

## APPEARANCES :

## For the Plaintiff,

Cabell County Commission:

MR. PAUL T. FARRELL, JR.
Farrell \& Fuller, LLC
1311 Ponc De Leon, Suite 202
San Juan, PR 00907
MR. ANTHONY J. MAJESTRO
Powell \& Majestro
Suite P-1200
405 Capitol Street
Charleston, WV 25301

MR. PETER J. MOUGEY
Levin Papantonio Thomas Mitchell Rafferty \& Proctor Suite 600
316 South Baylen Street
Pensacola, FL 32502
MR. MICHAEL J. FULLER, JR.
Farrell \& Fuller
Suite 202
1311 Ponce De Leon
San Juan, PR 00907

## APPEARANCES (Continued) :

For the Plaintiff,
Cabell County Commission:

MS . MILDRED CONROY
The Lanier Law Firm
Tower 56
126 East 56th Street, 6th Floor
New York, NY 1022

MS. PEARL A. ROBERTSON
Irpino Avin Hawkins Law Firm
2216 Magazine Street
New Orleans, LA 70130

MR. MICHAEL W. WOELFEL
Woelfel \& Woelfel
801 Eighth Street
Huntington, WV 25701

MR. CHARLES R. WEBB
The Webb Law Center
716 Lee Street East
Charleston, WV 25301

MR. MARK P. PIFKO
Baron \& Budd
Suite 1600
15910 Ventura Boulevard
Encino, CA 91436

```
For the Plaintiff,
City of Huntington:
```


## MS. ANNE MCGINNESS KEARSE

Motley Rice
28 Bridgeside Blvd.
Mt. Pleasant, SC 29464
MR. DAVID I. ACKERMAN
Motley Rice
Suite 1001
401 9th Street NW
Washington, DC 20004
MS. LINDA J. SINGER
Motley Rice
Suite 1001
401 Ninth Street NW
Washington, DC 20004
MS . ANNIE KOUBA
Motley Rice
28 Bridgeside Blvd.
Mt. Pleasant, SC 29464
MS . TEMITOPE LEYIMU
Motley Rice
28 Bridgeside Blvd.
Mt. Pleasant, SC 29464

For the Defendant,
Cardinal Health:

MS. ENU MAINIGI
MS. JENNIFER WICHT
Williams Connolly
725 Twelfth Street NW
Washington, DC 20005
MS. SUZANNE SALGADO
725 Twelfth Street NW
Washington, DC 20005
MR. STEVEN R. RUBY
Carey Douglas Kessler \& Ruby
901 Chase Tower
707 Virginia Street, East
Charleston, WV 25301

Ayme A. Cochran, RMR, CRR (304) 347-3128

## APPEARANCES (Continued) :

For the Defendant, Cardinal Health:

MS. ASHLEY W. HARDIN
MS. ISIA JASIEWICZ
Williams \& Connolly
25 Twelfth Street, NW
Washington, DC 20005
APPEARANCES (Continued) :

For the Defendant, McKesson:

MR. TIMOTHY C. HESTER
MR. PAUL W. SCHMIDT
MS. LAAURA M. FLAHIVE WU
MR. ANDREW STANNER
Covington \& Burling
One City Center
850 Tenth Street NW
Washington, DC 20001
MR. JEFFREY M. WAKEFIELD
Flaherty Sensabaugh \& Bonasso
P.O. Box 3843

Charleston, WV 25338-3843

## APPEARANCES (Continued) :

For the Defendant,
AmerisourceBergen Drug Corporation:

MS. SHANNON E. MCCLURE
MR. JOSEPH J. MAHADY
Reed Smith
Three Logan Square
Suite 3100
1717 Arch Street
Philadelphia, PA 19103
MS. GRETCHEN M. CALLAS
Jackson Kelly
P.O. Box 553

Charleston, WV 25322

APPEARANCES (Continued) :
MR. ROBERT A. NICHOLAS
Reed Smith
Suite 3100
Three Logan Square
1717 Arch Street
Philadelphia, PA 19103

MS. ELIZABETH CAMPBELL
1300 Morris Drive
Chesterbrook, PA 19087

Court Reporter:
Ayme Cochran, RMR, CRR
Court Reporter: Lisa A. Cook, RPR-RMR-CRR-FCRR

Proceedings recorded by mechanical stenography;
transcript produced by computer.

PROCEEDINGS had before The Honorable David A. Faber, Senior Status Judge, United States District Court, Southern District of West Virginia, in Charleston, West Virginia, on June 29, 2021, at 9:00 a.m., as follows:

THE COURT: Welcome back, Mr. Fuller. Do you have something you want to do here?

MR. FULLER: Yeah, Judge. I figured you needed a little disruption first thing, so I will admit some more documents.

Judge, plaintiffs are going to admit the following $P$ numbers: 4201, 42104. I'm sorry. Let me start over. 42101, 42104, 42105, 42106, 42108, 42109, 42110, 42111, 42112, 42119, 42120, 42121, 42122, 42124, 42 -- 42125, 42126 and 42127.

They're being admitted by stipulation, Judge, and I will hand the clerk a thumb drive with everything on it.

And if I did make a mistake, because the defense is still reviewing them, they're all Cardinal docs for everybody else, they're going to let me know and we'll fix it. And that takes care of it.

All of those are plaintiffs' documents.
THE COURT: Okay. Thank you, Mr. Fuller.
MR. FULLER: Thank you, Judge.
THE COURT: Before we get back to Dr. Alexander,
the issue on the admissibility of his redress model is before the Court and we've read the briefs and done a good bit of work on it ourselves and the expert -- the exhibit at issue here was part of Dr. Alexander's expert report. The rules well establish that expert reports are hearsay and not admissible in the evidence.

The exhibit here at issue is not a summary that would be admissible under Rule 1006, but instead, is a portion of the report lifted from the report.

Dr. Alexander was permitted to refer to the challenged exhibit as a demonstrative during his testimony and I conditionally admitted it. The plaintiffs insist it's a necessary basis for the testimony of the expert Barrett.

Rule 703 permits experts to rely on matters that need not be admissible. So, the Court is going to sustain the objection to admission of the exhibit drawn from Dr. Alexander's report, but the witness Barrett may testify with regard thereto if relied upon in forming the expert opinion. I think Rule 703 permits that.

So, Dr. Alexander, we're back to you.
And, Ms. Singer, you may re-direct, if you wish. MS. SINGER: Thank you. And good morning, Your Honor.

Good morning, Dr. Alexander.
THE WITNESS: Good morning.

Ayme A. Cochran, RMR, CRR (304) 347-3128

MS. SINGER: So, I made a promise. I'm going to try to keep it, Your Honor.

THE COURT: Good.

## REDIRECT EXAMINATION

BY MS. SINGER:
Q. Dr. Alexander, you were asked questions yesterday on cross examination about whether the abatement plan contemplates services for people who had not used opioids or not used opioids before 2021. Do you recall those questions?
A. Yes, I do.
Q. Now, you were asked some hypothetical questions and I want to ask you a non-hypothetical question. Is it reasonable to assume that individuals will continue to develop addiction as a result of the epidemic that exists right now in Cabell County and the City of Huntington?
A. Yes, it is.
Q. And in your expert opinion will individuals who are not current or past opioid users still be harmed by the opioid epidemic that exists in this community?
A. Yes, they will.
Q. And can you explain the basis for that opinion?
A. Sure. Well, the opioid epidemic, I mean, I discussed yesterday one example of this, which is the intergenerational perpetuation of addiction. So, there are
individuals currently that are being harmed because they are living in families where addiction is rampant and their likelihood of developing subsequent addiction is much higher than it otherwise would be.

A second salient example, I think, are individuals that are currently taking long-term prescription opioids. They may not currently have diagnostic -- they may not currently have addiction, but they're at much greater risk of addiction than an individual that's not currently taking long-term prescription opioids and they may well be on long-term prescription opioids as part and parcel of the current epidemic.

So, I think these are two of several examples of how there's a very real prospect and every reason to believe that there will be people in the future that will develop addiction or other -- have other adverse consequences from the epidemic who are not necessarily currently addicted.
Q. And, Dr. Alexander, would that extend to children in the child welfare system today or children born with Neonatal Abstinence Syndrome, as well? Will they potentially bear greater risks in the future?
A. Yes, they will.
Q. And, Dr. Alexander, does a plan to abate the opioid epidemic in Cabell-Huntington have to include interventions to address the impacts that today's epidemic may have in the
future?
A. Yes, it does.
Q. All right. You were also asked questions yesterday about various services currently being offered in the State of West Virginia or Cabell and Huntington; do you recall those questions?
A. Yes, I do.
Q. And does the Board of Medicine Medical Education Program required for a provider's periodic licensing fully address the overuse of opioids in Cabell County and the City of Huntington?
A. No, it does not.
Q. And how about does -- let me ask differently. Does that CME take the place of the other interventions laid out in the abatement plan's prevention category aimed at helping healthcare professionals identify patients with Opioid Use Disorder or high volume prescribers?
A. No, it does not. And, indeed, I believe yesterday we discussed in every category of my abatement plan one example, for example, of some activity that's current that speaks to that category and that says nothing as to the comprehensiveness, sustainability, or impact of those select interventions that might have been identified in a particular category.
Q. Moving on to the next topic, Dr. Alexander, you were
shown printouts from the -- from DHR -- DHHR's data dashboard yesterday; do you recall that?
A. Yes, I do.
Q. Now, do you -- did you rely on the data dashboard as one source in preparing your report and forming your opinions in this case?
A. Yes, one of many.
Q. And you were shown data, I think, from 2017 to 2019; is that your recollection?
A. Yes.
Q. Now, you also testified that opioid overdoses in Cabell have increased since the years Mr. Hester examined you about; was that your testimony?
A. I'm sorry. I'd like to correct one thing. I think that I may have examined four years rather than three of data, but $I$ don't recall for sure yesterday, but can you please ask the most recent question again?
Q. Yes. You testified yesterday that opioid overdoses in

Cabell have increased since the time period for which you were shown data; is that right?

MR. HESTER: Object as leading.
THE COURT: Sustained.
You can rephrase it, Ms. Singer.
MS. SINGER: Okay.
BY MS. SINGER:
Q. Is it your -- have opioid overdoses in Cabell increased since the years Mr. Hester identified in your examination yesterday?
A. They have increased and I believe I noted that yesterday. I don't believe we had the opportunity yesterday to review the most recent data that's available which, in fact, shows an uptick in overdoses.
Q. So, do you know what the overdose -- the number of overdoses was in Cabell County in 2020?
A. I would like to say it was 132, but I do not know for sure.
Q. Is there something --

MS. HARDIN: Your Honor, sorry to interrupt, but I don't believe this 2020 data is part of Dr. Alexander's report and so we would object as beyond the scope of his report.

THE COURT: Is it, Ms. Singer?
MS. SINGER: So, he cites that data dashboard, which is constantly updated in his reliance materials, Your Honor, so that data dashboard is an ongoing resource that updates. He was asked specifically about earlier periods and I think this is important for completeness and, again, within the scope of his report.

MS. HARDIN: The fact that it's ongoing, I think proves the point, Your Honor. Just because he relied on
some earlier portion doesn't mean he's relied and cited on a later portion.

THE COURT: I'll sustain the objection.
BY MS. SINGER:
Q. Dr. Alexander, do you know whether overdoses have continued to increase in Cabell County since the period you relied on yesterday, you were examined on yesterday?

MS. HARDIN: Same objection, Your Honor.
THE COURT: Sustained.
BY MS. SINGER:
Q. All right. We'll move on. Yesterday, you were taken through a paper written by Dr. Homer. Do you recall that conversation?
A. Yes, I do.
Q. And I want to direct you to the reference to Dr. Homer's report -- Dr. Homer's paper in your expert report. Do you still have it in front of you?
A. Yes, I believe I do.

MS. SINGER: And, Your Honor, with your permission, may we publish this?

THE COURT: Is Homer a doctor, Ms. Singer?
MS. SINGER: Excuse me? My understanding is he's a Ph.D.

THE COURT: Okay. I didn't get that from his -from yesterday but, okay. Go ahead.

BY MS. SINGER:
Q. So, Dr. Alexander, do you recognize this as a portion of your expert report?
A. Yes, I do.
Q. Okay. And yesterday we looked at Footnote 640. Do you see where that is in your report?
A. Yes, I do.
Q. And let's pull up -- so, let's -- I'm sorry. Why don't you start by reading the reference that anchors Footnote 640, please.
A. While further extrapolation is required to estimate the combined community level impact of interventions I propose, I believe that they can reduce cumulative opioid overdoses and opioid harms by 50 percent over 15 years.
Q. Okay. And that's the sentence for which you cite Dr. Homer's paper, correct?
A. Yes.
Q. Okay. You weren't asked to discuss yesterday the next sentence of your expert report. Could you read that aloud for the Court, please?
A. This estimate -- this estimate is based on models that we and others have developed, as well as review and synthesis of additional assessments of many of the interventions proposed herein.
Q. Now, does that sentence include additional footnotes,

Dr. Alexander?
A. Yes, it does.
Q. Okay. And do the footnotes on the screen there, 641, 642, 643 and 644, represent additional sources on which you relied in your report?
A. Yes, they do.
Q. And why did you cite those papers?
A. Well, they represent additional models that have been undertaken to understand the epidemiology of the opioid epidemic and, as well, they in turn cite many, many dozens, if not a hundred or more additional scientific studies that I also would have used to inform my judgments.
Q. And does that include your judgments with respect to modeling the impact of various interventions on the opioid epidemic?
A. Yes, it does.
Q. Okay. So, can you just identify the four papers just by the first author, please?
A. Of course. Pitt, Wakeland, Chen and Irvine.
Q. And again, Dr. Alexander, just to be clear, are these each models, in addition to Dr. Homer's study, that you consulted in forming your opinions in this case?
A. Yes, they are.
Q. Now, going back to that sentence you just read, have you relied on models other than Dr. Homer's and the four we
just referenced?
A. Yes, I have. I've relied upon modeling that I have performed, as well.
Q. And is that the Apollo model that you're referring to?
A. Yes, it is.
Q. And, by the way, each of the --

MS. HARDIN: Objection, Your Honor. I think the testimony yesterday was that he has not prepared an Apollo model for this case and has not used that modeling here.

THE COURT: Well, you can re-cross him on that. I'll overrule the objection. I think that's a matter for probably cross examination rather than cutting him off here.

So, go ahead, Ms. Singer.
BY MS. SINGER:
Q. And, Dr. Alexander, are each of the four additional reports, by the way, that you consulted and that we've just discussed published in various peer-review journals?
A. Yes, they are.
Q. And are each of these journals, the American Journal of Public Health, the American Journal of Drug and Alcohol Abuse, JAMA Network Open and Addiction journals that are relied upon by epidemiologists in your field?
A. Yes, they are.
Q. And do you know if Dr. Homer's article was published in a peer-review journal?
A. Yes, I believe it was.
Q. And we can pull it up, but do you recall what that journal was or is?
A. I believe it may have been the American Journal of Drug and Alcohol Abuse, but I would prefer to look at the reference, 640, if we could scroll the bottom panel up slightly to see that. Yes. That confirms American Journal of Drug and Alcohol Abuse.
Q. And is that also a peer-review journal that's relied on by epidemiologists?
A. Yes, it is.
Q. And, in your experience, is the peer-review process of journals such as the American Journal of Drug and Alcohol Abuse a rigorous process?
A. Well, I mean, peer-review represents the state of the standard and $I$ think that it is an important element of helping to maximize the quality of scholarship that is ultimately published in journals.
Q. Now, consistent with your practice as you described yesterday, would you have reviewed the financial disclosures of the other articles on which you relied?
A. Yes. I review funding as one of many sources of information as I interpret a scientific study and I also think it's important to state that a given source of funding doesn't mean that the science isn't good. It's just that
the funding has to be considered as one is interpreting the science. So, there's nothing about a specific funding source that -- that necessarily means that I throw out the study. I simply take the funding source into account as I proceed.
Q. And let's pull up -- and are you familiar -- do you recall, as you sit here today, the financial disclosures associated with the four additional articles you consulted?
A. No, I do not.
Q. And would looking at those financial disclosures refresh your recollection?
A. Yes. That would be helpful. MS. SINGER: Could we pull them up, please? BY MS. SINGER:
Q. So, this seems to be the Pitt study; is that right, Dr. Alexander?
A. Yes.

MS. SINGER: And can we scroll to the financial disclosures, please? It should be at the end.

BY MS. SINGER:
Q. So, if you look at acknowledgments --
A. Yes.
Q. Do you see the financial disclosures for the Pitt article?
A. Yes, I do.
Q. And what is that source of funding?
A. The National Institute of Drug Abuse and one author was supported by the Veterans Affairs.

MS. SINGER: Okay. And let's go, if we could, to the Chen article, please, and if we could scroll to the end of that one, as well. If we can look at the conflict of interest disclosures right above the references.

BY MS. SINGER:
Q. And, Dr. Alexander, does this represent the financial disclosures associated with the Chen article?
A. Yes, it does.
Q. And where does that funding come from?
A. Again, from the National Institute on Drug Abuse and, as well, Boston University School of Medicine Career Investment Award. Some of the investigator's report funding, although I do not know that it was directly related to this work from Optum labs, the National Center for Advancing Translational Sciences, Boston University Clinical and Translational Science Institute, the Center for Disease Control and Prevention, and The University of Maryland Baltimore/Office of National Drug Control Policy. Again, some of that is stipulated as funding outside of the submitted work. One author also reported receiving grants from the Medical Imaging and Technology Alliance, again, outside of the submitted work.
Q. All right. Why don't we just do one more? We won't go through all of them, but let's pull out Wakeland, if we could, and let's look at the acknowledgments on the Wakeland article.

Dr. Alexander, does this describe for you the financial -- the sources of potential conflicts of interest or funding for the Wakeland article?
A. Yes, it does.
Q. And what is that?
A. The authors acknowledge support from the National Institute of Health and National Institute of Drug Abuse and they acknowledge support from key collaborators although, as I interpret that, that's unlikely to have been financial support.

They also acknowledge a number of other individuals but, again, as I interpret this briefly, looking at these materials as I sit here today, I would guess that that was not financial in nature.
Q. Okay. All right. We can put this aside.

Dr. Alexander, last set of questions. You were talking about Apollo a moment ago and there was an objection related to that regarding your testimony and I wanted to make sure we're clear on that.

Is it fair to say that you relied on your experience, and methods, and knowledge in developing Apollo even without
applying it in this case?
A. Yes. And I appreciate the query because I think it's an important distinction. I didn't build out an Apollo model for Cabell County and the City of Huntington, but I nevertheless have had the fortunate benefit of learning from my work building Apollo in other cases and that, I think, allows for me to make more confident recommendations to the parties in this case.
Q. And why didn't you run the Apollo model for Cabell and Huntington?
A. Well, the -- in the cases where I've built Apollo, typically, it has been either at a national or a state level, such as the State of Washington, or perhaps the State of Rhode Island, and developing Apollo with the precision that $I$ would want to develop it in the instance of $a$ community as small as a hundred thousand people, Cabell County/City of Huntington would require me to have data that I would -- is less easy to come by and less easy to be fully confident in than when I'm doing this at a national or state level.
Q. So, when you used Apollo in the Ohio MDL litigation, the first track of the litigation, did you use the local Apollo model for that report?
A. I do not believe I did. I believe I used what I called U. S. Apollo yesterday.
Q. And without using or applying Apollo in this case, running Apollo, to use the correct term, in simulating the abatement plan here, did you specifically assess the population to be served and the services needed to abate the opioid epidemic in Cabell and Huntington?
A. Yes. I did so extensively, I mean, throughout my entire redress model.
Q. Do you need to run Apollo to reliably estimate the effect of the abatement plan in this case?
A. No, I do not.

MS. SINGER: Thank you.
If I could just have a moment, Your Honor?
THE COURT: Yes.

MS. SINGER: Thank you.
(Pause)
MS. SINGER: Thank you for your indulgence.
I have nothing further for Dr. Alexander.
THE COURT: Re-cross, Mr. Hester?

MR. HESTER: Your Honor, I have some re-cross.
RECROSS EXAMINATION
BY MR. HESTER:
Q. Good morning, Dr. Alexander.
A. Good morning.
Q. You just spoke about the fact that in the Ohio litigation you submitted a national model, correct?
A. Yes.
Q. And that was your national Apollo model?
A. It was the model at the time that I developed for the United States, yes.
Q. And are you aware that the Ohio litigation, the MDL litigation in which you submitted that report, was limited to two counties, Cleveland and Cuyahoga Counties?
A. Yes, I am.
Q. So, you submitted a national model there in relation to a remediation plan for two counties, correct?
A. Well, I would want to review my report in order to understand the specifics of how I applied Apollo in that instance, but -- so that would be helpful for me to do. Q. But you do understand -- I think you have your report up there from Ohio from yesterday we gave it to you, but -but let me ask you a question first, Dr. Alexander, just to set the stage. We may be able to short-circuit this.

The Ohio litigation related to a lawsuit brought by two counties, correct?
A. Yes.
Q. And so, the remediation plan that you submitted was in relation to the claim asserted by those two counties, correct?
A. Well, I developed -- again, it's been a year or two years and many cases since -- since I've looked at this
matter, but I developed recommendations for the counties involved based on a careful and comprehensive review of the situation on the ground and a customization of my recommendations to those counties.
Q. So, you took the national Apollo model that you had developed and applied the remediation plan to the two counties that were at issue in that case, correct?
A. Well, my -- my redress models are focused on the populations in the local communities. I mean, I think speaking about Apollo as if Apollo is -- is the redress model risks misconstruing the degree to which my recommendations are customized to the communities.
Q. No. I'm really looking at it the other way around. You submitted a national model, an Ohio national model, but that was a claim asserted by two counties, correct?
A. Again, I am sorry, but without reviewing the ways in which I applied Apollo in that case, I'm not sure how to answer your questions with great specificity.

I would just underscore that -- that I used a similar process there, as in this instance, which is reviewing an extraordinary volume of materials and carefully estimating the sizes of different populations that I believe are in need of services and programs.

And most of that activity is not -- doesn't require Apollo. Apollo is primarily to understand the trajectory of
the likely epidemic over time with respect to the -- the key measures, overdose, Opioid Use Disorder, and the like.
Q. So, you submitted the Apollo model in each of these other three cases we've talked about, Rhode Island, Washington State and Ohio? You submitted those in support of a remediation plan, correct?
A. I -- I've used Apollo in cases and I've not used Apollo in cases. And there's nothing magical about Apollo. I have the knowledge that I've used to develop Apollo with colleagues. Whether or not I actually submit Apollo -Q. That wasn't my question. That wasn't my question at all.

My question was, did you submit the Apollo model in those three cases in support of the remediation plan you are proposing?
A. Yes. I believe I submitted Apollo to help provide support for my estimates of the -- of the likely -- of the expected impact of the abatement interventions over time. Q. And Ms. Singer just walked you through disclosures for some of these other papers that you had cited at Footnote 641 through 44 of your report in this case, correct; do you recall that?
A. Yes, other epidemiologic models of the opioid epidemic that I used in addition to Homer to make the recommendations that I made.
Q. And, in particular, she looked at -- with you at the financial disclosures, correct?
A. That's correct.
Q. And did any of those financial disclosures say that those papers were being funded by the plaintiff law firms that are representing the plaintiffs in this case? Did any of those papers say that?
A. No. Those other models that I also relied upon, in addition to a great number of individual peer-reviewed articles, did not list, to my knowledge, funding from -from plaintiffs in opioid litigation.
Q. And no indication that any plaintiffs law firm was funding any of those papers, correct?
A. Well, I'd rather speak narrowly to the four papers that were models rather than the --
Q. That's what $I$ was just asking you about. You just went through financial disclosures for several papers. There's no reference in any of them to being funded by plaintiffs law firms, correct?
A. I believe that's correct.
Q. And let me ask you to look back, if you could, in your report at Paragraph 18 and this is a paragraph we looked at the other day. Paragraph 18 says based on this sweeping scientific support for the abatement interventions I have proposed herein, many of which have already been implemented
in the Cabell-Huntington community, I believe that coordinated all encompassing efforts that respond to the evolving epidemic could reduce cumulative opioid overdoses and opioid-related harm by 50 percent over 15 years.

Do you see that sentence?
A. Just -- just one minute, please.
Q. Sorry. I thought you were with me there. Sorry. It's Paragraph 18, first sentence.
A. Yes, I see that.
Q. And there's a footnote at the end of that sentence, correct?
A. Yes.
Q. Footnote 58, right?
A. Correct. That's also the same article that's referenced as Footnote 640.
Q. Right. I just wanted you to --
A. Paragraph 2 --
Q. I'm looking at Paragraph 18. You've got this sentence here stating that you believe that opioid overdoses and opioid-related harms can be reduced by 50 percent over 15 years. You've got a Footnote 58. What's the paper -what's the only paper you cite there?
A. Well, the paper is the Homer paper, but I have a very similar sentence in Paragraph 229 and, in 229, that sentence is followed by a sentence which reads this estimate is based
on models that we and others have developed, as well as reviewing syntheses of additional assessments of many of the interventions proposed herein. And in that --
Q. Doctor, I --
A. -- latter sentence, I include four additional epidemiologic models of the opioid epidemic.
Q. Dr. Alexander, I asked you a very narrow question.

What is the sole paper you cite at Footnote 58?
A. Footnote 58 cites an article by Homer.
Q. The article by Homer we discussed yesterday, correct?
A. Yes.
Q. Now, let me ask you to look at your redress model. Do you have it there?
A. Yes, I do.
Q. And let me ask you to look at the fourth page of the redress model under Intervention Population. And here you say Homer, et al. modeled the expected impact of a bundle of interventions. What's the footnote there? What's the paper you cite in the footnote there?
A. Well, I believe it's Homer and, sitting here as I am today, if I were rewriting this, I would include the four additional epidemiologic models that I --
Q. That wasn't my question.
A. -- also included in my --
Q. That wasn't my question.
A. -- in my -- in my expert report.
Q. That was not my question, sir. My question was --

MS. SINGER: Objection, Your Honor. Counsel needs to stop interrupting the witness.

MR. HESTER: Well, I think the witness needs to answer the question, Your Honor.

THE COURT: Well, he can explain the answer, but

BY MR. HESTER:
Q. What's the sole paper you cite in your redress model in this paragraph on intervention population?
A. The Homer paper.
Q. You don't cite those other four papers, correct?
A. I discuss them in my expert report, but they're not cited on the -- in the information that you're showing me now.
Q. I want to show you the three Apollo models that you submitted and that's Tabs 8, 11 and 14. MR. HESTER: May I approach, Your Honor?

BY MR. HESTER:
Q. I have three for you.

Dr. Alexander, I've handed you three documents that I think will be familiar to you. One is MC-WV-02308. This is the Apollo model you submitted in the MDL, correct?
A. I --

MR. ACKERMAN: Your Honor, if I may interpose a quick objection. These are the documents that we objected to yesterday based on the late disclosure. I don't think counsel can cure that disclosure by taking a long cross and then taking the next day to introduce the document, so we would renew our objection at this time based on the fact that these documents were late disclosed.

MR. HESTER: Well, Your Honor, they were disclosed two days ago. I didn't take a long cross. I took a reasonable cross. And then -- and then the plaintiffs asked for time overnight to -- to compile their re-direct. So, it seems to me they've had it for two days. They know these are on the list.

MR. ACKERMAN: Your Honor, they were disclosed Sunday night at 10:45, so that's not -- we have not had them for days. That statement is just factually incorrect.

MR. HESTER: So, a day and a half, but the stipulation contemplates that if they're disclosed the night before, that's sufficient. Now, we're two nights before.

THE COURT: Reenforcements are on the way.
MS. HARDIN: I believe the stipulation says that if they're used for rebuttal, they don't have to be disclosed, Your Honor. So, this is rebuttal and, therefore, don't have to be disclosed, in addition to the fact that they've had them for two days.

THE COURT: Overruled.
You can go ahead, Mr. Hester.
MR. HESTER: Okay.
THE COURT: Mr. Farrell?
MR. FARRELL: Yes. I just would like to have a point of clarity here on this precise matter. So, the stipulation, for better or for worse, has a provision in there that talks about disclosure of documents for use in direct to give fair notice.

It has a secondary provision for cross examination and it says that exhibits that are not on the exhibit list have to be disclosed the night before. Then, in parentheses, it says except for impeachment or rebuttal. So, these words have been bandied about by everybody for now seven or eight weeks and have come up most recently.

So, the issue is this: If we're going to define exhibits as exhibits to be entered in the record, then this clearly is not an exhibit. If we're going to define except for impeachment or rebuttal, then this document is -- with an adverse witness is impeachment or rebuttal.

So, I just want to make it clear that, moving forward, the ruling of this Court and that this stipulation means that on cross examination, if you're going to enter something in the record, it has to be on the exhibit list, but if it's cross examination, it's fair game.

THE COURT: Well, if I understand the rules, as long as there's a good faith basis for it, impeachment and rebuttal is full speed ahead; isn't that right, Mr. Hester?

MR. HESTER: That's what I understood, Your Honor.
But I also -- I don't want to renegotiate the stipulation here, Your Honor.

Part of what I have thought was understood, this is a big trial with a lot of papers, the Court can attest. Having some stickers on them with numbers is going to help us all later. We're all going to be driven mad two months from now when we try to figure out what document was put before that witness and not all the documents that are being put before the witnesses are being entered into evidence. And so, we are going to have a tough time figuring out what happened in this trial unless we have some stickers.

I mean, frankly, I think what Mr. Farrell is suggesting is almost you would hand it up to a witness without a sticker and we won't be able to retrace this later. I find it helpful to have this.

THE COURT: I'm going to let you go ahead. We need to get rolling.

MR. HESTER: Okay. Thank you, Your Honor. Thank you.

MR. FARRELL: Judge, just to be clear, I'll bring lots of stickers with me in the next several weeks.

MR. HESTER: Okay.
BY MR. HESTER:
Q. Dr. Alexander, MCWV-2308, this is the Apollo model you submitted in the Ohio litigation, correct?
A. I -- I would have to review it carefully to be sure about that, but I don't have reason to believe otherwise. Q. And then, MCWV-2311, this is the Apollo model you submitted in Washington, correct?
A. The same -- my same response applies.
Q. Well, you can see in the second paragraph, for instance, it refers to the Washington population. So, does that give you a pretty strong clue that this was your Washington Apollo model?
A. Well, it increases my confidence, yes.
Q. Okay. And then, MCWV-2314 is the Apollo model you submitted in Rhode Island, correct?
A. Again, you know, I do see Rhode Island noted and it appears to be such, but I would have to review it much more carefully against my own records to be positive. But I'm happy to proceed, assuming that it is the case.
Q. Well, I can represent to you that Appendix $G$ is taken from your report in Rhode Island. Does that sound right to you?
A. That's helpful. Thank you.
Q. And the technical appendix from Washington, this is
taken from your report in Washington, the 2311.
A. Thank you.
Q. Okay. So, if we look at -- if we look at these documents -- so, the MDL one, 2308, this is 62 pages long, correct?
A. Yes.
Q. And it has a number of inputs. If you look at Pages 3 to 11, just glancing at that, Pages 3 to 11, you can see these are all the inputs that went into the model, correct?
A. I'm sorry. I think it's 63 pages, not 62.
Q. Okay, thank you.
A. And the inputs that went into the model? There are probably several pages of inputs that would go into the model, yes.
Q. And that runs from Pages 3 to 11, correct?
A. Yes, I believe so.
Q. And then -- and then there's a number of input calculations. Oh, I'm sorry. Not -- let me point you to the transition probabilities. That starts at Page 17. Transition probabilities inputs. Do you see that?
A. Yes.
Q. And that runs from Pages 17 to 39, correct, all of these transition probabilities?
A. I mean, you know, I would have to look through this, but it is a complex model that has lots of different data
inputs and probabilities and the like.
Q. And those probabilities are the probabilities you developed for purposes of this model, correct, you and your team?
A. Well, I mean, they are based on an enormous volume of evidence. Again, you know, what I do is -- I mean, an academia would say standing on the shoulders of giants because it's not -- it's not me or somebody else. It's all of the cumulative evidence that I use to -- to make recommendations in this instance about specific parameters. Q. And so, but my point is, these transition probabilities are not found somewhere in some book? Your team and you developed the transition probabilities, correct?
A. Well, it varies. I mean, some are found in peer-reviewed manuscripts. Many, in fact, are derived either directly or indirectly from -- so, I wouldn't call it a book, but they're not cooked up either. I mean, there's an evidence base. It's the same evidence base that I use to inform my recommendations in this instance. It's just that it's not -- I didn't piece together an epidemiologic model to make the estimates that I make.
Q. So, but my point is, there is no place you could go to find all of these transition probabilities compiled in one place? You and your team had to develop -- this is work product of your team?
A. Well, I mean, there's no -- if you're asking whether there's an identical document like this that wasn't produced by my team, the answer is no.
Q. And your team -- your team developed it? It's a proprietary model that your team developed?
A. Well, I mean, much of this is in the public -- in fact, all of this -- I mean, a lot of this is in the public domain. I mean, I and others have published and we routinely publish our technical appendices and the like. So, I don't think this is proprietary, nor would I suggest that this is information that is just mine or my team's. It's science. It's the community of epidemiology.
Q. But it's a model your team developed, I take it?
A. The Apollo model is one of many epidemiologic models of the opioid epidemic that $I$ relied upon to make my recommendations here in this instance and many other instances.
Q. And it was developed by your team, the Apollo model?
A. It was developed by my team, yes, and me.
Q. So, let's look. The Washington Apollo model is about 25 pages, correct?
A. Well, this isn't -- this isn't the model. This is the technical appendix to the model.
Q. Okay. So, this is the appendix with the inputs and the assumptions, correct?

Ayme A. Cochran, RMR, CRR (304) 347-3128
A. I believe so.
Q. And -- and the Rhode Island model is 28 pages of inputs and assumptions, correct?
A. Well, that may be, but the print is smaller on some of these documents than others. I mean, I don't see the sort of --
Q. I'm just trying to understand. It's not a simple -these are complex models, that's the point, correct?
A. Just about any epidemiologic model is going to be complex in the sense that it's not -- in that it takes understanding of the field of epidemiology.
Q. Let me ask you to look at the Washington report at the very back. There's a listing of sources. I'm sorry, references. And if you look at the references, I'm on Page 26 of the Washington report, which is Exhibit 2311.
A. I'm sorry. The -- I'm sorry. The report or the technical appendix to the model?
Q. I'm on -- I'm on Exhibit 2311, which is the technical appendix.
A. Thank you.
Q. And there's -- there's references at the back end of this paper, correct?
A. Well, I wouldn't characterize it as a paper but, yes, this document.
Q. There's references listed at the back end of the
technical appendix, correct?
A. Yes.
Q. And the Homer paper is not cited in here, in this list of references, is it?
A. No. I see -- I see other epidemiologic models, but I do not see that I cited the Homer paper in this instance. Q. And so, for instance, if you look at Footnote 18, or Reference 18, Page 27 of the Washington model, it cites to the Pitt paper, which is one of the ones you referred to a few minutes ago, correct?
A. Correct. I see Krebs and Pitt, yes, and -- yes.
Q. And then, if you look at the Rhode Island model or at the Rhode Island technical appendix, Exhibit 2314, that also does not cite Homer, correct?
A. Well, I don't know if I cited Homer in my expert report. I mean, this is only one piece of the totality of information that I submitted to the -- to the courts and I don't know whether Homer is cited in my -- in the main corpus, in the body of my expert report.
Q. You're aware that Homer is not cited in either -- any of those three reports, Ohio, Washington or Rhode Island, correct?
A. I'm not aware of that, no, and --
Q. We could confirm it, I take it, by looking?
A. Well, I would want to look. There was no -- I would
want to look. I'm not aware of it. The first question that comes to mind is the date of publication, but presuming that it was published, you know, I would want to -- to look at that, but I'm not aware, as I sit here today, of any -- any reason that $I$ would select specific -- you know, any reason why I would selectively omit the Homer reference.
Q. But you're aware, so far as you understand right now, you did not cite the Homer paper in Ohio, in Washington, or in Rhode Island in those three reports?
A. I believe that I've cited five epidemiologic models of the opioid epidemic in this instance and it may be that in those other instances, I cited four.
Q. Can you answer my question? So far as you are aware, you did not cite the Homer paper in those other three reports, did you?
A. I'm neither aware nor unaware. I am agnostic. I would want to review. I mean, maybe agnostic isn't the right word, but I'd want to review the materials in order to answer your question.
Q. Well, we could confirm it. We could take the time. I'm not going to take the time today, but we could confirm it by looking at your reports to see if Homer is cited, correct?
A. Yes. If you're asking whether it would be possible to confirm whether Homer is included or not, the answer is,
yes, it would.
Q. Where did you get the Homer paper?
A. I got it from the same source I get every paper. PubMed, or Google Scholar, or, you know -- or there may be one or two other -- I think they're called bibliometric databases. So, they contain the, you know, corpus of scholarship and peer-reviewed articles and that's what we use to find articles.
Q. When you find an article that has a disclosure that it's funded by the plaintiff law firms, that's something that you look at hard?

MR. ACKERMAN: Objection, I think that's argumentative.

THE COURT: Overruled. I think that's a proper cross examination question here.

THE WITNESS: I look -- as I said earlier, I look at funding sources. There's nothing about a particular funding source that means a scientific manuscript is garbage or gold. I mean, the funding is one of many considerations that I use as I assess the quality of scientific information in a report.
Q. If a report is funded by the plaintiffs' lawyers in a piece of litigation, would you consider that a relevant factor that you want to take into account in deciding whether to cite the paper?
A. It's unlikely to -- it's a relevant factor in how $I$ interpret the science. I think it's unlikely to make or break whether I cite a paper, but it would certainly, along with many other factors, influence how I interpret the science and how I use the science.

Just as if there was an article that was funded by McKesson. I wouldn't necessarily throw the article out. I wouldn't necessarily take it at face value. I would look carefully at the science and make an appraisal as to whether I think the science is good or not.
Q. Is it a coincidence that the Homer paper is cited in West Virginia, but not in your other three reports?

MR. ACKERMAN: Objection. That lacks foundation, misstates his testimony, and is factually incorrect.

THE COURT: Overruled.
THE WITNESS: I don't know -- sitting here as I do today, I'm not able to provide either a confirmation that the article isn't included in other studies or a rationale for why it was one of five epidemiologic models included in this case and it was not one of the epidemiologic models that I used in other cases.

MR. HESTER: All right. Thank you. Those are all
the questions I have, Dr. Alexander. Thank you.
THE COURT: Is there any re-cross, Ms. Hardin? MS. HARDIN: No, Your Honor, but I would like to
address the Court when the witness is excused.
THE COURT: All right. Are we through with Dr. Alexander?

MS. SINGER: Your Honor, I'm not -- I certainly don't want to prolong this examination, but $I$ do want to note for the record, perhaps counsel wants to go check, but we did search Dr. Alexander's other reports which do cite Homer. Again, $I$ don't think there's any reason for belaboring this process, but I did want to make that factual representation to the Court.

