBERG:

22 Q. Sure.

23 What factors make somebody a member of the  
24 vast majority of people for whom the interest rate  
25 is a conservative lower bound? 11:08:18

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1 THE WITNESS: And then did you have an 11:08:20  
2 objection?  
3 MS. HUNSICKER: Objection; overbroad, vague.  
4 THE WITNESS: You're asking me to rely on my  
5 memory for the entire report, so I will -- 11:08:33  
6 BY MR. LEVENBERG:  
7 Q. You can refer to the report if that's  
8 helpful for you.  
9 A. Possibly increase -- those who face  
10 liquidity constraints have high subjective discount 11:08:43  
11 rates where transaction costs are higher than the  
12 credit card interest rate implies.  
13 If they accessed sources of credit with  
14 high nonfinancial burden in terms of status or  
15 reputation or demands of reciprocity, if they 11:09:09  
16 lowered consumption in items that are hard to  
17 substitute over time, if they had the alternative to  
18 repay credit card debt or other high-interest debt  
19 are some of the groups for which this is the lower  
20 bound. 11:09:35  
21 Q. I think I understand all that. There's  
22 just one thing I wanted to clarify.  
23 Part of your answer was you referred to  
24 "if they accessed sources of credit with high  
25 nonfinancial burden in terms of status or 11:09:52

1 reputation." 11:09:55

2 I'm understanding that as a layperson

3 basically to mean, for example, borrowing money from

4 friends.

5 Would that be an example that fits into 11:10:04

6 that category?

7 A. In many cases.

8 Q. What are some other examples of things

9 that would qualify as accessing sources of credit

10 with high nonfinancial burdens in terms of status or 11:10:16

11 reputation?

12 A. Very often, borrowing from friends and

13 family.

14 Q. Anything else that you would put in that

15 category? 11:10:31

16 A. No, not right now.

17 Q. Okay. And are there any other factors

18 that you haven't mentioned yet that would make

19 someone a member of the vast majority of people for

20 whom the interest rate is a conservative lower 11:10:56

21 bound?

22 A. I may think of others, but none come to

23 mind.

24 Q. How vast is that vast majority?

25 MS. HUNSICKER: Objection; vague. 11:11:28

1 THE WITNESS: I don't have a numeric reply. 11:11:31  
2 BY MR. LEVENBERG:  
3 Q. What do you base your opinion that it is a  
4 vast majority on?  
5 A. One group I mentioned that have an 11:11:53  
6 opportunity cost of funds greater --  
7 (Reporter seeks clarification.)  
8 A. -- greater than or equal to the credit  
9 card interest rate are those who would use  
10 government transfers to repay credit card debt. 11:12:14  
11 And I paraphrase some of  
12 Professor Stango's analysis. We replicate it and I  
13 mentioned in my report that I believe the majority  
14 of people receiving stimulus -- who were unemployed  
15 receiving one of the stimulus checks said they were 11:12:46  
16 using it to repay credit card debt.  
17 So that immediately says that their  
18 opportunity cost to funds was the credit card  
19 interest rate because if they had funds, they were  
20 repaying debt, and conversely, if they're not -- if 11:13:07  
21 those funds hadn't arrived, they would not repay the  
22 debt and they would be having larger credit card  
23 debt.  
24 And I would have to look that up, but I  
25 think that was 66 percent in one survey that Stango 11:13:20

1 analyzed. 11:13:27

2 I apologize, some of this language may  
3 literally be a quote from Stango -- it's definitely  
4 paraphrased -- because I redid his analysis and got  
5 the same result. 11:14:06

6 And I think that's probably -- the  
7 66 percent probably doesn't -- I think that figure  
8 was a little bit lower for some of the other  
9 transfers.

10 But a majority of people were using 11:14:25  
11 transfers to repay debt, which conversely applies,  
12 not having transfers means they would not repay  
13 debt.

14 A majority or near majority of people were  
15 expressing -- unemployed people during COVID were 11:14:47  
16 expressing deprivations, such as food insecurity or  
17 not being able to pay bills on time, or if they  
18 received a \$400 piece of bad news, they would not be  
19 able to pay bills on time or meet the expense.

20 And these were data on unemployed people 11:15:10  
21 most of whom were receiving unemployment insurance.  
22 Those not receiving unemployment insurance had even  
23 higher levels of deprivation.

24 A meaningful share of people are liquidity  
25 constraint, meaning if they -- they don't have 11:15:33

1 liquid assets large enough to pay a \$1,000 or \$2,000 11:15:36  
2 piece of bad news.

3 Even when people have access -- I hope I  
4 mentioned precautionary savings. Even when people  
5 have access to funds, they're liquid, many people 11:16:03  
6 also have credit card debt.

7 And one motive for that is the fact that  
8 people have a desire for precautionary savings, that  
9 we can't predict our next expenses, our -- we can't  
10 predict incomes. 11:16:33

11 Particularly during COVID, uncertainty was  
12 very high. The ability to count on one's other  
13 family members or social network was low because  
14 they were also under lockdown or had enormous  
15 uncertainty. 11:16:54

16 So the desire for precautionary savings  
17 they do, we need to keep a buffer of liquidity was  
18 higher than usual. So even people --

19 (Reporter seeks clarification.)

20 A. -- who have liquidity can behave very 11:17:14  
21 similarly to those we -- economists normally think  
22 of liquidity constrained because they don't want to  
23 have enough, you know, liquid assets in case an  
24 unexpected expense arises or some income they expect  
25 does not appear. 11:17:33

1 And people have a, what economists call, 11:17:50  
2 subjective discount rate, which in the vernacular  
3 would be impatience.

4 And, again, because of this, people prefer  
5 to have money sooner than later. And when the 11:18:09  
6 subjective discount rate is high, that also is  
7 appropriate to consider the opportunity cost of  
8 funds to be their subjective discount rate, their  
9 rate of impatience.

10 That's almost the definition that if I 11:18:37  
11 would rather have monies sooner than later, that  
12 that is the opportunity cost of it showing up later,  
13 is that impatience.

14 Q. Okay. There's much to unpack there, but  
15 don't worry, I'm not going to unpack all of it. I 11:19:00  
16 do have a couple of follow ups though.

17 You made reference to 66 percent of some  
18 population using stimulus to repay credit card debt.  
19 And I want to make sure that we are talking about  
20 the same thing because, as I understand it, there 11:19:19  
21 were several different types of payments or benefits  
22 available during the COVID-19 period.

23 There was unemployment insurance on the  
24 one hand and then there was also more broadly  
25 federal stimulus checks on the other hand. Maybe 11:19:36

1 state stimulus checks as well. 11:19:40

2 Is that 66 percent figure in reference to  
3 the unemployment insurance or in reference to the  
4 stimulus checks?

5 A. The Census Bureau's Household Pulse Survey 11:19:55

6 found that 66 percent of responding households at  
7 the end of January 2021 who indicated that they were  
8 laid off due to the pandemic -- to the Coronavirus  
9 pandemic, whose employer went out of business due to  
10 the Coronavirus pandemic, used their COVID-19 11:20:23  
11 stimulus payments primarily to pay off debt.

12 So this is the similar population to the  
13 unemployed people receiving unemployment insurance,  
14 and I'm generalizing, not saying exactly 66 percent,  
15 but this implies unemployed people were using 11:20:52  
16 government transfers, and a large, large share of  
17 them, to pay off debt.

18 And that means they had an opportunity  
19 cost of the interest rate on that debt, which for  
20 most Americans was the credit card interest rate. 11:21:10

21 Q. But is the payment here that they were  
22 using, is that unemployment insurance payments or  
23 stimulus payments?

24 A. This is stimulus.

25 Q. Okay. And are you assuming that if 11:21:25

1 66 percent used stimulus payments primarily to pay 11:21:30  
2 off debt, that the same proportion also used the UI  
3 benefits to pay off debt?

4 MS. HUNSICKER: Objection; misstates testimony.

5 THE WITNESS: I think I said I think it's -- 11:21:43

6 66 percent is higher than I've seen in other  
7 surveys, but that that does show a very high  
8 proportion were using government transfers to pay  
9 off debt. And I assume that probably less than

10 66 percent but a high proportion were using 11:22:01  
11 unemployment insurance to pay off debt.

12 And there are other data sources that  
13 support that.

14 BY MR. LEVENBERG:

15 Q. And is that 66 percent the vast majority 11:22:17  
16 that you were referring to earlier?

17 MS. HUNSICKER: Objection; confusing.

18 THE WITNESS: There are many ways to make it  
19 into the vast majority. I talked about liquidity  
20 constraints -- 11:22:35

21 (Reporter seeks clarification.)

22 THE WITNESS: Liquidity constraints, a high  
23 subjective discount rate, transaction costs being a  
24 large share of the total opportunity cost; accessing  
25 loans with high nonfinancial costs due to social 11:22:55

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1 status, reducing consumption that's hard to shift in 11:23:00  
2 time and precautionary motives.

3 So this is one of that six or seven or  
4 eight ways to get into that category.

5 BY MR. LEVENBERG: 11:23:13

6 Q. And other than the data that you just  
7 discussed in reference to the 66 percent, how do you  
8 know that all of those factors add up to a vast  
9 majority?

10 MS. HUNSICKER: Objection; vague. 11:23:23

11 THE WITNESS: I have evidence on the size of  
12 these several groups. They come from various data  
13 sources. Each of them is large.

14 This one is a majority. Some of the  
15 others are majorities or near majorities. 11:24:10

16 I don't know exactly how much they  
17 overlapped, but they were not perfectly correlated.  
18 And so, if I simply added up the shares, I would get  
19 well over 100 percent. But given they are  
20 imperfectly correlated, I can say that the vast 11:24:29  
21 majority will be in one of or more of these  
22 categories.

23 BY MR. LEVENBERG:

24 Q. Can you tell me about what groups that you  
25 have data sources for? 11:24:37

1 MS. HUNSICKER: Objection; vague. 11:24:40

2 THE WITNESS: There are several data sources  
3 showing that a high share of Americans have a hard  
4 time coming up with funds for a few thousand dollars  
5 and would have to access one or more of these 11:25:06  
6 high-cost sources to meet a shock.

7 Their estimates of the aggregate  
8 subjective discount rate among the unemployed that  
9 we can -- during COVID that is higher than the  
10 credit card discount rate -- interest rate that I 11:25:53  
11 propose, that would be an aggregate rate, so that  
12 wouldn't be about a share but just saying on  
13 average, it's higher.

14 We have evidence on the deprivation  
15 suffered by the unemployed, particularly those not 11:26:12  
16 receiving UI, during COVID, and we have evidence  
17 that the factors leading to precautionary savings  
18 got -- precautionary savings is savings because the  
19 world is uncertain, and we have evidence that  
20 uncertainty, the risk to income and needs, went up 11:26:47  
21 during COVID.

22 BY MR. LEVENBERG:

23 Q. So what proportion of class members fall  
24 into the group of people who have a hard time coming  
25 up with funds for a few thousand dollars? 11:27:04

1 MS. HUNSICKER: Objection; vague. 11:27:09

2 THE WITNESS: So I cited pre-pandemic data that

3 about 37 percent of all adults had one month's

4 expenses in emergency savings.

5 Unemployed people tend to have lower 11:28:23

6 savings than those who are employed, so I would say

7 they would be below the 37 percent. And then my

8 understanding is that most of the UI payments were

9 delayed by over a month, so 37 percent having a

10 month may not be enough. 11:28:58

11 And I want to come back to this idea of

12 precautionary savings.

13 If I have \$1,000 in the bank, and I have

14 bills I need to pay of \$1,000, it doesn't mean I

15 have enough liquidity to cover the bills because 11:29:17

16 that would drive me to zero, and people don't like

17 that because new expenses may come they're not

18 expecting or income may not appear that they do

19 expect.

20 So just because you have that much money 11:29:39

21 in the bank doesn't mean you actually can pay these

22 expenses.

23 People -- demand for precautionary savings

24 depends partly on how much uncertainty they have.

25 Unemployed people have uncertainty. During a 11:30:03

1 pandemic, the whole world had uncertainty, and 11:30:06  
2 definitely, unemployed people during the pandemic.

3 There's also uncertainty about income.

4 These are 100 percent people whose unemployment  
5 insurance, which had been their backstop, all of a 11:30:18  
6 sudden was not working as expected, so they would  
7 have had extra uncertainty due to that.

8 And uncertainty is often reduced by  
9 knowing that if things go wrong, I can rely on those  
10 around me. But during a pandemic, everybody is 11:30:42  
11 facing -- many people were facing shutdowns during  
12 various time periods and everybody was facing very  
13 high uncertainty.

14 So precautionary savings demand would be  
15 much higher than usual, meaning that somebody who 11:31:00  
16 says, I have enough money in the bank to cover a  
17 month's bills, would have found that less adequate  
18 than in normal times for somebody who had a regular  
19 job and there weren't the risks to health or medical  
20 expenses or just everything else that the pandemic 11:31:26  
21 brought.

22 BY MR. LEVENBERG:

23 Q. Let's explore that hypothetical a little  
24 bit because I think that will be helpful to us.

25 So the scenario you posed -- and please 11:31:36

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1 stop me if I'm getting anything wrong here -- 11:31:39  
2 someone who has bills to pay of \$1,000 and has  
3 \$1,000 in the bank, and they could do one of two  
4 things, right?  
5 They could either access the \$1,000 they 11:31:55  
6 have in the bank to pay the bill or they could  
7 borrow \$1,000 and keep the \$1,000 as liquidity; is  
8 that right?  
9 MS. HUNSICKER: Objection; incomplete  
10 hypothetical. 11:32:14  
11 THE WITNESS: Those are two of the options.  
12 They can reduce their consumption, and they may have  
13 various sources of borrowing and they can mix and  
14 match these and it's not -- it could be some  
15 combination. 11:32:51  
16 BY MR. LEVENBERG:  
17 Q. Okay. Other than reducing consumption,  
18 what other options can you think of besides the ones  
19 we've already mentioned?  
20 A. To an economist, failing to pay the bill 11:33:18  
21 counts as a form of borrowing.  
22 Q. Sure.  
23 A. But in the vernacular, those are  
24 different.  
25 In normal times, sometimes you can work 11:33:42

1 longer hours and get another job. That was pretty 11:33:45  
2 hard for unemployed people during the pandemic.