THE COURT: Can I excuse Dr. Alexander?
MS. SINGER: I think we'd all be grateful, particularly Dr. Alexander.

THE COURT: Thank you, Dr. Alexander.
THE WITNESS: Thank you very much.
THE COURT: Thank you very much, sir, and good luck to you. And you're free to go.

THE WITNESS: Thank you very much. I appreciate it.

Shall I remove these papers?
THE COURT: We'll get them. Don't worry about that.

THE WITNESS: Okay, thank you.
(Pause)
MS. HARDIN: Good morning, Your Honor.

THE COURT: Good morning.
MS. HARDIN: The defendants renew their Daubert challenge to Dr. Alexander and we ask that his testimony be stricken from the record. I addressed this similar issue with you regarding Dr. McGuire before the break and, just like Dr. McGuire, Dr. Alexander's testimony lacks any fit with the facts of this case. And that is because, just like Dr. McGuire, what Dr. Alexander is doing is engaging in an academic exercise that is not relevant to the questions that this Court must answer.

The first question that this Court has to answer is whether or not the defendants' conduct constituted an unreasonable interference with a right common to the general public or, in other words, did the defendants' conduct constitute a public nuisance.

That's the liability question that the Court must answer and Dr. Alexander has nothing to say about that. He -- he was not intended to have anything to say about that. He has no causation opinions. He has no opinions specific to these three defendants.

If the Court answers the liability question in the affirmative and finds that our conduct did constitute a public nuisance, then the Court will have to answer a second question, which is what is the appropriate remedy. That's the question Dr. Alexander is intended to answer, I believe,
but he actually doesn't have anything relevant to say about that question either and that is because he is not putting forth a plan to abate any harms caused by these three defendants.

Now then, Your Honor well knows that the defendants disagree that abatement means legally paying money to redress downstream harms, but even if we assume that that's what abatement means for purposes of this argument, Dr. Alexander has nothing to say about that. He does not just address what must be done to abate harms caused by these defendants.

He admits that his plan includes treatment and other ancillary services for people who never used a prescription opioid at all. He admits that his program treats those who do not currently have OUD and might not have it for many years.

Yesterday, he was asked would his plan include treatment for a ten-year-old in 2021 who uses illegal opioids for the first time in 2027 and then develops OUD after that. He admitted that his plan would include a woman who does not have OUD today, but later develops it, becomes pregnant, and delivers a baby who is born with NAS.

And Dr. Alexander's answer to that is it would be inappropriate from a public health standpoint to refuse treatment for those people. And that may very well be the
case from a public policy or a public health standpoint, but that's not what we are doing in this lawsuit.

In this lawsuit, these plaintiffs are asking these defendants to pay for it and there is no legal basis on which they could say that his plan, which includes these populations who have no nexus to the defendants, should be included.

And he said, $I$ think, four or five times from the stand that what he's doing is trying to abate the opioid epidemic and he wants to reduce addiction by 50 percent over 15 years and, again, that seems like a very laudable goal, but it's not connected to these defendants and, for that purpose, will not be relevant to the Court in determining an appropriate remedy because there is no evidence in the record, Your Honor, from which you could take that massive plan that he's come up with and tailor it to just the harms allegedly caused by these defendants. He's given you no way to proportion it or allocate it and no other witness has given you a way to do that.

So --
THE COURT: So, if you -- if I understand you correctly, you're arguing that his plan would include somebody who gets addicted five years from now and these defendants are expected to pay for that, right?

MS. HARDIN: That's exactly right. I think it's
more than just argument, however, Your Honor. I think that's what he expressly admits is the case. So, it's not connected to these defendants.

It's also his plan is not connected to the plaintiffs. He did not do a needs assessment. He admitted that. He did not go into Cabell County and City of Huntington and look at what programs they have, what the addiction level or what the needs are now, and then say here's what you need on top of that.

He came up with a wish list, a pie in the sky program, to reduce harms, as he says it, over 50 percent -- or for 50 percent over 15 years.

Plaintiffs don't have a damages claim, according to them. They have a forward looking abatement remedy. So, the question for this Court is what is needed now to abate any harms caused by these defendants if we use plaintiffs' definition of abatement. And he doesn't address that.

Not only does he not know what the needs in Cabell County and City of Huntington are, but he didn't even look into who would pay for it because the question again is not what should we, as a society, do to address addiction. It's what -- what is necessary for these plaintiffs to abate harms caused by these defendants and he doesn't know who pays for programs. He didn't look at that. And the record evidence is that the federal government and the state pay
for most of those programs.
So --
THE COURT: Well, the next witness is going to clear some of this up, isn't he; isn't that right?

MS. HARDIN: I think the next witness is going to put a very large dollar figure on this, Your Honor, and I think that that goes to the point, which is the fact that we're talking in the billions of dollars to pay for programs that these defendants should have to pay for, when there's been no testimony about what the needs in this community are from these witnesses, we've heard from other witnesses who've talked about local harms, but I think that is astounding, Your Honor, that we would put such a dollar figure on these abatement programs with no assessment of what is needed in this community, and no assessment of who pays for it, and no assessment for whether or not it's caused by these defendants. So, for those reasons, there is no fit with this case.

There's also, I think, a methodological issue. You know, we've spent time on the cross examination talking about what he's done in other cases, how he's built these Apollo models in three other cases. He didn't do that here. So, I think there is a significant issue with his methodology.

But whether or not the Court accepts what he's done as
legitimate, it doesn't fit with the facts of this case and we submit will not be helpful to Your Honor if -- hopefully, you'll never get there, but if you find yourself in a position to be deciding on a remedy, Dr. Alexander's plan is not going to be helpful.

THE COURT: Thank you, Ms. Hardin.
Mr. Farrell, are you going to rebut this, if you can? MR. FARRELL: Well, I certainly hope I can, or that doesn't bode well for directed verdict arguments on Thursday, which we were expecting to make these arguments on Thursday instead of today.

THE COURT: Well, just be brief and go ahead. MR. FARRELL: So, it's hard to really know where to start, other than the fact that the arguments put forth by defense counsel are not new, have been rejected so far by every single court in this nation that has considered this case.

I'll point out that nearly every county in the United States of America has filed a similar lawsuit based on this same model, asking for the same remedy and relief, and it has been upheld by the Sixth Circuit, it's upheld by Supreme Courts.

And what we are doing is we are building a case over the last nine weeks to establish the underlying basis for our remedy.

And I'll point out one -- one last point. The West Virginia Supreme Court in the past two weeks has rejected the writ filed by these defendants on this same issue regarding allocation. The opinion came out and held that this is a single injury, it's a legal remedy, and the test is whether or not the defendants were a substantial factor in bringing about the opioid epidemic. And if they are, they are jointly and severally liable.

So, we'll defer to --
THE COURT: Is that the same case that dealt with the notice of non-party fault?

MR. FARRELL: Yes. That's the exact issue.
THE COURT: Well, I read that, and I'm not sure I got out of that what you just said, so I'll read it again.

MR. FARRELL: Well, I'm sure we'll be briefing it quite extensively, but if you'll -- if you read the underlying MLP order upon which the writ was taken and the result of it, it's our position that there's one indivisible opioid epidemic and that what we are asking for is whether or not these defendants were a substantial factor to the opioid epidemic, which is the public nuisance. And if they are, then we are seeking an abatement of the opioid epidemic.

We don't believe we have to sever out individual harms caused by individual defendants. We have never taken that
position. For four years, we've taken the same consistent opinion and it's been affirmed by every court in the country so far.

So, there are important legal issues for this Court to resolve, but it has nothing to do with Caleb Alexander, who, by all accounts, is one of the leading abatement experts in the United States and he has taken his model for the United States and applied it to Huntington and Cabell County.

I don't know what else we can do as human beings and as lawyers than to bring that type of consistency, methodology and expertise to this courtroom.

THE COURT: Do you want to say anything, Ms. Hardin?

MS. HARDIN: A few things, Your Honor. I agree to the extent Mr. Farrell is arguing things that we're going to cover on Thursday, that's true, but I don't think he addressed my argument at all, which is fit with this case.

And just to correct a few assertions, this is the first trial that there has ever been against these defendants. And so, it is not true that any other court in the country has heard Dr. Alexander's testimony from the stand and ruled on it. The Sixth Circuit most certainly has not addressed Dr. Alexander's testimony or even his expert report. So, that's not accurate.

The MLP said we would re-visit the issue of whether
this is a legal or equitable claim after discovery and we certainly dispute that. I think I made clear, however, that even for purposes of this argument, we can assume abatement means what the plaintiffs say it means, which is a big pot of money to address downstream harms. Even with that definition of abatement, Dr. Alexander doesn't have anything relevant to say about this case.

And so, I didn't hear anything about why he's relevant other than the entire opioid epidemic is what is at issue and I think Mr. Farrell just said that he doesn't have to prove that these defendants caused the harms and that's inaccurate and we will take that up very -- very much in-depth on Thursday, Your Honor.

MS. SINGER: Your Honor, if I can respond --
THE COURT: Yes.
MS. SINGER: -- from this side of the courtroom very briefly. First, I want to address the points about Dr. Alexander, who testified extensively to this Court. Thank you. Testified extensively to this Court about the exhaustive study he did of Cabell and Huntington. The individual stakeholders with whom he met, the local data sources and documents that he reviewed.

The plan he developed is a plan for and based on Cabell and Huntington and I think he made that evidently clear through his presentation and testimony to this Court.

To Ms. Hardin's argument that he didn't net out local services, Dr. Alexander explained that, which is that the services that exist right now are a snapshot of a moment in time. They change. There's no certainty that they will exist in the future. You can't develop a plan based on what happens to be here at a moment.

And as I think defense counsel knows, and as this Court has previously ruled, whether there are collateral sources of funding is defendants' burden, not the plaintiffs', and it is not up to Dr. Alexander to prove their case and certainly not evidence that he is not a fit for this case.

The last point I'd make is that the first liability question is whether defendants contributed to a public nuisance, not did they cause each harm that needs to be addressed, having contributed to a public nuisance. If we have proved that, and we believe we have, then they are responsible for abating the epidemic that results.

And Dr. Alexander has explained that that epidemic, like any epidemic, has contagion. And he has laid out a plan to address that for the City of Huntington and Cabell County. I believe his testimony is important and helpful to this Court and this community.

THE COURT: Well, I'll do a Daubert analysis on this at the -- at the appropriate time and we'll go forward from here.

Let's take a break for about ten minutes and come back. Are you ready to put on what $I$ think will be your last witness?

MR. MAJESTRO: Second to last, Your Honor.
THE COURT: You've got two more?
MR. HESTER: Your Honor, could I just say one thing before -- before we break? In the heat of the moment, I believe I made a misstatement during the examination of Dr. Alexander. I forgot that he does refer to the Homer paper in his Rhode Island report. So, I just wanted to be clear.

I take my obligation of candor to the Court very seriously. I wanted to be clear with the Court on that. I had forgotten that.

THE COURT: Thank you, Mr. Hester.
MR. ACKERMAN: Your Honor, that same reference appears in the Washington report, as well, and I'm sure that Mr. Hester overlooked that.

THE COURT: Mr. Majestro, you're on your feet. Do you want to say something? MR. ACKERMAN: It's Footnote 59. MR. MAJESTRO: Oh, no. THE COURT: You're just standing up? MR. MAJESTRO: I was standing up because I'm tired of sitting down, Your Honor. Sorry. I thought we were

Ayme A. Cochran, RMR, CRR (304) 347-3128
taking a break.
THE COURT: All right. We'll come back in ten minutes.
(Recess taken)
(Proceedings resumed at 10:20 a.m. as follows:)
THE COURT: Mr. Majestro.
MR. MAJESTRO: Thank you, Your Honor. At this
time, the plaintiffs call George Barrett.
THE COURT: All right.
Mr. Barrett, if you'll come up and take the oath, please.

THE CLERK: Would you please state your full name.
THE WITNESS: My name is George A. Barrett.
THE CLERK: Thank you. Please raise your right hand.

GEORGE A. BARRETT, PLAINTIFFS' WITNESS, SWORN
THE CLERK: Thank you. Please take a seat.
THE WITNESS: Good morning, Your Honor.
THE COURT: Good morning, Mr. Barrett. DIRECT EXAMINATION

BY MR. MAJESTRO:
Q. Good morning, Mr. Barrett. Please introduce yourself to the Court.
A. My name is George A. Barrett.
Q. And how are you employed, Mr. Barrett?
A. I am a forensic economist.
Q. Can you tell the Court what a forensic economist is?
A. Yes. We as economists are the social scientists who study how we as a society make decisions in a world of scarce resources, how we decide to use those resources.

A forensic economist is a social scientist who applies those methodologies and techniques in courtrooms or other public forums.
Q. And who do you work for?
A. I have my own consulting firm, Brookshire Barrett \& Associates.
Q. And how long has Brookshire Barrett \& Associates been in business?
A. Close to 40 years.
Q. And can you describe your forensic practice at Brookshire Barrett \& Associates?
A. Yes. Primarily I'm engaged in litigation support where I'm consulting on issues of economic damages such as loss of earnings and wrongful death and personal injury types of cases.

I also calculate future values of lifecare plans as it relates to personal injury cases. On some occasions I calculate commercial damages or lost profits. And I've also been engaged in medical monitoring costs.
Q. In personal injury cases do you have occasion to value
the cost of medical treatment?
A. Yes, I do, quite frequently.
Q. Can you explain that to the Court?
A. Yes. In personal injury cases it's often necessary to recommend future care treatment items for a particular individual throughout the future.

In those particular cases, a related expert, a lifecare planner, develops a lifecare plan which identifies the specific types of care items and needs and services that the person is going to require.

What I get from that lifecare planner are three critical pieces of information. I get -- I have to know what the item is, a specific service or good. I have to know what the unit cost of that specific item is. And then I have to know how frequently that item is going to be needed each year in the future.

I then can apply a future value growth rate based upon inflation to project that out into the future.
Q. And those three steps -- I think today we're going to refer to those three steps as your three-step model. Is that okay?
A. Yes. That is generally how I refer to it.
Q. Do you also have experience calculating future wages and benefits?
A. Yes, I do, very often when I'm calculating the earnings
losses for a particular individual or group of individuals.
Q. How many times have you testified?
A. At deposition and trial I think this is my 251st testimony.
Q. And have you been qualified as an expert in trial before?
A. Oh, yes, I have, yes, sir.
Q. Approximately how many times?
A. This is my 48th trial.
Q. And in all those other cases, were you qualified as an expert forensic economist?
A. Yes, I was.
Q. What is the geographic range of the cases you work on?
A. Primarily West Virginia where I am based, but I also do a lot of consulting and testimony work in adjacent states. I do a lot in Kentucky, Ohio, quite a bit in Tennessee, Virginia, Maryland, Pennsylvania. I've also had cases as far away as New York as well as in Minnesota.
Q. Have you -- do you have experience working on cases in the Cabell County area, Southwest West Virginia?
A. Oh, yes, yes. That is where I'm actually based and a good many of my cases are from Southwestern West Virginia.
Q. And how many cases -- approximately how many of those have you worked on over the years?
A. Over the years, I would say hundreds of cases.
Q. Okay. And your cases, are they in State Court or Federal Court?
A. Both.
Q. And do you work for plaintiffs and defendants?
A. Yes, I do. In fact, over the last five years, my mix of work has been approximately 50 percent plaintiff and 50 percent defense.
Q. Did you supervise the preparation of some demonstrative slides to assist you in your testimony in this case?
A. Yes, sir, I did.

MR. MAJESTRO: At this time, Your Honor, we'd like
to publish D-272 and we have copies for everybody also.
THE COURT: Okay, you may do so.
BY MR. MAJESTRO:
Q. Up on the screen, Mr. Barrett, we have Slide 1.

Does that slide summarize your testimony so far
regarding your experience?
A. Yes, I believe it does.
Q. Also, did you create a report in this case?
A. Yes, sir, I did.
Q. Would having your report help you with your testimony today?
A. Yes, it would.

MR. MAJESTRO: So, Your Honor, at this time we'd like to have the witness identify P-42138. We have copies

THE COURT: All right. You may do so.
MR. HESTER: Your Honor, $I$ would think it should be used to refresh his recollection, not to have him up there reading from it.

MR. MAJESTRO: I think -- and that's what I intend to do, Your Honor. It just might be -- because there are numbers and he hasn't committed every number to memory, I wanted to have it in front of him so we don't disturb the flow while we're passing it out.

THE COURT: Well, that's fine. He can have it, but you need to do this right, Mr. Majestro.

MR. MAJESTRO: I will, Your Honor. We will.
Don't look at it, George, until we need to, please.
THE WITNESS: I understand.
MR. MAJESTRO: And then we'd also like to have
Appendix, Attachment $M$ to his report which is P-41954. I'll just go ahead and get that out of the way too.

BY MR. MAJESTRO:
Q. Let's continue on with your experience and qualifications.

Mr. Barrett, what is your educational background?
A. I have a Bachelor of Arts degree in economics from West Virginia State University. I completed that in 1995 with high honors.

I then enrolled and completed a Master of Business Administration degree, an MBA, from Marshall University with concentrations in economics and finance. I did that in 1998 at Marshall.

Then in 2004 I completed a Master of Science in rehabilitation counseling from West Virginia University.

I have post-graduate training in vocational evaluation techniques at WVU that I completed in 2005.

In 2011 I completed a post-graduate certificate in forensic rehabilitation counseling at the George Washington University.

And currently I'm enrolled in a doctoral program at the University of Southern California. I'm currently in my last year.

THE COURT: You don't go back and forth to California to go to class, do you?

THE WITNESS: Not every day, Your Honor. I have been there on campus, but since last March we have been remote entirely. BY MR. MAJESTRO:
Q. Mr. Barrett, what other jobs have you had besides being a forensic economist in vocational evaluation?
A. I'll start at the beginning.

The first professional type of job that I had was working with a food distributor in the renegotiation of
long-term and intermediate term contracts.
The food distributor that $I$ worked for engaged in contracts with government agencies primarily through a bidding process. And the bidding process provided the opportunity for the food distributor to adjust the prices of the goods that are being sold according to pricing increases. And we generally refer to that as inflation.

So what I did was monitor the inflation of these particular types of food products and then made adjustments to the contracts accordingly. I did that for multiple years until I completed my Bachelor's Degree.

Once I completed my Bachelor's Degree, I began working as an academic administrator at West Virginia State University. I was the coordinator of student assessment activities.

So basically in that role $I$ conducted surveys, standardized testing, reported to the Department of Academic Affairs, and also made appearances with the State Board of Higher Education Policy.

I did that for two years until the completion of my MBA degree when I began working with the predecessor of what is now Brookshire Barrett \& Associates. At the time, it was Michael Brookshire \& Associates.

And I began that work in July of 1998. I was named a partner in that firm in 2009. And I remain there now in its
current form as Brookshire Barrett \& Associates.
Q. Mr. Barrett, have you taught school at all?
A. Yes, sir, I have.
Q. And can you tell the Court about that?
A. I've served as an adjunct instructor of economics at West Virginia State University. I did that for one calendar year. I've also served as an adjunct professor of rehabilitation counseling at the Minnesota State University at Mankato.

MR. MAJESTRO: And, Gina, can you bring up Slide 3?

BY MR. MAJESTRO:
Q. Let's talk about your publications. Have you authored any publications?
A. Yes, sir, I have.
Q. And tell the Court about that, please.
A. As part of my work in forensic economics, I also devote some of my time to research activities so that I'm able to present research findings to my academic peer groups and also publish in textbooks and the peer-reviewed journal articles in my particular field of practice. I've been doing that since probably, I think, 1999 was the first publication that I had.
Q. Can you tell the Court some of the publications that have reproduced your work?
A. Sure, yes. Journals which have published my works include the Journal of Forensic Economics, the Journal of Legal Economics, as well as The Earnings Analyst which is the official publication of the American Rehabilitation Economics Association.
Q. And are those journals peer-reviewed?
A. Yes, sir, they are.
Q. Up on the screen we have a citation to one of your articles, your 2019 article. Can you explain to the Court what that article was about?
A. Yes. In 2019 I was asked by the editor of the Journal of Forensic Economics to update a previous work that I had from approximately 15 years ago.

Specifically what -- approximately 15 years ago when I was approached, I was asked to be a part of an ongoing series of articles regarding the proper calculation of economic damages in the various states.

I was asked to write a manuscript, submit for peer-review on how to do damages in West Virginia. Because it had been so long since the publication of that, the journal is now going through the process of requesting updates. And in 2019 I published an update to that journal
article. It was published in -- I want to say it was November of 2019.
Q. Are you a member of any professional organizations in
your field?
A. Yes, I am.
Q. Can you describe those for us?
A. I'm a member of the National Association of Forensic Economics, the American Academy of Economic and Financial Experts, the American Rehabilitation Economics Association, the International Association of Rehabilitation

Professionals, and I'm also a member of numerous academic honor societies.
Q. Do you have any leadership roles in those organizations?
A. Yes, I have, yes.
Q. Can you explain, please?
A. I've served as an elected board member for the American Rehabilitation Economics Association. And I've also served as president of that organization. I've also served in the role of peer editor and editor of their journal, The Earnings Analyst.
Q. How about academia? Do you have any leadership roles in academia?
A. Yes. For quite some time now I've served on the Advisory Council for the College of Business and Economics at West Virginia State University.

MR. MAJESTRO: Your Honor, at this time I would tender George Barrett as an expert witness in the field of
forensic economics.
THE COURT: Any objection?
MR. NICHOLAS: No objection.
MR. HESTER: No objection, Your Honor.
MS. WICHT: No objection. Thank you.
THE COURT: I find Mr. Barrett to be an expert in the field of forensic economics.

BY MR. MAJESTRO:
Q. Mr. Barrett, let's talk about this case. What was your assignment in this case?
A. When I was initially contacted, I was asked to calculate the value of total costs of an abatement plan that was being composed by a group of epidemiologists.
Q. And was there a particular method that you proposed to use to calculate the costs of this abatement plan?
A. Certainly, yes. I immediately recognized that the format of the calculations that $I$ was being asked to perform were very similar to the lifecare plan future evaluation that I would do in a personal injury context.

And, so, I immediately began to request information regarding those three critical pieces of information; the items that are being recommended by the plan, the cost of the items in the plan, and the frequency or number of items that those items are occurring each year.
Q. And the particular plan that we're speaking of, who
authored the plan?
A. Dr. Caleb Alexander.

MR. MAJESTRO: Your Honor, may I approach the witness?

THE COURT: Yes.
BY MR. MAJESTRO:
Q. I'll show you a document. Is that the -- well, can you identify that document?

MR. MAJESTRO: For the record, it's Dr.
Alexander's abatement plan, his redress model. Everybody else already has copies, so I'm not going to kill some more trees passing it out again.

THE WITNESS: Yes, I do recognize this.
BY MR. MAJESTRO:
Q. And, so, is this the plan you used to come up with your final cost numbers in this case?
A. Yes, it is.
Q. In the end, how did -- so how did you come up -- can you basically describe for the Court how you came up with the cost, the total cost numbers in this case on a sort of high level?
A. Certainly. I'll be as brief as possible but as thorough as necessary in doing so.

Again, the three critical pieces of information have to be identified and provided for me to do the calculations.

So I have to know what the items are.
So Dr. Alexander's redress model provides that level of information for me, what the specific items from each one of his four categories of abatement needs for the

Cabell/Huntington area.
Then I need --
Q. Let me stop you for a second.
A. Yes.
Q. And, and you didn't just look at categories. Did you also look at Dr. Alexander's subcategories and sub subcategories?
A. Yes, that's correct. As I was stating, each individual item within that plan provides that relevant information for me. So it's not just a category that's being recommended and then -- I'm simply not capable of doing a calculation based upon a category or subcategory. I need to know what the specific item is.

So within Dr. Alexander's redress model is an identification of all of the specific items under all of those categories and subcategories.
Q. So I stopped you. You were on step one. Let's go to step two and step three.
A. The second step is to identify that second piece of information which is the unit cost of the items that Dr. Alexander has recommended.

Now, in this particular case, cost data come from multiple sources. There are three sources of cost data utilized in my calculations.

The first I would broadly identify as being medical costs. Those were the, the costs that Dr. Alexander provided to me.

The second types of costs were -- I'll broadly describe those as being social work costs that Dr. Young provided.

Finally, costs specific to occupational wages, rental space, dwelling rentals, that information I actually obtained because I had experience with obtaining those types of data in other types of calculations that $I$ have done and I'm also familiar with the local area.

So with that information, I then gathered from Dr. Alexander the frequency or the total number of annual items which are going to be needed for each one of those specific things in his redress model.

So by addressing those three critical pieces of information, $I$ can then begin to do my calculations.

First, I want to take the costs of all of these items and adjust them into the future. So in order to estimate how much something is going to cost in the future, I am going to be incorporating a generally accepted principle and concept we generally call inflation.

And that's simply the acknowledgement that prices are
going to change throughout the future. Generally, prices go up and that's why we refer to it as inflation.

Then I'm going to determine how many items are going to be needed for the future value cost of that specific item from Dr. Alexander. Then I'm going to do that multiplication so that I get an annual total cost for each specific item in the redress model on a year-by-year basis.

The inputs might change from year to year based upon Dr. Alexander, the future level of inflation, and then I'm going to give a year-by-year tally of that.
Q. So with respect to the data that you brought to the -to your report, not the data that you relied on from Dr. Alexander's report or Dr. Young's conclusion, tell -- can you tell us about the sources for that data?
A. Certainly. When possible, I relied upon data specific to the City of Huntington. So I tried to get as specific as possible.

And we can go into more detail and give examples of that, but there are specific wage and occupations, specific costs for rental space and office space in the Huntington area that $I$ relied upon specific data.

For data, for example, representing occupational wages, I relied upon statistical averages of what specific employers in the area compensate their employees in specific occupations.

So, for example, in the first item in the lifecare plan -- or excuse me, lifecare plan. I'm sorry. On the first item of the redress model is academic detailers. And it's identified by Dr. Alexander that that would be pharmacists.

So as an example, what $I$ did was determine the average wage, the median level wage paid to pharmacists in the Huntington metropolitan area.

Most of those types of data come from the U.S. Department of Labor's Bureau of Labor Statistics. So things like occupational wages, employer contributions with fringe benefits, and inflationary data all come from the Federal Government.
Q. And then you also -- you testified that you -- it was your responsibility to come up with the cost data regarding housing costs, those sorts of things. What was your data source for those?
A. Local data. So, for example, within the redress model there is a category that is identified as a Law Enforcement Assisted Diversion Professional, LEAD, L-E-A-D.

So for that particular cost, what $I$ was able to do was obtain data from the dity of Huntington regarding the budget request that was made several years ago for a LEAD professional. So that type of data was specific to Huntington.

Data for office space also comes from Huntington. I did a market survey of how much office space costs in Huntington and gathered those data.

And any time at all that $I$ was able to find and obtain local data specific to Huntington, I used it.
Q. These data sources that you used, are they the types of data generally relied upon by forensic economists?
A. All the time, yes.
Q. In your -- is it common in your practice to rely on other experts for underlying data to support your calculations?
A. Absolutely, yes. It's generally accepted methodology in forensic economics to rely upon what we refer to as related experts; experts that have specialized expertise in the fields of knowledge that we need to make the calculations that we do.

So, for example, the three pieces of information that Dr. Alexander provided here, the item, the cost, and the frequency of those items, comes from the related expert that has that area of expertise.
Q. The use of related experts, is that something that professors teach on when forensic economists go to school? A. Absolutely, yes. In the current textbooks in forensic economics, it's well established and advised that related experts be utilized so as to not have forensic economists
outside of their area of expertise performing the roles of lifecare planner or vocational expert, et cetera.
Q. Did you also visit the City of Huntington, Cabell County, and talk maybe on the phone to local people on the ground?
A. Yes, I did.
Q. Can you briefly describe those?
A. Yes. I've had meetings, video conferences in the COVID era, telephone calls with representatives from the Cabell/Huntington area, including law enforcement, the county school system, the Emergency Medical Services, physicians and epidemiologists and social workers who are dealing with the opioid situation in the Cabell/Huntington area.
Q. Is the data you used in preparing your report specific to the Cabell/Huntington area?
A. When possible, absolutely, yes. All the data that I relied upon are specific to that geographic area.
Q. The -- when -- were you able to find specific data in all instances?
A. No, not in all instances, no.
Q. In the absence of available Cabell County data, what did you use?
A. In accordance with generally accepted methodology, I just basically began expanding the geographic area. So if

I'm not able to find Huntington specific data, then $I$ can expand out to the metropolitan statistical area. If I can't find that, then I expand out to national level data.
Q. And, so, where local data was available, did you use it?
A. Yes, I did.
Q. Are the sources of data that you used in this case similar to those you use as an expert witness in other cases when you calculate economic reports?
A. Absolutely, yes.
Q. And do you believe the sources that you used in this case are reliable?
A. Yes, they are.
Q. Now, Mr. Barrett, have you ever calculated the cost of an abatement plan before?
A. No. This is the first abatement plan that I've ever been presented.
Q. Well, can you explain to the Court how your background and experience qualifies you to calculate these costs?
A. Certainly could, yes.

As I was describing previously, when I was presented with the assignment, I immediately recognized that these types of calculations are very similar to what I normally perform when valuing a lifecare plan.

You need to know what the item is, need to know what
the cost is, need to know the frequency of those items across time. Then I can perform my economic calculations.
Q. And, so, what you're saying is you used the same three-step methodology in this report as you used in the other reports you've done in your career?
A. That is very correct, yes.
Q. All right. Let's get a little bit more into the specifics.

MR. MAJESTRO: Let's bring up Dr. Alexander's, Dr. Alexander's redress model. BY MR. MAJESTRO:
Q. Do you have an understanding of what Dr. Alexander did in this case?
A. I do, yes.
Q. Why don't you describe that. The Court's heard a couple days of Dr. Alexander's testimony, so we don't need to go in-depth. Just why don't you tell the Court what your understanding is of it.
A. Sure. Basically, as you see on this visual, there are four main categories in the redress model dealing with the abatement protocol development of Dr. Alexander.

Category 1 is prevention. Category 2 is treatment. Category 3 is recovery. And Category 4 deals with special populations.

Under each one of those major categories are
subheadings that represent more specific elements of those broad categories.

Now, what you don't see on this list is that even below that subheading level, there are more details. And that's where the individual items are identified from Dr. Alexander's redress model.

And from that, I identify the costs, the items, the frequencies for each one of those specific items in making my calculations.
Q. So how did you use Dr. Alexander's redress model?
A. Again, he provided the three pieces of information. In the -- with the exception of the cost data that $I$ acquired because of my specialized expertise in the field as an economist. But Dr. Alexander provided the three pieces of information; the thing, the cost, and the frequency or total number.
Q. Did you have occasion to speak with Dr. Alexander and his team in preparing your report?
A. Yes, I did.
Q. Can you tell us about -- well, let me ask this question. Were Dr. Alexander and his team available to answer questions you had regarding the redress report?
A. Very available. In fact, I had weekly video conferences or telephone conferences with Monument Analytics and Dr. Alexander on a weekly basis up through about August.
Q. And since August when you, when you authored your report, have you had subsequent communications with him?
A. Yes, I have.
Q. And what occasioned that?
A. There were some revisions which were made to Dr.

Alexander's redress model since August of 2020. And during the course of those revisions and my corresponding calculation revisions, additional conversations with Monument Analytics were held.

MR. MAJESTRO: Gina, can you pull up P-41954 and P-41907 side-by-side? BY MR. MAJESTRO:
Q. So in the -- on the right half of the screen can you describe that document for the Court?
A. Yes. This is part of my calculations of the individual items cost out 15 years into the future.
Q. And is that Exhibit M -- Appendix M to your report?
A. Yes, it is.
Q. And what's the difference -- can you explain the difference between what Dr. Alexander did on a high level and what you did in Appendix M?
A. Well, from the two visuals that you have in front of you, again the first page from Dr. Alexander's redress model provides a simple summary on a large broad category context and then subheadings underneath that.

What you see from my Appendix M, the calculation table, are each individual item identified by alphanumeric code number corresponding to Dr. Alexander's redress model.

So, for example, the first item in the plan is 1A1, academics detailing. And you see that identified under the broad category of prevention, health professional education. MR. MAJESTRO: Gina, why don't you just blow up Appendix $M$, the right side. BY MR. MAJESTRO:
Q. And then, and then you calculated costs for all of those; correct?
A. That is correct, yes.
Q. Okay. So we'll, we'll get into more detail about that as we go on.

This version is from May 24th, 2021; is that correct?
A. Yes, it is.
Q. And you prepared earlier versions of your Appendix M too; correct?
A. Yes, I did.
Q. Can you explain what necessitated changing on a general level, why there are different versions of your Appendix M?
A. I can, yes. Through time since August, Dr. Alexander made some revisions to the redress model. My calculations reflect the revisions that he made.

Over the course of time, a couple of errors were also
identified and those errors were corrected.
Q. The dollar impact of those errors, was it great?
A. No, it was not.
Q. Was it -- can you give us a percentage on that?
A. I have not actually calculated the percentage range or the differential between the two. But it basically had to do with calculations of specific averages within a specific item in the lifecare plan -- or in the abatement plan, sorry.
Q. And to be clear, you testified Dr. Alexander changed the redress model, the data in the redress model. Why did that require a change in your Appendix M?
A. The specific inputs changed for those three pieces of information. Either the number of people or number of items being recommended in the plan changed or the cost of the specific item may have changed.

I don't believe that we had any additional items which were added to the lifecare plan. If we did, I apologize for that. But $I$ think pretty much all of the items were contained in the original redress model from August that we currently see in the May, 2021 version.
Q. Okay, all right. As part of your --

MR. MAJESTRO: You can take that one down, Gina. BY MR. MAJESTRO:
Q. As part of your methodology, was it necessary to
determine the number of people receiving services under the abatement plan?
A. Yes. That's -- again, that's the third piece of information that $I$ need from Dr. Alexander, the number of things that are going to be needed.
Q. And did you get those numbers from Dr. Alexander?
A. Yes, Dr. Alexander provided those.
Q. Did Dr. Alexander's population counts stay the same year over year?
A. No. They appear to be dynamic. The number of items, the number of individuals that appear in the redress model vary from year to year.
Q. And did you use the numbers he provided for each year?
A. Yes, I did.
Q. What time range did you use for your calculations?
A. Dr. Alexander recommended a 15-year redress model which would begin in the year 2021 and conclude at the end of 2035 .

MR. MAJESTRO: I'd like to distribute P-42139. BY MR. MAJESTRO:
Q. Can you identify this document?
A. Yes. These are the appendix sets from my August report.
Q. I'd like to direct your attention to Page 12 of the appendix set.
A. Yes.

MR. MAJESTRO: And, Gina, can you pull up Slide 5? BY MR. MAJESTRO:
Q. Mr. Barrett, can you explain to the Court what Appendix L is that is on Page 12?
A. Yes. As described here, this is Appendix L from my report.
Q. Now, this is an excerpt from Appendix L; is that correct?
A. That is correct, yes. It's not the whole Appendix L.
Q. Can you walk us through what Appendix $L$ is showing?
A. Uh-huh, yes. This is the identification of an expert which is providing the opinion of cost data in my calculations.

So as I was saying previously, cost data come from three different sources. They either come from Dr.

Alexander for medical types of issues. They come from myself, Barrett, for wage replacements and real estate, office space rentals. And then, finally, we have Dr. Young who's providing the -- we'll call them social work costs.
Q. So the references in the first column, what do those relate to?
A. The items on the far left of this visual are the specific items that are -- excuse me. I guess this is actually the broad categories or the subcategories. And
then to the right you'll see that there are specific identifiers for each individual item in the abatement plan. Q. And how do those relate to Dr. Alexander's redress model and your cost data reports?
A. So as you can see, in the far left column there are alphanumeric identifiers that $I$ previously described from Dr. Alexander's report.

The first that you see in this excerpt is item -- or category 3A which is public safety. If you look further to the right, you'll see that there are multiple individual items from that subcategory that appear in my calculations.

And in those instances, as you'll see from this chart, I actually myself, $I$ obtained the data for the cost estimates in those specific categories.
Q. And how did -- how was it decided which expert would provide which cost data?
A. It was a collaborative process involving conversations from the very beginning of the work early in 2020.

Eventually, through the course of those deliberations and discussions, it was decided that specific individuals involved on these teams, the three individuals you see here, had specific expertise in the areas that we could address individually.
Q. Did you assume that the costs would stay the same over the 15 -year life of the abatement plan?
A. No, I did not.
Q. Why not?
A. Because to do so would be in opposition to the generally accepted concept that prices are dynamic and change from year to year. Generally, they get bigger. And, again, that's what we refer to as inflation.

So if we have a base level cost in 2021, we have to then determine what the cost is going to be in future years by adjusting that base cost by a rate of inflation.
Q. And in some instances did you obtain cost data that might have been past?
A. Yes, I did. From Dr. Alexander and even from my own data sources it's, it became obvious that not all of the cost data were presented in 2020 dollar value. So sometimes historical data from a few years back would be used but would have to be adjusted first to 2020 value before the calculations could begin.

MR. MAJESTRO: Now, let's pull up Slide 6.
BY MR. MAJESTRO:
Q. And what is Slide 6?
A. This is Appendix A from my report. And this is a graphical representation of the annual historic change in annual wage compensation for hourly workers.

So what this data allows me to do is to measure the annual change in wages that employees can expect each year.

And once I have accumulated enough data, in this case 30 years of data from 1990 through 2019, I can then utilize that data to calculate an annual average across that 30-year time period.

And it's that 30-year average that I'm going to be using to adjust the base cost that we have in this redress model to the future value years value.
Q. And, so, how -- so, then, I think you may have answered part of this question. But how did you use this appendix?
A. Basically, this, this would be the inflationary data that $I$ utilized for all of the specific items that dealt with wage replacements or any type of occupational wages that are being projected into the future based upon the redress model.
Q. And you have there that you did a 30-year average. If this is a 15-year abatement plan, why did you use a 30-year average?
A. I think you would find that it's generally accepted to use a 30-year projection or -- excuse me -- 30-year reflection period for the data to make a long-term projection into the future.

The reason for that is because longer periods of time and longer periods of time over which we're looking at data will allow you to flush out any outliers that exist in a nominal year.

So if something weird happens in the economy in one specific year, the less years that you have in that average, the more effect that that weird year is going to have on the overall calculations that are being done. So a 30-year average tends to smooth that out.
Q. So Appendix A is the inflation for wages you testified. Did you use other inflation rates?
A. I did, yes.
Q. And how many different inflation rates did you use?
A. I believe there were 11 in total.
Q. And where -- are those in your report?
A. They are, yes.
Q. And can you identify where those are?
A. Yes. In the report in the appendix sets in Appendix A through K.
Q. Is this a reliable method of calculating inflation?
A. It is. It's certainly generally accepted, peer-reviewed. It is taught to forensic economists. It's what I utilize in my 23 years of practice and the 251 testimonies that I've had and the thousands of cases that I've done. This is the approach that I utilize when projecting future values.
Q. And what is the source of this inflation data?
A. This comes from the U.S. Bureau of Labor Statistics and it's specifically identified for Appendix 1 to be the major
sector of productivity for hourly compensation in the United States.