3 But those are some of the options. There  
4 might be others I haven't thought of.

5 Q. Okay. Can you think of any others? 11:33:57

6 A. Not at this moment. I might -- please  
7 proceed.

8 Q. Sure.

9 So in that scenario where someone borrows  
10 off of a credit card to pay the \$1,000 and pays 11:34:13  
11 15.9 percent interest on their borrowing, I  
12 understand the basis for your opinion that  
13 15.9 percent is a good measure of their cost, or a  
14 good minimum measure of their cost to be sure of,  
15 stating that accurately. 11:34:34

16 But not everybody is going to choose that  
17 option, right? We can assume that?

18 Can we assume that?

19 A. Yes.

20 Q. Okay. So there are some people who would 11:34:46  
21 indeed access the \$1,000 they have in the bank.

22 Is that a valid assumption?

23 A. I mean, very few people would use  
24 100 percent of their bank account, but some might.

25 Q. And do you have any data on how frequently 11:35:16

1 people might choose one of those options over 11:35:20  
2 another one?

3 MS. HUNSICKER: Objection; vague.

4 THE WITNESS: I do not hear about people  
5 driving bank balances to zero, closing out bank 11:35:39  
6 accounts because of transitory incomes very often,  
7 so I don't have any data. But I think it is a very,  
8 very small share.

9 BY MR. LEVENBERG:

10 Q. And what makes you think it's a very, very 11:35:52  
11 small share?

12 A. Because I've been reading about household  
13 financial behavior and doing research in it for a  
14 long time, and there are many examples of people  
15 borrowing and very few examples of people closing 11:36:13  
16 out bank accounts due to short -- I don't know of  
17 any accounts.

18 I mean, it does exist, I'm not saying it's  
19 zero, but it's very rare to drive your bank balance  
20 to zero because a check was delayed by a month if 11:36:26  
21 you had access to a credit card.

22 Q. Well, let's adjust the hypothetical then.

23 Let's say they had \$2,000 in the bank and  
24 had to pay \$1,000, so they're not driving the  
25 balance of the account to zero or closing out the 11:36:42

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1 account but they are accessing the account, do you 11:36:46  
2 have any data on how many people would choose that  
3 option over the other one?

4 A. Not tied to this hypothetical.

5 What we do see is that a very high share 11:37:08  
6 of American households have positive bank balances  
7 and have positive credit card debt they are paying  
8 interest on.

9 So it's -- people having money in the bank  
10 doesn't mean they're not borrowing on their credit 11:37:37  
11 card.

12 Q. Right.

13 Do you have any data on the proportion of  
14 class members who chose to pay on credit cards in  
15 lieu of accessing liquid funds? 11:37:52

16 A. No.

17 Q. Okay. I wanted to go through your report  
18 more or less in sequence, and I realize we were  
19 doing it a little bit out of sequence. So we'll  
20 leave that line of questioning there and go back 11:38:22  
21 roughly to the beginning.

22 I'm on paragraph 9 now.

23 Your statement there was, "Using an  
24 aggregate measure of harm is common practice in the  
25 field of economics, and aggregates are an 11:38:44

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1 appropriate way to represent classwide harm." 11:38:48  
2 Describe what you mean by "aggregate  
3 measure of harm."  
4 A. The total harm suffered by a group.  
5 Q. And do you need to have information about 11:39:17  
6 the harm suffered by individual members of the group  
7 to form an opinion about the total harm suffered by  
8 the group?  
9 MS. HUNSICKER: Objection; vague.  
10 THE WITNESS: Can you ask that again? 11:39:41  
11 You mean individuals as opposed to  
12 having . . .  
13 BY MR. LEVENBERG:  
14 Q. If you have information about the  
15 aggregate measure of harm for a group, can you use 11:39:50  
16 that to draw conclusions about the harms suffered by  
17 individual members of the group?  
18 MS. HUNSICKER: Objection; vague.  
19 THE WITNESS: So the method I'm proposing is to  
20 say that this credit card interest rate is a 11:40:10  
21 conservative lower bound on the opportunity cost of  
22 funds.  
23 My expectation is one would then take the  
24 individual claims amounts and durations to create a  
25 damage per person. 11:40:30

1 Is that what you're asking? 11:40:34

2 I'm not sure what you're asking.

3 BY MR. LEVENBERG:

4 Q. Well, that is helpful.

5 So I guess let's back up a little. Tell 11:40:42  
6 me how you would propose to arrive at the aggregate  
7 measure of harm.

8 A. If I can find opportunity cost to funds --  
9 a lower bound on the opportunity cost to funds for  
10 the vast majority of the class, and we apply that to 11:41:11  
11 the total amount of UI payments that were delayed  
12 times their delay, we would get an aggregate measure  
13 of harm.

14 Q. Okay. And that aggregate measure of harm  
15 is basically just the sum total of all individual 11:41:31  
16 harms?

17 MS. HUNSICKER: Objection; confusing.

18 THE WITNESS: It is a conservative lower bound  
19 on the sum of the individual harms is what it's  
20 intended to create. 11:41:51

21 BY MR. LEVENBERG:

22 Q. Can your method be used to measure the  
23 individual harms suffered by any individual class  
24 member?

25 MS. HUNSICKER: Objection; outside the scope of 11:42:01

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1 the report. 11:42:04

2 THE WITNESS: I was asked to create a method to  
3 get a conservative lower bound for estimating the  
4 aggregate harm.

5 I wasn't asked to -- 11:42:15

6 BY MR. LEVENBERG:

7 Q. Okay. You can finish.

8 So can your method be used to assess the  
9 harm experienced by any individual class member?

10 MS. HUNSICKER: Objection; outside the scope of 11:42:29  
11 the report.

12 THE WITNESS: I wasn't asked to do that, so I  
13 don't . . .

14 BY MR. LEVENBERG:

15 Q. Do you have an opinion on it? 11:42:40

16 MS. HUNSICKER: Same objection.

17 THE WITNESS: Ask the question again.

18 BY MR. LEVENBERG:

19 Q. Can your method be used to assess the harm  
20 experienced by any individual class member? 11:42:52

21 MS. HUNSICKER: Same objection.

22 THE WITNESS: I'm hesitant to answer because  
23 it's an ill-posed question.

24 My method was trying to create a  
25 conservative lower bound for the class and then use 11:43:01

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1 the individualized information on claimed amounts 11:43:17  
2 and duration.

3 It makes it very hard to say how . . . it  
4 was not designed for any other purpose besides that.

5 BY MR. LEVENBERG: 11:43:41

6 Q. Could it be used for any purposes it  
7 wasn't designed for?

8 MS. HUNSICKER: Objection; outside the scope of  
9 the report.

10 THE WITNESS: I can't answer that. 11:43:51

11 I mean, I'm sorry, I'm just -- ask the  
12 question again. It makes sense, but I'm having  
13 trouble answering it.

14 BY MR. LEVENBERG:

15 Q. That's fine. 11:44:01

16 Can your method be used to assess the  
17 harms experienced by any member of the class?

18 MS. HUNSICKER: Outside the scope of the  
19 report; objection.

20 THE WITNESS: I wasn't designing the method 11:44:18  
21 with that intent, and I don't have an expert opinion  
22 on that.

23 I just -- you guys are welcome to hire me  
24 to answer that question, but I just don't have an  
25 opinion that I can defend right now. 11:44:33

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1 BY MR. LEVENBERG: 11:44:34

2 Q. Okay. Is that another way of saying you  
3 don't know if your method could be used for that  
4 purpose?

5 MS. HUNSICKER: Misstates testimony. 11:44:42

6 THE WITNESS: I'm under oath. I don't want to  
7 give an answer that I have not thought deeply about,  
8 and I have not thought deeply about that.

9 So I just -- it's a separate question than  
10 what I was asked to answer. 11:44:53

11 BY MR. LEVENBERG:

12 Q. So is the answer to that question I don't  
13 know?

14 MS. HUNSICKER: Same objection.

15 BY MR. LEVENBERG: 11:44:58

16 Q. I know this is annoying, but I just want a  
17 record --

18 A. It's not a question, it's sort of -- I  
19 mean, it's completely grammatical, but it's just not  
20 well-framed from the way I think about things, so 11:45:12  
21 it's hard for me to answer.

22 Ask it one more time. Let me see why it  
23 is so hard for me the answer.

24 Q. Could your method be used to measure the  
25 harms experienced by any individual class member? 11:45:30

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1 MS. HUNSICKER: Objection; outside the scope of 11:45:34  
2 the report.

3 THE WITNESS: If someone hired me to answer a  
4 different question, I would use the same economic  
5 logic, but I can't say exactly how the method would 11:45:43  
6 differ because I wasn't asked to look at that. It's  
7 just the method would overlap enormously, but I  
8 don't know if it would be identical.

9 BY MR. LEVENBERG:

10 Q. Okay. Can you think of anything you would 11:46:00  
11 do different?

12 MS. HUNSICKER: Objection; outside the scope of  
13 the report.

14 THE WITNESS: The problem is I -- you have a  
15 hypothetical in mind, and tell me the whole 11:46:19  
16 hypothetical and I might be able to answer.

17 BY MR. LEVENBERG:

18 Q. I actually don't have a specific  
19 hypothetical in mind. I'm just thinking that for  
20 any individual class member, if we wanted to know 11:46:28  
21 what their damages were, what would we do?

22 MS. HUNSICKER: Objection; outside of the scope  
23 of the report.

24 THE WITNESS: I mean, that's a really different  
25 question. I spent a long time on this report. I 11:46:39

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1 would use the same economic principles, but I don't 11:46:44  
2 know what data that I would have. I really can't  
3 answer that.

4 The economic principles remain the same,  
5 but the exact method would depend on a lot of things 11:47:03  
6 that you haven't told me about.

7 BY MR. LEVENBERG:

8 Q. Sure.

9 What would it depend on?

10 MS. HUNSICKER: Objection; this whole line of 11:47:11  
11 questioning is outside of the scope of the report.

12 THE WITNESS: It's an important question. I  
13 can tell you the principle is the same. I can't  
14 tell you exactly what it would take. I would have  
15 to work hard on that. 11:47:34

16 BY MR. LEVENBERG:

17 Q. Okay. But -- and just for the sake of  
18 clarity, and I know we're retreading some ground  
19 here, but I just want to make sure we're clear.

20 You might vary the method, but you're not 11:47:48  
21 sure exactly how you would vary it; is that fair?

22 MS. HUNSICKER: Objection; misstates testimony.

23 THE WITNESS: There's not enough substance to  
24 this question about what the hypothetical is for me  
25 to give any coherent answer. 11:48:11

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1                   So I will simply say the economic                   11:48:13  
2           principles remain the same, and I would need to know  
3           way more about this to say how I would approach it.  
4           You just haven't told me enough and --

5           BY MR. LEVENBERG:                                           11:48:27

6           Q.    Well, what more would you want me to tell  
7           you?

8           MS. HUNSICKER:  Objection; outside the scope of  
9           the report.

10                  Asked and answered as well.                                           11:48:44

11           THE WITNESS:  I'm still not even sure what --  
12           since I was asked a question about aggregate harm to  
13           create a lower bound for a group, to say how I would  
14           approach that for an individual is just a very  
15           different question.                                           11:49:02

16                  I have not thought deeply about what . . .  
17           I just haven't thought deeply about what it would  
18           take to answer it.

19           BY MR. LEVENBERG:

20           Q.    So do you have an opinion about whether                                           11:49:43  
21           the method described in your report could be used to  
22           assess harm experienced by an individual class  
23           member?

24           MS. HUNSICKER:  Objection; asked and answered.

25           THE WITNESS:  The methodology I used was                                           11:50:10

1 designed to create a conservative lower bound on an 11:50:12  
2 interest rate that one could then multiply by an  
3 amount of missing -- of delayed funds times the  
4 duration of the delay and create an estimate of  
5 harms for individuals. 11:50:31

6 But it's designed to create an aggregate  
7 measure being a conservative lower bound that  
8 applies to the vast majority of the class.

9 Is that responsive to your question?

10 There's many -- I don't know what you mean 11:50:48  
11 by individual -- I mean --

12 BY MR. LEVENBERG:

13 Q. Well, it is what it is.

14 A. -- it's what it is designed for.

15 Q. It is a helpful response, but I can't stop 11:50:55  
16 asking questions, so I'm going to keep going.

17 So should I interpret that to mean the  
18 method was designed to create an aggregate measure  
19 of harm for a class of 109,000 people; is that fair?

20 A. Even though I use that number, I forget 11:51:14  
21 exactly which, but that was part --

22 Q. Whatever that number is, I know it's --

23 A. For more than 100,000 people, yes.

24 Q. Could that method also be used to create  
25 an aggregate measure of harm for a class of 50,000 11:51:29

1 people? 11:51:33

2 MS. HUNSICKER: Objection; incomplete

3 hypothetical, confusing.

4 THE WITNESS: Yes.

5 BY MR. LEVENBERG: 11:51:42

6 Q. Could it be used to create an aggregate

7 measure of harm for a class of 100 people?