Subsequently, we have the individual categories of the consumer price index, or CPI, which also comes from the U.S. Bureau of Labor Statistics.
Q. Let's switch gears a little bit and talk about cost calculations for some of the individual programs in the redress model.

MR. MAJESTRO: Can you pull up Demo Slide 7?
BY MR. MAJESTRO:
Q. I think what we're going to do here to preview this, we're going to look at one simple calculation and then look at a few of the more complex ones.

Can you identify what is depicted on Slide 7?
A. Yes. This is the first individual item calculation from Dr. Alexander's redress model, item 1A1, academic detailing.
Q. So is this a copy of what would be in one of the tabs from Appendix $M$ to your report?
A. Yes, it would.
Q. What does the alphanumeric 1A1 mean?
A. It simply identifies how Dr. Alexander structured the redress model. Again, he had those four broad categories. That's the first number 1. A is then the more specific but yet broad category of health professional education. And
then the 1 is the first item within that subheading which in this case is the academic detailing.

So what that does is provide us a level of nomenclature, of naming and keeping up with each individual item from the redress model.
Q. What is academic detailing?
A. Academic detailing, as $I$ understand it, is the provision of education to healthcare providers regarding issues related to the opioid epidemic.
Q. And is that -- that's not something you came up with, is it?
A. No, no. The specific items in the redress model all came from Dr. Alexander.
Q. And what is the reference to year in tab 1A1?
A. So in the redress model by Dr. Alexander he specifically identified the number of individuals or the number of things or other items that would be required on an annual basis.

So in this specific case, what he is suggesting is that there is going to be less than one, 0.6 academic detailers performing the recommended work for the specific item.
Q. How do you have six-tenths of a person?

THE COURT: Just a minute.
MS. WICHT: Your Honor, I'm sorry to interrupt.
We would object to the testimony that's being given.

We understand the Court, obviously, this morning chose to exclude the redress model from evidence. Dr. Alexander on the stand testified only to certain components of the redress model and not others.

We would assert that Mr. Barrett is free to rely on items that Dr. Alexander testified to from the stand, but he is not able to rely on items in the redress model which have been excluded from evidence that Dr. Alexander did not put into evidence in testimony in this case.

And the basis for the objection, Your Honor, is that litigation opinions that are not evidence in court, that are not actually offered in court, they're not offered from the stand are not the type of material that another expert can rely on.

And we would cite the Court to United States vs. Tran Trong Cuong, which is a case we've cited before, 18 F .3 d 1132, and to Tokyo Marine \& Fire Insurance, which is 172 F.3d 44, which stands for the premise that an expert -- even though an expert might normally rely on other experts, they cannot rely on the out-of-court opinion of an expert that's not actually presented as evidence in court, which the redress model now has not been.

THE COURT: Mr. Majestro.
MR. MAJESTRO: Your Honor, I think this is a repeat of an argument we've had continually in this case and
we would incorporate our briefing on it.
We think under Rule 703 this is exactly the kind of data that an expert can rely on, particularly in this field of forensic economics.

And I think I've laid an adequate foundation from Mr. Barrett about the kind of data forensic economists look at and that they rely on other witnesses.

I would specifically note that Rule 703 permits experts to rely on material that is neither admissible nor admitted. And we think it's appropriate for him to do that in this case.

THE COURT: I'm going to -- my impression is that this is the type of thing permitted by Rule 703 and I'm going to go ahead and let you complete the, your cross, your examination based on that.

But I'll look at your cases, Ms. Wicht. Fortunately, this is a bench trial and I have the freedom to go ahead and come back and visit this later.

MS. WICHT: Understood. Thank you, Your Honor.
And if I might ask -- this is an issue that I
anticipate will recur throughout Mr. Barrett's testimony both with respect to Dr. Alexander and with respect to Dr. Young who also did not testify to any of the numbers in her, you know, that Mr. Barrett then relies on. So if we could have a standing objection.

THE COURT: You can have a continuing objection.
MS. WICHT: Thank you, Your Honor.
THE COURT: Mr. Barrett, listening to your
testimony I'm reminded of what Yogi Berra said: It's
difficult to make predictions, especially about the future.
THE WITNESS: Your Honor, we do our best.
MR. MAJESTRO: That's why we get a qualified guy
like Mr. Barrett to do it for us.
BY MR. MAJESTRO:
Q. So I think where we left off before the objection was can you explain how you would only have a fraction of a person doing a job?
A. Certainly. I believe in this context, the idea is that it's not a full-time job, that it would not be an FTE, or a full-time equivalent person doing this particular task. It can be done on a part-time basis.
Q. And then what's the next row?
A. As represented by Footnote Number 2, the median annual wage of pharmacists.
Q. And where did -- and you have numbers for each of the years.
A. I do, yes.
Q. Where did that number come from?
A. This is an example of one of the costs that $I$ obtained because it deals with wage replacements or wage costs in the

Cabell/Huntington area.
So I obtained data from the U.S. Department of Labor's Occupational Employment Statistics, or OES, dataset from 2019 that identifies what the median, or average, of pharmacists' wages will be in that geographic area.
Q. And then I noticed that the numbers increase over the 15-year period.
A. Yes, they do.
Q. And how did you determine what the increases would be?
A. Well, again, if you refer back to the appendix sets, and we discussed specifically the appendix set that I utilized in these calculations, Appendix A contains the 30 -year average of the annual hourly wage increase in the United States which has been 3.44 percent over the last 30 years.

So those numbers that you see here beginning with 2021, each successive year increases by 3.44 percent corresponding to the data from the U.S. Bureau of Labor Statistics.

MR. MAJESTRO: And, Gina, if we can show the next row too.

BY MR. MAJESTRO:
Q. So is that the annual growth rate that is shown in the next row?
A. Yes, it is.
Q. And it's the 3.44 percent you just testified to?
A. Yes, it is.
Q. And for all of the -- for all of this data, it's footnoted. What do the footnotes represent?
A. The footnotes identify the specific source or reference that was utilized for all of the variables that were involved with the calculations above.
Q. And with respect to all of the, the programs and services from Dr. Alexander's redress model that you calculated, are they similarly footnoted and sourced?
A. Yes, they are.
Q. And then the last row is total estimated cost. And how did you calculate that?
A. Again, I'm utilizing those three pieces of information; what the item is identified here in $1 A 1$, how many are needed. That's the 0.6. And then I'm using the unit costs. In this case going from left to right, we're talking about the future values of those unit costs. And we just simply do the multiplication. . 6 times $\$ 174,428$ is $\$ 109,346$. That same mathematical formula extends left to right.
Q. Now, I noticed the number of detailers required decreases over the 15 -year period. Why is that?
A. Dr. Alexander recommended in the redress model that those numbers identified in the total number of detailers required for prescribing population, Footnote 1, would specifically be the numbers that I have identified here.
Q. And, so, then what was the total cost for category 1A1, academic detailing, over the 15-year period?
A. $\$ 1.3$ million.
Q. So in addition to -- let's switch to another example.

In addition to calculating wages, did you also have to calculate real estate costs?
A. Yes, I did.

MR. MAJESTRO: Let's bring up Slide 8.
BY MR. MAJESTRO:
Q. So can you identify this slide and what the source of it is?
A. Yes, I can.
Q. Please do.
A. This is a representation of the specific calculations for Item 1D2, the Community Resiliency Coalition Space identified by Dr. Alexander.
Q. So under the first -- under the first row, number of community spaces, what's shown there?
A. Again, Dr. Alexander provided one of those three critical pieces of information, here the number of spaces that are needed, 1.
Q. So this basically means one room to be used?
A. One office space. I didn't specify whether it was one room, but it's one space.
Q. And then what's the next row?
A. The next row is the actual amount of anticipated annual rent for 1,000 square feet of office space in the Huntington area.
Q. And did you calculate that number?
A. I did.
Q. What was your source for that?
A. I conducted a review and survey of the market rates for office space rental in the Huntington area.
Q. And then the next row has a growth rate; correct?
A. Yes, it does.
Q. And how did you calculate -- what's the growth rate and how did you calculate it?
A. The growth rate for this particular item is
2.97 percent per year. That is based upon data presented in Appendix D to my report -- and that's D as in Delta -- which is the calculation of the 30 -year annual average rate of change in the rent of shelter index that's provided by the U.S. Bureau of Labor Statistics.
Q. Would this be an example of using different inflation rates for different goods and services?
A. Yes, it is.
Q. And then the last row is total estimated costs. That's easy enough math. Even $I$ can do it. But can you explain it very quickly?
A. Yes. Again, it is very simple and straightforward.

It's simply the number of terms, 1 , times the annual rent cost which is $\$ 15,033$.
Q. How do you know how much square feet would be needed for this space?
A. I looked at various office buildings and presentation areas to determine how much space would be approximately needed for a meeting of 50 people but could also house three independent office spaces. And from what I could review, 1,000 square feet seemed to be sufficient for that.
Q. And the -- where did you get the 50 people and the three office spaces?
A. Oh, excuse me. 50 people in three offices comes from Dr. Alexander's redress model.
Q. Let's look at another example.

MR. MAJESTRO: Can you pull up Demo 9?
BY MR. MAJESTRO:
Q. Can you identify Demo Slide 9?
A. Yes, I can. This is a representation of the specific calculations for the category in item 3B3, traditional housing for newly released falling under criminal justice. Q. How did you calculate the cost of housing for this population?
A. In the City of Huntington we could not find any specific data relating to the transitional cost of individuals who were being released from incarceration and
being reintroduced to society.
So there was an article which was published which I have in a footnote. The footnote here is Footnote 6, the Spellman article published in 2010 that's entitled "Costs associated with first-time homelessness for families and individuals."

That particular article provided a national average for what transitional housing costs were for seven different cities spread across the United States.

I utilized that information as a proxy for understanding how transitional housing costs differ from just regular housing costs, which that article also provided.

So there's a supplement, an addition to the regular housing costs that are made for transitional housing. Q. And why is that?
A. Transitional housing has services built into it that regular housing for individuals who have not been incarcerated would not have.

So because of those special services that Dr. Alexander has recommended with the recommendation of transitional housing, we can expect those costs to be greater than simply the fair market rent values in that particular area.
Q. And, so, how did you relate the Spellman article that had surveys of $I$ think you said seven areas on a nationwide
basis to Cabell/Huntington costs?
A. We were able to obtain data for the fair market rent values in Huntington from a document that the City of Huntington submitted to the U.S. Department of Housing and Urban Development.

In that particular document, from 2015 to 2019 it was identified that the fair market rent value in Huntington was a specific amount. And then $I$ simply did a ratio calculation comparing that with the fair market rent values from the Spellman article.

That ratio provided me an adjustment factor to move the transitional housing costs from the Spellman article from the seven-city national average to a Huntington specific. Q. And, so, is that -- are those the numbers, then, that would be on the row that's listed as cost per person for the transitional housing?
A. Yes, it would.
Q. And then you also adjusted those for inflation; correct?
A. Yes, I did.
Q. And what inflation rate did you use for that?
A. Similar to the office space, I used the same index here which was the rent of shelter index increasing into the future at a rate of 2.97 percent.
Q. And then what -- the total estimated cost, how was that
calculated?
A. Again, we're going to take the first row, which is information on the three pieces of information from Dr. Alexander, the number.

So we have 25 individuals in the year 2021 who are recommended for post-incarceration transitional housing needs. And then I'm going to multiply that by the value of the annual cost in that rent that year, which is $\$ 25,906$.
Q. And the number -- like the other examples you used, the number of people that -- the population numbers change over time?
A. They do, yes.
Q. And, and where do those numbers come from for this, for this slide?
A. The population numbers come from Dr. Alexander.
Q. And is that the -- is that true for all of the calculations that you performed in connection with your report?
A. That is correct, yes.
Q. And, so, what is the total cost for transitional housing in category 3B3 over the 15-year period?
A. $\$ 8.7$ million.
Q. Okay. Let's try one more. Let's go to demonstrative Slide 10. Can you identify this slide and where it comes from for the Court?
A. Yes. This is a representation of my specific calculations for the individual item 3A1, Law Enforcement Assisted Diversion, L-E-A-D, under the category of $3 A$, public safety.
Q. Okay. And, so, LEAD stands for Law Enforcement Assisted Diversion?
A. That is correct, yes.
Q. And did Dr. Alexander provide data on the number of LEAD programs to be established for police departments?
A. Yes, he did.
Q. And where does that appear in this?
A. In the -- I guess that would be the second row of numerical data. It's identified as 2. So you see 2 LEAD programs that need to be established.
Q. Did you then determine the cost per LEAD program per police department?
A. Yes, I did.
Q. And what did you determine those costs -- well, how did you determine those costs?
A. Historically, the City of Huntington had proposed a LEAD program in the past and had requested budget data information regarding the cost, wages and employer-provided fringe benefits for the person who would be providing the LEAD service. That documentation from years ago I utilized to get the 2021 value, that $\$ 40,317$.
Q. And let's briefly switch to Slide 11. Can you identify Slide 11?
A. Yes, I can. This is the actual budget data indicating -- this is dated from December of 2019 that identifies that the triage and referral coordinator, and that's the internal identification of this LEAD person, would be $\$ 37,662$ in total compensation, wages and fringe benefits.
Q. On a per person per year basis?
A. Per person per year in 2019 dollars.
Q. Let's go back to Slide 10. So in 2021 you have $\$ 40,317$.
A. Yes.
Q. How did you get from $\$ 37,000$ to $\$ 40,000$ ?
A. Well, we have actual historical data from the government that tells us how much wages have changed each year in the past. So we have data for 2020 that will provide us with a basis for estimating what the wages would be in 2021.

So I can move or adjust the wages from 2019 value from the budget data to 2020, and then to 2021. And then, finally, we're going to use the future rates to grow into the future.
Q. And what rate did you use for, to grow?
A. 3.44 percent.
Q. And where did that number come from?
A. Appendix A of my report.
Q. So for these examples that we've looked at, you looked at what the good or services was, what the unit cost was, and then multiplied those two numbers after adjusting for the cost of inflation; correct?
A. Yes, I did.
Q. You applied your three-part model that we discussed in the beginning?
A. Yes, I did.
Q. And, so, there -- are there tabs in your Appendix $M$ for each one of Dr. Alexander's suggested programs for, in his redress model?
A. That's correct. Each individual item in Dr.

Alexander's redress model are calculated independently in my working papers.
Q. And, so, again, so you took -- let me make sure we're clear on this. You took each individual item from Dr.

Alexander's redress model and created a tab on your
spreadsheet similar to the ones we've been discussing like Demo 10?
A. That's correct, yes.
Q. And each of those tabs, does it, does it give the sources or the costs and quantities where they came from?
A. Yes, it does.
Q. And did you do that for each -- you did that for each program from Dr. Alexander?
A. Each specific item, yes.
Q. Okay. Can we -- let's pull up a side-by-side of Slide 4 and Slide 12.

So can you explain how -- well, we've, we've kind of done this already, but -- in review. So on the left we have Dr. Alexander's abatement categories?
A. Yes.
Q. And then tell us what Slide 12 is.
A. Slide 12 is a summary of the subcategory or subheading --
Q. I'm going to stop you for a second, --
A. Sure.
Q. -- Mr. Barrett. I've got a bigger copy of Slide 12 for those of us that can't read small print.
A. Thank you.
Q. So let me ask the question this way. If I wanted to know what the cost for any particular year for Dr.

Alexander's category 3A, where could I find that information?
A. You would look on this visual here.
Q. Slide 12 I think you're referring to?
A. Slide 12. You would go down to category 3. And then you are looking at 3A was your question? Is that correct?
Q. Yes.
A. So 3A is identified right there as the first sub individual heading under the category 3, recovery. And then the total annual cost for each of those individual subheadings are then provided moving from left to right from 2021 through 2035 with a summary total of the 15 years on the far right side.
Q. Okay. Let's expand Slide 12.

So if we went through each of the tabs in your spreadsheet and I asked you the same questions that I did with respect to your methodology and sources, would your testimony be the same in applying your three-step methodology for each of those tabs?
A. Yes. All the items were calculated consistently.
Q. So, then, on Demo 12 if we wanted to know what the total cost for 2021 for all of Dr. Alexander's programs, could we find that?
A. Yes.
Q. And where would that be?
A. You would go to the column at the top identified as 2021. And then you would just simply go to the bottom of the spreadsheet and you'll see that there is a total for all the items in that column for that year.

And in this case, the amount is identified at the bottom of the spreadsheet.
Q. And what was the total for 2021?
A. $\$ 144$ million.
Q. And --

MR. HESTER: Your Honor, may I object for a moment?

Mr. Barrett had submitted an amended version of this table that had prorated numbers for 2021. I don't know if plaintiffs' counsel is going to address that point, but I think it's misleading in relation to what we've been provided because the numbers we've been provided most recently by Mr. Barrett did not have this set of numbers for the 2021 year and they were prorated.

MR. MAJESTRO: Your Honor, I think I'm -- I will clear that up as we get further along. And I've explained off the record to Mr. Hester why that is. But on the record, $I$ will explain it if you'll bear with me.

THE COURT: I'll overrule the objection and give you a chance to do that, Mr. Majestro.

MR. MAJESTRO: Okay.
BY MR. MAJESTRO:
Q. So, again, what was the number for 2021 ?
A. The total was $\$ 144$ million.
Q. And to be clear, for each of these categories, do the numbers for 2021 match up to the totals from the -- each of the tabs for the different categories?
A. That's right. If you took the individual tabs from each one of these specific items, added them all up, they would equal $\$ 144$ million.
Q. Okay. And then let's just go through the years.

What's the -- what was the total for 2022?
A. $\$ 149$ million.
Q. 2023?
A. $\$ 153$ million.
Q. 2024 ?
A. $\$ 159$ million.
Q. 2025?
A. $\$ 164$ million.
Q. 2026?
A. $\$ 159$ million.
Q. 2027?
A. $\$ 160$ million.
Q. 2028?
A. $\$ 166 \mathrm{million}$.
Q. 2029?
A. $\$ 170$ million.
Q. 2030 ?
A. $\$ 174$ million.
Q. 2031?
A. $\$ 178$ million.
Q. 2032?
A. $\$ 183$ million.
Q. 2033?
A. $\$ 188$ million.
Q. 2034?
A. $\$ 192$ million.
Q. And 2035?
A. $\$ 197$ million.
Q. And can you tell me what the total is of all of those numbers for the 15 -year period?
A. $\$ 2.5$ billion.
Q. Why don't you read the whole number out for this one?
A. $\$ 2,544,446,548$.
Q. And, so, these numbers that you've just testified to, do you hold an opinion to a reasonable degree of professional certainty in the field of forensic economics that they are the total cost for Dr. Alexander's redress model for those years in total?
A. Yes, I do.
Q. All right. So with respect to each of the individual categories that are shown on Demonstrative 12, what would the total cost for category 1A, professional, health professional education be for the 15-year period?
A. $\$ 5.4$ million.
Q. Let's go ahead and read the whole number.
A. Okay. $\$ 5,437,224$.

| 1 | Q. How about category 1B? |
| :---: | :---: |
| 2 | A. $\$ 538,834$. |
| 3 | Q. Category 1C? |
| 4 | A. $\$ 35,972$. |
| 5 | Q. Category 1D? |
| 6 | A. $\$ 17,924,519$. |
| 7 | Q. Category 1E? |
| 8 | A. $\$ 19,554,622$. |
| 9 | Q. Category 1F? |
| 10 | A. $\$ 5,229,383$. |
| 11 | Q. With respect to category 2, category 2A? |
| 12 | A. $\$ 26,674,357$. |
| 13 | Q. Category 2B? |
| 14 | A. $\$ 1,705,896,182$. |
| 15 | Q. Category 2C? |
| 16 | A. $\$ 301,682,032$. |
| 17 | Q. Category 2D? |
| 18 | A. $\$ 6,185,398$. |
| 19 | Q. Category 2E? |
| 20 | A. $\$ 10,377,665$. |
| 21 | Q. Category 3A? |
| 22 | A. $\$ 11,623,562$. |
| 23 | Q. Category 3B? |
| 24 | A. $\$ 42,051,138$. |
| 25 | Q. Category 3C? |

A. $\$ 41,000$-- excuse me -- $\$ 41,912,512$.
Q. Category 3D?
A. $\$ 3,651,622$.

MR. HESTER: Objection, Your Honor. I think the witness misstated category 3D.

THE COURT: I think he did too.
THE WITNESS: I'm sorry. Excuse me.
THE COURT: I'll sustain the objection. You can fix it, Mr. Majestro.

MR. MAJESTRO: Yes.
BY MR. MAJESTRO:
Q. So there is -- is there, is there an amount for category 3D?
A. No, there is not.
Q. Okay. Now let's go to category 3E.
A. 3 E is $\$ 3,651,622$.
Q. Category 4A?
A. $\$ 95,700,232$.
Q. Category 4B?
A. $\$ 33,990,116$.
Q. Category 4C?
A. $\$ 212,040,134$.
Q. Category 4D?
A. 4E?
Q. 4D.
A. I think we just did 4D.
Q. Oh, okay. I'm sorry. And then 4E. Is there a number for 4E?
A. No, there is no number for 4E.
Q. And if you total all those --

THE COURT: You missed 4D, did you not?
MR. MAJESTRO: What?
THE COURT: Did you not miss 4D?
BY MR. MAJESTRO:
Q. Well, let's make sure. Why don't you give us 4D again, or give it to us if we missed it.
A. Sure, sure, yes. \$3,941,041.
Q. So the total of all of those services over the 15-year period, what is that total?
A. $\$ 2,544,446,548$.
Q. Okay. And so the record is clear, let's go back to -and we just read the names. I'd like you to read into the record from -- let's go to Demo 4. And let's just make sure the record is complete.

Will you -- can you read into the record what the, what the names of the different categories are, 1A, 1B?
A. Sure, yes. Category 1 is Prevention - Reducing Opioid Over-Supply and Improving Safe Opioid Use.

Do you want me to go through each item?
Q. Yes, so if somebody is looking at the transcript and
they want to know what the number for 1 C relates to, they will have a key.
A. Okay, yes.
Q. That's my fault for not reading them out the first time, but we'll just clean it up this way.
A. 1A is health professional education.

1B, patient and public education.
1C, safe storage and drug disposal.
1D, community prevention and resiliency.
1E, harm reduction.
1F, surveillance, evaluation, and leadership.
Category 2 is Treatment - Supporting Individuals
Affected by the Epidemic.
2A is connecting individuals to care.
2B, treating opioid use disorder.
2C, managing complications attributable to the epidemic.

2D, workforce expansion and resiliency.
2E, distributing naloxone and providing training.
Category 3 is Recovery - Enhancing Public Safety and Reintegration.

3A, public safety.
3B, criminal justice system.
3C, vocational training and job placement.
3D, reengineering the workplace.

3E, mental health counseling and grief support.
Category 4 is Addressing Needs of Special Populations.
4A, pregnant women, new mothers, and infants.
4B, adolescents and young adults.
4C, families and children.
4D, homeless and housing insecure individuals.
4E, individuals with opioid misuse.
Q. Okay. Thank you, Mr. Barrett.

The methods you used for determining these cost estimates, including the three-step method you testified about, the cost sources you personally developed, the reliance on data from Dr. Alexander's redress model, are they all the types of data and methods reasonably relied upon by experts in the field of forensic economics?
A. Yes.
Q. All right. Let's switch gears again. Let's talk about present value.

The numbers you gave today and in your, in your August report, were they in today's dollars or future dollars?
A. These are all presented in future dollars.
Q. Can you explain to the Court what that means?
A. As I was explaining previously, once we have the unit costs for the information of all the items in the redress model, I am going to use inflationary data or inflationary trends to increase those base level costs or total costs to
each year's future value to estimate how much it would actually cost in the year 2022 or 2025 or 2035 .
Q. And, so, do forensic economists traditionally calculate data like this as a present value?
A. Yes.
Q. And why do they do that?
A. The expectation is that any award would be presented in a lump sum. The lump sum would earn interest. And, so, by discounting to present value, we account for the interest earning that the lump sum award would earn if it was invested.
Q. In this case, what interest rate did you pick to discount to present value?
A. $\quad 3.73$ percent.
Q. And what, what does that represent?
A. I looked at the annual historic average, annual interest rates over 30 years on two different types of investments.

I looked at six-month maturing U.S. treasury bills. And I looked at 10 -year maturing U.S. security treasury notes.

I looked at each one of those annual rates individually across 30 years, and then did an average of all those rates. The average across that time period was 3.73 percent. Q. And do you believe that's the appropriate rate to use
in this case?
A. It is, yes. I believe it's consistent with the rates that appear in peer-reviewed methodologies for forensic economics. It is also consistent with an expectation of what the investment would use. It's the same rate that I use in all the other cases that I calculate.
Q. And are you familiar with Mr. Rufus who issued a report in this case?
A. I am, yes.
Q. Did he in his report and his testimony offer a different rate?
A. He did, yes.
Q. And what rate did he offer?
A. 2.85 percent.
Q. How does your interest rate compare to that rate by Mr. Rufus?
A. My rate is --

MS. WICHT: Objection, Your Honor. If I understand what's happening here, I think Mr. Barrett is being asked to rebut testimony that has not yet been offered by any defense expert. I think the Court previously declined to allow such testimony.

THE COURT: Well, why do you have to have the other figure when he's using 3.73 to reduce to present value?

Ayme A. Cochran, RMR, CRR (304) 347-3128

MR. MAJESTRO: The answer, Your Honor, is it shows that his figure is reasonable in comparison to the defense's experts and testimony. It gives Your Honor a point to refer to.

THE COURT: Well --

MS. WICHT: Well, Your Honor, if, if Mr. Rufus comes and testifies and offers a rate, they can cross-examine about that, but I don't think it's proper to pre-but the testimony.

THE COURT: I'll sustain the objection, Mr. Majestro. BY MR. MAJESTRO:
Q. Did calculating to present value affect any of the other calculations in your report?
A. Yes, it did.
Q. And can you explain that?
A. Well, each year it's expected that a lump sum award would be invested and earn interest. And, so, because of the compounding effect of interest, each successive year from a present value perspective would result in a discounting to present value.

So the reduced to present value number is going to be less than the future value number that we've previously discussed.
Q. Okay. And did -- however, did you change -- other than
the discounting to present value -- well, I'll withdraw that question. What date did you use to start the present value calculation?
A. September 1st of 2021.
Q. And when you started with September -- why did you start with September 1st, 2021?
A. I was specifically asked to assume that the date of award would be September 1st of 2021. And, so, at that point, the lump sum would begin earning interest.
Q. And what was the present value of the sum of the costs of Dr. Alexander's programs?
A. The present value total of all of the categories?
Q. Yes, that you calculated.
A. $\$ 1,802,428,070$.

MR. MAJESTRO: And, Gina, can you bring up the summary page? The other one. Sorry. BY MR. MAJESTRO:
Q. So, now, you testified that you started from September 1, 2021. Does that impact the -- does that impact the numbers in the 2021 column on Attachment M?
A. Not with regard to the future value because the, the sum total of all the future values that we discussed previously, the 2.544 billion-dollar number, that is derived from looking at the individual subtotals from each individual item all through Appendix M, so each one of those
individual tabs.
Q. So to get to, to get to starting with September 1, 2021, did you have to modify those final numbers that we've already talked about in this Attachment M?
A. Yes. In Column J here in the year 2021, I prorated all of the values in that column for the first year to be representative of four months or 122 days in this year.
Q. And what was -- what's the total for 2021 then?
A. Prorated for four months it's $\$ 48,247,194$.
Q. And that -- I believe you testified before that for the entire year the number was 144,346,000. Correct?
A. Yes, that's correct.
Q. If you didn't prorate 2021, what would the present value be?
A. It would be approximately $\$ 90$ million more.
Q. 1.89 billion?
A. Oh, the present value total? I'm sorry.
Q. Yes.
A. Yes. The grand present value total would be
\$1.89 billion, roughly $\$ 90$ million more.
Q. Okay.

MR. MAJESTRO: We can take that down now. Let's
bring up Demonstrative Slide 13.
BY MR. MAJESTRO:
Q. So your total cost figure has changed between when
you submitted your report in August and now; correct?
A. Yes.
Q. Can you, can you describe for the Court what your total costs were in the various revisions that you performed?
A. Yes. These, of course, represent the future value calculations. From the report in August of 2020, it was 2.589.
Q. Why don't you go ahead and read the whole number.
A. Sure, yes, absolutely. $\$ 2,589,054,447$.
Q. Okay. On August 26 you submitted a second set of calculations. What was -- what, what changed to require those new calculations?
A. There was an updated redress model with some revisions from Dr. Alexander and Dr. Young. And in addition to that, there was a small error identified in the housing cost formula that had to do with averages.
Q. And what was the total in the August 26 th report?
A. The subsequent report increased slightly to $\$ 2,598,789,021$.
Q. Did you also submit a revised attachment in September of 2020?
A. Yes.
Q. And what necessitated those revisions?
A. That year -- or excuse me -- that report in September of 2020, we updated the cost of peer family mentoring based
on the correction to Dr. Young's report. I also added a calculation of the present value at that point. But the sum total of the future value from September, 2020, was $\$ 2,523,748,170$.
Q. Okay. And, finally, did you submit updates on May 24th, 2021?
A. Yes, I did.
Q. And what were the -- what's the reason for that, those updates?
A. Dr. Alexander revised the redress model and I made changes to my calculations corresponding to those adjustments.
Q. And what was the total on the May 24 th?
A. $\quad \$ 2,544,446,548$.
Q. And that's the number you've testified to several times today, isn't it?
A. Yes, sir, it is.
Q. So did these changes -- should they affect the reliability of your calculations?
A. No, I don't believe so, simply changed some of the variables, the values for the variables. And as you can see, the consistency of the numbers are $\$ 2.5$ billion. It's essentially the same with minor changes further investment points down.
Q. In picking the data that you used, did you use numbers Ayme A. Cochran, RMR, CRR (304) 347-3128
that result in the largest numbers possible for this plan?
A. No.
Q. For example, Dr. Alexander in his report gives ranges for some of these data. Did you use the high number in this range?
A. No, sir, I didn't. When I was provided with a range of data points, I utilized the midpoint. I averaged the high and the low to get the midpoint.
Q. Let's talk about what you didn't do.

MR. MAJESTRO: Can you bring up Slide 14, Gina?
BY MR. MAJESTRO:
Q. You testified -- let's clarify that you applied the programs in the abatement plan as is without modification; correct?
A. Yes.
Q. Why is that?
A. I'm not qualified as an epidemiologist or as a social work expert to be able to provide specific input with regard to the items or the frequencies that an abatement program such as this would require. Instead, I rely upon the related expert, Dr. Alexander.
Q. And did you alter any of the cost data suggested by Dr. Alexander or Dr. Young or the amount of services?
A. The specific input provided by Dr. Alexander and Dr. Young, no, I did not.
Q. Did you consider how much the city or county currently spent on opioid-related programs?
A. No, I did not.
Q. Why not?
A. It's really outside of my field of expertise to do such an adjustment or consideration. I simply relied upon Dr. Alexander's redress model for my calculations.
Q. And did you discount the cost of your plan based on what's currently being spent?
A. No, I did not.
Q. And can you give us -- explain why not.
A. Again, it's outside of my field of expertise. I feel Dr. Alexander would best respond to that type of a question.
Q. And, similarly, did you split up the plan's costs between prescription and illicit opioids?
A. No, I did not.
Q. And would that be the same reason?
A. Yes. It is certainly beyond my field of expertise.
Q. Do you have anything to say here today about what the cause of the opioid epidemic is?
A. I do not, no.
Q. Is that also outside your expertise?
A. Yes, sir, it is.
Q. And did your report calculate the harm to the Cabell/Huntington community from the epidemic?
A. No. I believe that was -- that's another element of calculations that I did not perform. I did not do that, no.
Q. Is it your understanding that plaintiffs have presented another expert on that subject?
A. Yes, I believe so.
Q. And does your plan provide any direction about how to administer the abatement plan?
A. No, sir, it does not.
Q. And why is that?
A. I don't have any experience in the management or administration of such funds, nor do I have any expertise in the formulation of an abatement plan or a redress model.

MR. MAJESTRO: Your Honor, I'm at a really good stopping point and going through the lunch hour might help me cut out some things if I go through my notes. This would be a great place to take a break if you're okay with that.

THE COURT: How much more do you think you have, Mr. Majestro?

MR. MAJESTRO: If I have -- if I have some time over the lunch hour, I can probably get it down to 10 minutes.

THE COURT: Okay. Let's be in recess, then, until 2:00.

You can step down, Mr. Barrett.
THE WITNESS: Thank you, Your Honor.

Ayme A. Cochran, RMR, CRR (304) 347-3128
(Recess taken at 11:56 a.m.)
MS. CHRISTENSON: I'm sorry. Monique Christenson for the plaintiffs and we have six deposition designations to submit.

We have Mark Hartman, Kim Howenstein, Jennifer Norris, Gilberto Quintero, David Gustin and Donald Walker.

And all of the defense objections are included in the submissions. Thank you.

MS. WICHT: Your Honor --
I'm sorry, Ms. Christenson. I -- my understanding -- I didn't realize these were going to be moved in at this point in time. My understanding is that, with respect to one of those witnesses, in particular, Kim Howenstein, there are still ongoing discussions about those particular designations. So, from our point of view, I don't -- we didn't view those as being resolved and ready to submit today. We're happy to, of course, continue to work with you and get that finally resolved, but $I$ just wanted to make that clear.

MS. CHRISTENSON: I can pull those from the box and we can submit them later and --

MS. WICHT: Thank you. And we'll -- we'll work with you on it.

MS. CHRISTENSON: Thank you.
THE COURT: Okay. Mr. Barrett, are you in the
courtroom?
THE WITNESS: Good afternoon, Your Honor.

THE COURT: Good afternoon, Mr. Barrett.

MR. MAJESTRO: Are you ready, Your Honor?
THE COURT: You may proceed.
MR. MAJESTRO: Thank you, Your Honor.

BY MR. MAJESTRO:
Q. Mr. Barrett, why did you use 30 years of past inflation data rather than 15?
A. As $I$ was discussing previously, when doing a projection into the future and basing percentages, inflation rates or interest rates on a historical time period, there can be anomalies in the data outliers, really, really low rates in some years; really, really high rates in other years. The more years that we have in the survey study, the more likely we are to smooth out any types of anomalies that are there.

But it's also generally accepted in the literature as most practitioners do not use the same amount of time for the reflection period of data as they do for the projection period looking forward.

So, for example, only 30 percent of respondents from a national survey in forensic economics stated that they would use a reflection period for data the same length as the projection period going forward.
Q. And that would particularly make sense if -- the
shorter the reflection period and projection period are, correct?
A. Yes.

MR. HESTER: Object as leading, Your Honor.
MR. MAJESTRO: I'll withdraw that.
THE COURT: Yeah. Don't lead him, Mr. Majestro.
MR. MAJESTRO: All right.
BY MR. MAJESTRO:
Q. You used the Bureau of Labor Statistics' different cost indexes. Are there other cost indexes other than the ones you used?
A. Yes, many.
Q. What about the ECI, is that one you considered using?
A. It is. I am very familiar with the ECI. I've actually presented a paper on the Employment Cost Index.
Q. And can you explain to the Court what an Employment Cost Index is?
A. It's very similar to the index that I utilized. The ECI is a measure of employee payroll costs employers will actually pay their employees. So, it's very similar to the data that I utilized. It's just from a different survey.
Q. Why didn't you use it in this case?
A. As I stated, I presented a paper once on the ECI and what I've discovered, even though its introduction was quite useful, we simply don't have 30 years of data for the ECI to be able to do those types of projections.
Q. And based on your prior answer, is that the reason you thought, because 30 years was appropriate, it would be inappropriate to use the ECI?

MR. HESTER: Object as leading.
THE COURT: Sustained.
BY MR. MAJESTRO:
Q. Did the fact that the ECI only has 15 years of data -were you concerned that only using 15 years of data would not have enough years to round out aberrations?
A. Yes. I follow the ECI trends every year and I monitor so that one day, maybe we'll have 30 years of data, provided that that survey is not discontinued and, at that particular point, then I might even consider using the ECI.
Q. And use of the ECI in this case, would that have affected any of the numbers other than the ones that were based on wage costs?
A. No, they would not.
Q. So, and in terms -- well, strike that.

What would the impact have been of using 15 years of inflation data for the abatement program's growth rates rather than 30 years and then discounting to present value based on a 15-year inflation period rather than 30 years?
A. The numbers go up by approximately $\$ 24$ million dollars or about 1.3 percent.

MR. MAJESTRO: Your Honor, so, at this time, and I think I'm going to -- what I'm doing now is mostly for the record, but we -- plaintiffs would move in P-41954, which is Mr. Barrett's Appendix M spreadsheet. We believe -- for the reasons in our briefs yesterday, we believe that the information is -- it should be admitted. He's authenticated it, laid an adequate foundation, and we believe it's admissible.

MR. HESTER: Your Honor, we object on the same basis that we raised the objection yesterday to Dr. Alexander's expert report being admitted. This is an appendix. It's a key part of his -- of $\operatorname{Dr}$. -- of Mr . Barrett's report.

THE COURT: How is this different from Dr. Alexander's data that I didn't admit?

MR. MAJESTRO: I would say -- I would say -- I would acknowledge that there are a lot of similarities and, first -- and the difference being that I think traditionally these kinds of summary tables by economists are admitted into evidence.

We would also -- we are also making the motion to preserve the record and, if Your Honor sustains the objection, we would like this document and Dr. Alexander's abatement report preserved and vouched for the record.

THE COURT: Does this qualify as a summary?

Ayme A. Cochran, RMR, CRR (304) 347-3128

MR. MAJESTRO: It's -- it is a summary of a lot of data and that is especially the summary page of the data. And I -- and I'll say that -- that if Your Honor -- and I -back to Rule 611 and the other, the other arguments, if it's not admitted, I'm going to have Mr. Barrett read some more numbers into the record to -- because we -- at lunch, we went through what we have in the record and what we didn't have in the record and we believe it's necessary to read a bunch more numbers into the record, but that's not a threat. That's just an example, another reason to allow it, to keep us from having to do that.

THE COURT: What's the number on it? I'm not sure.

MR. MAJESTRO: P-41954.
THE COURT: Yeah. Mr. Hester?
MR. HESTER: Your Honor, just to be clear, it is not a summary. It is a -- an appendix to Mr. Barrett's report.

MR. MAJESTRO: And I would -- I would be willing to limit our admission to the first page, which is the actual summary, and it is a summary of a lot of data. It is truly a summary.

THE COURT: The first page is the summary?
MR. MAJESTRO: Yes.
THE COURT: Do you agree with that, Mr. Hester?

Ms. Wicht?
MS. WICHT: Oh. I didn't mean to --

THE COURT: I see her shaking her head.
MS. WICHT: I'm sorry. I didn't mean to jump in on Mr. Hester. We would not agree that it's a summary, Your Honor. If it's a summary of something, it's a summary of his work product and his opinions. So, it's the same as the analysis for Dr. Alexander.