8 MS. HUNSICKER: Same objection; incomplete,

9 confusing.

10 THE WITNESS: As members get smaller, reliance 11:51:55

11 on averages gets more challenging and sampling

12 variation, random errors, and things like that,

13 become more important.

14 So as -- for 50,000, it's easy, and for

15 numbers at 100 and below, one has to be more 11:52:35

16 careful, so I would need to know a lot more.

17 BY MR. LEVENBERG:

18 Q. Okay. And could it be used to create an

19 aggregate measure of harm for a class of one person?

20 MS. HUNSICKER: Objection; incomplete. 11:52:48

21 THE WITNESS: This wouldn't be how I would

22 approach that problem.

23 BY MR. LEVENBERG:

24 Q. Okay.

25 All right. I think we are almost at our 11:52:54

1 lunchtime. I'm at a good breaking point now 11:52:57

2 regardless, but we should check on the food status.

3 MS. BRYN: Lunch will be here. I just checked.

4 MR. LEVENBERG: All right. So why don't we

5 take a break, and we'll come back after we are all 11:53:09

6 satiated.

7 THE VIDEOGRAPHER: We are going off the record.

8 The time is 11:53 a.m.

9 (Lunch recess was taken at 11:53 a.m.)

10 (Nothing omitted or deleted. See next

11 page.)

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1 AFTERNOON SESSION 12:59 P.M.

2 - - -

3 THE VIDEOGRAPHER: We're back on the record.

4 The time is 12:59 p.m.

5 EXAMINATION RESUMED 12:59:05

6 BY MR. LEVENBERG:

7 Q. All right. Before getting back to your  
8 report, we're going to put some more paper in front  
9 of you.

10 MR. LEVENBERG: So we're going to exhibit the 12:59:14  
11 complaint.

12 (Deposition Exhibit 3 was marked.)

13 BY MR. LEVENBERG:

14 Q. Have you seen this before?

15 Take as much time as you need to page 12:59:43  
16 through it.

17 (Witness reviews document.)

18 A. I don't believe I've seen the entire  
19 document. I probably -- I may have seen excerpts of  
20 it. 13:01:11

21 I don't know if I've seen the whole thing.  
22 I believe I've seen excerpts.

23 Q. When did you see the excerpts?

24 A. I'm sorry?

25 Q. When did you see the excerpts? 13:02:10

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1 A. Let's see . . . 13:02:20

2 I don't like to rely on my memory, so I'm

3 not sure. It is possible I just received this in

4 the last week or so, but I may have seen parts of it

5 earlier. 13:02:45

6 It -- you know --

7 Q. Do you remember what was in the parts that

8 you saw?

9 A. I believe the factual -- I may have

10 seen -- I may have been given the whole thing. I 13:03:25

11 believe I looked at the factual allegations,

12 Section 4.

13 Q. Did you rely on anything in the complaint

14 in forming the opinions in your report?

15 A. I apologize for my poor memory, but as 13:04:09

16 best I recall, I didn't see this until after I wrote

17 the report.

18 Q. Okay.

19 A. And I will e-mail you if I find out that

20 is incorrect. 13:04:21

21 Q. That's fair.

22 So we could talk about pretty much any

23 part at random, but there was one passage in

24 particular I thought would be useful to start with.

25 Turn to page 81, if you could. 13:04:40

1                   There are a few paragraphs of allegations                   13:04:48  
2                   on page 81 and 82 about Stephanie Moore.

3                   You could take your time to read it if you  
4                   would like. Let me know when you're ready and I'll  
5                   ask my next question.                   13:05:02

6                   (Witness reviews document.)

7                   A.    Okay.

8                   Q.    Based on what you've read here, can you  
9                   form an opinion on whether Ms. Moore is in the group  
10                  of the vast majority of people for whom your                   13:05:57  
11                  conclusions about the credit card interest rate has  
12                  a lower threshold of damage are appropriate?

13                  MS. HUNSICKER: Objection; outside the scope,  
14                  confusing, incomplete hypothetical.

15                  THE WITNESS: The plaintiffs' attorney                   13:06:18  
16                  requested that I determine a conservative lower  
17                  bound on an appropriate discount rate or interest  
18                  rate for the vast majority of the class.

19                  It's designed to figure out the most -- a  
20                  very generous amount of aggregate damage for the               13:06:41  
21                  bank to pay using standard social science methods.

22                  It wasn't designed to speak to each of the  
23                  100,000 people and, in any case, there's vastly too  
24                  little information here for me to say anything about  
25                  this case.                   13:07:14

1 BY MR. LEVENBERG: 13:07:14

2 Q. So are you able to tell whether Ms. Moore

3 is in the vast majority?

4 MS. HUNSICKER: Same objections.

5 THE WITNESS: The question is ill posed because 13:07:27

6 that's not what the method was designed to do.

7 BY MR. LEVENBERG:

8 Q. Can you tell -- apart from what the method

9 was designed to do, can you tell if the credit card

10 interest rate is a lower bound for the damages that 13:07:42

11 Ms. Moore suffered?

12 MS. HUNSICKER: Same objections.

13 THE WITNESS: The question doesn't become well

14 posed when you taint it to me. It's just not what

15 it's designed to do. 13:07:57

16 BY MR. LEVENBERG:

17 Q. Do you have an opinion on it?

18 MS. HUNSICKER: Outside the scope of the

19 report, incomplete hypothetical.

20 THE WITNESS: You're welcome to hire me for a 13:08:10

21 different project, but that wasn't what I was hired

22 to do.

23 No, I do not have an expert opinion on it

24 as we sit here right now.

25 BY MR. LEVENBERG: 13:08:20

1 Q. What information would you need to form 13:08:20  
2 that opinion?

3 MS. HUNSICKER: Objection; vague.

4 THE WITNESS: The question plaintiffs' counsel  
5 asked me to answer was, can I find a conservative 13:08:36  
6 lower bound that applies to the vast majority of  
7 class members and that, in aggregate, would create a  
8 lower bound on what the bank would owe that is  
9 surely conservative, that is less than the actual  
10 damage caused to the class as a whole. 13:09:00

11 That's just a different question. And so  
12 you can ask me lots of different variations, but  
13 it's just a different question. It's not the -- the  
14 principles I would need to underlie -- understand as  
15 a single person are going to overlap substantially. 13:09:18  
16 I'm going to use the same economic methods, but it's  
17 not how one thinks about each of the 100,000. It's  
18 just a different question.

19 BY MR. LEVENBERG:

20 Q. And what additional information would you 13:09:35  
21 need to think about that different question?

22 MS. HUNSICKER: Objection; vague.

23 THE WITNESS: It's not just a matter of  
24 information, it's a different question.

25 Even with the same principles, you would 13:09:48

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1 have to tell me a lot more about what you are 13:09:50  
2 interested in, and sitting here right now, I just  
3 can't whip out an answer. It takes time for me to  
4 think these things through.

5 BY MR. LEVENBERG: 13:10:03

6 Q. If I'm interested in whether Ms. Moore has  
7 incurred damages, do you have enough information  
8 here to form an opinion about that?

9 MS. HUNSICKER: Objection; same objections,  
10 outside the scope, vague. 13:10:12

11 THE WITNESS: Damages meaning nonzero damages?  
12 You just mean any damages?

13 BY MR. LEVENBERG:

14 Q. Sure. You can start there.

15 A. There's enough information here to say the 13:10:33  
16 damages were above zero.

17 Q. And what information would you need to  
18 determine how much above zero they are?

19 A. That's a different question than I was  
20 asked to answer, and so I strongly encourage you to 13:10:48  
21 hire me to answer that other question.

22 But my expert opinion is about the  
23 aggregate damages that would be generous to the bank  
24 and a conservative lower bound for the aggregate  
25 harm. 13:11:08

1 Q. What information are you relying on in 13:11:09  
2 assuming that her damages are above zero?

3 A. That she could not access -- the  
4 transaction was declined, and she spent time trying  
5 to figure out what happened. 13:11:26

6 Q. Anything else?

7 A. That's enough to show it's above zero, but  
8 suffices -- you asked me what shows it's above zero,  
9 and that suffices.

10 Q. Does it make a difference whether the 13:11:45  
11 transaction was properly declined?

12 MS. HUNSICKER: Objection; outside the scope.

13 THE WITNESS: I don't even know what -- I  
14 can't -- I'm sorry. Ask that again.

15 What does "properly" mean in this case? 13:12:07

16 BY MR. LEVENBERG:

17 Q. The allegation is Moore attempted to use  
18 her debit card, the transaction was declined.

19 Is that right?

20 A. I know absolutely nothing about this case. 13:12:27

21 Q. Understood.

22 A. If these assertions are all true, that  
23 this was erroneously declined, then I can say it's  
24 positive.

25 If it's properly, then it's not this 13:12:38

1 scenario and I can't answer about it anymore. I 13:12:40  
2 just -- then it wouldn't be part of this case or  
3 class.

4 I mean, I -- I don't understand the  
5 question, I guess, to say how could somebody in this 13:12:52  
6 class, if they were properly treated -- I don't  
7 understand how to answer.

8 Q. Well, I think that was a good answer.

9 MR. LEVENBERG: Let's exhibit the interrogatory  
10 response. 13:13:17

11 (Deposition Exhibit 4 was marked.)

12 MR. LEVENBERG: Exhibit 4 now, and the  
13 complaint was Exhibit 3. Now it's all there for us.

14 BY MR. LEVENBERG:

15 Q. Have you seen this before? 13:14:13

16 A. Very briefly.

17 Q. When did you see it?

18 A. Yesterday.

19 Q. Okay. Did you see any other interrogatory  
20 responses yesterday? 13:14:25

21 A. I believe I saw nine for the named  
22 plaintiffs that McCrary's rebuttal report had  
23 analyzed.

24 Q. And this was during your meeting with your  
25 attorneys in preparation for your testimony today? 13:14:41

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1 MS. HUNSICKER: Objection. 13:14:44

2 So don't -- I instruct you not to answer  
3 to the extent that it reveals our work product in  
4 preparing for the deposition.

5 But you can answer generally. 13:14:52

6 THE WITNESS: And can you ask the question  
7 again, please?

8 BY MR. LEVENBERG:

9 Q. Did you see this while you were meeting  
10 with your attorneys? 13:15:00

11 A. I think I'm not supposed to answer that.

12 MS. HUNSICKER: You can answer generally if it  
13 doesn't reveal sort of the substance of our  
14 conversations.

15 THE WITNESS: Yes. 13:15:11

16 MR. LEVENBERG: Always a tricky one there. You  
17 walked the line just fine.

18 BY MR. LEVENBERG:

19 Q. So on page 27, you can start reading  
20 Interrogatory No. 14. 13:15:26

21 [REDACTED]

22 [REDACTED] and  
23 you can see the answer on the next page, followed by  
24 a supplemental response that continues to the page  
25 after that. 13:15:43

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1           Take all the time you need to review that,           13:15:44  
2           and let me know when you're ready.  
3           (Witness reviews document.)  
4           MS. HUNSICKER: Don't write on them.  
5           THE WITNESS: Thank you.           13:16:34  
6           So I should stop at the end of 14?  
7           BY MR. LEVENBERG:  
8           Q. Right. We're not going to talk about 15.  
9           A. Okay.  
10          Q. Unless you want to.           13:17:02  
11          Is any of the information here relevant to  
12          whether Ms. Moore is in the vast majority?  
13          A. Yes.  
14          Q. Which pieces of information in here would  
15          you consider relevant to that?           13:17:43  
16          A. So, again, my methodology was designed to  
17          look at aggregate harm.  
18          I had not looked at the interrogatories of  
19          the named plaintiffs because they're a nonrandom  
20          sample and a small sample.           13:18:11  
21          When McCrary appeared to be using them as  
22          examples of my error, then I did take a look at  
23          them.  
24          But this is not -- so what I'm saying now  
25          is more as a response to McCrary than the proper           13:18:44

[illegible]

|    |                  |
|----|------------------|
| 14 | I'll stop there. |
|----|------------------|

15 Q. So am I correct to say that one of the 13:20:39  
16 factors that you consider relevant to her damages  
17 was that the line on page 29 that says she, [as  
18 read] [REDACTED]

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|  |  |  |  |

24 So I realize I just read a lot, but am I

25 correct to say that that was one of the pieces of 13:21:19

1 information that you'd consider relevant to whether 13:21:21  
2 she is in the vast majority of people to whom your  
3 method applies?

4 MS. HUNSICKER: Objection; confusing, misstates  
5 testimony. 13:21:35

6 THE WITNESS: So, again, my method wasn't  
7 intended to be applied to each of 100,000 people, it  
8 would be a conservative estimate for the aggregate  
9 harm.

10 When McCrary was implying that people were 13:21:53  
11 not paying the credit card interest rate, thus they  
12 had a low opportunity cost, this seemed to show --  
13 it was one of several statements here that, if true,  
14 would show meaningful opportunity costs above what  
15 McCrary was implying. 13:22:15

16 BY MR. LEVENBERG:

17 Q. How can the credit card interest rate be  
18 used to measure that opportunity cost?

19 A. The credit card interest rate is not  
20 supposed to measure the opportunity costs for each 13:22:36  
21 person.

22 What I can say is, when I read this and  
23 McCrary -- and, again, I wish I had McCrary.

24 I can't grab McCrary's report to look at  
25 exactly what he said? 13:22:54

1 Q. If it would help, we can show you 13:22:55  
2 McCrary's report.

3 A. I would appreciate that, if you would be  
4 so kind.

5 MR. LEVENBERG: All right. We're going to call 13:23:01  
6 it Exhibit 5.

7 (Deposition Exhibit 5 was marked.)

8 THE WITNESS: So what McCrary wrote in  
9 paragraph 76, "all of the class representatives used  
10 savings or borrowing from friends and family to 13:23:50  
11 cover at least some portion of their expenses.  
12 These sources of funds would have significantly  
13 lower costs than the credit card rate."

14 Continuing after a few sentences, "the  
15 credit card borrowing rate is above the upper bound 13:24:26  
16 of the cost of borrowing for the class  
17 representatives."

18 And continuing that "the named plaintiffs  
19 suggest credit card borrowing or any borrowing at a  
20 similar or even higher interest rate was not a 13:24:49  
21 primary source of borrowing for many class members."

22 And the implication was that if they were  
23 not borrowing with a high explicit credit card  
24 interest rate, that the opportunity cost was low.

25 And you asked me which of these suggested 13:25:12

1 the opportunity cost was higher and that the summary 13:25:15  
2 of returning to live with a person with whom she had  
3 an abusive relationship, late payments, a weakened  
4 credit rating, inability to look for a job, all  
5 seemed to have a positive opportunity cost. 13:25:56

6 My method wasn't designed to value each of  
7 these separately but is an extraordinarily  
8 conservative bound for someone like this.

9 The interest rate I'm proposing, it's  
10 something like \$15 a month for the median claim. I 13:26:19  
11 don't recall the median claim, but on that order.

12 And that seems to be -- most people would  
13 require more than \$15 to return to live with an  
14 abusive person or defer looking for work.

15 BY MR. LEVENBERG: 13:26:55

16 Q. Is there a connection between the \$15 or  
17 the credit card interest rate and the harm of being  
18 forced to return to living with the person with whom  
19 she had an unhealthy relationship?

20 MS. HUNSICKER: Objection; asked and answered. 13:27:10

21 THE WITNESS: There's a very strong connection  
22 in that I was asked to get a lower bound, and that  
23 is much, much lower than what most people would  
24 consider that.

25 So only in the sense that I was asked to 13:27:18

1 find a lower bound, and it seems to satisfy that 13:27:20  
2 requirement.

3 BY MR. LEVENBERG:

4 Q. Is there enough information here for you  
5 to draw a conclusion about whether Ms. Moore is in 13:27:33  
6 the vast majority?

7 MS. HUNSICKER: Objection; vague, incomplete.

8 THE WITNESS: Are we assuming all of this is  
9 true for this question?

10 BY MR. LEVENBERG: 13:28:03

11 Q. If you need to assume it's true, tell me  
12 if you need to assume it.

13 A. If this were all true, she would suffer  
14 more harm than that.

15 Again, my method wasn't designed to go 13:28:12  
16 case by case. But I don't know how much her claim  
17 was for. I guess you told me that earlier. That  
18 was in an earlier thing you showed me and the  
19 duration. So I -- without doing some math, I'm a  
20 little hesitant to say. 13:28:35

21 Do you want me to do that math?

22 Q. You can.

23 (Pause in proceedings.)

24 A. Again, I hate to do math real-time, but I  
25 think the damages in my credit card rate are 13:29:43

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1 | somewhere under \$45. | 13:29:47

2 And I don't know where she borrowed the  
3 \$1,500 from or what the interest rate was. But it  
4 seems safe to say that this would have more than \$45  
5 worth of damage if my math is correct, yes.

6 Q. Okay. Let's turn back to the complaint.

7                   The page before the allegations about  
8       Ms. Moore, there are allegations about another  
9       plaintiff, Kuang Ting Chong. It's on page 80.

|    |                                         |          |
|----|-----------------------------------------|----------|
| 10 | Read those, and let me know when you're | 13:31:20 |
| 11 | ready.                                  |          |

12 (Pause in proceedings.)

13 MR. LEVENBERG: For the reporter's benefit, the  
14 spelling of that name was K-u-a-n-g, T-i-n-g, and  
15 then Chong, three words, C-h-o-n-g.

16 THE WITNESS: Okay.

17 BY MR. LEVENBERG:

18 Q. And I apologize in advance, I'm going to  
19 bore you with similar questions.

|    |                                              |          |
|----|----------------------------------------------|----------|
| 20 | But is there enough information here for     | 13:32:40 |
| 21 | you to tell whether Mr. Chong is in the vast |          |
| 22 | majority or not?                             |          |

23           A.    Again, my methodology was not designed to  
24   look at each of the 100,000 individually, so the  
25   question is somewhat ill posed. 13:33:12

1 I would not have an opinion based on this. 13:33:16  
2 But I'm hesitant to have an opinion based on any  
3 amount of evidence.  
4 Q. So there's not enough information here to  
5 form an opinion on whether Mr. Chong is in the vast 13:33:29  
6 majority?  
7 MS. HUNSICKER: Objection; misstates testimony.  
8 THE WITNESS: The whole methodology was not  
9 designed to determine that and this is definitely  
10 not enough information. 13:33:47  
11 MR. LEVENBERG: Let's look at the interrogatory  
12 responses.  
13 We'll make those -- it's a different  
14 document there. Let me give you Mr. Chong's -- and  
15 this is going to be Exhibit 6. 13:34:05  
16 (Deposition Exhibit 6 was marked.)  
17 THE WITNESS: Interrogatory 14?  
18 BY MR. LEVENBERG:  
19 Q. Yes, it's the same number. This time it's  
20 on page 26, where the Interrogatory No. 14 concerns 13:34:29  
21 damages.  
22 And, again, take all the time you need to  
23 read the response and the supplemental response.  
24 (Witness reviews document.)  
25 A. Okay. 13:35:57

1 Q. Is there any information here that would 13:35:58  
2 be relevant to determining whether Mr. Chong's  
3 damages, if he has any, are above or below that  
4 conservative lower bound?

5 A. The question I was asked was about 13:36:34  
6 aggregate harm and was not designed to look at any  
7 individual person.

8 There's -- in the prior case, there was  
9 some clear indications of harm. To prove that there  
10 wasn't harm would require much more information than 13:37:00  
11 is contained here.

12 Q. What information would you need to form an  
13 opinion about whether Mr. Chong is in the vast  
14 majority or not?

15 MS. HUNSICKER: Objection; vague. 13:37:37

16 THE WITNESS: This morning you asked a related  
17 question, who would not be in the class.

18 It was somebody who did not face any  
19 liquidity constraints, did not have high subjective  
20 discount rate, was not reducing their spending on 13:38:09  
21 hard-to-shift items, was not foregoing repaying a  
22 credit card, was not receiving benefits from their  
23 savings because it was precautionary savings that  
24 permitted them to self-ensure against shocks to  
25 their income or expenses, which might have been 13:38:36

1 amplified by the pandemic. 13:38:39

2 So we need to know that they were not in  
3 those categories.

4 BY MR. LEVENBERG:

5 Q. On page 28, near the top, there's a line 13:38:57  
6 that says, [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

10 Is that relevant to computing the 13:39:15  
11 opportunity cost incurred by this plaintiff?

12 A. Yes.

13 Q. How is it relevant?

14 A. It meant [REDACTED]

■ [REDACTED]

■ [REDACTED]

17 Q. What information would you need to  
18 calculate the opportunity cost of [REDACTED]

■ [REDACTED]

■ [REDACTED]

13:39:52

21 MS. HUNSICKER: Objection; outside the scope,  
22 incomplete.

23 THE WITNESS: Again, my method was designed for  
24 the aggregate.

25 For an individual, you would need to know 13:40:11

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1 that they weren't in any of these other groups. 13:40:14

2 I don't know -- [REDACTED]

■

■

■

■

■

8 There's an opportunity cost that's

9 nonfinancial about losing your precautionary savings

10 and having to worry more about running out of money. 13:40:52

11 You would need to know whether he was reducing any

12 consumption.

13 There's just a vast amount of information

14 in the other categories I mentioned that this one

15 sentence doesn't tell us about. 13:41:06

16 BY MR. LEVENBERG:

17 Q. Is the information here enough for you to

18 form an opinion on whether his opportunity costs are

19 above or below the conservative lower bound?

20 MS. HUNSICKER: Objection; incomplete 13:41:21

21 hypothetical.

22 THE WITNESS: My method was not designed to

23 look at one person at a time, and there's not enough

24 information here to judge.

25 BY MR. LEVENBERG: 13:41:33

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1 Q. Okay. We can put those away. 13:41:36  
2 MS. HUNSICKER: Can we take a break in the next  
3 10?  
4 MR. LEVENBERG: We can take it now.  
5 MS. HUNSICKER: You want to do it now? 13:41:58  
6 MR. LEVENBERG: Yeah.  
7 MS. HUNSICKER: Take five minutes?  
8 MR. LEVENBERG: Sure.  
9 THE WITNESS: We'll be quick.  
10 THE VIDEOGRAPHER: We're going off the record. 13:42:03  
11 The time is 1:42 p.m.  
12 (Recess taken.)  
13 THE VIDEOGRAPHER: We're back on the record.  
14 The time is 1:54 p.m.  
15 MR. LEVENBERG: I've never seen a five-minute 13:54:16  
16 deposition break last five minutes.  
17 THE WITNESS: Before we continue, I want to  
18 extend some answers I gave earlier that I realize  
19 were incomplete.  
20 BY MR. LEVENBERG: 13:54:30  
21 Q. Please.  
22 A. Let's see . . .  
23 Let's see. My report, paragraph 35, I  
24 referred to data on people reporting they had  
25 sufficient income to cover an emergency month. And 13:54:53

1 I mentioned several reasons I thought that might be 13:54:58  
2 an overstatement of the true number.

3 Since I wrote the report, I read reports  
4 in the bank experts and one which cited a study by a  
5 Professor Stavins, perhaps with a co-author, and 13:55:15  
6 that paper reported that a substantial share of  
7 people -- I think about a third, 30 percent -- were  
8 optimistic about the amount of money they had in  
9 their savings and checking accounts.

10 And so her data, again, would support that 13:55:37  
11 people who say they have sufficient savings to cover  
12 a given payment may be overstating what is actually  
13 true. Just an additional reason I hadn't mentioned.

14 [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]

14                   So McCrary referred to these as being

15           low-cost sources of credit -- I forget his exact

13:58:00

16           words -- and the credit card borrowing rate is

17           instead above the upper bound of the cost of

18           borrowing for the class representatives -- this is

19           McCrary paragraph 76 in Exhibit 5 -- is a

20           misunderstanding of the opportunity cost of

13:58:43

21           borrowing.

22           Q.   For people who do borrow from friends and

23           family -- and I understand your opinion is that the

24           total cost of borrowing for those might even be

25           greater than the cost of borrowing from a bank; is

13:59:05

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1       that right? 13:59:07

2           A.    If we see them borrowing from a bank and

3       then when they run out of bank credit then turning

4       to friends and family, they're revealing a

5       preference to borrow from a bank since they did that 13:59:18

6       first, which means that's the lower full cost --

7           Q.    Right.

8           A.    -- the opportunity cost.

9           Q.    Okay. I think I understand your point

10       here. 13:59:27

11               How would you calculate the total cost of

12       borrowing for those people?

13       MS. HUNSICKER: Objection; incomplete

14       hypothetical.

15       THE WITNESS: All I need to know is it's above 13:59:41

16       the credit card rate. I don't have to say that the

17       credit card rate is a conservative estimate --

18       BY MR. LEVENBERG:

19       Q.    And you conclude --

20       A.    -- that's what I do. 13:59:51

21       Q.    And you can conclude that it's above the

22       credit card rate because they preferred to pay the

23       credit card rate when they had both options; is that

24       right?

25       A.    Exactly. 14:00:00

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1 Q. Do you know how many people in the class 14:00:02  
2 fit into that category?

3 MS. HUNSICKER: Objection; vague.

4 THE WITNESS: No.

5 BY MR. LEVENBERG: 14:00:24

6 Q. Is there anything else that you wanted to  
7 add to your prior answers?

8 A. No.

9 Q. Okay. So I was at paragraph 17 of your  
10 report. 14:00:48

11 And it concludes with a statement "that  
12 individuals face harm over time when their sources  
13 of funds for these expenses are abruptly cut off."

14 What do you mean here with the phrase  
15 "abruptly cut off"? 14:01:07

16 A. If they think they have a -- an example of  
17 that would be if they believe they have funds on a  
18 debit card and the funds disappear or diminish.

19 Q. Is that a term that you would use to  
20 describe a situation where the cardholder is still 14:01:45  
21 receiving benefits but has delayed access to a  
22 portion of the benefits?

23 A. Yes, that's what I'm referring to in this.

24 Q. Okay. So you'd still use the phrase "cut  
25 off" to describe that scenario? 14:02:06

1 A. Yes. 14:02:10

2 Q. The sentence also discusses your review of  
3 the economic literature.

4 What literature are you referring to  
5 there? 14:02:23

6 MS. HUNSICKER: Objection; vague.

7 THE WITNESS: I reviewed the literature on the  
8 effects -- the theory and effects about unemployment  
9 insurance from before COVID and then I focused  
10 specifically on the literature of unemployment 14:02:50  
11 insurance, how it operated and its effects during  
12 COVID.

13 BY MR. LEVENBERG:

14 Q. And what did that literature say about the  
15 harm individuals face over time when their sources 14:03:04  
16 of funds or expenses are abruptly cut off?

17 MS. HUNSICKER: Objection; vague.

18 THE WITNESS: There's a large literature on the  
19 effects of unemployment insurance demonstrating  
20 pretty consistently that it helps people smooth 14:03:33  
21 consumption, and so when unemployment insurance  
22 benefits end, which is predictable, there are  
23 changes in behavior -- I'm sorry, ask the question  
24 again. I'm getting distracted by my mind.