THE COURT: Well, it is a summary, isn't it, Mr.
Hester?
MR. HESTER: Well, but it -- not in the sense contemplated under Rule 1006 because 1006 has to be a summary of admissible evidence. This is simply the expert's work product. It's the hearsay problem. It's the same problem the Court confronted yesterday. It's not summarizing admissible evidence.

THE COURT: Well, I would like to admit it to shortcut this, but I'm not going to do it, Mr. Majestro.

MR. MAJESTRO: I understand, Your Honor. I suspected that was the case.

THE COURT: Okay.
MR. MAJESTRO: I feel like the clerk of the Senate when somebody objects to just the title of the bill being read.

All right. So, Gina, can you pull up $P-41954$ on the
summary tab? Expand the whole spreadsheet, please. I think you've got some columns hidden. Unhide the columns, please. BY MR. MAJESTRO:
Q. Okay. Mr. Barrett, we've identified this document before, but so, for the record -- for the record, can you identify it again?
A. Yes. This is a summary of the individual future value and present value calculations for each individual item in the redress model.
Q. And the -- and Column -- Column V, can you tell us what that is?
A. I'm sorry. Was that $B$ as in Bravo?
Q. V as in Victor.
A. $V$ ?
Q. I may be looking at it wrong.
A. Yes. V represents the year 2033.
Q. Well, I need some new glasses.

MR. MAJESTRO: Move over, Gina. We're looking for two columns over, I believe. No, the other way. Sorry. Yes. What column is that? It's Y.

THE WITNESS: Column $Y$ is the 15 -year total of each individual item from the redress model.

MR. MAJESTRO: Okay.
And, Gina, can you hide every column after the name label to Column $Y$ so we can just read Column $Y$ and the
labels?
Okay. And hide all that stuff, too. I don't know what that is.

And make it a little bigger, please. Thank you. BY MR. MAJESTRO:
Q. Okay. Mr. Barrett, the -- how does this summary differ from Demonstrative Slide 12 in detail?
A. Well, that's it. That's the keyword. It is detailed. It's an item by item calculation of the summary total 15 -year costs of the redress model.

MR. MAJESTRO: Your Honor, may I approach?
THE COURT: Yes.
BY MR. MAJESTRO:
Q. So, I have what we have on the screen printed off as Demonstrative 274. So, for reading purposes, it will be easier.

So, Mr. Barrett, is Demonstrative 274 the same information that we had from the -- your exhibit -- your Attachment M, P-41954?
A. Yes, it is.
Q. Okay. So, I'm going to ask you to read some numbers into the record again.

So, under Category 1A1, Academic Detailing, what is the -- what is the number that is in the -- in Column Y?
A. $\$ 1,306,672.00$.
Q. And what does that represent?
A. The total 15-year future value cost of the academic detailing subcategory of 1A1, Academic Detailing.
Q. And to close the loop, the subcategories, where do those subcategories come from?
A. From Dr. Alexander's redress model. Each individual item is identified and I'm categorizing that as being a specific or a sub item.
Q. I'm sorry. I didn't hear you.
A. A specific or sub item under the categories.
Q. Thank you. And Category 1A2, Continuing Healthcare Provider Education, what is the total for that category?
A. $\$ 4,130,552.00$.
Q. And Patient and Public Education, what is the total for that category?
A. $\$ 538,834.00$.
Q. And Safe Storage and Drug Disposal Programs, what is the total?
A. $\$ 35,972.00$.
Q. Category 1D1a, Community Resiliency Coalition Staffing Director, what is the total for that category?
A. $\$ 1,644,299.00$.
Q. Category 1D1b, Community Resiliency Coalition Staffing: Community Organizers, what is the total for that category?
A. $\$ 986,146.00$.
Q. Category 1D2, Community Resiliency Space, what is the total for that category?
A. $\$ 278,974.00$.
Q. Category 1D3, Community Resiliency Coalition Funding, what is the total for that category?
A. $\$ 15,015,100.00$.
Q. Category 1E1, Syringe Service Programs, what is the total for that category?
A. $\$ 12,619,008.00$.
Q. Category 1E2a, Drug Checking Machines, what is the total for that category?
A. $\$ 87,826.00$.
Q. Category 1E2a, Drug Checking Machines Recurring Costs Per Year, what is the total for that category?
A. $\quad \$ 1,303,333.00$.
Q. Category 1E3, Fentanyl Test Strips, what is the total for that category?
A. $\quad \$ 5,544,455.00$.
Q. Category 1F1, Executive Director, what is the total for that category?
A. $\quad \$ 1,644,299.00$.
Q. And to be clear, that is a subcategory of -- what is that a subcategory of?
A. It falls under the main category of Prevention and the subcategory of Surveillance, Evaluation and Leadership.
Q. Okay. And then another subcategory would be 1F2, Data Analysts. What is the subtotal for that subcategory, 1F2?
A. $\$ 3,275,608.00$.
Q. And another subcategory from 1F, 1F3, Staff Assistant, what is the total for that for a 15-year period?
A. $\$ 309,476.00$.
Q. Okay. Let's go to Category 2. So, Category 2A1, Helpline, is that a subcategory?
A. Yes, it is.
Q. And what is it a subcategory of?
A. It falls under the main category of Treatment and the subcategory of Connecting Individuals to Care.
Q. Okay. And for that subcategory Helpline, what is the total for the 15-year period?
A. $\$ 3,187,386.00 .00$.
Q. Category 2A2, Peer Review [sic] Coaches, what is the total for that subcategory?
A. $\$ 5,845,435.00$.
Q. Category 2A3, Transportation Assistance, what is the total for that subcategory?
A. $\$ 4,138,646.00$.
Q. And moving to Category 2A4, the Quick Response Teams, there are three subcategories under that, I see. What is the -- first one is 2A4a, Addiction Counselor (QRT). What is the total for that subcategory?
A. $\$ 1,151,591.00$.
Q. The next one is 2A4b, First Responder (QRT). What is the total for that subcategory?
A. $\$ 833,214.00$.
Q. The next one is 2A4c, Peer Coach (QRT). What is the total for that category, subcategory?
A. $\$ 4$-- I'm sorry. $\$ 433,000.00$.
Q. 2A5, Bridge Programs, what is the total for that subcategory?
A. $\$ 11,085,085.00$.
Q. So, moving to Category 2B, Treating Opioid Use Disorder, the first category -- subcategory under that is Category -- Subcategory 2B1, Outpatient Treatment. What is the total for that subcategory?
A. $\$ 971,357,386.00$.
Q. Category 2B2, Intensive Outpatient Treatment, what is the total for that subcategory?
A. $\$ 371,953,917.00$.
Q. Category 2B3, Residential Treatment, what is the total for that subcategory?
A. $\$ 183,137,911.00$.
Q. 2B4, Inpatient Treatment, what is the total for that subcategory?
A. $\$ 41,848,310.00$.
Q. Category 2B5, Buprenorphine, what is the total for that
subcategory?
A. $\$ 72,912,030.00$.
Q. Category 2B6, Methadone, what is the total for that subcategory?
A. $\$ 33,695,230.00$.
Q. Category 2B7, Naltrexone, what is the total for that subcategory?
A. $\$ 30,991,399.00$.
Q. Okay. Category 2 C is Managing Complications

Attributable to the Epidemic. Category 2C1 is Human Immunodeficiency Virus/Hepatitis C Virus Screening. What is the total under that subcategory?
A. $\$ 1,475,808.00$.
Q. 2C2, Hepatitis C Virus Treatment, what is the total of that subcategory?
A. $\$ 102,070,764.00$.
Q. Category 2C3, Human Immunodeficiency Virus Treatment, what is the total of that subcategory?
A. $\$ 115,462,871.00$.
Q. Subcategory 2C4, Endocarditis Treatment, what is the total for that subcategory?
A. $\$ 82,672,589.00$.
Q. Category 2D is Expanding the Healthcare Workforce. The first subcategory is Recruitment and Retention. What is the total of that subcategory?
A. $\$ 205,077.00$.
Q. Category 2D2 is Medical Social Workers. What is the total of that subcategory?
A. $\$ 3,648,561.00$.
Q. Category 2D3 is Reducing Burnout/Compassion Fatigue.

What is the total of that subcategory?
A. $\$ 2,331,760.00$.
Q. Category 2 E is Distributing Naloxone and Providing Training. Subcategory 2 E 1 is First Responders Training. What is the total of that subcategory?
A. $\$ 754,489.00$.
Q. Category 2E2 is Narcan for First Responders. What is the total of that subcategory?
A. $\$ 1,686,285.00$.
Q. Subcategory 2E3 is Injectable Naloxone for Emergency Departments. What is the total of that subcategory?
A. $\$ 343,540.00$.
Q. Category 2E4a, Take-Home Kit For Opioid Use Disorder Population, what is the total of that subcategory?
A. $\$ 550,791.00$.
Q. 2E4b, Narcan for Opioid Use Disorder Population, what is the total of that subcategory?
A. $\$ 6,870,609.00$.
Q. Category 2E5a, Naloxone Public Lock Boxes, what is the subtotal for that category?
A. $\$ 29,220.00$.
Q. Category 2E5b, Narcan For Public Lock Boxes (Doses For Boxes), what is the total of that subcategory?
A. $\$ 142,731.00$.
Q. Category 3 is Recovery - Enhancing Public Safety and Reintegration. Category 3A under that is Public Safety and Category 3A1 is Law Enforcement Assisted Diversion, or the LEAD Program. What is the total for the LEAD Program?
A. $\$ 1,549,023.00$.
Q. Category 3A2, Community-Oriented Policing, what is the total for that subcategory?
A. $\$ 7,331,972.00$.
Q. Category 3A3, Specialized Overdose Units, what is the total for that subcategory?
A. $\$ 2,320,177.00$.
Q. 3A4, Stigma Reduction Training, what is the total of that subcategory?
A. $\$ 422,390.00$.
Q. Category 3B is Criminal Justice System. Subcategory 3B1 is Drug Courts. What is the total for Subcategory 3B1?
A. $\$ 30,037,783.00$.
Q. Category 3 B 2 is Re-Entry and Reintegration. What is the total for that subcategory?
A. $\$ 3,256,624.00$.
Q. Category 3B3, Transitional Housing for Newly Released,
what is the total for that subcategory?
A. $\$ 8,756,731.00$.
Q. Category 3C is Vocational Training and Job Placement. What is the total for that category?
A. $\$ 41,000$-- excuse me. $\$ 41,912,512.00$.
Q. Category 3D, Reengineering the Workplace, there's no total for that, correct?
A. Yes, 0 .
Q. Category 3E Mental Health Counseling and Grief Support, what is the total for that subcategory?
A. $\$ 3,651,622.00$.
Q. Moving along to Category 4, which is Addressing Needs of Special Populations, first subcategory is Category 4A, Pregnant Women, New Mothers, and Infants and the first subcategory under that is Subcategory 4A1, Prenatal Opioid Use Disorder Screening. What is the total for that subcategory?
A. $\$ 1,700,805.00$.
Q. What is the total of Subcategory 4A2, Prenatal Psychosocial Services?
A. $\$ 2,262,182.00$.
Q. What is the total for Subcategory 4A2b, Postpartum Psychosocial Services?
A. $\$ 40,737,082.00$.
Q. What is the total for Category 4A3, Prenatal and

Postpartum Housing Services?
A. $\$ 4,637,786.00$.
Q. Subcategory 4A4a, Interventions For Infants Exposed to Opioids in Utero, what is the total for that subcategory?
A. $\$ 29,399,201.00$.
Q. Subcategory 4A4b, Early Interventions for Infants Exposed to Opioids in Utero (0-5 Years Old), what is the total for that subcategory?
A. $\$ 14,499,537.00$.
Q. 4A4c, Special Education and Psychosocial Services for Infants Exposed (6-21 Years Old), what is the total for that subcategory?
A. $\$ 2,463,640.00$.
Q. Category 4B is Adolescents and Young Adults. Under that subcategory 4B1 is School Based Prevention Programs. What is the total for that subcategory?
A. $\$ 32,977,433.00$.
Q. Subcategory 4B2 is Adolescents Screening for Opioid Use Disorder. What is the subtotal of that subcategory?
A. $\$ 1,012,684.00$.
Q. The next category is Category 4C, Families and Children. The first subcategory under that is 4C1a, Support For Children Living With Parents with Opioid Use Disorder. What is the total of that subcategory?
A. $\$ 40,561,122.00$.
Q. Subcategory 4C1b, Support for Children Living With Parents with Opioid Use Disorder, and this is for Interventions. What is the total for that subcategory?
A. $\$ 63,355,918.00$.
Q. Category 4C2a, Support For Children in Foster Care. This is the Foster Care Cost Per Child. What is the total for that subcategory?
A. $\$ 81,823,239.00$.
Q. Subcategory 4C2b, Support For Children in Foster Care (Socio-Emotional Support), what is the total for that subcategory?
A. $\$ 10,491,017.00$.
Q. Subcategory 4C2c, Support for Children in Foster Care, this is the Intensive Parent-Child Interventions. What is the total for that subcategory?
A. $\$ 1,509,602.00$.
Q. Category 4C2d, Support For Children in Foster Care (Family Drug Courts), what is the total for that subcategory?
A. $\$ 9,258,373.00$.
Q. Category 4C3a, Support for Adopted Children and Families (Adoption Cost Per Child), what is the total for that subcategory?
A. $\$ 4,081,672.00$.
Q. Subcategory 4C3b, Support For Adopted Children and

Families (Socio-Emotional Support), what is the total for that subcategory?
A. $\$ 790,580.00$.
Q. Subcategory 4C3c, Support For Adopted Children and Families (Intensive Parent-Child Interventions), what is the total for that subcategory?
A. $\$ 168,610.00$.
Q. Moving to Category 4D, Homeless and Housing Insecure Individuals. One subcategory under that, 4D1, Permanent Supportive Housing, what is the total for that subcategory?
A. $\$ 3,941,041.00$.
Q. The numbers you've just read, did all of those numbers represent the 15-year total of the costs for Dr. Alexander's abatement plan?
A. Yes.
Q. Now, with respect to the -- I asked you this question earlier this morning with respect to the other numbers you read, but let's just complete the circle in the record. To a reasonable degree of professional certainty in the field of forensic economics, are the numbers you just -- the numbers you just read your opinion regarding the costs of -for Dr. Alexander's redress model for each of those categories for the 15-year period?
A. Yes, sir, they are.
Q. And in -- those are all numbers you calculated?
A. Yes, I did.
Q. And in calculating those numbers, you used the same methods for determining these cost estimates, including the three-step method, the cost sources you personally developed, the reliance on data from Dr. Alexander's redress model, and those are all -- are those all types of data methods reasonably relied upon by experts in the field of forensic economics?
A. Yes, they are.
Q. And to be clear, these -- the numbers in these subcategories are more detail than the numbers that you read for us this morning, correct?
A. Yes. There were more numbers that we read because they are individual items under the subcategories that we read this morning.
Q. And so, these are not -- in addition to those numbers, these are another way of slicing those same numbers you read this morning and giving the Court more detail about what those numbers are comprised of?
A. That's right. This is an individual calculation of each item.

MR. MAJESTRO: Your Honor, if I may have a couple of minutes to confer with my colleagues?

THE COURT: Yes.
(Pause)

BY MR. MAJESTRO:
Q. So, Mr. Barrett, the opinions you have offered here today and the calculations and conclusions that you've testified to the Court, are those opinions you hold to a reasonable degree of certainty in the field of forensic economics?
A. Yes, they are.

MR. MAJESTRO: At this time, Your Honor, we would pass the witness to the defense.

THE COURT: All right. You may cross examine. MR. HESTER: Thank you, Your Honor.

Good afternoon, Mr. Barrett.
THE WITNESS: Good afternoon, sir.

MR. HESTER: My name is Timothy Hester. I'm counsel for McKesson. Good to meet you.

## CROSS EXAMINATION

BY MR. HESTER:
Q. I'd like to talk just a little bit about your experience and background. As you indicated, Mr. Barrett, you're a forensic economist and you're also engaged in vocational evaluation, right?
A. That is correct, yes.
Q. And you've testified as an expert witness in that capacity, correct?
A. In both the fields of forensic economics and vocational

Ayme A. Cochran, RMR, CRR (304) 347-3128
rehabilitation.
Q. And the vast majority of cases in which you've provided your expertise or testimony as an expert witness have been personal injury and wrongful death matters; is that correct?
A. That is correct, yes.
Q. And before this case, I think you mentioned this earlier today, but you had never prepared a cost analysis of an abatement plan, correct?
A. Not for an abatement plan, no.
Q. And before this case, the largest damage figure you've ever proposed on behalf of a plaintiff was $\$ 34$ million dollars for a life care plan, correct?
A. I don't quite recall the specific amount.
Q. Would it help you if I refresh you with your deposition on that subject?
A. Yes, please.

MR. HESTER: Could we cull up Mr. Barrett's
deposition from September 21, 2020 at Page 53?
BY MR. HESTER:
Q. Mr. Barrett, I'm just going to show this to you to see if it refreshes your recollection. On Page 53, Line 20, there's a question asked of you. And prior to this particular matter, what's the largest damages figure you have ever proposed on behalf of a plaintiff client. Do you see that?
A. Yes.
Q. And then it goes onto the next page and it says I had a personal injury case earlier in the summer. It was a single individual and it was a life care plan for one person in the amount of approximately $\$ 34$ million dollars. Do you see that?
A. I do, yes.
Q. Does that refresh your memory as to the largest amount you've testified to before this case?
A. No, it does not. That question that you asked and my response to that question was my recollection of the most recent case in which there was a substantially large damages estimate and that occurred in the summer of 2020.

Throughout a 23-year history, it's difficult for me to recall.
Q. I take it you've never proposed one this large before, a number this large?
A. I don't recall specifically, no. It is certainly a large number.
Q. And you wouldn't be qualified to review the opinions of a medical expert or an epidemiologist, correct?
A. No, I am not.
Q. And you're not a healthcare economist, are you?
A. No, I'm not a healthcare economist. I'm a forensic economist that specializes in these types of calculations.
Q. You don't specialize in the economics of the healthcare industry or the pharmaceutical industry, correct?
A. No. I've actually had cases in the past which have involved that in some instances, lost profits and commercial damages cases.
Q. But you're not an expert in the field of healthcare economics?
A. No, just in the calculation of economic damages.
Q. So, let's talk a little bit about the costs that Dr. Alexander provided to you. For the costs that Dr. Alexander provided as part of his redress model you did not do any due diligence to check the costs that he provided to you, correct?
A. The individual costs that he provided was provided based upon his own area of special expertise and based upon our collaborations and discussions prior to the issuance of my August report, it was determined that specific individuals would have a domain over specific areas of costs and the costs that Dr. Alexander provided in this instance were all agreed upon that he had the best expertise to do so.
Q. So, you didn't go back and do due -- due diligence? Sorry. Let me start over. You did not go back and do due diligence behind the costs that he gave you, correct?
A. I wouldn't have the expertise to exercise any type of
due diligence. It's outside of my field of expertise and I would be disqualified for attempting to do so.
Q. And same answer as to the costs that Dr. Young provided, I take it? You did not engage in due diligence to check those cost numbers that she gave, correct?
A. No. Again, those are outside the scope of my expertise.
Q. So, you didn't ask them where they got their cost data, correct?
A. No, I did not.
Q. And you didn't ask them why they were using any particular source for the costs they provided to you, correct?
A. No. I made the calculations under the assumption that the cost data were being provided from reliable sources and that both experts would testify to the reliability of the estimates they were providing.
Q. So, let's look at one of the cost items. And I think we can work for this purpose off of Demo 274 that you were just working with that has the numbers on the Syringe Services Program.
A. Could you help me find that?
Q. Yes.
A. I found it. I'm sorry. It's 1E1?
Q. Yes. So, you costed out the Syringe Services Program
and that was based on a cost item that Dr. Alexander gave you, correct? I'm thinking of $1 E 1$, if that helps you find it, Mr. Barrett.
A. Yes.
Q. And if you go to Category IE1, I guess it's actually in this thicker document, P-41954, that you're -- you're ahead of me. And if you go to Category IE1, it shows Syringe Services Programs, correct?
A. Yes, it does.
Q. And that's a program for injection drug users to exchange used syringes for clean ones, correct?
A. I'm not exactly sure what that is. That's beyond the field of my expertise.
Q. And for purposes of engaging in this calculation, Dr. Alexander provided a price estimate of $\$ 856.00$ per injection drug user for this Syringe Services Program, correct?
A. I would need to actually look at my worksheet documents that includes Dr. Alexander's redress model to see the actual cost because what you're seeing here is a 2021 cost that may have been from a historical or prior year cost and then adjusted to 2021 value. So, I couldn't confirm whether or not he provided that specific dollar amount in his redress model or if it's another year value and then I adjusted it according to the proper category of inflation.
Q. Do you need Dr. Alexander's redress model to answer
that question?
A. I do, yes.
Q. Okay. Let me pull that out for you.

MR. MAJESTRO: I think he has it. I think it's
the binder.
THE WITNESS: Oh, I do, yes.
MR. HESTER: Do you have it?
Thank you.
THE WITNESS: Yes, I do have it.
BY MR. HESTER:
Q. So, just for the record, Mr. Barrett, you're looking at Dr. Alexander's redress model?
A. I am, yes.
Q. And you're looking at Item 1E1?
A. Yes, I am.
Q. So -- so, there's a number in Dr. Alexander's redress model of $\$ 774.30$. Do you see that?
A. I do.
Q. And so, then did you -- and that was based on 2016 data, correct?
A. Yes. That is identified as being 2016 dollars.
Q. And then -- so, did you move that up to a higher cost number for 2021?
A. Yes, I did.
Q. Okay. And how did you do that?
A. I actually need my working papers to be able to answer that question, if I could refer to those.
Q. Sure.

MR. MAJESTRO: May I approach, Your Honor?

Is this the one you're looking for?

THE WITNESS: Yes, it is.

Yes, sir.

BY MR. HESTER:
Q. So -- so, just explain how you got to the $\$ 856.00$ per injection drug user.
A. Sure. This particular program was categorized as being in the medical care commodities category of price inflation and I utilized the actual data on a year-by-year basis for 2016 moving to 2017, which was 2.8 percent.

The next year, 2018, it increased by 1.16 percent. In 2019, there was a decrease of 0.04 percent that I incorporated. And then, in 2020, I made an estimate of 3.21 percent for the inflation area rate to get to the $\$ 856.98$.
Q. So, the starting point, in other words, was the number that Dr. Alexander gave you for syringe users in 2016 and then you inflated that number up by the inflation costs for medical services; is that right?
A. That's right. There is a corresponding annual
calculation for each one of these items to move it from a
historical cost to the first year 2021 value.
Q. And so, based on that per IV user, per IV drug user number of $\$ 856.00$, you came up with an estimated total cost for the first year for the Syringe Services Program of $\$ 872,614.00$; is that right?
A. That is correct. 1,018 opioid injection drug users reached by SSPs times $\$ 856.98$ is $\$ 872,614.00$.
Q. And that amounts -- and then, I take it you carry that cost -- you inflated that cost forward, as well, the unit cost for each syringe user or each injection drug user? You inflated that cost for it over the 15 years, correct?
A. The individual cost per client as it was identified was adjusted to future value. The number of particular people or the number of items here adjust according to Dr. Alexander's redress model.
Q. So, when we say per client, we're talking about per injection drug user?
A. I could not adequately describe that to you. That is an issue that I think Dr. Alexander would best describe, but in his report, he clearly defined the number, again, one of the pieces of information, and the unit cost.
Q. And so, the total that you came up for the 15-year period is $\$ 12,619,008.00$ for the 15 -year period for the Syringe Services Program, correct?
A. That's correct, yes.
Q. And are you aware that one of the plaintiffs' experts in this case, Dr. Judith Feinberg, testified that she ran a Syringe Exchange Program that cost approximately $\$ 60,000.00$ a year?
A. No. I have no knowledge of that because it's outside of my field of expertise.
Q. Were you told about her testimony on that subject?
A. No, it wasn't, but just being $\$ 60,000.00$ a year, I don't think describes the costs that Dr. Alexander was developing in his redress model.
Q. But were you also aware she testified that the program that cost $\$ 60,000.00$ for Syringe Services Program per year served between 1,400 and 1,500 people?
A. No. I'm unaware of that testimony.
Q. And so, the Syringe Services Program you've costed out is serving roughly 1,000 people, correct?
A. Yes. Based upon Dr. Alexander's input, there are -- in the first year, there are 1,018. And then it decreases across the next 15 years.
Q. So, if we take that proposed cost in the first year, for instance, of $\$ 870,000.00$ a year, that's more than 14 times Dr. Feinberg's number, if my representation is right about what she testified to of $\$ 60,000.00$, right?
A. Without doing the math with a calculator, I will take your word for it that it is that amount. But, again, I'm
not really qualified to issue any type of an opinion or conclusion about what that is -- what that means.
Q. And so, just to reflect the point, you didn't check Dr. Alexander's numbers, for instance, against anything in this record that bears on costs like a Syringe Services Program? You didn't do that checking?
A. Oh, absolutely not because to do so would be outside of my field of expertise. I'm not qualified to question the conclusions reached by an expert outside of my field.
Q. Now, with respect to the population data that you used in the calculations, you also relied entirely on Dr.

Alexander and Dr. Young for those, correct?
A. That is correct, yes. They come directly from the redress model.
Q. So, they provided all the population numbers? You didn't develop any of the population numbers?
A. No, I did not.
Q. And did you ask Dr. Alexander or Dr. Young the basis for their derivation of those population numbers?
A. No. Again, that's outside of my area of expertise. It's my assumption that they base these data upon reliable assumptions and that they would testify accordingly.
Q. So, I take it you didn't do any due diligence to check behind their population numbers? You accepted them as they gave them to you?
A. I am certainly not an epidemiologist and, again, such calculations would be beyond my expertise. So, no, I would not. I would be quite out of place doing that.
Q. So, let's look at one of the items here. If we could go to Community Prevention and Resiliency, which is 1D, and I wanted to ask you about the Community Coalition Funding line item and you used -- you used the total county population for -- which is part of the calculation there for the community coalition building, correct?
A. As recommended by Dr. Alexander, yes.
Q. Right.
A. It was 103,189 persons.
Q. So, Dr. Alexander gave you a number of 103,000 people for Cabell County, correct?
A. No. I didn't even attempt to interpret what the 103,000 number represented. It was just clear from his redress model that 103,189 persons would be the relevant variable to multiply by the unit cost.
Q. It states here the total county population. And I take it that's the county population of Cabell County, right?
A. It says here the total county population for community-based prevention programs. I don't know if that's specialized population or not.
Q. Well, you understand that this whole redress model applies to Cabell County and the City of Huntington,
correct?
A. I understand that that's the geographic area, but I also understand that it's relevant for the specific population that's being addressed.
Q. Did you check Dr. Alexander's population number against the census data for Cabell County?
A. No, I did not.
Q. Are you aware that the census estimates roughly 91,000 people as the population for Cabell County?
A. I was unaware of that specific statistic.
Q. And -- and were you aware that Dr. Alexander added about 3,750 people to account for people who live in the City of Huntington, but live in Wayne County?
A. I'm -- I was unaware that he made those types of specific adjustments, but it is well known that the City of Huntington is one of two cities in West Virginia that exists in two different counties.
Q. So, but if we looked at -- if we looked at the census numbers and they're different from what Dr. Alexander provided, that's just a difference in the population numbers that you relied on against the -- against the census figures, correct? You used Dr. Alexander's numbers?
A. Again, it's a variance in the assumptions upon which I relied with your hypothetical, but Dr. Alexander attested to the 103,000 person number. So, perhaps that did include
some individuals outside of the relevant area, but it's specifically what he recommended, and that's what I calculated.
Q. If any of the population numbers that you received for any of the redress model from Dr. Young or Dr. Alexander were wrong, then the numbers that you've calculated would also be wrong, correct?
A. That's right. Yes. Absolutely. My calculations follow a chain and I'm relying upon their conclusions to make my calculations.
Q. When you were pricing out this model you relied on Dr. Alexander to take the existing programs in the community into account in the model, correct?
A. I did not have any opinion or input on that. I simply read his redress model, identified the three pieces of information that I needed, the cost, the item, and the number needed, and made those calculations.
Q. So, you don't know how, if at all, Dr. Alexander's abatement plan takes the existing programs in the community into account? You didn't look at that?
A. No, I did not. Typically, that would be a collateral source anyway.
Q. But you don't know whether the programs that he proposes in his redress model already exist in Huntington and Cabell County? You didn't look at that question?
A. No. That was outside of my field of expertise and, again, I think it would go toward a collateral source designation.
Q. Well, but I'm really just trying to nail down, in terms of your method, you didn't go off to look at that question? You didn't look at whether any of the programs that you've costed out are already being provided in the community?
A. No, I did not.
Q. And you did not make any adjustments to your cost estimates or your calculations to take account of programs that are being currently offered in Cabell and Huntington, correct?
A. No. That is not how Dr. Alexander had developed his redress model.
Q. Are you aware that Dr. Alexander testified yesterday that his plan does not take account of the existing programs in the community?
A. I heard that testimony, yes.
Q. And you're also aware that Dr. Alexander's plan does not figure out what needs to be added to what is currently in the community?
A. I don't think that I have that complete and full understanding of his testimony to be able to give you a response to that question. Again, I would just say that Dr. Alexander has developed this redress model that he feels
adequately addresses the opioid epidemic for the next 15 years.
Q. So, your plan, as you've costed it out -- I'm sorry -not your plan, Dr. Alexander's plan as you've costed it out, has a number of $\$ 1.7$ billion dollars for treatment of people with OUD; is that correct? And I think we can see it on this summary page. This -- Mr. Barrett, if it's easiest, I was thinking of this one. You can go to a one-page --
A. Thank you.
Q. And I see -- when I look over at the right-hand side, I see a total number for treating Opioid Use Disorder of $\$ 1.7$ billion dollars. Do you see that?
A. I do, yes.
Q. And you are aware that there are a number of available treatment programs in Cabell and Huntington already for people with OUD, correct?
A. Again, outside of my field of expertise. I'm not an expert, nor am I a health economist. So, I don't know the answer to that question.
Q. And so, you didn't look at the capacity for treatment that already exists in the community, correct?
A. No. And I'm not so sure that Dr. Alexander looked at capacity either. Dr. Alexander was looking at the needs, as opposed to what's currently available.
Q. And so, for instance, if we look at the -- at the
treatment program line, am I right that Dr. Alexander's redress model calls for the treatment per year of roughly 3,000 people with OUD; is that fair?

I think you can find that in his redress model.
Do you see that line, Mr. Barrett, or do you want me to help you find it?
A. Forgive me. I'm just struggling because this notebook has folded pages in it. So, let me try to flip through it.
Q. Let me pull it up on the board.
A. I have it now. I'm good.
Q. I was just going to show you, it's the number of individuals with OUD to receive treatment, this line here. Do you see in -- in Dr. Alexander's redress model?
A. And you're referring to which specific row there?
Q. Row 3.
A. Row 3? Yes, I am familiar with that number, although I didn't use that specific number. I used the subcategories for the individual types of treatment that were identified under that which sum up to that total number.
Q. Right. And I was just trying to get a rough order of magnitude that, roughly speaking, Dr. Alexander's plan contemplates that about 3,000 people a year receive OUD treatment in Cabell-Huntington, correct?
A. In year one, yes.
Q. And then it continues. It's around 3,000 a year,
right?
A. It decreases down to 2,400 by the end of the 15-year period.
Q. And you did not look at whether the existing treatment capacity in Cabell-Huntington could encompass treatment of 3,000 people with OUD, correct?
A. Again, I don't understand the validity of that question because the task here is to estimate the costs. Whether or not the healthcare facilities have the capability of providing that level of care is really not something that $I$ was asked to calculate and that the redress model doesn't identify.
Q. I'm just trying to confirm your methodology. I'm not - -
A. Oh, sure.
Q. And -- and so, were you aware that one of the plaintiffs' fact witnesses in this case, Chuck Zerkle, testified that there are roughly 3,000 available treatment spots in Cabell and Huntington today for people with OUD? Were you aware of that?
A. I was not. But, again, this was a question of paying for it, as opposed to just simply having programs which are available.
Q. But you weren't aware one way or the other that Mr. Zerkle said that there are 3,000 treatment slots available?
A. No. But, again, this is a matter of being able to compensate, pay for the programs available, not whether or not they're even there or not there.
Q. And do you know whether the City and the County pay for those treatment slots today?
A. I do not, no.
Q. And do you know whether the County and the City provide those treatment slots today?
A. No. I'm unaware of that. Again, I relied on Dr. Alexander's redress model.
Q. Let's take another example. With respect to Health Professional Education, you calculate the costs of continuing medical education for various healthcare practitioners in Huntington and Cabell, correct?
A. Yes, that is correct.
Q. And do you know whether healthcare practitioners today are already required to participate in continuing medical education?
A. I'm not an expert in that field, so I cannot say.
Q. And do you know that the West Virginia Board of

Medicine already requires a three-hour drug diversion training and best practice prescribing program for opioids for every doctor and prescriber in West Virginia?
A. No, I was not aware of that.
Q. Do you know whether the program that you costed out
would be any different from the program that's already provided by the West Virginia Board of Medicine in terms of education of prescribers?
A. No, I do not. I relied upon Dr. Alexander's assumption there.
Q. Dr. Alexander's plan also calls for a safe storage and drug disposal program; is that right?
A. Yes.
Q. And that consists of drug take-back programs for prescription pills; in other words, storage boxes and other ways that people can dispose of unused medicine, correct?
A. I believe that's correct, yes.
Q. And are you aware that the DEA today runs take-back programs in Huntington and Cabell to collect unused prescription pills?
A. No. I was unaware of that.
Q. And do you know that there are at least seven permanent pill disposal locations in Huntington and Cabell County today? Did you know that?
A. No, I did not.
Q. And you didn't make any assessment as to whether the current take-back locations in Cabell and Huntington are sufficient for the purpose? You didn't assess that?
A. No. That would be outside of my field of expertise, and so, I did not.

Ayme A. Cochran, RMR, CRR (304) 347-3128
Q. Mr. Barrett, I'd like to talk a little bit more about how you priced the elements of Dr. Alexander's plan. You said in your report, and I believe you said in your testimony today that, where possible, you used local data, correct?
A. Yes, I did.
Q. And we've discussed that you're aware that there are programs already in the community -- maybe you're not aware, but I wanted to ask you, did you look at the costs of the programs that are already being run in the community?
A. I did in some instances. For example, when $I$ was attempting to gather data regarding peer recovery coaches, I contacted Prestera Services, which is the mental health provider in the Huntington-Cabell area, to determine what they actually paid market rates to peer addiction
counselors, but those types of data are not available on a national level and $I$ wanted to attempt to get those at a more specific level. Beyond that specific example for the issue you brought up, no, I did not.
Q. And so, let's just take -- again, going back to this example of treatment programs in the community, you didn't benchmark the cost of current treatment programs in the community against the estimated costs in this plan?
A. No. Again, because I'm not really qualified at all in any way to determine whether the services that Dr. Alexander
has recommended in this abatement plan would be consistent with anything that $I$ could just simply call up on the phone and have a conversation with someone. I'm just not educated on the matter.
Q. So, let's talk about a few of the programs where you tried to get local cost data. One of the programs in the report involves temporary housing for individuals following incarceration, correct?
A. Yes, it does.
Q. And so, that's -- that's the idea of providing housing for people who have been released from prison and who would have access to temporary housing; is that right?
A. To reintegrate them into society, yes.
Q. And would that be people who have OUD who have been released from prison or anybody who has been released from prison?
A. The numbers that I relied upon from Dr. Alexander, I would assume, would be representative of just those individuals who were being released for opioid use or had Opioid Use Disorder.
Q. So, people who have been in prison but who, as they're being released, they have OUD and, therefore, we provide housing? That's the -- that's that element of the plan?
A. It's my understanding and my assumption that the numbers are relevant for the transitional housing costs of
individuals with Opioid Use Disorder or perhaps have a family member or someone else, but Opioid Use Disorder is in -- what I believe to be at the center and driving force behind Dr. Alexander's abatement plan.
Q. You're aware that there are already temporary housing programs for individuals being released from prison in Huntington and Cabell County? Do you know that?
A. I am not aware of that.
Q. Let me -- would it refresh your memory if I showed you a deposition question on this subject?
A. Sure. Yes.
Q. Let me -- let me pull up Mr. Barrett's deposition from September 21, 2020 at Lines -- at Page 61, Lines 15 to 22. There's a question that was asked of you. And currently, in the Cabell County/Huntington community, is temporary housing provided to individuals who are leaving incarceration?

Do you see that question?
A. I do, yes.
Q. And your answer was it's my understanding that there are some programs available. I was not able to obtain any specific cost data for those programs. Does that refresh your memory that there are such programs available in the community?
A. Yes. That does help me. Thank you for -- for refreshing my memory about my specific testimony. And I
would agree with that. I mean, I am aware informally and not as an expert that halfway houses and other types of transitional housing are available, but I wasn't able to determine what any of the costs were for those types of programs.
Q. And did you try to get the cost information on those programs?
A. Actually, I did, yes. I met with a social worker who specializes with work from the Department of Health and Human Resources in West Virginia and she was unable to help me with that.
Q. So, you were not able to calibrate the costs that you estimate in this redress model as compared to what's actually being done on the ground in Cabell-Huntington?
A. No. The methodology that I used here, and I testified about this this morning, was to look at the national data from the Spellman article and then make a ratio adjustment to account for the Huntington area.
Q. The redress model also calls for temporary housing for new mothers who have OUD, correct?
A. Yes, it does.
Q. And you are aware that there are programs that provide housing for mothers -- for new mothers with OUD in Cabell County and Huntington?
A. Yes. I remember that there were a couple of places
which were identified. Lily's Place, I believe, was specifically identified.
Q. And you also tried to get that cost data, but you weren't able to?
A. No. I spoke with social workers and was unable to determine that.
Q. So, you weren't able to determine how much the cost is for that program?
A. No, I was not.
Q. Are you aware that the community members in Cabell and Huntington put together a plan to address the opioid epidemic that they call the Resiliency Plan?
A. I believe that $I$ have seen part of that as part of my initial education in the case.
Q. Were you ever provided a version of that plan that had funding numbers in it; in other words, estimates of costs needed?
A. If I did review that, I did not rely upon it because, again, Dr. Alexander's plan would take the place of anything that Cabell-Huntington was currently able to function due to limited resources. So, the idea here is that the defendant would pay for the services that may be needed, but haven't been provided because of a lack of financial resources.
Q. Well, you don't know whether there's a lack of financial resources. You're assuming that?
A. Being a local economist, I can't imagine that Huntington has $\$ 1.7$ billion dollars available to invest today to cover the costs of this redress model over the next 15 years.
Q. I guess my question was a little different. You don't know what the community estimated it would need in order to fund the response to the opioid epidemic, correct?
A. I believe that that would be a question best answered by Dr. Alexander because what Huntington has done up to this point is certainly going to be limited by the resources which are available.
Q. You did not consider any of the funding allocations that were developed in the Resiliency Plan in developing your costing model here, correct?
A. No. I don't have a costing model. I have a calculation model that summarizes the total cost, but the abatement plan and redress model is developed by Dr.