25 BY MR. LEVENBERG: 14:04:21

1 Q. What did the economic literature you 14:04:21  
2 referenced say about the harm individuals face over  
3 time when their sources of funds or expenses are  
4 abruptly cut off?

5 A. So the -- most of the pre-COVID literature 14:04:38  
6 looked at just having unemployment versus not  
7 having, yet often comparing the effects of states  
8 with different durations or generosity of  
9 unemployment.

10 And this literature largely found that 14:05:11  
11 unemployment insurance is important in helping  
12 people maintain their consumption when their incomes  
13 decline, and conversely, not having unemployment  
14 insurance means that consumption is more variable,  
15 people are foregoing expenses they value when their 14:05:33  
16 income declines.

17 During COVID, there were large changes in  
18 unemployment insurance generosity as there was a  
19 \$600 bonus for a short period of time. There was a  
20 \$300 addition for a longer period of time. 14:05:58

21 This generosity sometimes varied state by  
22 state and, again, studies looked at what happened to  
23 consumption when these benefits were started and  
24 stopped and found quite large -- there were several  
25 studies, there were several changes in benefits, but 14:06:25

1 they tended to find large effects on things like 14:06:28  
2 consumption when benefits changed.

3 Q. Did any of the studies in that literature  
4 address specifically the situation where benefits  
5 did not stop entirely but beneficiaries temporarily 14:06:43  
6 lost access to a portion of them?

7 A. Not that I recall.

8 There were adjacent studies, so some  
9 people -- if benefits are -- you have some money and  
10 you don't have access to it for a month, but you 14:07:34  
11 know you'll get it in a month, that will have a  
12 smaller effect than if you lose benefits and you  
13 don't know when you'll get them back, or it could be  
14 much longer than a month.

15 So a foreseeable receipt of benefits, 14:07:50  
16 economic theory says, should have a smaller effect  
17 than a promise for benefits being restored sometime  
18 in the indefinite future.

19 And we saw some people applying for  
20 unemployment insurance that they were eligible for 14:08:11  
21 and then for fairly arbitrary reasons having it  
22 delay until they received them. So this would be a  
23 foreseeable increase in benefits.

24 And consumption increased substantially.

25 And if memory serves, debt repayment, when the 14:08:31

1 benefits arrived, even though they were predictable, 14:08:41  
2 and if people were able to smooth consumption in  
3 running down savings and such, then there should not  
4 have been a change in consumption when the check  
5 actually arrived. But we see a large increase in 14:09:00  
6 consumption when this foreseen check arrived.

7 So the converse of that is, when a check  
8 disappears, we expect there to be decline in  
9 consumption.

10 Q. On page -- paragraph 21 rather, you refer 14:09:24  
11 to a study that "demonstrates that when individuals  
12 experience a loss of income, they incur a cost that  
13 is greater than just the loss of income itself, as  
14 they are forced either to cut back on consumption  
15 and other expenses or turn to alternative sources of 14:09:47  
16 replacement funds."

17 It goes on, but I think that's the  
18 important part.

19 Explain that one to me. I'm not sure I  
20 understand how somebody who loses \$1,000 in income 14:10:01  
21 and then cuts back on consumption -- say they cut  
22 back \$1,000 in expenses -- has a loss greater than  
23 the loss of income. Why isn't that person just net  
24 zero?

25 MS. HUNSICKER: Objection; confusing. 14:10:24

1 MR. LEVENBERG: Well, I'm confused, so I wonder 14:10:29  
2 if he can help me.

3 THE WITNESS: I think this is written somewhat  
4 confusingly, so I'm glad to clarify.

5 If people -- in the simplest model, people 14:10:48  
6 take their lifetime income and they smooth it out  
7 evenly over their lifetime.

8 So if somebody loses -- they're unemployed  
9 for some period of time and their income goes down  
10 by \$5,000, they would not lower consumption that 14:11:10  
11 year by \$5,000 or \$4,000, they would spread it  
12 evenly over their remaining lifetime.

13 So if someone expects to live another  
14 50 years, to make the math easy, they would actually  
15 only lower their consumption by -- I'm ignoring 14:11:34  
16 uncertainty and interest rates, lots of other  
17 things -- by, you know, 100, 200 bucks.

18 So you've lost -- your lifetime income  
19 went down by \$5,000 -- your annual income went down  
20 by \$5,000, so your lifetime consumption is going to 14:11:53  
21 go down by the order of \$5,000, but your annual  
22 consumption goes down by just a few percent of that,  
23 maybe 4 percent of that.

24 So this is what people can do if they're  
25 not worried about precautionary savings, they have 14:12:18

1 lots of access to credit or savings, they don't have 14:12:21  
2 a high subjective discount rate, you get this very  
3 smooth consumption.

4 So that's the sense in which -- I could  
5 have written this more clearly. It's not just the 14:12:38  
6 loss of income itself which they can spread over  
7 their whole life, but we see much more dramatic than  
8 4 percent declines in consumption.

9 And turning to source of replacement  
10 funds, in this simple model, the borrowing and 14:13:05  
11 lending rates are similar but we see people  
12 routinely using high-cost sources of credit, like  
13 credit cards, not just running down their savings  
14 account.

15 BY MR. LEVENBERG: 14:13:23

16 Q. So it sounds like the scenario I posed  
17 you're telling me is rare, that if someone incurs a  
18 cost -- I should say, if they lose access to \$1,000  
19 and they cut back on consumption, it's rare that  
20 they would cut down consumption by \$1,000. 14:13:44

21 Is that a fair understanding of what you  
22 just told me?

23 A. No, no, I'm sorry --

24 MS. HUNSICKER: Objection; misstates testimony.

25 THE WITNESS: To the contrary. What I was 14:13:52

1 saying is that the standard economic theory, without 14:14:05  
2 liquidity constraints and all these other real-world  
3 problems, is what you said, that when income goes  
4 down, consumption only goes down a very small share  
5 of that. 14:14:23

6 What we see in reality is that very often  
7 consumption declines substantially and that people  
8 are not just reducing their savings.

9 So the contrast is, the bank's experts,  
10 Professors McCrary and Stango, have emphasized their 14:15:07  
11 reading of the literature is that almost everyone  
12 has enough money in the bank that they can maintain  
13 their consumption and just run down their savings.

14 And that's close to this textbook model I  
15 was saying where if you had a persistent loss of 14:15:23  
16 \$1,000, you would smooth it evenly. If you had a  
17 transitory loss of \$1,000, it disappears now but you  
18 know you're getting it back in a month or two or  
19 three, then there would be no change in consumption.

20 And what we see in the data is very, very 14:15:42  
21 different from that. That even when there's a  
22 predictable gain or loss of unemployment insurance  
23 benefits, for example, we see consumption  
24 responding.

25 Whereas McCrary and Stango make it sound 14:15:58

1 as if people can fund everything out of savings, in 14:16:03  
2 which case consumption would -- for transitory loss  
3 of ability to access funds would have very, very  
4 close to zero effect on consumption.

5 And during the COVID pandemic, some of the 14:16:23  
6 best studies on this looked at both expected  
7 increases in unemployment that were very  
8 predictable, I just haven't got my check yet, and  
9 very predictable ending of benefits, and both of  
10 which led to substantial changes in consumption. 14:16:42

11 BY MR. LEVENBERG:

12 Q. All right. Bear with me. I think I was  
13 able to wrap my head around some of that, but I'm  
14 not an economist, I'm just an unfrozen caveman  
15 lawyer here. So I do want to understand this a 14:17:02  
16 little bit better.

17 So the scenario I posed where someone  
18 temporarily loses access to \$1,000 and they are  
19 forced to cut back on consumption, and you told me  
20 that what I was suggesting -- well, you told me that 14:17:17  
21 there was some pattern that happens in the real  
22 world in that scenario.

23 What is the pattern that tends to happen  
24 in the real world in terms of cutting back on  
25 consumption there? 14:17:33

1           A.    So the evidence from COVID unemployment           14:17:51  
2   insurance are for two adjacent questions.  They're  
3   not exactly that one.

4           One is, if you know your unemployment  
5   insurance is about to run out, and then it runs out,           14:18:00  
6   does consumption decline?

7           And lots of economic theory says, no, it  
8   shouldn't.  You should be smoothing.

9           In fact, it does, what we saw under COVID.

10          The flip side is, if you know you're about           14:18:23  
11   to get large unemployment insurance checks, does  
12   your spending go up once the checks arrive?

13          And under certain assumptions -- strong  
14   assumptions that Stango and McCrary make, economic  
15   theory says consumption shouldn't respond, but, in           14:18:44  
16   fact, it did repeatedly to these changes both up and  
17   down.

18          So those are both known changes.  Together  
19   they sort of correspond to what if you lose a 1,000  
20   and you know you're getting it back in a month or           14:19:05  
21   something.  If it's uncertain, that's just one more  
22   reason for consumption to change.

23          So that's why I'm confident in saying that  
24   part of the cost of not having access to funds would  
25   have been reductions in consumption, and that just           14:19:23

1 looking in the passage I quoted of McCrary talking 14:19:26  
2 about the upper bound of cost of borrowing for the  
3 class representatives, that that's a very incomplete  
4 characterization of the opportunity cost of not  
5 having cost of access to funds because people also 14:19:58  
6 reduced their spending.

7 And you directed me to the case of, I  
8 believe, [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 So there were costly declines in  
15 consumption that have a meaningful opportunity cost. 14:20:46  
16 And this claim that the credit card borrowing rate  
17 is above the upper bound of the cost of borrowing  
18 for the class representatives misunderstands the  
19 concept of opportunity cost of not having access to  
20 funds is both borrowing and foregone consumption. 14:21:08

21 Q. Is every cutback -- does every cutback in  
22 consumption impose a cost greater than the loss of  
23 the income?

24 A. Ask that again. That's not . . .

25 Q. So you wrote, "when individuals experience 14:21:36

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1 a loss in income, they incur a cost that is greater 14:21:41  
2 than just the loss of the income itself, as they are  
3 forced either to cut back on consumption" or  
4 something else.

5 A. That is not a well-written sentence. I 14:21:53  
6 apologize.

7 What it's trying to say is . . .

8 I apologize for the poorly written  
9 sentence.

10 I was mushing together two ideas there. 14:22:51

11 One concept is we think of losing \$1,000.

12 When we look at the large pre-COVID and some of the

13 post-COVID literature, we see that there are

14 additional costs that arise. Defaults in mortgages

15 and evictions and reductions in medical care can 14:23:55

16 have much higher costs than the initial loss of

17 income.

18 And even a -- so if we look, just you lost

19 \$1,000, that seems like a certain magnitude. If

20 somebody else was evicted or missed medical care, 14:24:22

21 the magnitude of harm could be much higher. Or

22 somebody took a Payday Loan with high interest

23 rates.

24 Even if there's a transitory -- what I

25 apologize for is this is mixing two concepts next to 14:24:37

1 each other. 14:24:39

2 Even if there's a transitory delay in  
3 receiving income, there could be some of these  
4 persistent harms. And the idea of having a smooth  
5 income is exactly to help avoid these large harms 14:25:04  
6 that come from certain forms of cutbacks.

7 Q. Okay.

8 A. At the same time -- I didn't make this  
9 point in the report but I looked at the bank  
10 experts, and they referred to one of the plaintiffs 14:25:26  
11 who canceled his streaming service, which is  
12 normally thought of as quite different from, you  
13 know, getting evicted or losing healthcare, and I  
14 think appropriately so.

15 But it still has an opportunity cost. And 14:25:47  
16 so to save 30 or \$100 a month and in the middle of  
17 the pandemic not have access to streaming, what we  
18 think is \$100 a month -- for a month of my interest  
19 rate, I think I said was \$1.50 -- it is quite likely  
20 that just the transaction cost of canceling and 14:26:17  
21 reinstating your streaming services are more than  
22 \$1.50, and that's completely ignoring the value of  
23 streaming when you're unemployed and there's a  
24 pandemic and you can't go to the movies.

25 So I think this notion that even 14:26:31

1 transitory sources of delay in receiving income have 14:26:34  
2 an opportunity cost is what I'm alluding to here.

3 This was emphasizing some of the dramatic  
4 costs. But even, you know, smaller shocks,  
5 obviously, would have very low damages, according to 14:26:58  
6 my formula would still be -- my formula would still  
7 be a conservative lower bound on the damages.

8 Q. So there are actually a few things in  
9 there I wanted to ask about. But let's talk a  
10 little bit about the streaming service example 14:27:16  
11 because I think it's a good one.

12 If someone is choosing to cancel a  
13 streaming service as a type of consumption cutback,  
14 presumably one of the other options that they had at  
15 that time was to keep the streaming service but 14:27:32  
16 borrow money from a credit card or otherwise to pay  
17 for it; right?

18 MS. HUNSICKER: Objection; incomplete  
19 hypothetical.

20 THE WITNESS: I have no evidence that's true. 14:27:43

21 BY MR. LEVENBERG:

22 Q. Why not?

23 MS. HUNSICKER: Same objection.

24 THE WITNESS: A substantial share of Americans  
25 don't have a credit card. A substantial share of 14:28:02

1 unemployed people, of Americans, but a larger share 14:28:05  
2 of unemployed people are maxed out on their credit  
3 cards. And just as there can be precautionary  
4 savings, there could be a precautionary motive not  
5 to max out your credit card and to try to reserve 14:28:22  
6 some borrowing capacity.

7 So your conclusion doesn't follow.

8 BY MR. LEVENBERG:

9 Q. Is there anyone who would have the ability  
10 to pay for a streaming service by borrowing money? 14:28:42

11 MS. HUNSICKER: Objection; incomplete  
12 hypothetical, calls for speculation.

13 THE WITNESS: Can you ask that again?

14 BY MR. LEVENBERG:

15 Q. Is there anybody who would have the 14:28:54  
16 ability to borrow money instead of canceling a  
17 streaming service?

18 MS. HUNSICKER: Same objections.

19 THE WITNESS: Yes.

20 BY MR. LEVENBERG: 14:29:05

21 Q. Okay. So if a person has the ability to  
22 borrow money instead of canceling the streaming  
23 service, is it fair to conclude that they value the  
24 streaming service less than the cost of borrowing  
25 the money? 14:29:23

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1 MS. HUNSICKER: Objection; incomplete 14:29:24  
2 hypothetical.

3 THE WITNESS: So I spoke extensively this  
4 morning about precautionary savings, and maintaining  
5 room in your credit card -- your credit limit is an 14:29:33  
6 adjacent idea, and many people value having  
7 borrowing capacity, and so that does not follow.

8 BY MR. LEVENBERG:

9 Q. I'm not sure I understand why, but let's  
10 talk about this a little more. 14:30:07

11 Option 1 is to keep the streaming service  
12 and borrow money to pay for it.

13 Option 2 is to cut back on consumption and  
14 cancel the streaming service and not pay for it.

15 So you spoke about the value people place 14:30:45  
16 in having borrowing capacity. Why isn't that value  
17 accounted for when we're evaluating the value of the  
18 option of canceling the streaming service?

19 MS. HUNSICKER: Objection; confusing.

20 THE WITNESS: Value accounted for isn't the 14:31:15  
21 language I would use.

22 Can you ask that again?

23 BY MR. LEVENBERG:

24 Q. You say that people value having borrowing  
25 capacity; is that correct? 14:31:29

|   |         |          |
|---|---------|----------|
| 1 | A. Yes. | 14:31:31 |
|---|---------|----------|

2 Q. How would you evaluate -- how would you  
3 quantify the value people place on that?

4 MS. HUNSICKER: Objection; vague.

5 THE WITNESS: I mean . . . I would have to 14:32:25

6 ponder how to do that.

7 It's not an important part of . . .

8                   If we see somebody undertaking activities  
9           that are costly to avoid borrowing, that suggests  
10       that they value the borrowing capacity. That's the                   14:33:47  
11       general principle.

12 Applying it to this case is a little bit  
13 subtle because my method isn't designed to look at  
14 each of the 100-plus thousand case class members.  
15 But the general principle is -- would be to see what 14:34:04  
16 people are doing to avoid borrowing and if people  
17 change their behavior as they get closer to their  
18 borrowing limit but are not yet at it.

19 BY MR. LEVENBERG:

|    |                                         |          |
|----|-----------------------------------------|----------|
| 20 | Q. Let me approach it from another way. | 14:34:24 |
|----|-----------------------------------------|----------|

21 I was talking about two options. The  
22 first option was keeping the streaming service and  
23 borrowing money to pay for it.

|    |                                                     |          |
|----|-----------------------------------------------------|----------|
| 24 | And you pointed out, I think very                   |          |
| 25 | reasonably, that the value of -- that the streaming | 14:34:38 |

1 service -- having the streaming service in a 14:34:40  
2 pandemic situation itself has value. It provides  
3 entertainment in a period when you're stuck at home.

4 Is that a fair statement of what you just  
5 told me? 14:34:55

6 A. Yes.

7 Q. Okay. So if we're trying to evaluate the  
8 total cost of that option, we would account for the  
9 physical cost, but the consumer also realizes a  
10 benefit, right? 14:35:17

11 And presumably, they consider that benefit  
12 to be worth the cost; is that fair?

13 MS. HUNSICKER: Objection; confusing.

14 THE WITNESS: Ask that one more time, please.

15 BY MR. LEVENBERG: 14:35:33

16 Q. So in that option, there are costs and  
17 benefits, and one of the costs is the cost of  
18 borrowing money, and one of the benefits is the  
19 benefit of the streaming service; right?

20 A. Um-hum. 14:35:43

21 Q. And you would want to account for all of  
22 those things in deciding on the value of that  
23 option; is that fair?

24 A. You being the decision maker here or me  
25 being the economist? 14:36:00

1 Q. Well, both. 14:36:01

2 I realize most decision makers aren't as  
3 rational as economists. But if you were assessing  
4 the value of that option, you would assess both the  
5 costs and the benefits; right? 14:36:19

6 A. Yes.

7 Q. So could you -- or would you conclude that  
8 someone who has chosen to pay money to keep the  
9 streaming service has revealed a preference that  
10 this -- the benefit of the streaming service is 14:36:37  
11 worth more to them than the cost?

12 MS. HUNSICKER: Objection; calls for  
13 speculation.

14 THE WITNESS: The full cost being the loss of  
15 services and the transaction cost to cancel and 14:36:53  
16 restart it and so forth, yes.

17 BY MR. LEVENBERG:

18 Q. And then there was another option of  
19 cutting back on consumption and canceling the  
20 streaming service. 14:37:09

21 Someone who chooses that option would lose  
22 out on the benefits of the streaming service, but  
23 they are actually gaining another benefit that you  
24 mentioned earlier, right?

25 They're gaining the benefit of having more 14:37:21

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1 borrowing capacity because they don't like to max 14:37:24  
2 out their borrowing capacity.

3 Am I right about that?

4 A. You had told me earlier to assume they had  
5 borrowing capacity, yeah. So then they would be 14:37:34  
6 maintaining their borrowing capacity, yeah.

7 Q. And that itself is a benefit as well;  
8 right?

9 A. Yes.

10 Q. That's your opinion? 14:37:44

11 So -- but rational consumer or a rational  
12 economist choosing between both of those options  
13 would consider all of those costs and all of those  
14 benefits in choosing one option over another one;  
15 right? 14:38:04

16 A. Yes.

17 Q. So if the person chooses to keep the  
18 streaming service and borrow money to pay for it, is  
19 it fair to conclude that they valued all those costs  
20 and benefits higher than they valued the benefits of 14:38:21  
21 canceling the service and realizing all the benefits  
22 of the higher borrowing capacity?

23 MS. HUNSICKER: Objection; calls for  
24 speculation.

25 THE WITNESS: There may be parts of this 14:38:53

1 hypothetical that I'm not following, but I believe 14:38:56  
2 what you're saying is correct, yes.

3 BY MR. LEVENBERG:

4 Q. Okay. Okay. I know that was dense, but I  
5 think I understand now. 14:39:04

6 Same paragraph, the next page, still on  
7 paragraph 21, and the next sentence after the one we  
8 were talking about, you list other consequences of  
9 being denied UI.

10 And we actually talked about that phrase 14:39:34  
11 "denied" earlier. Denied is -- is that still the  
12 phrase you would use or would you use a different  
13 phrase?

14 A. So most of the studies in this section --  
15 in this paragraph are looking at unemployment 14:40:02  
16 insurance prior to COVID, so they're not about --  
17 they're about having access to UI.

18 Q. Okay. So the consequence listed there, or  
19 one of the consequences, is default on mortgage.

20 And there's a discussion in the McCrary 14:40:23  
21 report about that in paragraph 36 where he points  
22 out that during the COVID period there was  
23 widespread mortgage forbearance.

24 So I guess my question is, is this  
25 consequence that a default on -- is the scenario 14:40:50

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1 where a default on mortgage is a consequence of 14:40:55  
2 being denied UI, is that a conclusion that you  
3 consider generally applicable to the COVID UI  
4 benefits?

5 MS. HUNSICKER: Objection; vague. 14:41:07

6 THE WITNESS: Can you ask that again?

7 I'm sorry, I was reading.

8 BY MR. LEVENBERG:

9 Q. Well, let me ask it more simply.

10 Is a default on mortgage a consequence 14:41:19  
11 that you think happens as a result of temporarily  
12 losing access to a portion of UI benefits?

13 MS. HUNSICKER: Objection; calls for  
14 speculation.

15 THE WITNESS: I'll answer in a few different 14:41:54  
16 ways.

17 Partly, the answer is going to depend on  
18 the size and duration of lost access to UI. And so  
19 in the scenario that we discussed of \$100 for a  
20 month or \$1,000 for three days would be very 14:42:32  
21 different for some of the larger and longer delays.

22 There also were, as the McCrary report  
23 emphasized, a number of programs to reduce evictions  
24 and mortgage defaults, but not all of these would be  
25 helpful in the short run. 14:43:17

1 Many of them required an application 14:43:19  
2 process that was long and complicated, and even  
3 knowing their existence that was relevant to you was  
4 not always trivial, particularly for people with  
5 poor English skills or less education. 14:43:43

6 And there was a study I didn't cite but I  
7 had seen after I saw the McCrary report that  
8 emphasized the challenges of accessing these  
9 programs, and take up was far below 100 percent.

10 And then because these programs were 14:44:10  
11 complex and not always familiar, we can't assume  
12 that -- I shouldn't have said "finally" because I'll  
13 have a fourth point.

14 Thirdly, but, ultimately, we can't assume  
15 that people were aware of them, meaning that some 14:44:45  
16 would have made payments even if those were  
17 relatively low-cost loans they could have accessed  
18 with the sense that a mortgage or a rent payment  
19 that wasn't paid would accumulate as a low-cost  
20 loan, which was sometimes the case depending on the 14:45:10  
21 program.

22 And I think, finally, many people are  
23 concerned about going further into debt. This,  
24 again, goes back to this idea of precautionary  
25 savings that I've emphasized as during a pandemic, 14:45:28

1 when income and needs are very uncertain, it makes 14:45:32  
2 sense for many households to think they don't want  
3 to increase their debt and instead cut back on  
4 consumption instead of failing to pay rent or  
5 mortgage, even if that was a potential low-cost 14:45:50  
6 source of credit.

7 So the relation between unemployment and  
8 eviction or default was definitely weakened because  
9 of these programs, but that doesn't mean that these  
10 programs made it easy for everybody to manage UI 14:46:11  
11 funds that they lost access to.

12 BY MR. LEVENBERG:

13 Q. Do you have any information on how many  
14 class members suffered the consequences of a  
15 mortgage default as a result of being denied UI? 14:46:25

16 A. No.

17 (Discussion off the record.)

18 BY MR. LEVENBERG:

19 Q. I got just a few quick items here, not  
20 done yet, but we can get through these a little 14:47:27  
21 faster.

22 Paragraph 30, your opinion is "A compound  
23 interest rate is an appropriate way to measure this  
24 opportunity cost because it can be applied to the  
25 principal amount of funds withheld and the length of 14:47:40

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1 time benefits were delayed, which represented the 14:47:43  
2 costs incurred over time as the affected individuals  
3 either paid to avoid or incurred these harms."

4 So my question there is, the reference to  
5 the "length of time benefits were delayed," what 14:48:01  
6 period are you talking about?

7 Are you referring to the entire period  
8 between -- well, you tell me. How do you measure  
9 the length of time benefits were delayed?

10 MS. HUNSICKER: Objection; outside the scope. 14:48:19

11 MR. LEVENBERG: It's right in the report.

12 THE WITNESS: For most of the classes, there  
13 were funds on the debit card that were frozen or  
14 disappeared and then reappeared.

15 For the -- I believe the account freeze 14:48:49  
16 class -- let me just check the name of it. I'm  
17 sorry.

18 Yeah, the account freeze class, my  
19 understanding is that the cards were blocked from  
20 receiving additional deposits. And so it's unclear 14:49:18  
21 to me how long it took for the state EDD to  
22 determine the card was blocked and establish systems  
23 to send paper checks. So that amount of time, it  
24 would be until the checks arrived and were cashed or  
25 deposited. 14:49:46

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1 And -- but the other ones, I think it's 14:49:48  
2 just how long the block was -- from when they  
3 rescinded credit to when they reinstated it or how  
4 long between the bank denied until when they added  
5 back in the money they owed. 14:50:13

6 BY MR. LEVENBERG:

7 Q. Do you consider it relevant how long the  
8 period was that consumers actually accessed credit?

9 MS. HUNSICKER: Objection; confusing.

10 THE WITNESS: I don't understand that. 14:50:29

11 BY MR. LEVENBERG:

12 Q. So, for example, if someone lost access to  
13 funds for a month but didn't need to borrow money as  
14 a result for another -- until three weeks into that,  
15 are you treating that last week as the period in 14:50:43  
16 which they're entitled to recover the credit card  
17 interest rate or are you measuring it by the whole  
18 month?

19 MS. HUNSICKER: Objection; confusing.

20 THE WITNESS: I'm going to ask you to ask that 14:51:00  
21 one more time. I'm sorry.

22 I think I understood, but I'm not sure.

23 BY MR. LEVENBERG:

24 Q. Yeah. So the question really is about  
25 whether we're measuring the benefits or the access 14:51:07

1 to credit. 14:51:11

2 So my example was, if a consumer is  
3 without access to a portion of their benefits for a  
4 month but there's only a week of that month in which  
5 they borrowed funds, what period of time do you 14:51:24  
6 apply your credit card interest rate method to, the  
7 week or the entire month?

8 A. The month.

9 Q. Okay. And why is that?

10 A. So my method is designed to estimate a 14:52:07  
11 conservative lower bound of the costs that class  
12 members in aggregate suffered and that would apply  
13 to the vast majority of them, the typical plus many  
14 more.

15 It's not designed to talk about any 14:52:25  
16 particular person or any particular week.

17 That's not the question it's answering.

18 Q. Why is the month the lower bound and not  
19 the week?

20 A. I would just repeat my prior answer word 14:53:09  
21 for word.

22 Maybe I didn't understand the question.

23 I'm sorry, I didn't mean to be flippant.

24 Q. No, that's fine.

25 Why is a month's worth of interest 14:53:31

1 payments a conservative lower bound as applied to 14:53:36  
2 someone who only made those interest payments for a  
3 week?