Alexander.
Q. So -- so, in terms of your calculation model, the costs you calculated, you didn't look back at what the community estimated it needed in the Resiliency Plan? You didn't look at that?
A. No, I did not.
Q. I think we've covered this, Mr. Barrett, but let me just make sure. You did not make any effort to determine
who will pay the costs of the different pieces of this abatement plan, correct?
A. No. I believe that's a fact-finder decision. It's certainly not my role as an expert.
Q. And you did not make any effort to determine who pays for the current programs that are already being conducted and run in Cabell-Huntington?
A. No. Again, I didn't because it is my understanding that that would involve a collateral source role. So, no, I did not.

MS. WICHT: Your Honor -- Your Honor --
I apologize, Mr. Hester, for interrupting.
I just -- I noticed that the witness a few times has referred to the collateral source rule, which I don't know if he's using the terminology in the same way, but it's obviously a legal doctrine and, to the extent that he's purporting to offer a legal conclusion about those funds, we would object to that testimony and ask that it be stricken.

THE COURT: Well, I understand your point, Ms.
Wicht, and I think I can handle it.
MS. WICHT: Very good, Your Honor. Thank you. I think you can, too, just for the record.

BY MR. HESTER:
Q. And aside from the question of funding, Mr. Barrett --
A. Uh-huh.
Q. You didn't evaluate who actually runs the current level of programs in Cabell and Huntington?
A. No, I did not. I'm not qualified to do that.
Q. Let's go back again to this summary spreadsheet.
A. Sure.
Q. The largest cost category in your calculations is treatment costs for OUD, correct?
A. They are, yes.
Q. And by a fair number? It's 1.7 billion of the total number, correct?
A. Yes, sir. Yes, it is.
Q. And you didn't make any effort to determine whether Huntington or Cabell County have ever paid for such medical costs, correct?
A. No, I did not.
Q. And, in fact, you can't identify any -- any medical-related cost that Huntington or Cabell County pay, correct?
A. No, I cannot. I certainly did not make that effort here.
Q. And you didn't make any effort to determine whether the City of Huntington or Cabell County would -- would incur those medical costs in the future? You didn't make that determination, correct?
A. I did not. The category was part of Dr. Alexander's
redress model and I calculated it accordingly.
Q. So, let's keep focusing on this issue of treatment costs. Is it your understanding that today the City of Huntington and Cabell County do not provide healthcare services like OUD treatment?
A. I don't have a specific understanding on that issue at all. Again, the intent here was to calculate the redress model developed by Dr. Alexander. Just as you asked me questions about who would actually be paying for this or which defendants might be asked to pay for this abatement plan, I didn't make any determination as to whether or not these types of programs were being paid for currently.
Q. But I -- I really wanted to focus on who provides the service, not who pays.
A. Okay.
Q. Are you aware that the City of Huntington and Cabell County don't provide the service of OUD medical treatment?
A. I believe that I understand your question and I would say that the City of Huntington is not in the healthcare business.
Q. And Cabell County is not either, correct?
A. I don't know. I haven't looked at the specific relationships between the Hospital Authority and the county agencies and everything. So, I don't know specifically. Q. You understand that the cost data that Dr. Alexander
included in his redress model for OUD treatment are based on Medicaid reimbursement levels, correct?
A. Actually, I'm not. I did not look at the -- or study the source data and the derivation of the costs that Dr. Alexander provided. He provided the cost data in a format that is generally accepted for my use. And then, I calculated my values based upon the input that he provided.
Q. If you look at his redress model for the -- I think it's Category 2B, correct? If you look at his redress model, I think you can see that the cost items he provided were based on Medicaid reimbursement levels. But let me ask you to confirm that.
A. And that was 2-Bravo, correct?
Q. 2-Bravo, yes.
A. Okay. Sorry. There's just a little bit of an echo here. I hear Vs instead of Bs.
Q. Could be me.
A. Okay. I have the 2 B open.
Q. And can you see there that the cost sourcing that Dr. Alexander provided is based on Medicaid reimbursement rates?
A. Could you point me directly to where you're referring to in the redress model?
Q. Yes.
A. This -- this particular tab carries over, I think, four of these large pages.
Q. Yes. If you -- if you go to -- so, are you in 2B?
A. 2-Bravo, yes.
Q. Yes. And if you go to the third page of 2-Bravo, there's a category of suggested costs.
A. Right below the blue box that says OUD treatment drug costs?
Q. Just above it.
A. Yes. Yes, I do see it. Yes.
Q. And do you see the cost items there, the sourcing, are based -- are based on Medicaid reimbursement levels?
A. I don't see the word Medicaid anywhere in that blue box paragraph.
Q. Let me -- let me ask you to look a little further down. Do you see there's references to Buprenorphine and Methadone treatment?
A. Yes. Yes, I do.
Q. Do you see there's references there to Medicaid?
A. I do, yes.
Q. Reimbursement levels. And do you -- do you understand -- you don't have an understanding, or not, as to whether or not Dr. Alexander based his costing for the treatment levels on Medicaid reimbursement levels? You don't know one way or the other?
A. No, sir, I do not.
Q. Are you aware that treatment for OUD is a medical cost
that is subject to insurance, whether by Medicaid, or by other forms of health insurance?
A. No, I'm not aware of that.
Q. So, you don't know one way or the other as to whether insurance applies to medical treatment for OUD?
A. No. I've never examined that.
Q. And do you know one way or the other whether Medicaid applies to treatment for babies born with NAS?
A. No. I've not investigated that either.
Q. So, let's -- if I -- if I look at the four largest items here in your summary sheet --
A. Sure.
Q. The four largest items, the first one is treating Opioid Use Disorder. That's 1.7 billion, right?
A. That is correct, yes.
Q. And then, the next item down, 2 C , which is 300 million, is Managing Complications Attributable to the Epidemic. Do you see that?
A. I do, yes.
Q. And that's for treatment with people with HIV, Hepatitis C, and other bloodborne diseases, correct?
A. Just a moment just to review. There are multiple health conditions which are identified here. It looks like Hepatitis C, HIV, and endocarditis are specifically identified, yes.
Q. So -- so, those are also medical conditions that would be subject to treatment under this redress model, right?
A. Yes. Costs for the treatment of those conditions are included in the redress model.
Q. Right. So, if we take those two together, and I recognize what you've said, that you're not sure whether insurance applies to these categories, but if we take those two together, the 1.7 billion and the 300 million, if insurance applies to that, that would apply to about \$2 billion dollars of the total costs, correct, if insurance applies?
A. I don't feel comfortable in making such a conclusion because I'm -- I don't know if you're asking me in the assumption from the hypothetical that all of the costs are being paid by Medicare. So, I would -- I would answer your question by saying if the assumption is that all of these costs are irrelevant, then we could add those together and then they would be excluded, but --
Q. No, I'm not -- I wasn't asking if they are irrelevant. I was just -- I was really trying to confirm, and I am asking you to assume something.
A. Okay. Please explain.
Q. I'm asking you to assume that those two categories are subject to insurance, whether it's Medicaid, private health insurance, other forms of insurance. And there are other
witnesses who have testified about this question.
A. Sure.
Q. I'm asking you to assume that if that's true, that would amount to about $\$ 2$ billion dollars of your total costs estimated here?
A. See, I'm not -- I'm not comfortable with that because even in insurance plans there are 80/20 plans and some insurance plans aren't that good.
Q. I'm asking you to assume it, sir.
A. Assume a hundred percent coverage and that someone else would be paying for these types of things?
Q. Yes.
A. Then the total would be $\$ 2$ billion dollars because $\$ 300$ million plus $\$ 1.7$ billion is $\$ 2$ billion, yes.
Q. And let me ask you, also, there's a line entry at -the next largest item, if I look at your total --
A. Sure.
Q. The next largest item is one for families and children. Do you see that?
A. I do, yes.
Q. And that's -- that's the next largest item, the \$212 million dollars, correct?
A. Yes, it is.
Q. And that -- that relates to parent-child interventions and foster care services and the like, correct?
A. I would agree with that generalization, yes.
Q. And you're aware that the State of West Virginia pays for foster care services, correct?
A. I am, yes.
Q. And you're also aware that the State provides and pays for all child welfare, family court and adoption services, correct?
A. I'm aware that there's a reimbursement rate that the State offers. I'm not in a position to say that that rate is adequate in funding the redress model that Dr. Alexander has identified.
Q. But you're aware that that category of family services is paid for by the State of West Virginia, correct?
A. There's a monthly stipend that the State pays for foster families and there's also a -- I wouldn't say it's a fee, but it's a payment that is made in support of adoptions.
Q. Let me ask you to look at the next largest item, which is the care for pregnant women, new mothers and infants, which is 4A.
A. Yes.
Q. That's the next largest item in your totals, right? It's $\$ 95$ million dollars?
A. It may be. I did not rank these in order of size, but I would agree. I would take your assumption, yes.
Q. For some reason, my eye went to the largest ones. So, when $I$ look at it, that -- confirm with me if I'm right, Mr. Barrett, that's the fourth largest item on your list?
A. That sounds right, yes.
Q. And that -- that $\$ 95$ million dollar figure applies to medical care and other forms of treatment for new mothers, babies born with NAS, and babies born with complications arising out of NAS, correct?
A. I believe the broad category is actually more general than that. So, for example, there are postpartum psychosocial services which are provided for new mothers. So, I couldn't tell you whether specifically these are just for NAS children, infants. I don't know.
Q. Do you have an understanding -- I'm looking now at your detailed category listing, so it has things like Prenatal Opioid Use Disorder Screening, Prenatal Psychosocial

Services, Postpartum Psychosocial Services, Interventions For Infants Exposed to Opioids in Utero. Do you have an understanding that those are generally covered by insurance, Medicaid and other forms of insurance?
A. No, I do not.
Q. Well, I will just ask you to assume again that if those are, so we -- so, I now want to add up these four categories. We've talked about treatment for OUD. We've talked about complications, which would include HIV,

Hepatitis C, other bloodborne diseases.
A. Uh-huh.
Q. And we've talked about treatment for children born with NAS, testing services around babies who might be exposed to opioids, mothers who are giving birth with Opioid Use Disorder.

If we assume that all of those are subject to insurance, and I'm asking you to assume it, what would that amount to? What would the total be? Be roughly $\$ 2.1$ billion dollars, correct?

MR. MAJESTRO: Your Honor, I have an objection. So, the assumption has nothing to do with the question he's asking. I just want to lodge that.

He's asking him to assume this coverage with insurance. He could also ask them to assume that all of the doctors providing those services wore red hats. What he really should be asking -- asking is what is the total of those numbers.

Whether or not they're covered by insurance is unrelated to what those services total, which is -- I understand that point, but linking those two together is -is creating an impression that is not -- that is contrary to the law and irrelevant to the question he's asking.

MR. HESTER: Your Honor, it seems like a perfectly legitimate question on cross examination to ask the witness
to make an assumption.
THE COURT: I agree. I'm going to overrule the objection, Mr. Majestro.

Go ahead, Mr. Hester.
We need to take a break when you get to a stopping point.

MR. HESTER: Sure. I can stop right now, Your Honor, if that's best.

THE COURT: All right. We'll take about ten minutes.

You may step down.
(Recess taken)
(Proceedings resumed at 3:43 p.m. as follows:)
BY MR. HESTER:
Q. Mr. Barrett, before the break I was asking you just a sum-up question.

I wanted you to assume that the treatment cost in line 2B for treatment -- people with opioid use disorder, the complications line for people with HIV, hepatitis and other blood-borne diseases, and the line for treatment of pregnant women and babies born with NAS, new mothers, et cetera, 4A, I wanted you to assume that those three items are subject to insurance. And could you add those together for me and tell me what that number would be?
A. Without having a calculator --
Q. It's approximately 2.1 billion; right?
A. 2.1 billion, yes, I would agree with that.
Q. And then if we took the line item that we talked before about the families and children, which is 212 million, which is provided for in terms of foster care, welfare services by the State of West Virginia, that's 212 million; right?
A. I'm sorry. I thought we already included that with the --
Q. No. I was taking the three items, the 1.7 billion, the 300 million for managing complications attributable to the epidemic, and the 95 million for pregnant women and new mothers, those three add up to 2.1 billion; right?
A. Yes, yes.
Q. And then if we took the 212 million that's covered by West Virginia foster care, child welfare services, and so forth, if we added that 212 to the numbers we've just talked about, it amounts to about 2.4 billion; correct?
A. Well, I think you've asked a couple of different questions in that question. I'm not willing to assume that the state or any other agency covers it. What I can agree with you is that 1.1 billion plus 200,000 is 1.3 billion.
Q. 2.3 billion?
A. 2.3 billion, yes. I'm sorry.
Q. Let's talk a little bit about how you calculated some of your costs.

You indicated -- in Appendix $M$ to your report you, you did a calculation for the item 2C, managing complications attributable to the epidemic from Dr. Alexander's plan; correct?
A. Yes, I did.
Q. And if you look at your calculations there, you came up with a yearly cost for endocarditis treatment, for IV drug users. In the first year that you have there you show an annual cost of 73,908 per person with endocarditis; correct?
A. Yes, I do.
Q. And if you look to the next page and you look at the bottom right, you calculated that cost by averaging three cost sources to get to a cost of about 61,000 in 2015 dollars; is that right?
A. I averaged the costs that Dr. Alexander provided. Dr. Alexander provided the three costs and I just simply took an average. As I testified to previously, I didn't take the high. I didn't take the low. I averaged and took the midpoint.
Q. So those three numbers that are shown there, source 1, source 2, source 3 for endocarditis treatment, those were provided to you by Dr. Alexander and then you averaged them? A. Yes.
Q. And then you moved that number up to 2021 dollars with an inflation rate; correct?

Ayme A. Cochran, RMR, CRR (304) 347-3128
A. Yes, I did.
Q. You didn't show the three sources here, but they, but they all come from Dr. Alexander's report; right?
A. Yes, they do.
Q. And if you look at Dr. Alexander's redress model, the source for the cost of $\$ 37,460$ was from West Virginia; correct?

And you can see it on the screen here, Mr. Barrett, a little easier perhaps. There's three sources. This is from Dr. Alexander's redress model. And source 2 is the 37,460. That's one of the source numbers you used in your calculations; correct?
A. Yes, it is one of the numbers, yes.
Q. And the other two numbers that you took from Dr. Alexander's redress model, one was a study of costs in North Carolina and another was in Ohio; correct?
A. I did not review the articles. I was provided with three different estimates and I averaged the three as I always would if $I$ was calculating the present value of a lifecare plan or calculating the value of an abatement plan. Q. Well, can you -- so you don't know whether those other costs are from out-of-state or in-state?
A. I'm not an expert. Even if I reviewed those articles, I really wouldn't be qualified to comment.
Q. If you had used the West Virginia specific number, the

37,460, instead of averaging the three, that would have dropped the endocarditis cost item by about $\$ 30$ million; correct?
A. It would, it would decrease by about half, roughly, moving from 60,000 to $\$ 30,000$.
Q. So it would cut the total cost you estimated from about 60 million to 30 million?
A. It would be a lower number, yes.
Q. And about 50 percent lower?
A. About half because the average was 61,000. This is 37,000. So it's -- it actually wouldn't drop it by an entire half. It would only reduce it by $\$ 23,000$ roughly.
Q. Let's look at another example if you could turn to Page 31 on the spreadsheet. Here this is for your pricing of transitional housing costs. Let me give you the reference number there. It's 3B3.
A. Okay, I have it.
Q. And you go through several steps to get to your estimate for the cost per person for transitional housing. And as one of your inputs you used the fair market rent for one- and two-bedroom apartments in Huntington; correct?
A. I did, yes.
Q. And you relied on 2015 data that you took from the City of Huntington HUD five-year plan; correct?
A. I did, yes.
Q. And that was a plan produced by the city?
A. And submitted to the U.S. Department of Housing and Urban Development.
Q. And using that approach, you priced a one-bedroom apartment at $\$ 959$ in 2015 dollars; right?
A. Yes, that is correct.
Q. And a two-bedroom apartment you priced at $\$ 1,156$ in 2015 dollars; correct?
A. Correct.
Q. Are you aware that according to the HUD data, the fair market rent for the Huntington metro area in 2015 was about $\$ 519$ for a one-bedroom apartment?
A. Well, as this was an abatement plan for Huntington, I utilized Huntington costs. I didn't assume that any of the housing would take place in rural Kentucky, which includes counties included in the Huntington metropolitan statistical area.
Q. So do you know whether the rent in the Huntington metro area is different from the rent outside of Huntington?
A. Clearly, it is. This was a document that was submitted to the same agency that you're asking me about with regard to the Huntington MSA.

The City of Huntington from this study reported that their fair market rent value for a one-bedroom was $\$ 959$ per month and a two-bedroom was $\$ 1,156$ per month.

Ayme A. Cochran, RMR, CRR (304) 347-3128
Q. Okay.

MR. HESTER: May I approach, Your Honor?
BY MR. HESTER:
Q. Mr. Barrett, we've handed you a document marked as

MC-WV-2301 which is the HUD fair market rent for
Huntington for FY 2015. Do you see that?
A. I would disagree with you that it's for Huntington.

This is the Huntington/Ashland/West Virginia/Kentucky/Ohio metropolitan statistical area which includes Boyd County, Kentucky, Greenup County, Kentucky, and Wayne County, West Virginia, --
Q. Okay.
A. -- as well as Lawrence County, Ohio.
Q. So -- okay. I, I understand what you're saying. But the cost in which you used was about double this one; right?
A. Based upon data from the similar source specific for Huntington, it was -- I would agree with that, yes, not quite double for a two-bedroom, but approximately \$1,000 a month, yes.
Q. Let's look at another example.

Dr. Alexander's model includes continuing medical education for prescribers and practitioners. I think you discussed that earlier; right?
A. And that was tab 1A2?
Q. Yes. I'm just going to ask you a few general questions
first.
A. Okay.
Q. But just to confirm that one of the redress model elements is continuing medical education for prescribers; correct?
A. Yes, it is.
Q. And to calculate the cost for that item, you multiply the total hours of continuing medical education times the median hourly wage for physicians and other prescribers; correct?
A. The specific occupations were identified by Dr. Alexander in the redress model. I then estimated the median annual -- or excuse me -- the median hourly wage in this case for the occupations that he identified.
Q. So, in other words, to break that down a little bit, this is for people who would receive continuing medical education. And you applied a wage rate for people who would be undergoing that continuing medical education. Correct?
A. It seems to be the theory that Dr. Alexander is proposing that these individuals would be missing out on work and, therefore, need to be compensated for the time that they're missing.
Q. Are you aware of any profession where practitioners are paid to attend continuing medical education?
A. I think you're looking at it incorrectly. The way that Ayme A. Cochran, RMR, CRR (304) 347-3128
this has been modeled, as I understand it, would be an opportunity cost.

The hours that these medical professionals are not being able to provide the professional medical services to the area, they would be missing out on compensation because of the need to have the training identified in the redress model. They can't be in two places at two different times.

That's what an economist does. That's what we do. When I talked earlier this morning about identifying how we make choices in a world of scarce resources, this is a classic example of that. And the principle of opportunity cost is well established in the study of economics.

So if these wages are missing for these folks because they're not at work and they're getting the continuing education hours, well, then, they're lost.
Q. Let me break it up into two parts.

In the analysis in the answer you just gave, who suffers the opportunity cost? The doctor; correct?
A. I'm not in a position to say who the loss is to. I'm simply calculating the value of the redress model.
Q. Well, okay. But the opportunity cost of somebody who's attending continuing medical education is the doctor who's not otherwise available to be working; correct?
A. I would agree with that, yes.
Q. And, so, who's incurring that opportunity cost? The
doctor; correct?
A. The doctor would be, but also the medical providers in the area. So if there was a clinic, a hospital that had to staff a position because an individual practicing there was off getting the continuing education training, then that full-time equivalent employee or those hours need to be replaced.
Q. And that opportunity cost would not be incurred by the City of Huntington or Cabell County; correct?
A. I don't know whether or not all or any of the cost would be specific to the county or city.
Q. Let me go back to my earlier question which is a narrow one. You're not aware of a profession that pays professionals to attend continuing education programs, are you?
A. Individuals who are employed are sometimes paid to attend continuing education. As part of their job, they receive training hours.

A classic example of that are educators. There are continuing education or $C E$ days which are built into the budget and the school calendar every year. They're paid for those.

So, yes, there are ample examples of where individuals are paid to receive continuing education.
Q. And in your profession, you have certifications or
requirements that you engage in continuing education; correct?
A. Yes, I do.
Q. And do you ever get paid by anybody for attending those when you're not presenting but just when you're participating in those programs?
A. Me, no.
Q. We talked earlier about the treatment costs of
\$1.7 billion for treatment with people with OUD. That's the sum over the 15 years; correct?
A. That is correct, yes.
Q. And, so, that's meant to provide treatment roughly for about 3,000 people a year. And we discussed that before. Correct?
A. Yes.
Q. So the yearly cost is about $\$ 113$ million? $I$ won't hold you to the exact math, but that's in the range?
A. Based upon the first year calculation of 2021, it's $\$ 91$ million, almost $\$ 92$ million. Treating opioid use disorder?
Q. But it goes up over the period; right?
A. True, it does go up but that's based upon the future value calculations on the inflation rate. So that's not considered in Dr. Alexander's model when he was recommending the costs and the per patient treatment costs as a unit.

I'm not comfortable with saying it's 113 or any other
amount other than the first year is approximately 92 million.
Q. All right, we'll take that number. So 92 million in the first year?
A. Uh-huh.
Q. Are you aware that Dr. Lyn O'Connell testified recently that PROACT has the capacity in Cabell/Huntington to treat between 500 and 700 people with OUD at any one time?
A. I'm not. But, again, that issue goes to space available and providers at the hospital. It doesn't address who pays for those. The intent of this redress model and my calculations are to calculate the total costs of that type of treatment.
Q. But I, I think it was a narrow question. Are you aware that she testified to that point, that PROACT has the capacity to serve about 500 to 700 people a year in

Cabell/Huntington, people with OUD?
A. No, I'm not aware of that.
Q. Are you aware that the PROACT operating budget for 2019 was about $\$ 800,000$ ?
A. No.
Q. We've discussed previously, I think, that one element of the treatment cost that you've calculated here is based on the duration of treatment; correct? And I -- if it helps, I can point you to your spreadsheet on this.
A. Tab 2B; correct?
Q. Yes. We're back to 2 B again.
A. That's correct, yes, Dr. Alexander provided a daily cost.
Q. And the assumption in Dr. Alexander's redress model was that people in outpatient treatment would receive 365 days of treatment; correct?
A. I listened to his testimony yesterday, and I don't think that's what he meant. In fact, he attempted multiple times to explain his response to that.

These are clinical contacts that are made, not necessarily an individual that goes in for treatment for the entire 365-day year.
Q. Well, how do you understand the 365 -day entry in your calculations?
A. He provides an average daily cost for outpatient initiated care in the first item of 2 B 1 of $\$ 72$ approximately in 2021 value. And I was informed that there would be 2,049 individuals that would be requiring that, and that the number of days, days in a year or treatment days in a year are based upon those inputs would be 365 .

Dr. Alexander was very clear in his report on that and he testified yesterday, explained that issue very clearly.
Q. So it's assuming 365 treatment days; correct?
A. Multiplied by the number of individuals which I
understand is weighted approximately by the number of individuals in each phase of the care.
Q. And for the outpatient treatment line, it's -- the estimate is $\$ 970$ million over the 15 years; correct?
A. Yes, sir, it is.
Q. And if we changed the number of treatment days from 365 days to 71 days, that would drop the $\$ 970$ million cost figure to about $\$ 188$ million; is that right?
A. It would, it would decrease, yes.
Q. To about 188 million?
A. I'm not prepared to do that type of math in my head.
Q. Do you want me to give you a calculator?
A. Sure.

MR. HESTER: May I approach, Your Honor?
THE COURT: Yes.
BY MR. HESTER:
Q. So, Mr. Barrett, I just wanted to confirm what the number would be if we changed that assumption from 365 days to 71 days, what that outpatient treatment line would be.
A. How many days again? I'm sorry.
Q. 71 .
A. 71 days. Because the numbers are dynamic, we would have to actually do the calculations on a year-by-year basis because the number of individuals are decreasing across time
through the 15 years. We also have the future value calculations that are affecting inflationary rates.

But for the first year, based upon 71 days, the first year of 2021 would be roughly $\$ 10.5$ million.
Q. As compared to?
A. $\$ 53$ million.
Q. And could you multiply your total, your $\$ 970$ million by a ratio of 71 divided by 365 which would create a ratio of .194. Can you just multiply your total by that?
A. I would have to do that math elsewhere. I'm not comfortable with doing that math right now on the stand.
Q. Okay. So -- but you recognize that the 365-day assumption, if it's dropped, that's going to drop the cost for this outpatient category; correct?
A. Sure, yes, absolutely.
Q. And, and if the assumption of the duration of treatment for these other treatment categories, if you assume a shorter duration of treatment, that also drops those costs; correct?
A. It would, yes.
Q. Your cost estimate includes a separate estimate for the net present value of the total cost, Mr. Barrett. I believe you talked about that earlier today. Right?
A. I did, yes.
Q. And that's intended to account for the fact that if a
lump sum were provided to pay for this plan, that lump sum would be invested and would accumulate interest. I believe you said that.
A. That's the theory behind reducing an award to present value, yes.
Q. And you've never previously had a case where you employed inflation indices to increase future expenditures but you did not reduce your calculations to net present value; correct?
A. I would agree with that generally.
Q. And if a lump sum payment were made based on your calculations, it needs to be reduced to present value; correct?
A. If a lump sum is awarded and -- there are some assumptions that are built into that. The assumption is that the money is invested and will earn interest and that the defendant would be credited with the offsetting interest earnings.
Q. But the -- but that's a, that's a very common practice. In any lump sum payment, there would be a net present value applied when you're talking about a future stream; right?
A. Again, generally in my experience, yes. When there's a lump sum, the interest earnings are deducted from the amount to be restored.
Q. Mr. Barrett, you understand that Dr. Alexander's
redress plan includes treatment for people with OUD who develop that OUD in the future who do not have OUD as of today; correct?
A. Not specifically, no.
Q. Did you say you listened to Dr. Alexander's testimony? A. I, I did listen to his testimony. And I do recall him testifying about these being dynamic population numbers and that individuals would go out of the, the abatement plan and new people would come into the abatement plan. But I have no distinct knowledge about the mechanics or the theory behind his model.
Q. But you do understand that people are included in the redress model that you calculated who develop OUD in the future?
A. I would have to go back and actually look at his testimony from yesterday. I just vaguely remember that being discussed, that there were additions to and people going out.
Q. If, if there are people who are added who have -- who develop OUD in the future or part of this redress plan that you've costed out or calculated out, you don't have a way to separate the cost attributable to people who develop OUD in the future from people who have OUD as of today; correct?
A. I do not, no. And as I understood his testimony yesterday, it wouldn't be appropriate to do that in this
model.
Q. But I'm really just asking, you don't have any way to do that? If we, if we asked you to separate out the costs that you set out here between people who develop OUD in the future versus people who have OUD as of today, you don't have a way to separate those costs?
A. I do not.
Q. And, likewise, if we look backwards and if we said how much of this cost is for people who had OUD as of 2016 or 2015 or 2013 or any year, you don't have a way to determine how much of the cost is allocated that way?
A. I do not, no. I'm relying on Dr. Alexander's opinions on those matters.
Q. Thank you, Mr. Barrett. That's all I have. Thank you. THE COURT: Is there any other cross?

Ms. Wicht?
MS. WICHT: No, there's no questions from us, Your Honor.

THE COURT: Mr. Nicholas?
MR. NICHOLAS: No questions, no.
THE COURT: Do you have any redirect, Mr. Majestro?

MR. MAJESTRO: Yes.
REDIRECT EXAMINATION
BY MR. MAJESTRO:

Ayme A. Cochran, RMR, CRR (304) 347-3128
Q. To confirm, Mr. Barrett, the methodology you used in this case is similar to methods you've applied before?
A. Yes. In all the cases that I work on, these methodologies are the same.
Q. And it wasn't clear in your testimony. Have you worked on cases with reports larger than 34 million?
A. I can't recall specifically what the amounts are, but I've had big cases over the years including mountaintop mining. I've worked just very recently on a multi-billion-dollar case involving class action of individuals. So, yes, I have worked on a lot of big cases.
Q. And my understanding from our discussions was that that's a case that's happened after your deposition?
A. The, the class action case that -- yes, back in the spring it happened, yes.
Q. This spring?
A. This spring of 2021, yes, sir.

MR. MAJESTRO: Let's pull up Slide 14 again. BY MR. MAJESTRO:
Q. The questions Mr. Hester asked you about all of the things you didn't do, that's consistent with what we went through on direct as reflected in Slide 14. Isn't that true?
A. That is true, yes, sir.
Q. And the things you did not do, that wasn't an oversight, was it?
A. No, it was not.
Q. There's a reason you didn't do these things?
A. That is correct, yes.
Q. And, generally, can you categorize the reason that you didn't?
A. Generally, I would say that most of these issues have to do with areas of expertise that are beyond my own. I'm not qualified to perform that type of work.
Q. And from day one when you were first retained, the idea was that you were going to use Dr. Alexander's redress model and calculate the cost?

MR. HESTER: Object as leading.
THE COURT: I'll overrule that. Let's get through this.

THE WITNESS: Yes, the understanding that I had was that Dr. Alexander was developing a redress model and that I would be calculating the value of that. BY MR. MAJESTRO:
Q. Were you asked to second-guess his numbers?
A. No.
Q. Were you asked to apply discounts to his numbers?
A. No.
Q. Are you qualified to second-guess Dr. Alexander's
numbers?
A. No, I am not.
Q. But explain again to the Court why you are qualified to do the work you did in this report. How is that different? A. It's a very specialized world that we live in. And the education and training that $I$ have is specific to the calculation of economic damages as it relates to the future value projections of medical items or wages or replacement costs, and then calculating the present value of those costs.

I'm not an expert in any medical field. I'm not an expert in public health. I'm not an expert in epidemiology. And I need to rely upon individuals who do have expertise in those related fields to provide me with the foundation opinions that I need to be able to complete the work.

Again, going back to the three things, I need to know what the item is, how much it costs, and how many are needed so that I can do the job that you've asked me to do.
Q. In your direct testimony we talked about the concept of related experts. As a forensic economist, do you generally investigate the opinions of qualified and related experts to determine whether or not they're correct?
A. No. I'm not qualified to determine the qualifications of an expert or the validity or reliability of their expert opinions. It's beyond my field of expertise.
Q. Now, we've had a lot of discussion and cross-examination about Medicaid. When you cost medical services in your role as a forensic economist, do you generally use Medicaid reimbursement levels?
A. Actually, I don't utilize any levels. The levels all come from the lifecare planner, or in this case the redress model developer, Dr. Alexander.
Q. Are you familiar with the, the levels that the lifecare planners use, Medicaid levels?
A. No, I'm not.
Q. Do you have an understanding about whether the prices for medical services Medicaid pays are generally higher, average, lower, or the lowest in the range of medical services prices?
A. Actually, I do know the answer to that as $I$ was working on the other class action case that $I$ was speaking about and I learned that the Medicaid reimbursement rates are quite low.

MR. HESTER: Your Honor, he's testifying about another case where he's serving as an expert where we've not had any chance to examine his opinions. He said previously he wasn't familiar with this whole subject.

THE COURT: Well, that's right, isn't it, Mr.
Majestro?
MR. MAJESTRO: I don't think he said he wasn't
familiar with it. No one has asked him if he's familiar with Medicaid prices and what they are. I think he just testified that he is familiar.

MR. HESTER: It doesn't seem appropriate for him to be relying on information that he's gained as an expert in another case to be answering here.

MR. MAJESTRO: I think it's perfectly appropriate for an expert to rely on their education, training, and experience.

THE COURT: Mr. Ackerman.
MR. ACKERMAN: I would add, Your Honor, that I believe that questioning on cross-examination opened the door to this regardless of whether or not it was in the report. Mr. Hester walked into the question of Medicaid reimbursement, and it would be appropriate on redirect to probe the witness's knowledge as to that.

THE COURT: Overruled.
Go ahead, Mr. Majestro.
BY MR. MAJESTRO:
Q. I think you answered the question that you were -let's go back again. What is your knowledge about Medicaid prices?
A. They're very low compared to the market rate.
Q. And the endocarditis -- there were three numbers that Mr. Hester put up on the screen from Dr. Alexander's report.
A. Uh-huh.
Q. Was the West Virginia number the Medicaid number?

MR. HESTER: I think the witness specifically said
he did not know where those numbers came from.
THE COURT: I think that's right.
BY MR. MAJESTRO:
Q. I'll ask you to go back and look at the source and see if you can read it for us where Dr. Alexander's, where Dr. Alexander's source was.
A. Could you refer me to which tab that was under? Was it 2B?
Q. I think it's 2C.

MS. WICHT: Your Honor, the witness on cross was specifically pointed to these three articles and disclaimed the ability to distinguish between them in any way. So I'm not -- I'm not sure why on redirect he could look at the same three articles and suddenly be able to distinguish between them.

MR. MAJESTRO: I'm just asking him to read the title of the West Virginia article.

THE COURT: Where are you going with this?
MR. MAJESTRO: Your Honor, if you look at the -- I mean, the title is on the screen. It's obvious Medicaid data. And he can confirm that by reading the title of the article and the source. That's all I'm asking.

THE COURT: Go ahead, Ms. Wicht.

MS. WICHT: I'm sorry. The titles of the articles, at least in one sense, also indicate the geographic area of the studies which the witness claimed to be unaware of on cross-examination. So we would object.

MR. MAJESTRO: I'm just going to ask him to read the title of the --

THE COURT: Overruled. Let's do it.

THE WITNESS: I just need to actually find it. I'm sorry.
(Pause)

Oh, I see it now, yes. I'll read the title of the article as requested.
"Increasing incidence of IV drug use associated endocarditis in southern West Virginia and potential economic impact."
Q. I'm not sure that's the right one.
A. Was it not? I'm sorry. That's why I need to know which tab we're looking at.
Q. All right. We'll move on.

THE COURT: Yeah. You've thoroughly confused him
now.

BY MR. MAJESTRO:
Q. I think we've confused this and maybe Mr. Burnett can bail me out on this while I ask my other questions.

But averaging cost is a -- is averaging cost a recognized methodology in forensic economics?
A. Well, we only have a couple of options with this. We could either calculate every single number in the lifecare plan or in the abatement plan like this, or we could make an assumption that a range of costs can be represented by a midpoint, and make that assumption that it is reasonable in the calculations. That's what I did.
Q. So the other alternative would be to calculate three numbers, for example, of that?
A. Exactly, and not just the low one, calculate the high one too.
Q. And you averaged those -- did you average those three numbers because Dr. Alexander gave those three numbers to you?
A. That's right, he did. Then I accordingly averaged the three.
Q. So you were asked questions about Cabell County and Huntington's funding of -- potential funding for the abatement plan. Are you aware that Cabell County and Huntington combined have a budget of only $\$ 87$ million a year?
A. I'm not aware of that, no.
Q. Well, assuming that's true, how many years of Cabell and Huntington spending their entire budget abating the
opioid epidemic would it take to fund Dr. Alexander's abatement plan?

MR. HESTER: Objection, Your Honor. I don't think Mr. Majestro is permitted to ask his witness to make assumptions like that.

THE COURT: Well, this is redirect. I'm going to allow it. I mean, I think it's arguably responsive to the cross. So go ahead, Mr. Majestro. BY MR. MAJESTRO:
Q. Do you need me to repeat the question, Mr. Barrett? A. No. I think I actually recall the question. And with an 87-million-dollar budget, if they spent every single dollar on abatement issues, they would have about six months until all of the money was gone.
Q. Okay. And how long would it take to -- how many years of budgets would it take to fund the $\$ 2.5$ billion abatement plan that we've talked about?
A. There aren't enough zeros on here, so I need to do some conversions to be able to do this.

## (Pause)

10,000 years.
Q. Okay. In your testimony in other cases do you deduct the cost of sources like insurance payments?
A. No.
Q. Mr. Hester asked you to make assumptions about various Ayme A. Cochran, RMR, $C R R$ (304) 347-3128
numbers in the spreadsheet. You don't know whether any outside parties currently cover any program in your spreadsheet; correct?
A. No, I do not.
Q. And to the extent there is coverage, you don't know whether that coverage funds Dr. Alexander's programs?
A. No, I don't know that, no.
Q. And were you asked to look for that information in this case?
A. No, I was not.
Q. The abatement plan and your calculations, there is a lot of data there; correct?
A. Yes, there is a lot of data.
Q. And, in fact, can you estimate how many tabs are on your spreadsheet?
A. I, I have actually not counted them, but there are I know 95 pages of worksheets that I have.
Q. Okay. And, so, in this case, the defendants presented some calculations. But it's fair to say that only a small -- that those are only a small portion of the overall data; correct?
A. Yes, we've only discussed representative samples of the calculations, not all of my calculations.

MR. MAJESTRO: Bear with me just a minute, Your Honor.

Ayme A. Cochran, RMR, $C R R$ (304) 347-3128
(Pause)
BY MR. MAJESTRO:
Q. For the OUD treatment, is it your understanding that Dr. Alexander is saying that 2,049 individuals who each will get treatment for 365 days each?
A. No, that is not my understanding of Dr. Alexander's input.
Q. What is your understanding of Dr. Alexander's input?
A. That the number of individuals requiring treatment is a weighted number which he arrived at, and that the 365 is just an annualization [sic] amount for the year and that the formula that he devised is properly calculated by taking the number of individuals times the daily rate times 365. That is spelled out very clearly in his redress model in specific rows of his report.
Q. And can you explain briefly what weight -- what you mean by weighting in this context?
A. I don't recall specifically. All I know is that there are different phases of treatment that the individuals would have, and that the overall daily rate or the average daily rate reflects that.
Q. Okay.

MR. MAJESTRO: Thank you, Your Honor. That's all we have.

MR. HESTER: No further questions, Your Honor.

THE COURT: Anything else of this witness?
MS. WICHT: No, Your Honor, no questions. We would ask to briefly address the Court once the witness is excused.

THE COURT: May Mr. Barrett be excused?
Thank you, Mr. Barrett. You're free to go and we appreciate you and good luck to you.

THE WITNESS: Thank you, Your Honor.
THE COURT: You're excused.
All right. I understand we have one more witness and that's the mayor. Is that right?

MS. WICHT: Your Honor, I'm sorry. We had asked if we could briefly address the Court after the witness was excused. Would that be acceptable?

THE COURT: Yes. Go ahead.
MS. HARDIN: It's going to be me, Your Honor.
The defendants would assert a Daubert challenge to Mr. Barrett for essentially the same reasons that we said on behalf of Dr. Alexander this morning.

Your Honor asked me a question during that argument as to whether or not Mr. Barrett was going to fill certain holes that I had said are apparent in Dr. Alexander's plan. I think we've seen he does not do that. All he's really doing is calculating costs based on inputs that he got from Dr. Alexander.