4 MS. HUNSICKER: Objection; misstates the  
5 report. 14:53:52

6 THE WITNESS: My analysis is not discussing the  
7 harm of each of 100,000-plus people. It's saying  
8 that if you use this method, the bank will be paying  
9 less than the aggregate harm and at a rate that is  
10 below what the typical person would suffer harm due 14:54:14  
11 to the fact they didn't have access to funds.

12 So asking me about each individual person  
13 is just something that's not addressed -- my report  
14 is not addressed -- designed to address.

15 BY MR. LEVENBERG: 14:54:37

16 Q. Well, here my question is not about any  
17 individual person, rather --

18 A. I thought you just told me -- I'm sorry,  
19 to interrupt.

20 I thought you told me this person, if 14:54:46  
21 there was this person, why would this be the right  
22 rate. And I thought was what your question --

23 Q. Well, I think this is -- this is the rate  
24 you're applying to the aggregate, to all of the  
25 persons, the aggregate period of time in which 14:54:56

1 access to funds was delayed. 14:55:00

2 Is that wrong?

3 A. Okay. You may have to break because I'm

4 getting confused and I just may need more coffee.

5 Ask that one more time. If I don't 14:55:17

6 understand, maybe we'll break.

7 Q. I'm asking about the rate you were

8 applying in the aggregate.

9 The aggregate is the aggregate period of

10 time in which access to funds was delayed for 14:55:26

11 everybody, not just for one person but for

12 everybody; right?

13 A. That wouldn't be how I would phrase it,

14 not just for one person, including each of the one

15 persons to create the aggregate. 14:55:46

16 Q. Right. Yeah. I think we're on the same

17 page on that.

18 A. I'm sorry.

19 Q. Okay. So there's one number, which is

20 basically a number of days that funds were delayed 14:55:57

21 in the aggregate; right?

22 A. I'm sorry, I was unclear.

23 People had different amounts of delay --

24 Q. Right.

25 A. -- so to generate -- it's not you take the 14:56:17

1 aggregate number of days and the aggregate dollar 14:56:20  
2 amount, you take each person's delay times dollar  
3 amount.

4 Q. Right.

5 A. So you don't sum up days, you sum up 14:56:29  
6 dollar days to create the -- yeah -- aggregate  
7 amount of days or years' worth of thousands or  
8 millions of whatever funds the bank owed that it had  
9 removed or not added or not permitted the State to  
10 add to various debit cards. 14:56:52

11 Okay. Are we saying the same thing?

12 Q. Yes.

13 A. Okay. So it's not aggregate days, it's  
14 aggregate days and dollars.

15 Q. So your method, what you're proposing, is 14:57:07  
16 you sum up the dollar days for each person during  
17 the period that they lacked access to the funds and  
18 then you apply your 15.9 percent interest to that;  
19 correct?

20 A. Yes. 14:57:27

21 Q. Okay. But you could also sum up the days  
22 a different way.

23 You could say that instead of measuring  
24 all of the days they were without access to funds,  
25 we'll measure all of the days in which they were 14:57:42

1 paying an actual interest rate. 14:57:47

2 That number exists conceptually, does it  
3 not?

4 MS. HUNSICKER: Objection; outside of the scope  
5 of the report. 14:57:59

6 THE WITNESS: This morning I mentioned  
7 borrowing, reducing consumption, failing to repay  
8 credit cards or other high-interest debt,  
9 transaction costs, subjective discount rates,  
10 precautionary motives. 14:58:23

11 So you're emphasizing just the borrowing  
12 rate, but I said there's a lot of different  
13 dimensions --

14 BY MR. LEVENBERG:

15 Q. Right. 14:58:31

16 A. -- of harm.

17 Q. Understood.

18 A. So just looking at when they started  
19 borrowing would be an extreme misunderstanding of  
20 the notion of opportunity costs. It's all 14:58:38  
21 dimensions of opportunity costs of not having access  
22 to funds.

23 Q. Okay. I understand that your opinion is  
24 that doing so would undercount their damages; is  
25 that correct? 14:58:48

1 A. Extremely, yes. 14:58:51

2 Q. Okay. So that gets back to my original  
3 question. If someone paid credit card interest for  
4 a week but you are compensating them with credit  
5 card interest for a month, how do you know that you 14:59:05  
6 are undercounting their damages?

7 MS. HUNSICKER: Objection; confusing.

8 THE WITNESS: My method wasn't intended to go  
9 person by person, so that's not a relevant question.  
10 And if I don't know all these other dimensions about 14:59:23  
11 reducing consumption or transaction costs or the  
12 value of precautionary savings, then it's not a  
13 well-posed question.

14 BY MR. LEVENBERG:

15 Q. So for that person, do we know that their 14:59:40  
16 damages are undercounted or is it just a  
17 possibility?

18 MS. HUNSICKER: Objection; incomplete  
19 hypothetical, calls for speculation.

20 THE WITNESS: If we know -- my method is not 14:59:55  
21 designed for an individual, then we say --

22 (Reporter seeks clarification.)

23 THE WITNESS: My method was not designed for an  
24 individual.

25 If we try to apply it for an individual 15:00:13

1 and have very little information about them, that's 15:00:15  
2 going to amplify the inapplicability, and it's just  
3 a poorly posed question.

4 BY MR. LEVENBERG:

5 Q. Well, I don't think it is. I don't 15:00:29  
6 think -- I don't think it's productive to get bogged  
7 down in talking about this as if it's a question  
8 about an individual because I could pose the same  
9 question about a thousand individuals.

10 There's a class of thousands of people for 15:00:44  
11 whom they were without access to funds for a certain  
12 period and paid credit card interest for a  
13 substantially shorter period than that.

14 MS. HUNSICKER: Objection to form.

15 BY MR. LEVENBERG: 15:01:01

16 Q. Is it your opinion that that's not the  
17 case?

18 MS. HUNSICKER: Objection; calls for  
19 speculation.

20 THE WITNESS: There's not enough information 15:01:23  
21 there for me to give a meaningful answer. I'm  
22 sorry.

23 I'm not trying to be trouble making. You  
24 just asked me a question to which the answer is --  
25 it's just not well-posed for -- 15:01:38

1 BY MR. LEVENBERG: 15:01:43

2 Q. Well --

3 A. -- the situation, and I'm -- you're

4 correct, it's not about an individual, but if you

5 told me all class members were this way, I'd say, 15:01:46

6 you know, that's a different situation than I -- you

7 know -- different situation I haven't thought much

8 about. So I'll try to be responsive.

9 Can you reask the question again? I think

10 that -- 15:02:13

11 MS. HUNSICKER: Can we have a coffee break when

12 you're done with this question?

13 MR. LEVENBERG: Maybe two or three more

14 questions and then let's break.

15 MS. HUNSICKER: Thank you. 15:02:19

16 BY MR. LEVENBERG:

17 Q. You don't have any information about how

18 many class members paid credit card interest though,

19 do you?

20 MS. HUNSICKER: Objection; asked and answered. 15:02:27

21 THE WITNESS: No.

22 BY MR. LEVENBERG:

23 Q. So we also don't have any information

24 about the periods in which class members paid credit

25 card interest, do we? 15:02:43

1           A.     If the "we" includes Bank of America, I                         15:02:46  
2     have no idea how much information they have, but I  
3     do not.

4 Q. Okay. That's fine.

5 MR. LEVENBERG: All right. We can take that 15:02:54  
6 break.

7 THE VIDEOGRAPHER: We're going off the record.

8 The time is 3:02 p.m.

|   |                 |
|---|-----------------|
| 9 | (Recess taken.) |
|---|-----------------|

|    |                                             |          |
|----|---------------------------------------------|----------|
| 10 | THE VIDEOGRAPHER: We're back on the record. | 15:19:43 |
| 11 | The time is 3:19 p.m.                       |          |

12 BY MR. LEVENBERG:

13 Q. Okay. I'm going to fast forward to part  
14 three of your report.

|    |                                                  |          |
|----|--------------------------------------------------|----------|
| 15 | Looking at paragraph 47, your opinion is,        | 15:20:07 |
| 16 | "I understand that the Customer Service Class is |          |
| 17 | seeking damages for time spent on hold with the  |          |
| 18 | Bank's Claims call center."                      |          |

|    |                                                |          |
|----|------------------------------------------------|----------|
| 19 | Is it your opinion that class members were     |          |
| 20 | damaged by all of the time they spent on hold? | 15:20:22 |

21 MS. HUNSICKER: Objection; vague.

22 THE WITNESS: This is actually poorly written.

23                   It should have said excess time on hold or  
24       excesses compared to some measure of normal time on  
25       hold.

1 BY MR. LEVENBERG: 15:20:44

2 Q. Do you have any opinion on what would

3 qualify as an excess time?

4 MS. HUNSICKER: Objection; outside the scope.

5 MR. LEVENBERG: That's what I'm trying to 15:20:51

6 figure out.

7 THE WITNESS: Conceptually, beyond normal. But

8 I don't have anything beyond that concept.

9 BY MR. LEVENBERG:

10 Q. Did you form an opinion about the total 15:21:09

11 amount of damages for the value of lost time for the

12 customer service class?

13 MS. HUNSICKER: Objection; beyond the scope.

14 THE WITNESS: No, I did not.

15 BY MR. LEVENBERG: 15:21:26

16 Q. And in order to measure the damages, you

17 would need some measure of excess hold time;

18 correct?

19 A. One would need, not you in the sense of

20 me -- 15:21:40

21 Q. Right.

22 A. -- but yes.

23 Q. And is it your understanding that

24 plaintiffs are relying on other experts for

25 computing that value? 15:21:47

1 A. I'm unsure how they're computing that. I 15:21:55  
2 don't know what data they have or experts.

3 Q. Okay. The next paragraph, you refer to  
4 several studies that have found that the typical  
5 value of time is close to the median wage. 15:22:08

6 What does that mean exactly? Does it mean  
7 the typical value of time for everybody, is that the  
8 median wage, or does it mean that the typical -- or  
9 does it mean that the value of everyone's time is at  
10 their own wage, so across a group value is the 15:22:28  
11 median?

12 MS. HUNSICKER: Objection; confusing.

13 THE WITNESS: Plaintiffs' attorneys asked me to  
14 pick a measure of the value of lost time that would  
15 be a conservative measure for the class as a whole. 15:22:48

16 When economists estimate this value of  
17 time, they sometimes estimate an aggregate number  
18 and they sometimes disaggregate it relative to an  
19 individual or a group's own wages.

20 And the relationship is pretty consistent 15:23:15  
21 in both methods, that economic theory says that, you  
22 know, if somebody is willing to take a wage to work  
23 40 hours, that the value of their 40 hours is  
24 somewhat close to that wage or -- and that's roughly  
25 what we see depending on what the alternative use of 15:23:53

1 time is. 15:23:56

2 So for commuting, it's often somewhat less

3 than the median wage. When you're commuting and

4 stuck in traffic, it's higher than the median wage

5 or above. When it's unproductive and stressful, if 15:24:14

6 you're in an airport and your flight is delayed,

7 then it's quite a bit higher in the one study I saw

8 that looked at that.

9 But across regions and across study

10 methods, it's pretty consistently a bit below the 15:24:37

11 median wage for commuting and above for unpleasant

12 commuting or things like that.

13 BY MR. LEVENBERG:

14 Q. Does it depend on a person's actual wage?

15 A. The disaggregated studies often find that 15:25:04

16 it moves not quite one for one but is higher for

17 people with higher wages.

18 Again, that was why I chose to -- the

19 plaintiffs' attorneys asked me to find a

20 conservative measure that would, in aggregate, be 15:25:24

21 generous to the bank, lower than the average, and

22 also be applied at a vast majority of the class

23 members, which is what I did.

24 Q. So just to be clear, when we are talking

25 about the studies that have found that the typical 15:25:45

1 value of time is close to the median wage, that 15:25:48  
2 would include some people for whom it's higher than  
3 the median wage and some people for whom it's lower  
4 than the median wage; is that correct?

5 A. Ask that again. I'm sorry. 15:26:03

6 Q. So when we're talking about these studies  
7 that have found that the typical time is close to  
8 the median wage, I assume that's for a group of  
9 people and not for just one person; right?

10 A. I'm sorry, ask it one more time. I'll get 15:26:17  
11 it right this time.

12 Q. When we're talking about these studies  
13 that have found that the typical value of time is  
14 close to the median wage, is that the value of time  
15 for one person or the value of time for a group of 15:26:35  
16 people?

17 A. It depends on the study.

18 The regularity holds, but some studies  
19 looking at the individual wage and willingness --  
20 value of time wouldn't use median. 15:27:04

21 When I aggregated these studies, some of  
22 them use absolute dollar amounts, or if they're from  
23 England or Great Britain, United Kingdom, British  
24 pounds -- pardon me -- not all of them expressed  
25 results in wage units if they said it was so many 15:27:28

1 dollars, but I then converted into U.S. dollars 15:27:31  
2 adjusted for -- and then found data on median wages  
3 in that time and place and compared them.

4 But some of them were aggregate studies  
5 that delivered a single number. Some of them had 15:27:52  
6 more disaggregated results by earnings.

7 The aggregate results tend to be close to  
8 the median wage, you know, depending on the  
9 alternative activity. And the disaggregated studies  
10 tend to find that people with higher earnings have 15:28:10  
11 higher value of time.