And his own slide I think very helpfully summarizes the Daubert argument as to why neither Dr. Alexander nor Mr. Barrett meet the fit requirement in this case.

He's not considering what's spent by the city or county. That was a very interesting exchange that Mr. Majestro had with the witness at the end about how much Cabell and Huntington would have to spend of their budget for how many years. I think the math was quite a bit off. But, regardless, I don't think --

THE COURT: I thought it was too.
MS. HARDIN: Yeah. I think it's -- I'm not a mathematician, Your Honor, but I think it might be about 30 years instead of 10,000 years.

But for whatever the point is, I think the city and county don't spend any money on addiction treatment and haven't. And there's no evidence that they will spend the money or have to. The evidence has been to the contrary, that it's state and federal government.

He's not subtracted out costs of the current spending. He's not attempted to allocate the costs among the defendants. He's not attempted to apportion the costs between prescription and illicit opioids.

Mr. Barrett reiterated that Dr. Alexander says that would be inappropriate. I think what Dr. Alexander testified to is it would be immaterial. I can tell you the
defendants certainly do not agree that whether their costs can be apportioned between prescription and illicit opioids or between their conduct and other defendants or non-defendants in this case is immaterial. It is the question in this case on the remedy section.

And he didn't attempt to calculate harms from the opioid epidemic. I'm not entirely sure what that means. And he doesn't opine on how it's going to be administered or who should be paying for it.

So all he's doing is calculating the costs of a program that Dr. Alexander comes up with that have no fit to this case, Your Honor.

Thank you.
THE COURT: All right. Well, I'll reserve my ruling on this.

Do you want to respond to that, Mr. Majestro?
MR. MAJESTRO: Yeah. I mean, I think I would just go through and say it wasn't his role to second-guess Dr. Alexander's redress model as he explained. His role was to rely on and find a related expert's, qualified related expert's testimony.

The opioid spending by the city and the county, current spending, those are irrelevant to the defendants' liability if we establish that they are a proximate cause of the opioid epidemic.

Ayme A. Cochran, RMR, CRR (304) 347-3128

Allocating among the defendants is certainly not the role of an economist. Apportioning costs between prescription and illicit opioids, we've had a lot of testimony about harm -- about these harms and whether or not they're related, the illicit opioids are related to the current harms or whether the prescriptions are related. That's a factual issue Your Honor has to decide.

Again, though, that's just part of the opioid epidemic. And if we establish that the defendants are a proximate cause or they contributed to the epidemic, they're responsible.

Calculating harms from the opioid epidemic, as Mr. Barrett said, those are, those are -- that is not -- was not his role. In fact, Mr. Farrell put on a witness last Friday who did -- or two Fridays ago who did -- maybe it was Thursday, Dr. McGuire, who did testify to those. That was his role. And how to administer the abatement plan spending is also not a factor in a forensic economist's report.

In the end, we don't believe -- we would reiterate the arguments we made in support of our collateral source motion. Your Honor, in ruling on that motion, said you were not taking a position either way, wanted to give us the chance to convince you one way or another. I suspect we will take you up on that Thursday when we argue directed verdict motions.

But at this point, Mr. Barrett calculated the cost of Dr. Alexander's model. He did so using proper forensic economic principles. We believe that Your Honor should and will consider that in ruling in this case.

THE COURT: Well, I'll consider the Daubert motion but I'm not going to rule on it today.

Let me ask where we go from here. We need to plan the rest of the week.

Mr. Nicholas.
MR. NICHOLAS: I was going to raise -- I was going to ask or raise the same thing. I think, if I understand correctly, there's one more witness. It's Mayor Williams. He's coming tomorrow morning at 9:00. I imagine he'll be through by -- certainly in the morning.

And, so, I think the parties among ourselves would be very comfortable taking the balance of that -- of tomorrow off and arguing motions for judgment on partial findings to Your Honor on Thursday if that's okay with you.

THE COURT: Mr. Farrell, you're standing up. Do you want to get your oar in the water here?

MR. FARRELL: I think I agree.
THE COURT: Well, I agree. The prospect of taking an afternoon off is very appealing to me. So -- and then the --

Mr. Hester, your witness will be on on Friday; is that

MR. HESTER: That's right, Your Honor.
THE COURT: Can we get him on and off in a day? I understand he needs to be gone.

MR. HESTER: Yes. And I think we've worked it out with the plaintiffs and we're going to try to have a tight direct. And, so, the plan is we can get him on and off in a day.

THE COURT: Okay. Now, the only other thing if we do the Rule $52(\mathrm{c})$ motions on Thursday, how much -- I'd like to put some kind of time constraint on that. Can you give me an idea of what might be appropriate?

MR. FARRELL: I'm thinking, Judge, maybe 15, 20 minutes.

THE COURT: Well, Mr. Nicholas, do you have a different opinion than that?

MR. NICHOLAS: I do. We do. I think it will take a little time. Maybe we can confer before I respond and try to provide an intelligent plan to you that doesn't take the whole day but takes a portion of the day.

THE COURT: Do you want to take like 10 minutes to confer and then I'll come back and we'll nail this down?

MR. NICHOLAS: That would be great.
THE COURT: We'll do the mayor tomorrow and then we'll take the rest of the day to do something else, however
much time that is. We'll come back on Thursday, do the Rule 52 (c) motions and then take the defense --

MR. HESTER: Dr. Gilligan.
THE COURT: -- on Friday, yes. We'll take a ten-minute recess and you can talk and give me a plan when I come back.
(Recess taken from 4:32 p.m. until 4:41 p.m.)
THE COURT: Are you the designated spokesman, Mr. Nicholas?

MR. NICHOLAS: I am. Don't shoot the messenger. But we would, we would appreciate the opportunity to present for a total of two and a half hours which sounds like a -it may sound like a lot but, number one, it's been a six-week trial and, number two, we do have in addition to the three, the three defendants, we'll make separate presentations in addition to which there will be something said about causation generally, you know, followed by each of us talking about conduct for each of us individually, and then there will be something on abatement.

And, so, you know, it's essentially around five separate presentations. So it won't be as, it won't be as boring as it sounds like it will be. And I think two and a half hours will do it for us.

THE COURT: Well, that's 150 minutes. That would be 50 minutes -- my math is a little bit better than Mr .

Barrett's. But you can divide the time up however you want to as far as I'm concerned.

MR. NICHOLAS: Yeah. That's what we intend to do.
THE COURT: How much time do you want to rebut,
Mr. Farrell?

MR. MAJESTRO: He's going to say ten minutes but, Your Honor, we would appreciate equal time.

MS. KEARSE: We don't have to use it, but we'd like to have it.

THE COURT: Okay. Here's what I'm going to suggest we do. We'll start at 9:00, do the two and a half hours for the defendants which will take us to 11:00. And then we can come back at like 1:00 and hear from the plaintiffs.

Does that make -- does that sound good to everybody? MR. NICHOLAS: That sounds fine.

MS. MAINIGI: That's fine, Your Honor.
MR. NICHOLAS: We didn't, we didn't discuss among ourselves whether we want to request any, any rebuttal time. Let me see whether anyone would like the opportunity for us to -- maybe we could --

MS. MAINIGI: If we save some time.

MR. NICHOLAS: Yeah. If we save time, we may ask to rebut, but we'll stick to the two and a half hours. THE COURT: Okay, very good.

Ayme A. Cochran, RMR, CRR (304) 347-3128

MR. MAJESTRO: He was talking to me. I'm sorry. I missed what you said, Bob.

MR. NICHOLAS: I just said we may reserve a little of our two and a half hours for a short rebuttal at the end, but we won't take more than the two and a half hours.

MR. MAJESTRO: That's fine.
THE COURT: Okay. We'll do the mayor starting at 9:00 tomorrow and take the balance of the day off after we get through him and come back and do the Rule $52(\mathrm{c})$ motions on the time schedule we talked about. And then Friday we'll set aside for the first defense witness.

MR. FARRELL: And we have Monday, the federal holiday, and Tuesday off and we start again Wednesday?

THE COURT: Come back on Wednesday, yeah.
MR. ACKERMAN: One quick matter, Your Honor. THE COURT: Yes.

MR. ACKERMAN: So there was questioning of Dr. Alexander earlier today concerning the Rhode Island and Washington expert reports and whether the Homer article was in it.

Counsel acknowledged that the Homer article appeared in the Rhode Island report. We just want to make sure the record is clear. The Homer article was also cited in the Washington -- Dr. Alexander's Washington report at Footnotes 59 and 632. So we wanted to make sure that was clear on the
record for the Court.
THE COURT: Make sure I'm clear. He cited the Homer articles using a different model, but he used the Homer model in this case. Is that right?

MR. ACKERMAN: I think, Your Honor, what his testimony was -- and, frankly, I would want to go back and look at the transcript. What his testimony was that he used -- he relied on the Homer model, but also for other models that were in his report when doing his model for this case.

MR. HESTER: Your Honor, I would just simply say I think he was very clear that he used an Apollo model in the other three cases. He used a Homer model here and did not submit an Apollo model in this case. I think that was the clear thrust.

As I mentioned to the Court earlier, in the heat of battle I misstated this point around the Rhode Island report and it's been raised with me, yes, in Washington as well there's a citation to the Homer article, but I don't think that's the real point of what we're trying to get to there.

THE COURT: Mr. Farrell.
MR. FARRELL: Yeah. I think I was going to concur with the very last thing. I think these are two separate points. The Apollo modeling is separate from the point that we're trying to make that the Homer reference that we -- is
in our report is also in other State Attorney General action reports that he published.

THE COURT: Well, his testimony is what it is and at some point, I'll read it. So --

MR. HESTER: Yes, Your Honor.
THE COURT: Anything else before we adjourn until
tomorrow?
(No Response)
THE COURT: Okay. I'll see everybody in the morning.
(Trial recessed at 4:46 p.m.)

CERTIFICATION:

I, Ayme A. Cochran, Official Court Reporter, and I, Lisa A. Cook, Official Court Reporter, certify that the foregoing is a correct transcript from the record of proceedings in the matter of The City of Huntington, et al., Plaintiffs vs. AmerisourceBergen Drug Corporation, et al., Defendants, Civil Action No. 3:17-cv-01362 and Civil Action No. 3:17-Cv-01665, as reported on June 29, 2021.
$\underline{S \backslash A y m e ~ A . ~ C o c h r a n ~}$
Reporter
$-$

Ayme A. Cochran, RMR, CRR (304) 347-3128

Case 3:17-cv-01362 Document 1431 Filed 06/29/21 Page 220 of 253 PageID \#: 59497


| \$ | \$164 ${ }_{[1]}-105: 12$ $\$ 166_{[1]}-105: 18$ | $\begin{aligned} & \$ 3,651,622.00[1]- \\ & 138: 11 \end{aligned}$ | $\begin{aligned} & 137: 18 \\ & \$ 433,000.00 \end{aligned}$ | $\begin{aligned} & 140: 20 \\ & \$ 90[2]-116: 15, \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| \$1,000 [1] - 186:18 | \$168,610.00 [1] - | \$3,941,041 [1] - | 134:7 | 116:20 |
| \$1,012,684.00 [1] - | 141:7 | 109:12 | \$48,247,194 [1] - | \$91 [1] - 190:18 |
| 139:20 | \$17,924,519 [1] - | \$3,941,041.00 ${ }_{[1]}$ - | 116:9 | \$92 [1] - 190:19 |
| \$1,151,591.00 [1] - | 107:6 | 141:11 | \$5,229,383 [1] - | \$95 [2] - 177:23, 178:5 |
| 134:1 | \$170 [1] - 105:20 | \$30 [1]-184:2 | 107:10 | \$95,700,232 [1] - |
| \$1,156 [2] - 185:7, | \$174 [1]-105:22 | \$30,000 [1] - 184:5 | \$5,437,224 [1] - | 108:18 |
| 185:25 | \$174,428 [1] - 92:18 | \$30,037,783.00 [1] - | 106:25 | \$959 [2] - 185:5, |
| \$1,303,333.00 [1] - | \$178 [1] - 105:24 | 137:21 | \$5,544,455.00 [1] - | 185:24 |
| 132:15 | \$183 [1] - 106:1 | \$30,991,399.00 [1] - | 132:18 | \$970 [3] - 193:4, |
| \$1,306,672.00 [1] - | \$183,137,911.00 [1] - | 135:8 | \$5,845,435.00 [1] - | 193:7, 194:7 |
| 130:25 | 134:21 | \$300 [1]-176:13 | 133:18 | \$971,357,386.00 [1] - |
| \$1,475,808.00 [1] - | \$188 [2]-106:3, 193:8 | \$301,682,032 [1] - | \$519 [1] - 185:12 | 134:15 |
| 135:13 | \$19,554,622 [1] - | 107:16 | \$53 [1] - 194:6 | \$986,146.00 [1] - |
| \$1,509,602.00 ${ }_{[1]}$ - | 107:8 | \$309,476.00 ${ }_{[1]}$ - | \$538,834 [1] - 107:2 | 131:25 |
| 140:16 | \$192 [1]-106:5 | 133:6 | \$538,834.00 [1] - |  |
| \$1,549,023.00 [1] - | \$197 [1] - 106:7 | \$32,977,433.00 [1] - | 131:16 | 0 |
| 137:9 | \$2,262,182.00 [1] - | 139:17 | \$550,791.00 [1] - |  |
| \$1,644,299.00 [2] - | 138:21 | \$33,695,230.00 [1] - | 136:20 | $0{ }_{\text {[1] }}$ - 138:8 |
| 131:22, 132:21 | \$2,320,177.00 [1] - | 135:5 | \$6,185,398 [1] - | 0-5 [1] - 139:7 |
| \$1,686,285.00 [1] - | 137:15 | \$33,990,116 [1] - | 107:18 | 0.04[1] - 150:16 |
| 136:14 | \$2,331,760.00 ${ }_{[1]}$ - | 108:20 | \$6,870,609.00 [1] - | 0.6 [2] - 87:20, 92:15 |
| \$1,700,805.00 [1] - | 136:7 | \$34 [2] - 144:11, 145:5 | 136:23 | 00907 [2]-2:5, 2:14 |
| 138:18 | \$2,463,640.00 [1] - | \$343,540.00 [1] - | \$60,000.00 [4]-152:3, |  |
| \$1,705,896,182 [1] - | 139:13 | 136:17 | 152:8, 152:12, | 1 |
| 107:14 | \$2,523,748,170 [1] - | \$35,972 [1] - 107:4 | 152:23 |  |
| \$1,802,428,070 115:14 | 118:4 | \$35,972.00 [1] - | \$63,355,918.00 [1] - 140.4 | $\begin{gathered} 1[12]-59: 15,75: 22, \\ 85: 25,86: 24,87: 1, \end{gathered}$ |
| \$1.89 [1] - 116:20 | \$2,544,446,548 106:12, 109:15, | \$37,000 [1] - 100:14 | \$7,331,972.00 [1] - | 92:24, 93:21, 95:1, |
| \$10,377,665 [1] - | 118:14 | \$37,460 [1] - 183:6 | 137:12 | 109:22, 115:19, |
| 107:20 | \$2,589,054,447 [1] - | \$37,662 [1] - 100:7 | \$72 [1]-192:17 | 116:2, 182:20 |
| $\begin{aligned} & \$ 10,491,017.00 \\ & 140: 12 \end{aligned}$ | 117:9 \$2,598,789,021 [1] - | $\begin{aligned} & \$ 371,953,917.00 \\ & 134: 18 \end{aligned}$ | $\begin{aligned} & \$ 72,912,030.00 \\ & 135: 2 \end{aligned}$ | $\begin{aligned} & \text { 1,000 [3] - 94:2, 95:9, } \\ & 152: 16 \end{aligned}$ |
| $\begin{aligned} & \$ 102,070,764.00[1] \text { - } \\ & 135: 16 \end{aligned}$ | 117:19 \$205,077.00 [1] - | $\begin{aligned} & \$ 4,081,672.00 \\ & 140: 24 \end{aligned}$ | $\begin{gathered} \$ 754,489.00 \\ \text { [136:11 - } \end{gathered}$ | $\begin{gathered} 1,018[2]-151: 6, \\ 152: 18 \end{gathered}$ |
| \$109,346 [1] - 92:18 | 136:1 | \$4,130,552.00 ${ }_{[1]}$ - | \$774.30 [1] - 149:17 | 1,400 [1] - 152:13 |
| \$11,085,085.00 [1] - | \$212 [1] - 176:22 | 131:13 | \$790,580.00 [1] - | 1,500 [1] - 152:13 |
| 134:10 | \$212,040,134 [1] - | \$4,138,646.00 [1] - | 141:3 | 1.1 $\left.1{ }^{[1]}\right]-181: 21$ [1] $150: 15$ |
| \$11,623,562 [1] - | 108:22 | 133:21 | \$8,756,731.00 ${ }_{[1]}$ - | $1.16{ }_{[1]}-150: 15$ |
| 107:22 | \$23,000 [1] - 184:12 | \$4,637,786.00 ${ }_{[1]}$ - | 138:2 | 1.3 [3]-93:3, 125:25, |
| \$113 [1]-190:16 | \$24 [1] - 125:24 | 139:2 | \$800,000 [1] - 191:20 | 181:21 |
| \$115,462,871.00 [1] - | \$25,906 [1] - 98:8 | \$40,000 [1] - 100:14 | \$81,823,239.00 [1] - | 1.7 [9]-158:5, 158:12, |
| 135:19 | \$26,674,357 [1] - | \$40,317 [2] - 99:25, | 140:8 | 168:2, 170:9, |
| \$12,619,008.00 [2] - | 107:12 | 100:12 | \$82,672,589.00 [1] - | 174:14, 175:8, |
| 132:9, 151:23 | \$278,974.00 [1] - | \$40,561,122.00 ${ }_{[1]}$ - | 135:22 | 176:14, 181:9, 190:9 |
| \$14,499,537.00 [1] - | 132:3 | 139:25 | \$833,214.00 ${ }_{[1]}$ - | 1.89 [1]-116:16 |
| 139:9 | \$29,220.00 [1] - 137:1 | \$40,737,082.00 [1] - | 134:4 | 10 [5]-98:24, 100:11, |
| \$142,731.00 [1] - | \$29,399,201.00 [1] - | 138:24 | \$856.00[3]-148:15, | $\begin{aligned} & \text { 101:21, 121:20, } \\ & 214: 21 \end{aligned}$ |
| 137:4 | 139:5 | \$41,000 [2] - 108:1, | 150:9, 151:3 |  |
| $\begin{array}{r} \$ 144[3]-104: 2, \\ 104: 22,105: 3 \end{array}$ | $\begin{aligned} & \$ 3,187,386.00 .00 \\ & 133: 15 \end{aligned}$ | $\begin{aligned} & 138: 5 \\ & \mathbf{\$ 4 1 , 8 4 8 , 3 1 0 . 0 0} \end{aligned}$ | $\begin{aligned} & \$ 856.98 \text { [2] - 150:19, } \\ & 151: 7 \end{aligned}$ | $\begin{aligned} & \text { 10,000 [2]-206:21, } \\ & 210: 13 \end{aligned}$ |
| \$149 [1] - 105:6 | \$3,256,624.00 [1] - | 134:24 | \$87 [1] - 205:21 | 10-year [1]-112:20 |
| \$15,015,100.00 [1] - | 137:24 | \$41,912,512 [1] - | \$87,826.00 [1] - | 10.5[1] - 194:4 |
| 132:6 | \$3,275,608.00 [1] - | 108:1 | 132:12 | 1001 [2] - 4:6, 4:9 |
| \$15,033 [1] - 95:2 | 133:3 | \$41,912,512.00 [1] - | \$870,000.00 [1] - | 1006 [3]-8:8, 128:12 |
| \$153 [1]-105:8 | \$3,648,561.00 [1] - | 138:5 | 152:21 | 1022 [1]-3:5 |
| \$159 [2] - 105:10, | 136:4 | \$42,051,138 [1] - | \$872,614.00 [2] - | 103,000 [3] - 154:13, |
| 105:14 | \$3,651,622 [2] - 108:3, | 107:24 | 151:5, 151:7 | 154:16, 155:25 |
| \$160 [1] - 105:16 | 108:16 | \$422,390.00 [1] - | \$9,258,373.00 [1] - | 103,189 [2] - 154:12, |


| 154:17 | $1995{ }_{[1]}$ - 60:24 | 2.85 [1] - 113:14 | $2023{ }_{\text {[1] - 105:7 }}$ | 2A4c [1] - 134:5 |
| :---: | :---: | :---: | :---: | :---: |
| 10:20 [1] - 55:5 | 1998 [2]-61:3, 62:24 | 2.97 [2]-94:14, 97:24 | 2024[1] - 105:9 | 2A5 [1] - 134:8 |
| 10:45 [1] - 31:15 | 1999 [1] - 63:22 | 20 [2]-144:21, 214:13 | 2025 [2]-105:11, | 2B [10]-107:13, |
| 11 [7]-30:18, 35:8, | 1:00[1]-216:13 | 200,000 [1] - 181:21 | 112:2 | 110:15, 134:11, |
| 35:15, 85:10, 100:1, | 1A [3] - 106:21, | 20001 [1]-5:12 | 2026 [1] - 105:13 | 172:9, 172:18, |
| 100:2 | 109:21, 110:6 | 20004[2] - 4:7, 4:10 | 2027 [2]-45:19, | 173:1, 180:18, |
| 113 [1]-190:25 | 1A1 [8] - 78:4, 86:16, | $20005[3]-4: 19,4: 21$, | 105:15 | 192:1, 192:2, 203:11 |
| 1132 [1] - 88:17 | 86:21, 87:14, 92:14, | 5:5 | 2028 [1] - 105:17 | 2B1 [2]-134:13, |
| 11:00 [1] - 216:12 | 93:1, 130:23, 131:3 | 2004[1]-61:5 | 2029 [1] - 105:19 | 192:17 |
| 11:56[1]-122:1 | 1A2 [2]-131:11, | 2005[1]-61:8 | 2030[1] - 105:21 | 2B2 [1] - 134:16 |
| 12 [12] - 80:24, 81:5, | 186:24 | 2009 [1] - 62:25 | 2031 [1] - 105:23 | 2B3 [1] - 134:19 |
| 102:5, 102:10, | 1B [3] - 107:1, 109:21, | $2010{ }^{[1]}$ - 96:4 | 2032 [1] - 105:25 | 2B4 [1] - 134:22 |
| 102:11, 102:15, | 110:7 | 2011[1]-61:9 | 2033 [2]-106:2, | 2B5 [1] - 134:25 |
| 102:23, 102:24, | 1C [3] - 107:3, 110:1, | 2013 [1] - 197:10 | 129:16 | 2B6 [1] - 135:3 |
| 103:8, 103:15, | 110:8 | 2015 [8] - 97:6, | 2034 [1] - 106:4 | 2B7 [1] - 135:6 |
| 106:20, 130:7 | 1D [3] - 107:5, 110:9, | 182:13, 184:23, | 2035[4]-80:18, | 2C [6] - 107:15, |
| 122 [1]-116:7 | 154:5 | 185:5, 185:8, | 103:6, 106:6, 112:2 | 110:16, 135:9, |
| 126[1] - 3:5 | 1D1a [1] - 131:20 | 185:11, 186:6, | 21 [2]-144:18, 165:13 | 174:16, 182:2, |
| 13 [1]-116:23 | 1D1b [1] - 131:23 | 197:10 | 212 [4]-181:4, 181:6, | 203:12 |
| 1300 [1]-6:15 | 1D2 [2] - 93:15, 132:1 | 2016[5] - 149:19, | 181:14, 181:16 | 2C1 [1] - 135:10 |
| 1311 [2]-2:4, 2:14 | 1D3 [1] - 132:4 | 149:21, 150:14, | $22\left[{ }_{[1]}\right.$ - 165:13 | 2C2 [1] - 135:14 |
| $132[1]-13: 10$ | 1E [2] - 107:7, 110:10 | 150:21, 197:9 | 2216[1]-3:7 | 2C3 [1] - 135:17 |
| 14 [5]-30:18, 119:10, | 1E1 [4]-132:7, | 2017 [2] - 12:8, 150:14 | 229[2]-28:24 | 2C4 ${ }_{[1]}$ - 135:20 |
| 152:21, 198:19, | 147:24, 148:2, | 2018[1] - 150:15 | 23 [1]-85:19 | 2D [3] - 107:17, |
| 198:23 | 149:14 | 2019 [13]-12:8, 64:9, | 23-year [1] - 145:14 | 110:18, 135:23 |
| 144,346,000 [1] - | 1E2a [2] - 132:10, | 64:11, 64:22, 64:24, | 2308 [1] - 35:4 | 2D2 [1] - 136:2 |
| 116:11 | 132:13 | 84:2, 91:4, 97:6, | $2311[3]-35: 1,38: 15$, | 2D3 [1] - 136:5 |
| 15 [22]-15:14, 28:4, | 1E3 [1] - 132:16 | 100:4, 100:10, | 38:18 | 2E[3] - 107:19, |
| 28:21, 46:10, 47:12, | 1F [3]-107:9, 110:11, | 100:20, 150:16, | 2314[1]-39:13 | 110:19, 136:8 |
| 64:13, 64:14, 77:16, | 133:4 | 191:19 | 24th [3] - 78:15, 118:6, | 2E1 [1] - 136:9 |
| 103:6, 123:9, 125:8, | 1F1 [1] - 132:19 | 202 [2]-2:4, 2:13 | 118:13 | 2E2 [1] - 136:12 |
| 125:9, 125:20, | 1F2 [2]-133:1, 133:2 | 2020 [16]-13:9, 13:14, | 25 [3] - 5:5, 37:21, | 2E3 [1] - 136:15 |
| 151:11, 152:19, | 1F3 [1] - 133:4 | 77:6, 82:18, 83:14, | 98:5 | 2E4a [1] - 136:18 |
| 158:2, 165:13, | 1st [3]-115:4, 115:6, | 83:16, 100:17, | 251 [1]-85:19 | 2E4b [1] - 136:21 |
| 168:4, 190:10, | 115:8 | 100:21, 117:6, | 251st [1] - 58:3 | 2E5a [1] - 136:24 |
| 193:4, 194:1, 214:13 |  | 117:21, 117:25, | 25301[3]-2:8, 3:13, | 2E5b [1] - 137:2 |
| 15-year [21] - 80:16, 82:25, 84:16, 91:7, | 2 | 118:3, 144:18, | 4:24 |  |
| $\begin{aligned} & 82: 25,84: 16,91: 7, \\ & 92: 21,93: 2,98: 21, \end{aligned}$ | 2 [14]-28:17, 75:22, | $\begin{aligned} & \text { 145:13, 150:17, } \\ & \text { 165:13 } \end{aligned}$ | 25322 [1] - 6:9 | 3 |
| 106:9, 106:22, | 90:18, 99:13, | 2021 [43]-1:19, 7:4, | $25701 \text { [1] - 3:10 }$ | 3 [12]-35:7, 35:8, |
| 109:13, 125:23, | 107:11, 110:12, | 9:9, 45:18, 78:15, | 26 [2]-38:15, 117:10 | $35: 15,63: 11,75: 23,$ |
| 129:21, 130:10, | 133:7, 175:10, | 79:21, 80:17, 83:7, | 26th [1] - 117:17 | 102:24, 103:3, |
| 131:2, 133:5, | 176:4, 176:13, | 91:16, 98:5, 99:25, | 27 [1]-39:8 | 10:20, 137:5, |
| 133:14, 141:13, | 176:14, 182:21, | 100:11, 100:19, | $274[3]-130: 15,$ | 159:15, 159:16, |
| 141:23, 151:22, | 183:10 | 100:21, 103:6, | 130:17, 147:19 | 182:21 |
| 151:23, 160:2 | 2,049 [2] - 192:18, | 103:16, 103:21, | 28 [4]-4:3, 4:12, 4:14, | 3,000 [7]-159:3, |
| 150 [1] - $215: 24$ | 208:4 | 104:1, 104:7, | 38:2 | 159:22, 159:25, |
| $15910{ }_{[1]}-3: 15$ | 2,400 [1] - 160:2 | 104:12, 104:21, | $29[4]-1: 19,7: 4,$ | 160:6, 160:18, |
| $1600{ }_{[1]}-3: 15$ | 2-Bravo [4]-172:13, | 104:24, 115:4, | $219: 20,220: 1$ | 160:25, 190:13 |
| 17 [2]-35:19, 35:22 | 172:14, 173:2, 173:3 | 115:6, 115:8, | $29464[3]-4: 4,4: 12,$ | 3,750 [1] - 155:12 |
| 1717 [2]-6:6, 6:13 | 2.1 [4]-179:10, 181:1, | 115:19, 115:20, | $4: 15$ | 3.21 [1] - 150:18 |
| 172 [1]-88:17 | 181:2, 181:12 | 116:3, 116:5, 116:8, | 2:00 [1] - 121:23 | 3.44[4]-91:14, 91:17, |
| $\begin{gathered} 18[7]-27: 22,27: 23, \\ 28: 8,28: 18,39: 7 \end{gathered}$ | 2.3 [2] - 181:22, $181: 23$ | 116:13, 118:6, $148: 19,148: 21$ | $\mathbf{2 A}[2]-107: 11,110: 14$ | 91:25, 100:25 |
| $\begin{aligned} & 28: 8,28: 18,39: 7, \\ & 39: 8,88: 16 \end{aligned}$ | 181:23 2.4 [1] - 181:17 | $\begin{aligned} & \text { 148:19, 148:21, } \\ & \text { 149:23, 151:1, } \end{aligned}$ | 2A1 [1] - 133:7 | $3.73[3]-112: 14,$ |
| 188 [1]-193:10 | 2.5 [3]-106:10, | 182:24, 190:18, | 2A2 [1] - 133:16 | 30 [13]-84:1, 91:14, |
| $19087{ }_{[1]}-6: 15$ | 118:22, 206:16 | 192:18, 194:4, | $\begin{aligned} & \text { 2A3 }{ }_{[1]}-133: 19 \\ & \text { 2A4 }[1]-133: 22 \end{aligned}$ | 112:17, 112:23, |
| 19103 [2]-6:6, 6:13 | 2.544 [1]-115:23 | 198:18, 219:20, | 2A4a [1] - 133:24 | 123:8, 123:21, |
| 194 [1] - 194:9 | $2.589{ }_{[1]}$ - 117:7 | 220:1 $2022[2]-105: 5,112 \cdot 2$ | $\mathbf{2 A 4 b}[1]-134: 2$ | $124: 25,125: 3,$ |
| 1990[1] - 84:2 | 2.8 [1] - 150:14 | 2022 [2] - 105:5, 112:2 | 2A4b [1] - 134.2 | 125:12, 125:22, |



| Ackerman [1] - 202:10 | 104:8, 167:11, | Adopted [3] - 140:21, | 20:9, 21:5, 21:20, | 19, 102:8, |
| :---: | :---: | :---: | :---: | :---: |
| ACKERMAN [11] - 4:5, | 191:10, 209:3, 209:13 | 140:25, 141:4 | 23:17, 23:22, 24:16, | 102:20, 103:16, |
| $\begin{aligned} & 31: 1,31: 14,41: 12 \\ & 42: 13,54: 16,54: 21, \end{aligned}$ | 209:13 <br> addressed [5] | adoption [1] - 177:6 <br> Adoption [1] - 140:22 | $\begin{aligned} & \text { 29:7, 30:22, 34:3, } \\ & 42: 23,43: 3,43: 11, \end{aligned}$ | $\begin{aligned} & \text { 106:16, 111:12, } \\ & \text { 115:11, 120:7, } \end{aligned}$ |
| 202:11, 217:15, | 51:17, 51:22, 53:15, | adoptions [1] - 177:17 | 43:13, 43:14, 44:3, | 126:11, 126:15, |
| 217:17, 218:5 | 155: | adults [1]-111:4 | 44:8, 44:17, 44:25, | 26:23, 131:6 |
| acknowledge ${ }_{[4]}$ | addresses [1] - 158:1 | Adults [1] - 139:14 | 45:9, 51:5, 52:6, | 141:13, 141:22 |
| 21:10, 21:12, 21:15, | addressing [1] - 69:18 | Advancing [1]-20:18 | 52:18, 53:2, 53:10, | 42:5, 148:18 |
| 126:17 | Addressing [2] - | adverse [2]-10:16, | 53:18, 54:9, 67:2, | 148:25, 149:12 |
| acknowledged ${ }_{[1]}$ | 111:2, 138:12 | 2:20 | 68:25, 69:5, 69:15, | 149:16, 151:15, |
| 217:21 acknowledgement ${ }_{[1]}$ | adequate [3] - 89:5 126:7, 177:10 | advised [1] - 72:24 | 70:5, 70:9, 71:4, <br> 72:18, 75:12, 75:21, | 152:17, 153:4, $155: 5,155: 22,$ |
| acknowledgement ${ }_{[1]}$ $-69: 25$ | 126:7, 177:10 adequately $[2]-$ | Advisory ${ }^{[1]}-65: 22$ Affairs | 72:18, 75:12, 75:21, <br> 76:14, 76:17, 76:21, | $\begin{aligned} & \text { 155:5, 155:22, } \\ & \text { 156:18, 157:19, } \end{aligned}$ |
| acknowledgments [2] | $\begin{gathered} \text { anequately }[2], 158: 1 \end{gathered}$ | $\begin{aligned} & \text { Affairs } \\ & \text { 62:18 } \end{aligned}$ | 76:25, 77:20, 78:22, | 158:4, 159:1, |
| - 19:21, 21:3 | adjacent ${ }_{[1]}$ - 58:15 | affect [2] - 114:13 | $79: 10,80: 4,80: 6,$ | 159:13, 159:21, |
| acquired $[1]-76: 12$ Action $[4]-1: 4,1: 10$, | adjourn [1] - 219:6, adjunct $[2]-63: 5$ | 118:18 | $\begin{aligned} & \text { 80:7, 80:16, 81:17, } \\ & \text { 83:12, 86:22, 87:13, } \end{aligned}$ | $\begin{aligned} & \text { 161:10, 162:4, } \\ & \text { 162:6, 163:2, 165:4, } \end{aligned}$ |
| $\begin{aligned} & \text { Action }[4]-1: 4,1: 10, \\ & \text { 219:19 } \end{aligned}$ | $\begin{aligned} & \text { adjunct }[2]-63: 5 \text {, } \\ & 63: 7 \end{aligned}$ | Affected [1] - 110:13 affected [1] - 125:16 | 87:15, 88:2, 88:6, | 162:6, 163:2, 165:4, 167:19, 170:25, |
| action [4]-198:11, | adjust [5] - 62:5, | affecting [1]-194:2 | $\begin{aligned} & 88: 8,89: 22,92: 22, \\ & 93: 16, ~ 93: 19,96: 20, \end{aligned}$ | $\begin{aligned} & \text { 182:3, 183:3, 183:5, } \\ & \text { 183:10, 183:15, } \end{aligned}$ |
| 198:15, 201:16, 219:1 | 69:21, 84:6, 100:20, 151:14 | affirmed [1] - 51:2 | 93:16, 93:19, 96:20, 98:4, 98:15, 99:8, | $\begin{aligned} & \text { 183:10, 183:15, } \\ & \text { 186:21, 190:23, } \end{aligned}$ |
| $\begin{array}{r} 219: 1 \\ \text { activit } \end{array}$ | $\begin{array}{r} 19 \\ \text { adj } \end{array}$ | afternoon [5] - 123:2, | 102:2, 117:14, | 192:5, 195:25 |
| 63:18 | $97: 18,148: 21,$ | 13, 213:23 | 118:10, 119:3 | 6:5, 197:12 |
| activity [2]-11:20, | 8:24, 151:1 | agencies [2] | 119:21, 119:23, | 99:12, 199:25 |
| 25:24 | adjusting [2] - 83:9 | $17$ | 119:24, 120:13, | 202:25, 203:8, |
| actual [6]-94:1, | d | agency [2] - 181:20 | $\begin{aligned} & 128: 8,146: 10, \\ & 146: 19,148: 1, \end{aligned}$ | $\begin{aligned} & \text { 203:9, 206:1, 207:6, } \\ & \text { 208:6, 208:8, } \end{aligned}$ |
| 100:3, 100:15, | adjustment [3] - | 185:21 | $\begin{aligned} & \text { 466:19, 148:1, } \\ & \text { 448:15, 150:21, } \end{aligned}$ | 209:22, 211:19, |
| $\begin{aligned} & 127: 21,148 \\ & 150: 13 \end{aligned}$ | 97:11, 120:6, | agnostic [2] - 40:16 | 151:19, 152:9, | 213:2, 217:24 |
| add [5] - 175:17, | :9, 118:12: |  | 153:12, 153:1 | allegedly [1]-46:17 |
| 178:23, 180:23, | $155: 15,157:$ | 39:10, 64:13, 64:14, | 154:10, 154:13, | Alliance [1] - 20:24 |
| 181:12, 202:11 | administer [2]-121:7, | $: 23,99: 24,212: 15$ | $\begin{aligned} & \text { 155:11, 155:19, } \\ & \text { 155:24, 156:5, } \end{aligned}$ | allocate [2] - 46:18, |
| added [7] - 79:18, | 212:17 | agree [15]-51:14, | $\begin{aligned} & \text { 155:24, 156:5, } \\ & \text { 156:12, 157:13, } \end{aligned}$ | 210:20 <br> allocated [1] - 197:11 |
| 105:2, 118:1, | administered [1] | 127:25, 128:5 | 157:15, 157:25, | Allocating [1] - 212:1 |
| $\begin{aligned} & 155: 11,157: 20, \\ & 181: 16,196: 19 \end{aligned}$ |  | :1, 177:1, | 158:22, 158:23, | allocation [1] - 50:4 |
| addicted [2]-10:17, | 61:2 | 7:25, 180:2 | 163:25, 164:17, | allocations [1] - |
| 46:23 | ad | 6:17, 188:24 | 168:9, 168:18, | 168:12 |
| addiction [12] - 9:15, | d | $\begin{aligned} & 0.71,108: 2 \\ & 5: 10,21: 1, \end{aligned}$ | 71:25, | allow [4]-84:24, |
| 9:25, 10:2, 10:3, | administrator ${ }_{[1]}$ | 13:21, 213:22 |  | 113:22, 127:10, |
| 10:8, 10:9, 10:16, |  | agreed [1] - 146:20 | $\begin{aligned} & / 3: 21,1 /:: 1 \\ & 182: 15,182: 1 \end{aligned}$ | 206:7 |
| $\begin{aligned} & \text { 46:10, 47:7, 47:21, } \\ & 163: 15,210: 15 \end{aligned}$ | admissibility [1] - 8:1 | ahead [17] - 14:25, | 182:22, 187:12, | allows [2] - 22:7 83:24 |
| Addiction [2]-17:21, | $\text { , 8:15, } 89:$ | $2: 2,33: 3$ | 187:19, 192:3 | almost [2]-33:17, |
| 133:24 | $6: 8,128: 13$ | $: 14,89: 1$ | 192:22, 199:18 | 190:19 |
| addition [11] - 16:21, | 28:16 | $6: 24,117: 8$ | 201:7, 205:14, | aloud [1] - 15:19 |
| 26:24, 27:9, 31:24, | admission [2]-8:16, | 8:6, 180:4, |  | alphanumeric [3] - |
| 93:4, 93:5, 96:14, | 7:20 | 2:18, 204:1, | 210:23, 210:24, | $78: 2,82: 6,86: 2$ |
| 117:14, 142:16, | admit [4]-7:9, 7:11, | 06:8, 209:15 | $211: 11,217: 18$ | alter [1] - 119:22 |
| 215:14, 215:16 | 126:15, 128:17 | aimed [1]-11:15 | Alexander's [91] - 8:4, | alternative [1] - 205:9 |
| additional [12] - $15: 23,15: 25,1$ | $\begin{gathered} \text { admits }[3]-45: 12, \\ 45: 14,47: 2 \end{gathered}$ | al [5]-1:7, 1:13 | 8:17, 13:14, 43:7, | amended [1] - 104:6 <br> America [1] - 49:19 |
| 16:8, 16:11, 17:15, | admitted $[9]-7: 16$ | 219:1 | 4:6, 45:23, 49:4, | American [9]-17:19, |
| 19:8, 29:2, 29:5, | $8: 12,45: 20,47: 5$ | Alcohol [4]-17:20 | 21, 51:23, 67:10, | 17:20, 18:4, 18:7, |
| 29:22, 77:8, 79:17 | , 126:6, 126:11, | $18: 5,18: 8,18: 13$ | $\begin{aligned} & 68: 2,68: 10,68: 18, \\ & 70: 13.75: 9.75: 10 \end{aligned}$ | 18:13, 64:4, 65:5, |
| additions [1] - 196:17 | 126:19, 127:5 | Alexander [136] - 7:25, | 75:16, 76:6, 76:10 | 65:6, 65:14 |
| $\begin{gathered} \text { address }[15]-10: 25, \\ 11: 10,43: 1,45: 10, \end{gathered}$ | Adolescents [2] - | 8:10, 8:20, 8:24, 9:6, |  | AmerisourceBergen $[2]-6: 2,219: 18$ |
| $47: 17,47: 21,52$ | 139:14, 139:18 | , 10:23, 11:25 | 3, 8 | AMERISOURCEBER |
| 52:17, 53:20, 82:22, | adolescents [1] - 111:4 | 14:5, 15:2, 16:1, <br> 16:20, 17:15, 19:16, | $\begin{aligned} & 86: 16,92: 8,95: 13, \\ & \text { 101:12, 101:15, } \end{aligned}$ | AEN [2] - 1:7, 1:13 |

amount [16] - 94:1, 97:8, 103:24, 108:12, 119:23, 123:18, 144:13, 145:5, 145:8, 148:22, 152:25, 176:4, 179:9, 191:1, 195:23, 208:11
amounts [3] - 151:8, 181:17, 198:8
ample [1] - 189:23 analysis [4] - 53:23, 128:8, 144:7, 188:17
Analyst [2] - 64:3, 65:18
Analysts [1] - 133:2
Analytics [2]-76:24, 77:9
anchors [1] - 15:9
ancillary [1] - 45:13
ANDREW [1] - 5:10
ANNE [1] - 4:2
ANNIE [1] - 4:11
annual [21] - 69:15,
70:6, 83:22, 83:23, 83:25, 84:3, 87:18, 90:18, 91:13, 91:22, 94:1, 94:16, 95:1, 98:8, 103:4, 112:16, 112:22, 150:24, 182:9, 187:13
annualization [1] 208:11
anomalies [2] 123:13, 123:16
answer [24]-25:18, 30:6, 30:7, 37:3, 40:13, 40:19, 40:25, 44:10, 44:11, 44:17, 44:23, 44:25, 45:23, 76:22, 114:1, 125:2,
147:3, 148:25,
150:1, 158:19,
165:19, 175:15,
188:17, 201:15
answered [3] - 84:8,
168:8, 202:20
answering [1] - 202:6
answers [1] - 44:21
ANTHONY [1] - 2:6
anticipate [1] - 89:21
anticipated [1] - 94:1
anyway [1] - 156:22
apartment [3] - 185:5, 185:7, 185:12
apartments [1] -
184:21
Apollo [44]-17:4,
17:8, 21:21, 21:25,
22:3, 22:6, 22:9,