12 Importantly, people with no earnings still  
13 have positive value of time, right? If someone has  
14 \$100 million in the bank and is retired, they're not  
15 earning any money with their time but they are still 15:28:29  
16 willing to pay quite a lot to avoid hassles and they  
17 spend large amounts on a butler, so I've read about,  
18 that's not part of my expertise, but they still have  
19 a value of time.

20 And similarly, someone who is full time 15:28:47  
21 taking care of children has a value of time even if  
22 that person isn't earning money. And an unemployed  
23 person has a value of time.

24 Economists tend to use, what we call, the  
25 reservation wage, which would be something like the 15:29:03

1 answer to if you had a job offer in your field, how 15:29:06  
2 much would it need to pay for you to accept the job  
3 is one way to measure that in surveys.

4 And unemployed people rarely give the  
5 answer of, you know, 50 cents or whatever. If they 15:29:21  
6 had zero value of their time, they would take any  
7 job.

8 So when I was reading McCrary's report, he  
9 referenced some Federal Reserve data, and that  
10 dataset included some information on reservation 15:29:43  
11 wages, and the reservation wages for Californians  
12 were -- who were unemployed were quite a bit above  
13 the minimum wage that I posit here.

14 This reservation wage, again, is what an  
15 unemployed person would need to be offered to accept 15:30:04  
16 a job. And these survey responses are not perfect  
17 predictors of people's behavior but they have a lot  
18 of information.

19 Q. So one of the things you said there was  
20 "aggregate results tend to be close to the median 15:30:18  
21 wage."

22 Does that mean that everybody in the  
23 aggregate values their time at the median wage or  
24 does it mean that the aggregate includes some people  
25 who value their time above the median and some 15:30:29

1 people who value their time below the median? 15:30:33

2 A. Normally, the latter. Some of that  
3 variation is measurement error, and so the  
4 integration of individual responses may be greater  
5 than reality for things like surveys. 15:30:50

6 Q. Are you aware of any prior scenarios in  
7 which the value of lost time was measured for  
8 purposes of a damages analysis?

9 MS. HUNSICKER: Objection; vague.

10 THE WITNESS: None come to mind. I don't know 15:31:56  
11 very much about damages analysis. I'm a professor,  
12 not a lawyer.

13 BY MR. LEVENBERG:

14 Q. Is it your opinion in this case that the  
15 value of lost time is relevant to a damages 15:32:13  
16 analysis?

17 MS. HUNSICKER: Objection; calls for a legal  
18 conclusion.

19 THE WITNESS: I mean, to repeat, I'm not a  
20 lawyer. 15:32:24

21 As an economist who thinks about  
22 opportunity cost, it is appropriate, but I have no  
23 idea what the law is in this case.

24 BY MR. LEVENBERG:

25 Q. Are any of the publications of yours that 15:32:38

1       you list in Appendix A, do any of those concern the                     15:32:44

2       value of lost time?

3 A. That's a fine question.

4 (Witness reviews document.)

|   |        |          |
|---|--------|----------|
| 5 | A. No. | 15:33:29 |
|---|--------|----------|

6 Q. Do any of the publications of yours that  
7 you list in Exhibit A concern measures of the  
8 opportunity costs of being deprived access to  
9 benefits?

|    |                                                      |          |
|----|------------------------------------------------------|----------|
| 10 | A. The underlying theory, as I discuss, about        | 15:34:16 |
| 11 | subjective discount rates, transaction costs,        |          |
| 12 | liquidity constraints are -- underlie a number of my |          |
| 13 | publications.                                        |          |

|    |                                               |          |
|----|-----------------------------------------------|----------|
| 14 | Q. Do any of those concern access to benefits |          |
| 15 | specifically?                                 | 15:34:41 |

16           A. I don't believe so, but there's always a  
17 possibility.

|    |     |
|----|-----|
| 18 | No. |
|----|-----|

|    |                                            |          |
|----|--------------------------------------------|----------|
| 19 | Q. Can you tell me what you did to prepare |          |
| 20 | for your testimony today?                  | 15:35:03 |

21 MS. HUNSICKER: Objection; vague.

22 THE WITNESS: Let's see, I read the rebuttal  
23 reports by Professors Stango and McCrary and looked  
24 at some of the publications they cited.

|    |                                         |          |
|----|-----------------------------------------|----------|
| 25 | I mentioned the Stavins article and the | 15:35:27 |
|----|-----------------------------------------|----------|

1 Federal Reserve data that led me to the reservation 15:35:36  
2 wage data.

3 I had a Zoom meeting and an in-person  
4 meeting with plaintiff attorneys to discuss some  
5 questions and practice answers and go over the rules 15:35:54  
6 of a deposition.

7 I probably read some additional literature  
8 on some of the points that Stango had -- not  
9 probably. I read some literature on some of the  
10 points that McCrary and Stango mentioned. 15:36:30

11 I looked briefly at the interrogatories of  
12 the named plaintiffs that McCrary had alluded to and  
13 summarized in -- as we discussed.

14 I looked at some of McCrary's tables. As  
15 I mentioned, I think he had a table he got from 15:37:09  
16 Regan on the class members. I looked at that  
17 briefly.

18 Let's see, I practiced explaining  
19 opportunity costs in Chat GPT and got feedback on  
20 that explanation. 15:37:43

21 BY MR. LEVENBERG:

22 Q. That was smart. That was like my second  
23 question.

24 A. Actually, opportunity costs, value of time  
25 I practiced explaining to the AI. 15:37:59

1                   That's what I remember.                   15:38:15

2           Q.   And it's two meetings that you said you  
3   had, one in person and one on Zoom?

4           A.   Yeah. There may have been brief -- there  
5   probably was another phone call or Zoom that was           15:38:25  
6   brief, but there were two that were more than  
7   two hours.

8           Q.   Who was at those meetings?

9           A.   Caroline and Connie. One might have been  
10   just with Caroline. The in-person meeting was with           15:38:43  
11   both.

12          Q.   Anybody else?

13          A.   I don't think so.

14          Q.   Did you have any assistance in writing  
15   your report?                   15:39:01

16          A.   Yes.

17          Q.   Who provided that assistance?

18          A.   I had two research assistants.

19                I mean, they didn't assist in writing,  
20   they assisted in preparing the report.                   15:39:17

21          Q.   And who are they?

22          A.   Doug Hirsch, H-i-r-s-c-h.

23                And I can give you the spelling, but Zhou  
24   Shawn Zhong. And I can't spell his last name. The  
25   first name is Z-h-o-u, and he goes by Shawn,           15:39:41

1 S-h-a-w-n. And I would have to look up his last 15:39:47  
2 name.

3 Q. Did anybody else assist you in any way?

4 A. Caroline helped shorten the report, and  
5 people in her office formatted it. 15:40:00

6 Q. The research assistants that you  
7 mentioned, are they students of yours?

8 A. No.

9 Q. Were they paid?

10 A. Yes. 15:40:13

11 Q. Who paid them?

12 A. Me, but I charged the plaintiffs'  
13 attorneys.

14 Q. Right.

15 How much did you pay them for their work 15:40:25  
16 on the case?

17 A. I don't know. I mean, I don't recall.

18 Q. How much have you been paid for your work  
19 on the case?

20 A. I hate to ever say anything without 15:40:46  
21 looking at notes, but I think around \$40,000. And  
22 there's another bill yet to be turned in, but that  
23 could be quite far off.

24 If that's important, I will e-mail you an  
25 updated figure. 15:41:13

1 Q. Somebody else can figure out how important 15:41:14  
2 that is to them.

3 Are there any opinions in your report  
4 sitting here today that you would revise or change  
5 in any way? 15:41:23

6 A. I mean, there's definitely wording and  
7 line editing I would do, but no, there are no  
8 substantive opinions.

9 You know, in paragraph 47, I should have  
10 said excess waiting time and so forth. So there's 15:41:39  
11 poorly worded sentences, but there are no opinions  
12 that I would change.

13 Q. Are there any additional opinions that you  
14 would express in this case that aren't contained in  
15 this report? 15:41:52

16 A. No.

17 Q. Do you have any plans to supplement this  
18 report?

19 A. I don't even know what that means.

20 Q. Do you have any plans to make any changes 15:42:15  
21 or additions to the report?

22 A. No.

23 I'll have to caution that I didn't know  
24 that was possible. If there's a possibility, I  
25 would definitely do some line editing. 15:42:32

1 Q. Other than line editing, are there any 15:42:35  
2 changes or additions you would make?

3 A. Yeah, I should say, I mentioned a couple  
4 of cases where after reading McCrary and Stango, you  
5 know, the Stavins citation on imperfect recall, that 15:42:47  
6 people were optimistic on how much they were saving,  
7 and the Federal Reserve data on reservation wages  
8 were both things I found in pursuing what they --  
9 the sources that they cited, and I would mention  
10 those. 15:43:12

11 Q. Is there anything else you would add or  
12 change?

13 A. I think some of the wording I used on  
14 describing the Pulse Survey, the 66 percent, was  
15 literally Stango's words, in which case there should 15:43:27  
16 have been quotation marks, and I feel bad about  
17 that.

18 But I'm not sure of that. But it looked  
19 awfully similar to what he wrote. So it's  
20 definitely paraphrasing, maybe a quote, and I should 15:43:40  
21 have cited that.

22 Q. Anything else?

23 A. No.

24 MR. LEVENBERG: All right. I think I am  
25 probably done. 15:43:56

1 Am I done? 15:43:57

2 MS. BRYs: I think you're done.

3 MR. LEVENBERG: Do you have anything?

4 If you want to take a break, that's fine,

5 too. 15:44:07

6 MS. HUNSICKER: I don't have any questions.

7 MR. LEVENBERG: All right.

8 Well, thank you very much, sir.

9 THE VIDEOGRAPHER: Can I get video orders on

10 the record? 15:44:21

11 MR. LEVENBERG: Yeah, we'll order the

12 transcript.

13 The way I like them -- I don't know if you

14 can do this -- but like where the exhibit reference

15 is, if you can like hyperlink the exhibit in the 15:44:32

16 transcript and then you click on it and it's

17 embedded in the PDF, that would be perfect.

18 And I don't need a hard copy, just the PDF

19 is fine.

20 And we don't need to rush it either, just 15:44:43

21 regular turnaround.

22 MS. HUNSICKER: I think we have a standing

23 order for transcripts.

24 THE VIDEOGRAPHER: And video order.

25 MS. BRYs: We'll take the video but not synced. 15:44:54

1 THE VIDEOGRAPHER: We're going off the record. 15:44:59

2 The time is 3:45 p.m.

3 (Whereupon, the proceedings were concluded

4 at 3:45 p.m.)

5 ---oOo--- 15:45:02

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1 I, the undersigned, a Certified Shorthand  
2 Reporter of the State of California, do hereby  
3 certify:

4 That the foregoing proceedings were taken  
5 before me at the time and place herein set forth;  
6 that any witnesses in the foregoing proceedings,  
7 prior to testifying, were administered an oath; that  
8 a record of the proceedings was made by me using  
9 machine shorthand which was thereafter transcribed  
10 under my direction; that the foregoing transcript is  
11 a true record of the testimony given.

12 Further, that if the foregoing pertains to  
13 the original transcript of a deposition in a Federal  
14 Case, before completion of the proceedings, review  
15 of the transcript (X) was ( ) was not requested.

16 I further certify that I am neither  
17 financially interested in the action nor a relative  
18 or employee of any attorney of any party to this  
19 action.

20 IN WITNESS WHEREOF, I have this date  
21 subscribed my name.

22 Dated: June 11, 2025

23  
24 

25 ANRAE WIMBERLEY, CSR No. 7778

1 I declare under penalty of perjury that the  
2 foregoing is true and correct. Subscribed at  
3 \_\_\_\_\_, \_\_\_\_\_, this \_\_\_\_\_ day of  
4 \_\_\_\_\_, 20\_\_\_\_.

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10 DAVID I. LEVINE, PH.D.  
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1 Caroline Hunsicker

2 chunsicker@altshulerberzon.com

3 June 11, 2025

4 RE: Bank Of America California Unemployment Benefits Litigation  
5 5/28/2025, David I. Levine, Ph.D., (#7309212).

6 The above-referenced transcript has been  
7 completed by Veritext Legal Solutions and  
8 review of the transcript is being handled as follows:

9 \_\_\_ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext  
10 to schedule a time to review the original transcript at  
11 a Veritext office.

12 \_\_\_ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF  
13 Transcript - The witness should review the transcript and  
14 make any necessary corrections on the errata pages included  
15 below, notating the page and line number of the corrections.  
16 The witness should then sign and date the errata and penalty  
17 of perjury pages and return the completed pages to all  
18 appearing counsel within the period of time determined at  
19 the deposition or provided by the Code of Civil Procedure.  
20 Contact Veritext when the sealed original is required.

21 \_\_\_ Waiving the CA Code of Civil Procedure per Stipulation of  
22 Counsel - Original transcript to be released for signature  
23 as determined at the deposition.

24 \_\_\_ Signature Waived - Reading & Signature was waived at the  
25 time of the deposition.

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1     \_X\_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF  
2         Transcript - The witness should review the transcript and  
3         make any necessary corrections on the errata pages included  
4         below, notating the page and line number of the corrections.  
5         The witness should then sign and date the errata and penalty  
6         of perjury pages and return the completed pages to all  
7         appearing counsel within the period of time determined at  
8         the deposition or provided by the Federal Rules.  
9     \_\_\_ Federal R&S Not Requested - Reading & Signature was not  
10        requested before the completion of the deposition.

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Bank Of America California Unemployment Benefits Litigation  
David I. Levine, Ph.D. (#7309212)

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(David I. Levine, Ph.D.)

Date

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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