22:11, 22:14, 22:21, 22:23, 22:25, 23:1, 23:2, 23:8, 24:2, 24:12, 25:5, 25:10, 25:17, 25:25, 26:3, 26:7, 26:8, 26:9, 26:10, 26:13, 26:16, 30:17, 30:24, 34:3, 34:7, $34: 13,34: 15$, $37: 14,37: 18,37: 20$, 48:22, 218:12, 218:14, 218:24
apologize [2] - 79:18, 169:12
apparent [1] - 209:22
appealing [1] - 213:23
appear [5] - 80:10,
80:11, 82:11, 99:11, 113:3
APPEARANCES [6] 2:1, 3:1, 5:1, 5:6, 6:1, 6:10
appearances [1] 62:18
appeared [1] - 217:21 appendices [1] - $37: 9$
Appendix [26]-34:21, 60:17, 77:17, 77:21, 78:1, 78:8, 78:17, 78:21, 79:12, 81:5, 81:6, 81:8, 81:10, 81:11, 83:21, 85:6, 85:14, 85:25, 86:19, 91:12, 94:15, 101:2, 101:11, 115:25, 126:4, 182:1
appendix [15] - 34:25, 37:23, 37:24, 38:17, 38:19, 39:1, 39:13, 80:22, 80:25, 84:9, 85:14, 91:10, 91:11, 126:12, 127:17
applied [9]-24:12,
25:6, 25:17, 51:8,
101:8, 119:12,
187:17, 195:21,
198:2
applies [9] - 34:9,
56:6, 154:25, 174:5, 174:8, 175:7, 175:9,
175:11, 178:5
apply [3] - 57:17,
175:9, 199:23
applying [3] - 22:1,
23:1, 103:12
apportion [1] - 210:21
apportioned [1] -
211:2
Apportioning [1] 212:2

```
appraisal [1] - 42:9
appreciate [5] - 22:2,
    43:18, 209:7,
    215:11, 216:7
approach [8] - 30:19,
    67:3, 85:21, 130:11,
    150:4, 185:4, 186:2,
    193:14
```

approached [1] -
64:15
appropriate [11] -
44:24, 46:14, 53:24,
89:10, 112:25,
125:3, 196:25,
202:4, 202:7,
202:15, 214:12
Arch [2]-6:6, 6:13
area [33]-58:20, 68:5,
69:13, 70:21, 70:24,
71:8, 72:20, 73:1,
$73: 10,73: 14,73: 16$,
73:18, 73:25, 74:2,
91:1, 91:5, 94:3,
94:8, 96:23, 146:15,
150:18, 153:20,
155:2, 156:1,
163:14, 166:18,
185:11, 185:17,
185:19, 186:9,
188:5, 189:3, 204:4
areas [5] - 82:22, 95:6,
96:25, 146:18, 199:9
arguably [1] - 206:7
argue [1] - 212:24
arguing [3] - 46:22,
51:15, 213:17
argument [8] - 45:8,
47:1, 51:17, 52:3,
53:1, 88:25, 209:20,
210:2
argumentative [1] -
41:13
arguments [5] - 49:9,
49:10, 49:14, 127:4,
212:20
arising [1] - 178:8
arrived [1] - 208:10
article [31] - 17:24,
19:24, 20:5, 20:10,
21:4, 21:7, 28:14,
29:9, 29:10, 41:9,
42:6, 42:7, 42:18,
64:9, 64:10, 64:23,
96:2, 96:4, 96:7,
96:12, 96:24, 97:10,
97:12, 166:17,
203:20, 203:25,
204:13, 217:19,
217:21, 217:23,
218:19
articles [14] - 18:21, 19:8, 27:10, 41:7, 41:8, 63:21, 64:9, 64:16, 183:17, 183:23, 203:14, 203:17, 204:3, 218:3
Arts [1] - 60:23
ASHLEY [1] - 5:3
aside [3]-21:19,
169:24, 217:11
assert [2]-88:5, 209:17
asserted [2] - 24:22, 25:15
assertions [1] - 51:18 assess [3]-23:3, 41:20, 162:23
assessment [6] - 47:5, 48:14, 48:15, 48:16, 62:14, 162:21
assessments [2] -
15:23, 29:2 assignment [2] -
66:10, 74:22
assist [1] - 59:9
Assistance [1] 133:19
Assistant [1] - 133:4
Assisted [4]-71:20, 99:3, 99:6, 137:7
associated [4] - 19:8, 20:10, 96:5, 204:14
Associates [6] 56:11, 56:12, 56:16, 62:22, 62:23, 63:1
Association [5] - 64:5, 65:4, 65:6, 65:7, 65:15
assume [21] - 9:14,
45:7, 52:3, 82:24,
115:7, 164:18,
175:21, 175:23,
176:3, 176:9, 176:10, 178:22, 179:7, 179:8, 179:14, 179:15, 180:17, 180:22, 181:19, 185:14, 194:17
assuming [4] - 34:20, 167:25, 192:24, 205:24
assumption [16] 147:14, 153:21, 162:4, 164:24, 175:14, 175:16, 177:25, 179:12, 180:1, 192:5, 193:18, 194:13, 194:16, 195:15,

205:6, 205:7
assumptions [7] -
37:25, 38:3, 153:22, 155:23, 195:15,
206:5, 206:25
astounding [1] - 48:13
AT [1] - 1:2
Attachment [4] -
60:17, 115:20,
116:4, 130:19
attachment [1] -
117:20
attempt [3] - 154:15,
163:17, 211:6
attempted [3] - 192:9,
210:20, 210:21
attempting [2] - 147:2,
163:12
attend [3] - 187:24,
189:14, 189:17
attending [2] - 188:22,
190:4
attention [1]-80:24
attest [1] - 33:8
attested [1] - 155:24
Attorney [1] - 219:1
attributable [4] -
110:16, 181:10,
182:3, 196:22
Attributable [2] -
135:10, 174:17
August [12] - 76:25,
77:1, 77:6, 78:22,
79:20, 80:22,
111:18, 117:1,
117:6, 117:10,
117:17, 146:17
authenticated [1] -
126:6
author [3] - 16:18, 20:2, 20:23
authored [3]-63:14,
67:1, 77:1
Authority [1] - 171:23
authors [1] - 21:10
available [19] - 13:6,
73:22, 74:4, 76:21,
76:23, 158:14,
158:24, 160:18,
160:23, 160:25,
161:2, 163:16,
165:20, 165:22,
166:3, 168:2,
168:11, 188:23,
191:10
average [21] - 71:6,
84:3, 84:5, 84:15,
84:17, 85:2, 85:5,
91:4, 91:13, 94:16,
96:7, 97:13, 112:16,

|  | 8:17, 55:8, 55:10, 55:13, 55:19, 55:22, 55:24, 55:25, 56:10, 56:12, 56:16, 59:15, 60:22, 61:21, 62:22, 63:1, 63:2, 65:25, 66:6, 66:9, 74:14, 81:4, 81:18, 88:5, 89:6, 89:24, 90:3, 90:8, 102:15, 104:6, 104:11, 111:8, 113:19, 121:24, 122:25, 123:3, 123:8, 127:5, 129:4, 130:6, 130:17, 143:2, 143:12, 143:19, 144:20, 148:3, 149:11, 158:7, 159:5, 163:1, 168:24, 169:24, 178:3, 180:15, 183:8, 186:4, 193:17, 194:22, 195:25, 197:14, 198:1, 206:10, 209:5, 209:6, 209:18, 209:21, 210:3, 210:23, 212:13, 213:1 <br> BARRETT [1] - 55:16 Barrett's [7]-89:21, 126:4, 126:13, 127:17, 144:17, 165:12, 216:1 <br> base $[7]-36: 18,83: 7$, 83:9, 84:6, 111:25, 153:21 <br> Based [3] - 139:15, 186:16, 190:18 based [43]-15:21, 25:2, 27:23, 28:25, 31:3, 31:6, 36:5, 49:19, 52:23, 53:5, 57:17, 58:14, 58:21, 68:16, 70:8, 84:13, 89:15, 94:14, 117:25, 120:8, 125:2, 125:17, 125:23, 146:15, 148:1, 149:19, 151:2, 152:17, 154:22, 172:1, 172:7, 172:11, 172:20, 173:10, 173:21, 190:21, 191:23, 192:21, 194:3, 195:11, 209:24 basing [1] - 123:11 basis [17]-8:13, 9:22, | ```33:2, 46:4, 49:24, 70:7, 76:25, 87:18, 88:10, 90:16, 97:1, 100:9, 100:18, 126:10, 150:13, 153:18, 193:24 battle [1] - 218:17 Baylen [1] - 2:11 Bear [1] - 207:24 bear [2]-10:21, 104:16 bears [1]-153:5 became [1] - 83:13 becomes [1] - 45:21 bedroom [7]-184:21, 185:4, 185:7, 185:12, 185:24, 185:25, 186:18 BEFORE \({ }_{[1]}\) - 1:17 began [5] - 62:12, 62:21, 62:24, 66:20, 73:25 begin [4]-69:19, 80:17, 83:17, 115:9 beginning [4]-61:23, 82:18, 91:16, 101:9 behalf [3]-144:11, 144:24, 209:19 behind [5] - 146:24, 153:24, 165:4, 195:4, 196:11 beings [1] - 51:9 belaboring [1] - 43:9 below [2]-76:3, 173:5 bench [1]-89:17 BENCH [1] - 1:16 benchmark [1] - 163:22 benefit [1] - 22:5 benefits [4]-57:24, 71:12, 99:23, 100:8 Berra [1] - 90:4 best \([7]-90: 6,120: 13\), 146:20, 151:19, 161:22, 168:8, 180:8 better [2]-32:7, 215:25 between [14] - 77:20, 79:6, 116:25, 120:15, 152:13, 171:23, 191:8, 197:4, 203:15, 203:18, 210:22, 211:2, 211:3, 212:2 beyond \([7]-13: 15\), 120:18, 148:12, 154:2, 163:18, 199:9, 200:25 bibliometric [1] - 41:5 bidding [2] - 62:4``` | ```big [4] - 33:8, 52:4, 198:9, 198:12 bigger [3] - 83:5, 102:15, 130:4 bill [1] - 128:23 billion [29] - 106:10, 115:23, 116:16, 116:20, 118:22, 158:5, 158:12, 168:2, 170:9, 174:14, 175:8, 175:10, 176:4, 176:13, 176:14, 179:10, 181:1, 181:2, 181:9, 181:12, 181:17, 181:21, 181:22, 181:23, 190:9, 198:11, 206:16 billion-dollar [1] - 115:23 billions [1] - 48:8 bills [1] - 112:19 binder [1] - 149:5 birth [1] - 179:5 bit [12] - \(8: 3,58: 16\), 75:7, 86:6, 143:18, 146:9, 163:1, 172:15, 181:24, 187:15, 210:8, 215:25 blood [1] - 180:20 blood-borne [1] - 180:20 bloodborne [2] - 174:21, 179:1 blow [1] - 78:7 blue [2] - 173:5, 173:11 Blvd [3]-4:3, 4:12, 4:14 board [2] - 65:14, 159:9 Board [4] - 11:8, 62:18, 161:20, 162:2 Bob [1] - 217:2 bode [1] - 49:9 body [1] - 39:19 Bonasso [1]-5:14 book [2] - 36:12, 36:17 boring [1] - 215:22 born [7]-10:19, 45:22, 174:8, 178:7, 179:3, 180:21 borne [1] - 180:20 Boston [2]-20:14, 20:18 bottom [4]-18:6, 103:21, 103:25,``` | 182:12 <br> Boulevard [1] - 3:15 <br> Box [2] - 5:14, 6:8 <br> box [3]-122:20, <br> 173:5, 173:11 <br> Boxes [3]-136:24, 137:2, 137:3 <br> boxes [1] - 162:10 <br> Boyd [1] - 186:9 <br> Bravo [1] - 129:12 <br> break [10] - 42:3, 44:5, 54:1, 54:7, 55:1, 121:16, 180:5, 180:15, 187:15, 188:16 <br> Bridge [1] - 134:8 <br> Bridgeside [3] - 4:3, <br> 4:12, 4:14 <br> brief [2]-49:12, 67:22 <br> briefing [2] - 50:15, <br> 89:1 <br> briefly [7]-21:16, 52:17, 73:7, 100:1, 208:16, 209:3, 209:13 <br> briefs [2]-8:2, 126:5 <br> bring [8] - 33:24, <br> 51:10, 63:10, 75:9, <br> 93:8, 115:15, <br> 116:23, 119:10 <br> bringing ${ }_{[1]}-50: 7$ <br> broad [7] - 76:2, <br> 77:24, 78:6, 81:25, <br> 86:23, 86:25, 178:9 <br> broadly [2] - 69:4, 69:7 <br> Brookshire [6] - <br> 56:10, 56:12, 56:16, <br> 62:22, 62:23, 63:1 <br> brought [3]-24:18, <br> 70:11, 163:19 <br> Bs [1] - 172:16 <br> Budd [1] - 3:14 <br> budget [10]-71:22, <br> 99:21, 100:3, <br> 100:21, 189:21, <br> 191:19, 205:21, <br> 205:25, 206:12, <br> 210:7 <br> budgets [1]-206:16 <br> build [1] - 22:3 <br> building [3]-22:6, <br> 49:23, 154:9 <br> buildings [1] - 95:5 <br> built [5] - 22:11, <br> 48:21, 96:17, <br> 189:20, 195:15 <br> bunch [1]-127:9 <br> bundle [1]-29:17 <br> Buprenorphine [2] - |
| :---: | :---: | :---: | :---: | :---: |

Ayme A. Cochran, RMR, CRR (304) 347-3128


| 131:12, 131:15, 131:21, 131:24, 132:2, 132:5, 132:8, 132:11, 132:14, 132:17, 132:20, 132:24, 133:11, 134:6, 134:12, 136:25, 138:4, 139:21, 148:24, 150:12, 170:6, 170:25, 173:4, 177:12, 178:9, 178:15, 194:14 causation [2]-44:19, 215:17 <br> caused [8] - 45:3, 45:10, 46:17, 47:16, 47:23, 48:17, 50:25, 52:11 <br> CE [1]-189:20 census [4]-155:6, 155:8, 155:18, 155:21 <br> center [1] - 165:3 Center [4]-3:12, 5:11, 20:17, 20:19 certain [2]-88:3, 209:21 certainly [16] - 42:3, 43:4, 49:8, 51:22, 52:2, 53:11, 85:17, 120:18, 145:18, 154:1, 168:10, 169:4, 170:19, 211:1, 212:1, 213:14 Certainly [5] - 66:16, 67:22, 70:15, 74:20, 90:13 <br> certainty [4]-53:4, 106:15, 141:19, 143:5 <br> certificate [1]-61:9 CERTIFICATION $[1]$ 219:13 <br> certifications [1] 189:25 <br> certify [1] - 219:15 cetera [2]-73:2, 180:21 <br> chain [1] - 156:9 challenge [2] - 44:3, 209:17 <br> challenged [1]-8:10 chance [3]-104:18, 201:21, 212:23 change [10]-53:4, 70:1, 70:8, 79:12, $83: 5,83: 22,83: 25$, $94: 17,98: 10,114: 2$ 94:17, 98:10, 114:25 | ```changed [10] - 79:10, 79:13, 79:15, 79:16, 100:16, 116:25, 117:11, 118:20, 193:6, 193:18 changes [3]-118:11, 118:18, 118:23 changing [1] - 78:20 characterize [1] - 38:23 CHARLES [1] - \(3: 11\) Charleston [6]-2:8, 3:13, 4:24, 5:15, 6:9, 7:4 CHARLESTON [2] - 1:2, 1:18 chart [1] - 82:12 Chase [1] - 4:23 check [6]-43:6, 146:12, 147:5, 153:3, 153:23, 155:5 Checking [2] - 132:10, 132:13 checking [1]-153:6 Chen [3]-16:19, 20:5, 20:10 Chesterbrook [1] - 6:15 Child [4] - 140:6, 140:14, 140:22, 141:5 child [4]-10:19, 176:24, 177:6, 181:15 Children [10] - 139:22, 139:23, 140:1, 140:5, 140:9, 140:13, 140:17, 140:21, 140:25, 141:4 children \({ }_{[7]}-10: 18\), 10:19, 111:5, 176:18, 178:13, 179:3, 181:4 choices [1] - 188:10 chose [1] - 88:1 CHRISTENSON [3] - 122:2, 122:20, 122:24 Christenson [2] - 122:2, 122:10 Chuck [1] - 160:17 circle [1] - 141:18 circuit [1] - 24:17 Circuit [2]-49:21, 51:22 citation [2]-64:8, 218:19 cite [15]-15:15, 16:7, 16:10, 28:22, 29:8,``` |  | 208:14 <br> CLERK [3]-55:12, <br> 55:14, 55:17 <br> clerk [2] - 7:17, 128:22 <br> Cleveland ${ }_{[1]}-24: 7$ <br> client [3]-144:24, <br> 151:12, 151:16 <br> clinic [1] - 189:3 <br> Clinical [1]-20:18 <br> clinical ${ }_{[1]}$ - 192:11 <br> close [1]-131:4 <br> Close [1]-56:14 <br> clue $[1]-34: 12$ <br> CME [1]-11:14 <br> Coach [1] - 134:5 <br> Coaches [1] - 133:16 <br> coaches [1] - 163:12 <br> coalition [1] - 154:9 <br> Coalition [5] - 93:15, <br> 131:20, 131:23, <br> 132:4, 154:6 <br> Cochran [3]-6:17, <br> 219:14, 219:22 <br> code [1] - 78:2 <br> coincidence [1] - <br> 42:11 <br> collaborations [1] - <br> 146:16 <br> collaborative [1] - <br> 82:17 <br> collaborators [1] 21:12 <br> collateral [6] - 53:8, <br> 156:21, 157:2, <br> 169:9, 169:14, <br> 212:20 <br> colleagues [2] - <br> 26:10, 142:23 <br> collect [1]-162:14 <br> College ${ }_{[1]}$ - 65:22 <br> Column [6] - 116:5, <br> 129:10, 129:25, <br> 130:24 <br> column [9]-81:21, <br> 82:5, 103:20, <br> 103:23, 115:20, <br> 116:6, 129:20, <br> 129:21, 129:24 <br> columns [3]-129:2, <br> 129:19 <br> combined [2]-15:12, <br> 205:21 <br> comfortable [5] - <br> 175:12, 176:6, <br> 190:25, 194:11, <br> 213:16 <br> coming ${ }_{[1]}-213: 13$ <br> comment [1] - 183:24 <br> commercial [2] - <br> 56:23, 146:4 |  |
| :---: | :---: | :---: | :---: | :---: |


| ```completion [1] - 62:20 complex [4]-35:25, 38:8, 38:10, 86:13 complications [6] - 110:16, 178:7, 178:25, 180:19, 181:10, 182:2 Complications [2] - 135:9, 174:17 components [1] - 88:3 composed [1] - 66:13 compounding [1] - 114:19 comprehensive [1] - 25:2 comprehensiveness [1] - 11:22 comprised [1] - 142:19 computer [1] - 6:19 concentrations [1] - 61:3 concept [3]-69:24, 83:4, 200:19 concerned [2] - 125:9, 216:2 concerning [1] - 217:18 conclude [1] - 80:17 conclusion [4] - 70:13, 153:2, 169:17, 175:12 conclusions [3] - 143:3, 153:9, 156:9 concur [1]-218:22 conditionally [1] - 8:12 conditions [3] - 174:23, 175:1, 175:3 conduct [5] - 44:12, 44:14, 44:22, 211:3, 215:18 conducted [3]-62:16, 94:7, 169:6 confer [3] - 142:23, 214:18, 214:22 conferences [3] - 73:8, 76:24 confidence [1] - 34:14 confident [2]-22:7, 22:19 confirm [13]-39:24, 40:20, 40:21, 40:25, 148:21, 160:13, 172:12, 175:20, 178:2, 187:3, 193:17, 198:1, 203:24 confirmation [1] - 42:17``` | ```confirms [1] - 18:7 conflict \({ }^{11}\) - \(20: 6\) conflicts [1]-21:6 confronted [1] - 128:15 confused [2] - 204:21, 204:24 connected [3] - 46:12, 47:3, 47:4 connecting \({ }_{[1]}\) - 110:14 Connecting [1] - 133:12 connection [1] - 98:17 Connolly [2]-4:18, 5:4 CONROY [1] - 3:3 consequences [1] - 10:16 consider [6] - 41:23, 120:1, 125:14, 168:12, 213:4, 213:5 consideration [1] - 120:6 considerations [1] - 41:19 considered [4]-19:1, 49:16, 124:13, 190:23 considering [1] - 210:4 consistency [2] - 51:10, 118:22 consistent [6] - 18:19, 51:1, 113:2, 113:4, 164:1, 198:22 consistently [1] - 103:14 consists [1] - 162:9 constantly [1]-13:19 constitute [2]-44:15, 44:22 constituted [1] - 44:12 constraint [1] - 214:11 consulted \([3]\) - 16:22, 17:16, 19:8 consulting [3] - 56:10, 56:18, 58:15 consumer [1] - 86:4 contacted [2]-66:11, 163:13 contacts [1] - 192:11 contagion [1] - 53:19 contain [1]-41:6 contained [1] - 79:20 contains [1] - 91:12 contemplated [1] - 128:12 contemplates [3] - 9:8, 31:18, 159:22``` |  | 30:13, 30:24, 34:4, 34:8, 34:16, 35:5, 35:9, 35:15, 35:22, 36:3, 36:13, 37:21, 37:25, 38:3, 38:8, 38:22, 39:1, 39:10, 39:11, 39:14, 39:22, 40:23, 51:18, 68:12, 75:6, 78:11, 78:12, 78:15, 78:18, 81:9, 81:10, 94:9, 97:19, 98:19, 99:7, 101:6, 101:14, 101:22, 102:25, 116:12, 117:1, 119:14, 124:2, 138:7, 142:12, 143:22, 143:24, 144:4, 144:5, 144:8, 144:12, 145:21, 146:2, 146:13, 146:24, 147:5, 147:9, 147:13, 148:2, 148:8, 148:11, 148:16, 149:20, 151:6, 151:11, 151:24, 151:25, 152:16, 153:12, 153:13, 154:9, 154:14, 155:1, 155:22, 156:7, 156:13, 157:12, 158:6, 158:16, 158:21, 159:23, 160:6, 161:14, 161:15, 162:11, 162:12, 163:5, 164:8, 166:20, 168:7, 168:14, 169:2, 170:7, 170:10, 170:14, 170:18, 170:24, 171:21, 172:2, 172:9, 172:13, 174:15, 174:21, 175:10, 176:22, 176:25, 177:3, 177:7, 177:13, 178:8, 179:10, 181:17, 182:4, 182:9, 182:25, 183:7, 183:12, 183:16, 184:3, 184:21, 184:24, 185:6, 185:8, 187:5, 187:10, 188:18, 188:23, 189:1, 189:9, 190:2, 190:10, 190:11, 191:24, 192:1, | ```192:3, 192:7, 192:24, 193:4, 194:14, 194:19, 195:9, 195:13, 196:3, 196:23, 199:5, 200:22, 207:3, 207:12, 207:21, 219:16 Correct [4]-116:11, 185:9, 187:18, 190:14 corrected [1] - 79:1 correction [1] - 118:1 correctly [2] - 46:22, 213:12 corresponding \([5]\) - 77:7, 78:3, 91:17, 118:11, 150:24 \(\boldsymbol{\operatorname { c o s t }}[139]-57: 1\), 57:14, 66:22, 67:16, 67:20, 68:24, 69:1, 69:2, 69:22, 70:4, 70:6, 71:15, 71:21, 72:18, 74:14, 75:1, 76:12, 76:15, 77:16, 79:15, 81:13, 81:15, 82:4, 82:13, 82:16, 83:7, 83:8, 83:9, 83:10, 83:14, 84:6, 86:6, 92:11, 93:1, 95:2, 95:21, 95:24, 97:15, 97:25, 98:8, 98:20, 99:15, 99:22, 101:4, 101:6, 102:19, 103:4, 103:16, 106:16, 106:21, 111:9, 111:11, 112:2, 116:25, 117:15, 117:25, 119:22, 120:8, 124:9, 124:10, 131:2, 142:3, 142:4, 144:7, 147:5, 147:8, 147:15, 147:18, 148:1, 148:19, 148:20, 149:22, 151:1, 151:3, 151:9, 151:10, 151:11, 151:12, 151:21, 152:3, 152:12, 152:20, 154:18, 156:16, 157:9, 163:22, 164:6, 165:21, 166:6, 167:3, 167:7, 168:16, 170:6, 170:17, 171:25, 172:5, 172:10, 172:19, 173:9,``` |
| :---: | :---: | :---: | :---: | :---: |


|  | ```175:14, 175:17, 176:4, 181:25, 182:15, 182:16, 183:15, 183:22, 184:15, 185:14, 190:8, 190:24, 191:12, 194:18, 197:3, 197:6, 200:9, 200:10, 200:17, 205:6, 209:24, 210:19, 210:20, 210:21, 211:1, 211:10, 212:2 Council [1] - 65:22 Counsel [1] - 217:21 counsel [7]-30:3, 31:4, 43:6, 49:15, 53:7, 104:8, 143:15 counseling [4]-61:6, 61:10, 63:8, 111:1 Counseling [1] - 138:9 Counselor [1] - 133:24 counselors [1] - 163:16 counted [1] - 207:16 counties [10] - 24:7, 24:10, 24:19, 24:22, 25:1, 25:4, 25:7, 25:15, 155:17, 185:16 Counties [1] - 24:7 country [2]-51:2, 51:20 counts [1]-80:8 county [12]-49:18, 73:11, 120:1, 154:7, 154:19, 154:20, 154:21, 171:23, 189:11, 210:5, 210:15, 211:22 COUNTY \({ }_{[1]}-1: 10\) County [39]-2:2, 3:2, 9:16, 11:10, 13:9, 14:6, 22:4, 47:6, 47:19, 51:8, 53:21, 58:20, 73:4, 73:22, 154:14, 154:20, 154:25, 155:6, 155:9, 155:13, 156:25, 161:4, 161:7, 162:18, 165:7, 166:24, 170:13, 170:17, 170:22, 171:4, 171:17, 171:21, 186:9, 186:10, 186:13, 189:9, 205:18, 205:20``` |  |  | $\begin{gathered} \text { cross [24]-9:7, 17:10, } \\ \text { 17:12, 23:18, 23:19, } \\ \text { 31:4, 31:9, 31:10, } \\ \text { 32:10, 32:23, 32:25, } \\ \text { 41:15, 42:24, 48:20, } \\ \text { 89:14, 114:8, } \\ \text { 143:10, 179:25, } \\ \text { 197:15, 201:2, } \\ \text { 202:12, 203:13, } \\ \text { 204:5, 206:8 } \\ \text { CROSS }[1]-143: 16 \\ \text { cross-examination [3] } \\ -201: 2,202: 12, \\ \text { 204:5 } \\ \text { cross-examine }[1]- \\ 114: 8 \\ \text { CRR }[2]-6: 17,6: 18 \\ \text { cull }[1]-144: 17 \\ \text { cumulative }[3]- \\ \text { 15:13, 28:3, } 36: 9 \\ \text { Cuong }[1]-88: 16 \\ \text { cure }[1]-31: 4 \\ \text { current }[12]-9: 19, \\ 10: 12,11: 20,63: 1, \\ 72: 23,162: 22, \\ 163: 22,169: 6, \\ 170: 1,210: 19, \\ 211: 22,212: 6 \\ \text { customization }[1]- \\ 25: 3 \\ \text { customized } \\ 25: 12 \\ \text { cut }[2]-121: 15,184: 6 \\ \text { cutting }[1]-17: 12 \\ \text { Cuyahoga }[1]-24: 7 \\ \hline \\ \hline \text { D } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |

```
71:22, 71:24, 72:3,
72:5, 72:6, 72:7,
72:10, 73:15, 73:17,
73:19, 73:22, 74:1,
74:3, 74:4, 74:7,
76:12, 79:11, 81:13,
81:15, 82:4, 82:13,
82:16, 83:10, 83:13,
83:14, 83:15, 83:24,
84:1, 84:2, 84:3,
84:10, 84:20, 84:23,
85:23, 89:3, 89:6,
91:2, 91:18, 92:2,
94:14, 95:24, 97:2,
99:8, 99:13, 99:21,
100:3, 100:15,
100:17, 100:21,
111:12, 111:13,
111:24, 112:4,
118:25, 119:4,
119:7, 119:22,
123:9, 123:13,
123:19, 123:23
124:21, 124:25,
125:8, 125:9,
125:12, 125:21,
126:15, 127:2,
127:21, 142:5,
142:6, 147:8,
147:15, 149:20,
150:13, 153:10,
153:21, 155:6,
163:4, 163:12,
163:16, 164:6,
165:21, 166:16,
167:3, 171:25,
172:4, 172:5,
184:23, 185:10
186:16, 203:24,
207:12, 207:13
207:21
```

databases [1]-41:6
dataset [1] - 91:3
Date [1] - 220:2
date [3]-40:2, 115:2, 115:7
dated [1] - 100:4
Daubert [5] - 44:2, 53:23, 209:17,
210:2, 213:5
DAVID [2] - 1:17, 4:5 David [2] - 7:1, 122:6
days [21]-31:9, 31:12, 31:16, 31:25, 75:16, 116:7, 189:20, 192:6, 192:20, 192:24, 193:6, 193:7, 193:19, 193:21, 193:23, 194:3, 208:5

```
DC [6] - 4:7, 4:10,
4:19, 4:21, 5:5, 5:12
De[2]-2:4, 2:14
DEA [1] - 162:13
dealing [2] - 73:13,
    75:20
deals [2] - 75:23,
90:25
dealt [2] - 50:10, 84:11
death [2]-56:19,
144:4
December [1] - 100:4
decide [2] - 56:5,
212:7
decided [2] - 82:15,
    82:20
deciding [2] - 41:24,
```

```
defined [1] - 151:20
```

defined [1] - 151:20
definition [2] - 47:17,
52:6
Degree [2] - 62:11,
62:12
degree [7] - 25:11,
60:23, 61:2, 62:21,
106:14, 141:19,
143:5
deliberations [1] -
82:19
delivers [1] - 45:22
Delta [1] - 94:15
Demo [7] - 86:9,
95:15, 95:17,
101:21, 103:15,
109:18, 147:19

```
49:4
decision [1] - 169:3
decisions [1] - 56:4
declined [1] - 113:22
decrease [3] - 150:16,
184:4, 193:9
decreases [3] - 92:21,
152:18, 160:2
decreasing [1] -
193:25
deduct [1] - 206:22
deducted [1] - 195:23
Defendant [4]-4:16,
5:2, 5:7, 6:2
defendant [2] -
167:21, 195:17
Defendants [3]-1:8,
1:14, 219:19
defendants [34] -
44:2, 44:20, 45:4,
45:5, 45:11, 46:4,
46:6, 46:12, 46:17,
46:24, 47:3, 47:16,
47:23, 48:9, 48:17,
50:3, 50:6, 50:20,
50:25, 51:19, 52:11,
53:13, 59:4, 171:10,
207:18, 209:17,
210:21, 211:1,
211:3, 211:4, 212:1,
212:9, 215:15,
216:12
defendants' [4] -
44:12, 44:14, 53:9,
211:23
defense [9]-7:18,
49:15, 53:7, 59:7,
113:21, 122:7,
143:9, 215:2, 217:11
defense's [1] - 114:2
defer [1] - 50:9
define [2] - 32:16,
32:18
Demonstrative [5] -
106:20, 116:23,
130:7, 130:15,
130:17
demonstrative [3] 8:11, 59:8, 98:23
department [1] - 99:16
Department [6] -
62:17, 71:10, 91:2, 97:4, 166:9, 185:2
Departments [1] 136:16
departments [1] - 99:9
depicted [1] - 86:14
deposition [7] - 58:3,
122:3, 144:14,
144:18, 165:10,
165:12, 198:14
depth [2] - 52:13, 75:17
derivation [2] -
153:19, 172:4
derived [2] - 36:15, 115:23
describe [11] - 21:5,
56:15, 65:3, 67:19, 69:7, 73:7, 75:15, 77:14, 117:3, 151:18, 151:19
described [3] - 18:19, 81:6, 82:6
describes [1] - 152:9
describing [1] - 74:21
designated [1] - 215:8
designation [1] -
157:3
designations [2] -
122:3, 122:15
detail [5] - 70:18,
78:13, 130:7,
142:11, 142:18
detailed [2] - 130:8, 178:15
detailers [4] - 71:3, 87:20, 92:20, 92:23 detailing [7] - 78:5,
86:17, 87:2, 87:6, 87:7, 93:2, 131:3
Detailing [2] - 130:23, 131:3
details [1] - 76:4 determination [2] 170:24, 171:11 determine [21]-70:3, 71:6, 80:1, 83:8, 91:9, 95:6, 99:15, 99:18, 99:19, 163:14, 163:25, 166:4, 167:6, 167:7, 168:25, 169:5, 170:12, 170:21, 197:10, 200:22, 200:23
determined [1] -
146:17
determining [3] -
46:13, 111:9, 142:3
develop [12] - 9:15,
10:15, 22:15, 26:9, 36:24, 53:5, 153:16, 196:2, 196:13, 196:20, 196:22, 197:4
developed [21] -
15:22, 24:3, 24:24, 25:1, 25:6, 29:1,
36:3, 36:13, 37:4, \(37: 5,37: 13,37: 18\), 37:19, 52:23,
111:11, 142:5,
157:13, 157:25, 168:13, 168:17, 171:8
developer [1] - 201:7 developing [6] - 10:3,
21:25, 22:14,
152:10, 168:13, 199:18
Development [2] -
97:5, 185:3
development [1] 75:21
develops [3] - 45:19,
45:21, 57:8
devised [1] - 208:12
devote [1] - 63:17
DHHR's [1] - 12:1
DHR [1] - 12:1
diagnostic [1] - 10:7
differ [2] - 96:11,
130:6
difference [4] - 77:19,
77:20, 126:18,

155:20
different [28]-25:22,
35:25, 78:21, 81:16, 85:9, 94:19, 94:20, 96:8, 104:25,
109:21, 112:17, 113:11, 124:9, 124:21, 126:14,
155:17, 155:19,
162:1, 168:5, 169:1, 181:18, 183:18,
185:19, 188:7,
200:4, 208:19,
214:16, 218:3
differential [1] - 79:6
differently [1] - 11:13
difficult [2] - 90:5,
145:14
diligence [6] - 146:12,
146:22, 146:24,
147:1, 147:4, 153:23
direct \([8]-8: 21\),
14:15, 31:11, 32:9,
80:24, 198:23,
200:19, 214:7
DIRECT [1] - 55:20
directed [2] - 49:9,
212:24
direction [1] - 121:6
directly [4] - 20:16,
36:16, 153:13, 172:21
Director [2] - 131:21,
132:19
disagree [2] - 45:6,
186:7
disclaimed [1] -
203:14
disclosed [7] - 31:7,
31:8, 31:14, 31:18,
31:23, 31:24, 32:12
disclosure [4]-31:3,
31:4, 32:8, 41:9
disclosures [11] -
18:20, 19:7, 19:10,
19:19, 19:23, 20:7,
20:10, 26:19, 27:2,
27:4, 27:17
discontinued [1] -
125:13
discount [2] - 112:13,
120:8
discounting [4] -
112:9, 114:21,
115:1, 125:22
discounts [1] - 199:23
discovered [1] -
124:24
discovery [1] - 52:1
discuss [3] - 15:18,

```

64:3, 64:5, 64:12,
65:5, 65:6, 65:15,
65:22
economist [16] - 56:1,
56:2, 56:6, 58:11,
61:22, 76:14,
143:20, 145:23,
145:24, 145:25,
158:18, 168:1,
188:8, 200:20,
201:3, 212:2
economist's [1] -
212:18
economists [8] - 56:3,
72:7, 72:22, 72:25,
85:18, 89:6, 112:3,
126:19
economy [1] - 85:1
editor [3]-64:11,
65:17
educated [1] - 164:3
education [26] - 78:6,
86:25, 87:8, 106:22,
110:6, 110:7,
161:13, 161:18
162:3, 167:14,
186:22, 187:4,
187:8, 187:17,
187:18, 187:24,
188:15, 188:22,
189:5, 189:14,
189:17, 189:20
189:24, 190:1,
200:6, 202:8
Education [6] - 11:8,
62:19, 131:12,
131:14, 139:10,
161:12
educational [1] -
60:22
educators [1] - 189:19
effect [3] - 23:9, 85:3,
114:19
effort [5] - 168:25,
169:5, 170:12,
170:19, 170:21
efforts [1] - 28:2
eight [1] - 32:15
Eighth [1] - 3:10
either [12] - 22:12,
36:16, 36:17, 39:20,
42:17, 45:2, 81:16,
158:23, 171:21,
174:9, 205:4, 212:22
Either [1] - 79:14
elected [1] - 65:14
element [4]-18:16,
121:1, 164:23,
191:22
elements [3]-76:1,

```
```

153:11, 211:7
entitled [1] - 96:4
Entry [1] - 137:22
entry [2] - 176:15,
192:14
ENU [1] - 4:17
Epidemic [3] - 110:13,

```
135:10, 174:17
epidemic [40] - 9:15,
9:20, 9:23, 10:12,
10:17, 10:24, 10:25,
16:10, 16:15, 23:5,
26:1, 26:23, 28:3,
29:6, 37:15, 40:11,
46:9, 50:7, 50:19,
50:21, 50:23, 52:9,
53:17, 53:18, 53:19,
87:9, 110:17,
120:20, 120:25,
158:1, 167:12,
168:7, 181:11
182:3, 206:1, 211:7,
211:25, 212:8,
212:10, 212:12
epidemiologic [10] -
26:23, 29:6, 29:22,
36:20, 37:14, 38:9,
39:5, 40:10, 42:19,
42:20
epidemiologist [3] -
119:17, 145:21,
154:1
epidemiologists [4] -
17:22, 18:10, 66:13,
73:12
epidemiology [4] -
16:9, 37:12, 38:11,
200:12
equal [2] - 105:3,
216:7
equitable [1] - 52:1
equivalent [2] - 90:15, 189:6
era [1] - 73:9
error [1] - 117:15
errors [3] - 78:25, 79:1, 79:2
especially [2] - 90:5, 127:2
essentially [3] 118:23, 209:18, 215:20
establish [4] - 8:5, 49:24, 211:24, 212:9 established [4] -
72:24, 99:9, 99:14, 188:12
estate [2] - 81:18, 93:6
estimate [17] - 15:11,
15:21, 23:8, 28:25,

\section*{69:21, 112:1, 145:13, 148:15 150:17, 160:8, 166:13, 184:19 193:4, 194:21 207:14}
estimated [10] - 92:11, 94:22, 97:25, 151:3, 163:23, 168:6, 168:21, 176:5, 184:6, 187:12 estimates [10]-26:17,
36:21, 82:14, 111:10, 142:3, 147:17, 155:8, 157:10, 167:16, 183:18
estimating [2] - 25:21, 100:18
et \([7]-1: 7,1: 13\), 29:17, 73:2, 180:21, 219:17, 219:18 evaluate [1] - 170:1 evaluation [5] - 61:7, 61:22, 66:18, 110:11, 143:21
Evaluation [1] 132:25
Eventually [1] - 82:19 evidence [19] - 8:6, 33:13, 36:6, 36:9, 36:18, 46:14, 47:25, 53:11, 88:2, 88:8, 88:9, 88:11, 88:21, 126:20, 128:13, 128:16, 210:16, 210:17
evidently [1] - 52:24
evolving [1] - 28:3
exact [2] - 50:12, 190:17
exactly [3] - 46:25,
89:2, 148:12
Exactly [1] - 205:11
EXAMINATION [5] 9:4, 23:20, 55:20, 143:16, 197:24
examination [15] - 9:7,
13:2, 17:12, 32:10, 32:23, 32:25, 41:15, 43:5, 48:20, 54:8, 89:15, 179:25, 201:2, 202:12, 204:5 examine [3] - 114:8, 143:10, 201:21
examined [4] - 12:12, 12:15, 14:7, 174:6
example [27] - 9:24,
10:5, 11:20, 70:22,
71:1, 71:6, 71:18,

72:17, 78:4, 90:24, 93:4, 94:19, 95:14, 119:3, 123:21, 127:10, 161:11 163:11, 163:18 163:21, 178:10, 184:13, 186:20 188:11, 189:19, 205:10
examples [5] - 10:13,
70:18, 98:9, 101:3, 189:23
except [2] - 32:13,
32:18
exception [1] - 76:12
excerpt [2] - 81:8,
82:8
exchange [2] -
148:11, 210:5
Exchange [1] - 152:3
exclude [1] - 88:2
excluded [2] - 88:8, 175:18
Excuse [1] - 108:7
excuse [10] - 14:22,
43:11, 71:2, 81:24,
84:19, 95:12, 108:1,
117:24, 138:5,
187:13
excused [5] - 43:1,
209:4, 209:5, 209:9, 209:14
Executive [1] - 132:19
exercise [2]-44:9,
146:25
exhaustive [1] - 52:20
exhibit [8] - 8:3, 8:7,
8:11, 8:16, 32:11, 32:18, 32:24, 130:18
Exhibit [4] - 38:15,
38:18, 39:13, 77:17
exhibits [3]-32:11,
32:17
exist [4] - 53:3, 53:5,
84:24, 156:24
existing [4] - 156:12, 156:19, 157:16, 160:4
exists [4]-9:15, 9:20,
155:16, 158:21
expand \([4]-74: 2\),
74:3, 103:8, 129:1
Expanding [1] -
135:23
expanding [1] - 73:25
expansion [1] -
110:18
expect [2] - 83:25,
96:22
expectation [2] -
\begin{tabular}{|c|c|c|c|c|}
\hline ```
    112:7, 113:4
expected [4]-26:18,
    29:17, 46:24, 114:17
expecting [1] - 49:10
expenditures \({ }_{[1]}\) -
    195:7
experience [12] -
    18:12, 21:24, 57:23,
    58:19, 59:17, 60:20,
    69:11, 74:19,
    121:10, 143:19,
    195:22, 202:9
expert [53] - 8:3, 8:4,
    8:5, 8:13, 8:18, 9:18,
    14:16, 15:3, 15:19,
    30:1, 30:14, 39:15,
    39:19, 51:23, 57:7,
    58:5, 58:11, 65:25,
    66:6, 72:19, 73:2,
    74:8, 81:12, 82:15,
    88:13, 88:18, 88:19,
    88:20, 89:3, 113:21,
    119:18, 119:21,
    121:4, 126:11,
    143:23, 144:3,
    145:21, 146:6,
    153:9, 158:18,
    161:19, 166:2,
    169:4, 183:23,
    200:11, 200:12,
    200:24, 201:20,
    202:5, 202:8, 217:19
expert's [3]-128:13,
    211:20, 211:21
expertise [28]-51:11,
    72:14, 72:20, 73:1,
    76:13, 82:22, 120:5,
    120:12, 120:18,
    120:22, 121:11,
    144:3, 146:15,
    146:20, 146:25,
    147:1, 147:7,
    148:13, 152:6,
    153:8, 153:20,
    154:2, 157:1,
    158:17, 162:24,
    199:9, 200:13,
    200:25
Experts [1]-65:6
experts [16] - 8:14,
    51:6, 72:10, 72:14,
    72:21, 72:25, 88:19,
    89:8, 111:14, 114:3,
    142:7, 147:16,
    152:1, 200:20,
    200:21
explain [22] - 9:22,
    30:7, 57:3, 64:9,
    65:13, 74:18, 77:19,
    78:20, 81:4, 90:11,
``` & ```
    94:23, 102:6,
    104:16, 111:21,
    114:16, 120:11,
    124:16, 150:9,
    175:22, 192:10,
    200:3, 208:16
explained [5] - 53:2,
    53:18, 104:14,
    192:23, 211:19
explaining [1] -
    111:22
exposed [1] - 179:4
Exposed [4] - 139:3,
    139:7, 139:11,
    178:18
expressly [1] - 47:2
extend [1]-10:18
extends [1] - 92:19
extensively [4]-23:6,
    50:16, 52:18, 52:19
extent [3] - 51:15,
    169:16, 207:5
extraordinary [1] -
    25:21
extrapolation [1] -
    15:11
eye [1]-178:1
F
F.3d [2] - 88:16, 88:18
Faber [1] - 7:2
FABER [1] - 1:17
face [1] - 42:8
facilities [1] - 160:9
fact [19]-13:7, 13:24,
    23:24, 31:6, 31:24,
    36:15, 37:6, 48:7,
    49:14, 59:5, 76:23,
    125:8, 160:17,
    169:3, 170:16,
    192:9, 194:25,
    207:14, 212:14
fact-finder [1] - 169:3
factor [6] - 41:24,
    42:1, 50:6, 50:20,
    97:11, 212:18
factors [1] - 42:4
facts [2]-44:7, 49:1
factual [2] - 43:9,
    212:7
factually [2]-31:16,
    42:14
fair [14]-21:24, 32:9,
    32:25, 96:23, 97:2,
    97:7, 97:9, 159:3,
    170:9, 184:20,
    185:10, 185:24,
    186:5, 207:19
faith [1] - 33:2
``` & ```
falling \({ }_{[1]}-95: 20\)
falls [2]-132:24,
    133:11
familiar [11] - 19:6,
    30:23, 69:13, 113:7,
    124:14, 159:16,
    201:8, 201:22,
    202:1, 202:3
Families [4]-139:21,
    140:22, 141:1, 141:5
families [6] - 10:2,
    96:5, 111:5, 176:18,
    177:15, 181:4
Family [1]-140:18
family [4]-117:25,
    165:2, 177:6, 177:12
far [10] - 40:7, 40:13,
    49:15, 51:3, 58:18,
    59:16, 81:23, 82:5,
    103:7, 216:2
FARRELL [11] - 2:3,
    32:5, 33:24, 49:8,
    49:13, 50:12, 50:15,
    213:21, 214:13,
    217:12, 218:22
Farrell [11]-2:4, 2:13,
    32:4, 33:16, 49:7,
    51:15, 52:10,
    212:14, 213:19,
    216:5, 218:21
Fatigue [1] - 136:5
fault [2]-50:11, 110:4
FCRR \({ }_{[1]}-6: 18\)
Federal [2]-59:2,
    71:12
federal [3]-47:25,
    210:18, 217:12
fee \([1]\) - 177:16
feet \([4]-54: 19,94: 2\),
    95:3, 95:9
Feinberg [1]-152:2
Feinberg's \([1]\) -
    152:22
Fentanyl [1] - 132:16
few [8]-39:10, 51:14,
    51:18, 83:15, 86:13,
    164:5, 169:13,
    186:25
field [28] - 17:22,
    38:11, 63:21, 65:1,
    65:25, 66:7, 76:13,
    89:3, 106:15,
    111:14, 120:5,
    120:12, 120:18,
    141:19, 142:7,
    143:5, 146:6, 147:1,
    148:13, 152:6,
    153:8, 153:9, 157:1,
    158:17, 161:19,
    162:24, 200:11,
``` & 200:25
fields \([3]-72: 15\),
143:25, 200:14
figure \([11]-33: 11\),
48:6, 48:14, 113:24,
114:2, 116:25,
144:10, 144:23,
157:20, 178:5, 193:8
figured \([1]-7: 8\)
figures \([1]-155: 22\)
figuring \([1]-33: 14\)
filed \([2]-49: 19,50: 3\)
fill \([1]-209: 21\)
final \([2]-67: 16,116: 3\)
finally \([4]-81: 19\),
\(100: 22,118: 5\),
\(122: 18\)
Finally \([1]-69: 9\)
finance \([1]-61: 3\)
financial \([14]-18: 20\),
\(19: 7,19: 10,19: 18\),
\(19: 23,20: 9,21: 5\),
\(21: 13,21: 18,27: 2\),
\(27: 4,27: 17,167: 23\),
\(167: 25\)
Financial \([1]-65: 5\)
finder \([1]-169: 3\)
findings \([2]-63: 19\),
\(213: 17\)
fine \([4]-60: 11\),
\(216: 16,216: 17\),
\(217: 6\)
Fire \([1]-88: 17\)
Firm \([2]-3: 4,3: 7\)
firm \([3]-27: 12,56: 10\),
\(62: 25\)
firms \([3]-27: 5,27: 19\),
\(41: 10\)
First \([4]-69: 20\),
\(134: 2,136: 9,136: 12\)
first \([56]-7: 9,16: 18\),
\(22: 22,24: 16,28: 8\),
\(40: 1,44: 11,45: 19\),
\(51: 18,52: 17,53: 12\),
\(61: 24,63: 22,69: 4\),
\(71: 1,71: 3,74: 16\),
\(77: 23,78: 4,81: 21\),
\(82: 8,83: 16,86: 15\),
\(86: 24,87: 1,93: 17\),
\(96: 5,98: 2,103: 2\),
\(110: 4,116: 6\),
\(126: 18,127: 20\),
\(127: 23,133: 24\),
\(134: 12,135: 24\),
\(138: 13,138: 14\),
\(139: 22,151: 1\),
\(151: 4,152: 18\),
\(152: 20,174: 13\),
\(182: 8,187: 1\),
190:18, 191:1, & \[
\begin{aligned}
& \text { 191:4, 192:17, } \\
& \text { 194:3, 199:11, } \\
& \text { 217:11 } \\
& \text { first-time }[1]-96: 5 \\
& \text { fit }[7]-44: 6,48: 18, \\
& 49: 1,51: 17,53: 11, \\
& 210: 3,211: 11 \\
& \text { five }[7]-40: 10,42: 19, \\
& 46: 8,46: 23,59: 5, \\
& 184: 24,215: 20 \\
& \text { five-year }[1]-184: 24 \\
& \text { fix }[2]-7: 20,108: 9 \\
& \text { FL }[1]-2: 11 \\
& \text { Flaherty }[1]-5: 14 \\
& \text { FLAHIVE }[1]-5: 10 \\
& \text { flip }[1]-159: 8 \\
& \text { Floor }[1]-3: 5 \\
& \text { flow }[1]-60: 10 \\
& \text { flush }[1]-84: 24 \\
& \text { focus }[1]-171: 13 \\
& \text { focused }[1]-25: 8 \\
& \text { focusing }[1]-171: 2 \\
& \text { folded }[1]-159: 8 \\
& \text { folks }[1]-188: 13 \\
& \text { follow }[2]-125: 11, \\
& 156: 9 \\
& \text { followed }[2]-28: 25, \\
& 215: 17 \\
& \text { following }[2]-7: 11, \\
& 164: 7 \\
& \text { follows }[3]-7: 5,55: 5, \\
& 180: 13 \\
& \text { food }[4]-61: 25,62: 2, \\
& 62: 5,62: 9 \\
& \text { footnote }[7]-28: 10, \\
& 28: 13,29: 9,29: 18, \\
& 29: 19,96: 3 \\
& \text { Footnote }[11]-15: 5, \\
& 15: 9,26: 20,28: 15, \\
& 28: 21,29: 8,39: 7, \\
& 54: 21,90: 18,92: 24, \\
& 96: 3 \\
& \text { footnoted }[2]-92: 3, \\
& 92: 9 \\
& \text { Footnotes }[1]-217: 24 \\
& \text { footnotes }[4]-15: 25, \\
& 16: 3,92: 3,92: 4 \\
& \text { FOR }[1]-1: 1 \\
& \text { force }[1]-165: 3 \\
& \text { foregoing }[1]-219: 16 \\
& \text { forensic }[34]-56: 1, \\
& 56: 2,56: 6,56: 15, \\
& 58: 11,61: 10,61: 22, \\
& 63: 17,66: 1,66: 7, \\
& 72: 7,72: 13,72: 22, \\
& 72: 23,72: 25,85: 18, \\
& 89: 4,89: 6,106: 15, \\
& 111: 14,112: 3, \\
& 113: 1,123: 22, \\
& 141: 20,142: 8, \\
& \hline
\end{aligned}
\] \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline ```
    143:5, 143:20,
    143:25, 145:24,
    200:20, 201:3,
    205:2, 212:18, 213:2
Forensic [3]-64:2,
    64:12, 65:4
forgive [1] - 159:7
forgot [1] - 54:9
forgotten [1] - 54:14
form [1] - 63:1
format [2]-66:17,
    172:5
forming [3] - 8:18,
    12:5, 16:22
forms [4]-174:2,
    175:25, 178:6,
    178:20
formula [3]-92:19,
    117:16, 208:12
formulation [1] -
    121:12
forth [4]-45:3, 49:14,
    61:15, 181:16
fortunate [1]-22:5
Fortunately \([1]-89: 16\)
forums [1]-56:8
forward [6] - 32:21,
    47:14, 53:24,
    123:20, 123:24,
    151:9
foster [5] - 176:25,
    177:3, 177:15,
    181:5, 181:15
Foster [5] - 140:5,
    140:6, 140:9,
    140:13, 140:17
foundation [4] -
    42:13, 89:5, 126:7,
    200:14
four [21]-12:15,
    16:17, 16:25, 17:15,
    19:8, 27:14, 29:5,
    29:21, 30:13, 40:12,
    46:8, 51:1, 68:4,
    75:20, 86:23, 116:7,
    116:9, 172:24,
    174:10, 174:13,
    178:23
fourth [2]-29:15,
    178:3
fraction [1] - 90:11
frankly [2] - 33:16,
    218:6
free [3] - 43:17, 88:5,
    209:6
freedom [1]- 89:17
frequencies [2]-76:8,
    119:19
frequency [5]-66:23,
69:15, 72:19, 75:1,
``` & \begin{tabular}{l}
76:15 \\
frequently [2] - 57:2, 57:15 \\
Friday [4] - 212:14, 213:25, 215:4,
217:10 \\
Fridays [1]-212:15 \\
fringe \([3]\) - 71:11, 99:23, 100:7 \\
front \([3]-14: 17,60: 9\), 77:22 \\
FTE [1] - 90:14 \\
full [6] - 33:3, 55:12, 90:14, 90:15, 157:22, 189:6 \\
full-time \([3]-90: 14\), 90:15, 189:6 \\
FULLER [3]-2:12, \\
7:8, 7:24 \\
Fuller \([4]-2: 4,2: 13\), 7:6, 7:23 \\
fully \([2]-11: 9,22: 18\) \\
function [1]-167:20 \\
fund [3]-168:7, 206:1, 206:16 \\
funded [5]-27:5, 27:18, 41:10, 41:22, 42:6 \\
funding [22] - 18:22, 18:24, 19:1, 19:2, 19:4, 20:1, 20:12, 20:16, 20:22, 21:6, 27:10, 27:13, 41:17, 41:18, 41:19, 53:9, 167:16, 168:12, 169:24, 177:10, 205:19 \\
Funding [2]-132:4, 154:6 \\
funds [3]-121:11, 169:17, 207:6 \\
future [51] - 10:15, 10:21, 11:1, 53:5, 56:21, 57:5, 57:6, 57:16, 57:17, 57:18, 57:23, 66:18, 69:21, 69:22, 70:1, 70:4, 70:9, 77:16, 83:8, 84:7, 84:13, 84:21, 85:22, 90:5, 92:17, 97:24, 100:22, 100:23, 111:19, 111:20, 112:1, 114:23, 115:21, 115:22, 117:5, 118:3, 123:11, 129:7, 131:2, 151:13, 170:23, 190:21, 194:1, 195:7, 195:21,
\end{tabular} & \[
\begin{gathered}
\text { 196:2, 196:14, } \\
\text { 196:20, 196:23, } \\
\text { 197:5, 200:7 } \\
\text { FY }_{[1]}-186: 6
\end{gathered}
\]
 & \[
\begin{aligned}
& \text { graduate }[2]-61: 7, \\
& 61: 9 \\
& \text { grand }[1]-116: 19 \\
& \text { grants }[1]-20: 23 \\
& \text { graphical }[1]-83: 22 \\
& \text { grateful }{ }_{[1]}-43: 12 \\
& \text { great }[5]-25: 18,27: 9, \\
& 79: 2,121: 16,214: 23 \\
& \text { greater }[3]-10: 8, \\
& 10: 21,96: 22 \\
& \text { Greenup }[1]-186: 10 \\
& \text { GRETCHEN }[1]-6: 7 \\
& \text { grief }[1]-11: 1 \\
& \text { Grief }[1]-138: 9 \\
& \text { ground }[3]-25: 3, \\
& 73: 5,166: 14 \\
& \text { group }[2]-58: 1,66: 13 \\
& \text { groups }[1]-63: 19 \\
& \text { grow }[2]-100: 22, \\
& 100: 24 \\
& \text { growth }[6]-57: 17, \\
& 91: 22,94: 9,94: 11, \\
& 94: 13,125: 21 \\
& \text { guess }[8]-21: 17, \\
& 81: 24,99: 12,148: 5, \\
& 168: 5,199: 21, \\
& \text { 199:25, 211:18 } \\
& \text { Gustin }[1]-122: 6 \\
& \text { guy }[1]-90: 7 \\
& \hline \\
& \hline
\end{aligned}
\] & ```
    10:1
harms [17]-15:14,
    28:20, 45:3, 45:7,
    45:10, 46:16, 47:11,
    47:16, 47:23, 48:12,
    50:24, 52:5, 52:11,
    211:6, 212:4, 212:6,
    212:12
Hartman [1] - 122:5
hats [1] - 179:16
Hawkins [1] - 3:7
head \([2]\) - 128:3,
    193:11
heading [1] - 103:3
health \([13]-45: 24\),
    46:1, 78:6, 86:25,
    106:21, 110:6,
    111:1, 158:18,
    163:13, 174:2,
    174:23, 175:24,
    200:12
Health \([7]-4: 16,5: 2\),
    17:20, 21:11, 138:9,
    161:11, 166:9
healthcare [11] -
    11:16, 87:8, 145:23,
    145:24, 146:1,
    146:6, 160:9,
    161:13, 161:16,
    171:4, 171:19
Healthcare [2] -
    131:11, 135:23
hear [4]-52:8, 131:9,
    172:16, 216:13
heard [4] - 48:11,
    51:21, 75:15, 157:18
hearsay [2] - 8:5,
    128:14
heat [2] - 54:7, 218:16
held [2] - 50:4, 77:9
help [9]-26:16, 33:9,
    59:21, 121:14,
    144:14, 147:22,
    159:6, 165:24,
    166:10
helpful \([7]\) - 19:12,
    24:13, 33:19, 34:24,
    49:2, 49:5, 53:21
helpfully [1] - 210:1
helping [2]-11:15,
    18:17
Helpline [2]-133:8,
    133:13
helps [2]-148:2,
    191:25
hepatitis [1] - 180:19
Hepatitis [4]-135:14,
174:21, 174:24,
179:1
herein [3] - 15:24,
``` \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 27:25, 29:3 & homeless [1] - 111:6 & :16, 209:20, & 22:4, 22:10, 22:17, & :15, 129:4 \\
\hline \begin{tabular}{l}
HESTER [53]-5:9, \\
12:21, 23:19, 23:21
\end{tabular} & \begin{tabular}{l}
Homeless [1]-141:8 \\
homelessness [1]
\end{tabular} & 210:12, 211:12,
212:7, 212:21, & \[
\begin{aligned}
& 23: 5,28: 1,47: 6 \\
& 47: 19,51: 8,52: 2 C
\end{aligned}
\] & 131:7, 149:21, \\
\hline 30:5, 30:9, 30:19, & 96:5 & 13:3, 213:18, & 52:24, 53:20, 70:16, & 159:18, 167:1 \\
\hline 30:20, 31:8, 31:17, & Homer [33] - 14:12 & 214:2, 216:7 & 70:20, 71:8, 71:22, & 167:2, 174:23 \\
\hline \[
32: 3,33: 4,33: 22,
\] & 14:21, 26:24, 28:23, & 216:17, 217:15, & 71:25, 72:1, 72:3, & 4:25, 177:11, \\
\hline \[
\begin{aligned}
& 34: 1,34: 2,42: 22, \\
& 54: 6,60: 3,66: 4,
\end{aligned}
\] & \[
\begin{aligned}
& \text { 29:9, 29:10, 29:17, } \\
& \text { 29:20, 30:12, 39:3, }
\end{aligned}
\] & \begin{tabular}{l}
218:5, 218:11, 219:5 \\
Honorable [1] - 7:1
\end{tabular} & \[
\begin{aligned}
& 72: 5,73: 3,74: 1, \\
& 94: 2,94: 8,95: 23,
\end{aligned}
\] & \[
\begin{aligned}
& \text { 187:11, 187:14, } \\
& \text { 188:6 }
\end{aligned}
\] \\
\hline 104:4, 108:4, 124:4,
\(125: 5,126 \cdot 9\) & 39:6, 39:14, 39:15 & HONORABLE & 97:3, 97:4, 97:7 & identifiers [2] - 82:2, \\
\hline 125:5, 126:9,
127:16, 128:11, & 39:18, 39:20, 40:6 & & 99:20 & \[
82
\] \\
\hline \[
\begin{aligned}
& \text { 127:16, 128:11, } \\
& \text { 143:11, 143:14, }
\end{aligned}
\] & \[
40: 8,40: 14,40: 22,
\] & honors [1] - 60:25
hope \([1]-49: 8\) & \[
\begin{aligned}
& \text { 154:25, 155:13, } \\
& \text { 155:16, 156:24, }
\end{aligned}
\] & \[
\begin{array}{r}
\text { identifies }[4]-57: 8, \\
86: 22,91: 4,100: 5
\end{array}
\] \\
\hline 143:17, 144:17 & , & ho & 157:11, 158:15 & identify [18] - 1 \\
\hline 144:19, 149:7, & 217:21, 217 & Hospital [1] - 171:23 & 160: & 9:25, 67 \\
\hline 49:10, 150:8, & 218:3, 218:4, 218:8, & hospital [2] - 189:3, & 160:19, 161:1 & :23, 69:4, 76:7 \\
\hline 169:23, 179:24 & 218:13, 218:19, & & 2:14, 162:18 & :21, 85:13, 86:14, \\
\hline 180:7, 180:14, & 218:25 & hour [3] - 121:14, & 162:22, 163:14, & \[
2: 4,93: 10,95: 17
\] \\
\hline \[
\begin{aligned}
& \text { 186:2, 186:3, } \\
& \text { 193:14, 193:16, }
\end{aligned}
\] & \[
\begin{gathered}
\text { Homer's [6] - 14:16, } \\
15: 16,16: 21,16: 2
\end{gathered}
\] & 121:20, 161:21 & \[
\begin{aligned}
& \text { 165:7, 166:14, } \\
& \text { 166:18, 166:24, }
\end{aligned}
\] & \[
\begin{aligned}
& 98: 24,100: 1,129: 6, \\
& 160: 12,170: 16
\end{aligned}
\] \\
\hline 199:14, 201:19 & 17:24 & , 91:13, 18 & :11, 167:20 & identifying [1] - 188 \\
\hline 202:4, 203:3, 206:3, & honor [1] - 65:9 & 187:13 & 8:2, 168:9, 169:7 & IE1 [2] - 148:5, 148:7 \\
\hline 208:25, 214:2, & Honor [114]-8:23 & hours [11] - 187:8, & 70:2, 170:13, & illegal [1] - 45:18 \\
\hline 214:5, 215:3,
218:11, 219:5 & 9:2, 13:13, 13:20 & 188:3, 188:15 & 170:17, 170:2
171:4, 171:16 & illicit [5] - 120:15, \\
\hline 218:11, 219:5
Hester [20]-12:12, & 13:25, 14:8, 14:19 & 189:1 & 171:4, 171:16 & 211 \\
\hline Hester [20]-12:12,
13:2, 23:18, 32:2, & 17:7, 23:12, 23:19 & 12, 215:2 & \(184 \cdot 24,185 \cdot 11\) & 212:3, 212:5 \\
\hline \[
\begin{aligned}
& 13: 2,23: 18,32: 2, \\
& 33: 3,54: 15,54: 18
\end{aligned}
\] & \[
30: 3,30: 6,30: 19
\] & 12, 216:24 & \[
\begin{aligned}
& \text { 184:24, 185:11, } \\
& \text { 185:13, 185:14, }
\end{aligned}
\] & imagine [2] - 168:1, \\
\hline 104:15, 127:15 & 31:23, 33:4, 33:6 & [1] - 95 & 85:16, 185:18 & Imaging [1]-20:2 \\
\hline 7:25, 128:5 & :22, 42:25, 43:4 & houses [1] - 166 & 19, 185:2 & immateria \\
\hline :10, 143:14 & 43:25, 45:5, 46:15 & Housing [6] - 97:4 & 5:23, 186:6, & 210:25, 211:4 \\
\hline 169:12, 180:4, & 47:1, 48:6, 48:13, & 137:25, 139: & 6:7, 186:1 & immediately [3] - \\
\hline \[
\begin{aligned}
& \text { 198:21, 202:14, } \\
& \text { 202:25, 206:25, }
\end{aligned}
\] & 49:2, 51:14, 52:13, & 141:8, 141:10, 185:2 & \[
\begin{aligned}
& 39: 9,205: 21 \\
& 35: 25,210: 7
\end{aligned}
\] & 66:16, 66:20, 74:22 \\
\hline \[
213: 25
\] & \[
54: 16,54: 25,55
\] & housing [30] - 71:16 & 219:17 & Immunodeficiency \({ }_{[2]}\) \\
\hline hidden [1] - 129:2 & 55:18, 59:11, 59:24, & 6:12, 96:15, & Huntington's [1] - & impact [10]-11:22, \\
\hline hide [2]-129:24, & 60:3, 60:7, 60:13 & 7, 96:18, 96:22, & 205:19 & 12, 16:14, 26:1 \\
\hline 130:2
high [9] - 11:17 & 61:17, 65:24, 66:4 & 7:16, 98:6, & Huntington-Cabell [1] & :17, 79:2, 115:19, \\
\hline high \([9]\) - 11:17,
\(60: 25,67: 21,77: 20\), & \(67: 3,87: 24,88: 10\),
\(88: 24,89 \cdot 19,90: 2\) & 21, 111:6, & \begin{tabular}{l}
- 163:14 \\
Huntington/Ashland/
\end{tabular} & 5:20, 125:20 \\
\hline \[
\begin{aligned}
& \text { 60:25, 67:21, 77:20, } \\
& \text { 119:4, 119:7, }
\end{aligned}
\] & \[
\begin{aligned}
& 88: 24,89: 19,90: 2, \\
& 90: 6,104: 4,104: 13,
\end{aligned}
\] & 17:15, 164:7 64:10, 164:12 & Huntington/Ashland/ West [1] - 186:8 & 04:16 \\
\hline 123:14, 182:18 & 108:4, 113:18 & 164:1 &  & impacts [1] - 10:25 \\
\hline 205:11 & 114:1, 114:3, 114:6, & 5:1 & 9:13, 1 & 32:19, 32:2 \\
\hline higher [3] - 10:3 & 1:13, 121:25, & 3, 166:1 & 5:14 & 33:2 \\
\hline 49:22, 201:12 & 122:9, 123:2, 123:4, & 166:23, 184:15, & & implemented [1] - \\
\hline Higher [1] - 62:19 & 123:6, 124:4, 126:1, & 184:19, 185:15 & & 7:2 \\
\hline \[
\begin{aligned}
& \text { historic [2] - 83:22, } \\
& 112: 16
\end{aligned}
\] & \[
\begin{aligned}
& \text { 126:9, 126:22, } \\
& \text { 127:3, 127:16, }
\end{aligned}
\] & Howenstein [2]
\[
122: 5,122: 13
\] & idea [5] - 90:13, & \[
\text { important }[6]-13: 2
\] \\
\hline historical \([5]-83: 15\), 100:15, 123.12 & \[
\begin{aligned}
& \text { 128:6, 128:19, } \\
& 130: 11,142: 22,
\end{aligned}
\] & HUD [3] - 184:2 & \[
\begin{aligned}
& \text { 164:10, 167:21, } \\
& \text { 199:11. 214:12 }
\end{aligned}
\] & \[
51: 4,53: 21
\] \\
\hline \[
148: 20,151: 1
\] & 143:8, 143:11 & & identical \([1]\) - 37:2 & impression [2 \\
\hline Historically [1] - 99:20 & 150:4, 169:11, & Human [3] - 135:10 & identification \({ }^{[3]}\) - & Improving [1] - 109:23 \\
\hline history [1] - 145:14 & 169:21, 179:11, &  & 19, 81:12, 100 & IN \({ }_{[2]}\) - 1:1, 1:18 \\
\hline \[
\begin{aligned}
& \text { HIV }[4]-174: 20, \\
& 174: 24,178: 25, \\
& 180: 19
\end{aligned}
\] & 179:24, 180:8, 186:2, 193:14, 197:18, 201:19, & hundred [3]-16:11,
\[
22: 16,176: 10
\] & \begin{tabular}{l}
identified [35] - 11:23, \\
13:2, 67:25, 71:4, \\
71:19, 76:5, 78:2,
\end{tabular} & in-depth [2] - 52:13,
75:17 \\
\hline \[
\begin{gathered}
\text { hold }[3]-106: 14, \\
143: 4,190: 16
\end{gathered}
\] & \[
\begin{aligned}
& \text { 202:11, 203:13, } \\
& \text { 203:22, 206:3, }
\end{aligned}
\] & HUNTINGTON \({ }_{[1]}\) & \[
\begin{aligned}
& 78: 5,79: 1,85: 25, \\
& 87: 16,92: 14,92: 23,
\end{aligned}
\] & inaccurate [1]-52:12 \\
\hline holes [1] - 209:22 & 207:25, 208:23, & & 25, 93:16, 97:7, & inappropriate [3] 45:24, 125:4, 210:24 \\
\hline holiday [1] - 217:13 & 208:25, 209:2, & 3:10, 4:1, 9:16, & \[
99: 13,103: 2,
\] & incarcerated \([1]\) - \\
\hline Home [1] - 136:18 & 209:8, 209:12, & & 103:20, 103:24, & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline ```
incarceration [4] -
    95:25, 98:6, 164:8,
    165:16
incidence [1] - 204:14
include [11] - 10:24,
    15:25, 16:13, 29:5,
    29:21, 45:17, 45:20,
    46:22, 64:2, 155:25,
    178:25
included [11] - 29:24,
    40:25, 42:18, 42:19,
    46:7, 122:7, 172:1,
    175:4, 181:7,
    185:16, 196:12
includes [8] - 45:12,
    46:5, 148:18,
    185:15, 186:9,
    186:21, 194:21,
    196:1
including[4]-73:10,
    111:10, 142:3, 198:9
incorporate [1] - 89:1
incorporated [1] -
    150:17
incorporating [1] -
    69:23
incorrect [2] - 31:16,
    42:14
incorrectly [1] -
    187:25
increase [5] - 14:6,
    91:6, 91:13, 111:25,
    195:7
increased [6] - 12:12,
    12:19, 13:1, 13:4,
    117:18, 150:15
increases [4] - 34:14,
    62:7, 91:9, 91:17
increasing [1] - 97:23
Increasing[1] -
    204:14
incur [1]-170:22
incurred [1] - 189:8
incurring [1] - 188:25
indeed [1] - 11:18
independent [1] - 95:8
independently [1] -
    101:15
index [5] - 86:4, 94:17,
    97:22, 97:23, 124:18
Index [2]-124:15,
    124:17
indexes [2]-124:10
indicate [1] - 204:3
indicated [2] - 143:19,
    182:1
indicating [1] - 100:4
indication [1] - 27:12
indices [1] - 195:7
indirectly [1] - 36:16
``` &  & ```
    150:22, 182:25,
    190:22, 195:7
inflationary [5] -
    71:12, 84:10,
    111:24, 194:2
influence [1] - 42:4
inform [2]-16:12,
    36:19
informally [1] - 166:1
information [35] -
    18:23, 30:15, 37:11,
    39:17, 41:20, 57:12,
    66:20, 66:21, 67:24,
    68:3, 68:13, 68:24,
    69:10, 69:14, 69:19,
    72:17, 76:11, 76:15,
    79:14, 80:4, 92:13,
    93:20, 96:10, 98:3,
    99:22, 102:21,
    111:23, 126:6,
    130:18, 151:21,
    156:16, 166:6,
    202:5, 207:8
informed [1] - 192:18
initial [1] - 167:14
initiated [1] - 192:17
Injectable [1] - 136:15
injection [6] - 148:10,
    148:15, 150:10,
    151:6, 151:10,
    151:17
injury [8] - 50:5,
    56:19, 56:22, 56:25,
    57:4, 66:19, 144:4,
    145:3
Inpatient [1] - 134:22
input [8] - 35:17,
    119:18, 119:24,
    152:17, 156:14,
    172:7, 208:7, 208:8
inputs [13]-35:7,
    35:9, 35:12, 35:13,
    35:20, 36:1, 37:24,
    38:2, 70:8, 79:13,
    184:20, 192:21,
    209:24
Insecure [1] - 141:8
insecure [1] - 111:6
insist [1] - 8:12
instance [14]-22:15,
    24:13, 25:20, 34:11,
    36:10, 36:19, 37:16,
    39:6, 39:7, 40:11,
    146:19, 152:21,
    153:4, 158:25
instances [8] - 37:17,
    40:12, 73:20, 73:21,
    82:12, 83:10, 146:4,
    163:11
instead [5] - 8:8,
``` & \[
\begin{aligned}
& \text { 49:11, 172:16, } \\
& \text { 184:1, 210:13 } \\
& \text { Instead }[1]-119: 20 \\
& \text { Institute }[5]-20: 2, \\
& \text { 20:13, 20:19, 21:11 } \\
& \text { instructor }[1]-63: 5 \\
& \text { insurance }[18]-174: 1, \\
& 174: 2,174: 5,175: 7, \\
& 175: 9,175: 10, \\
& 175: 24,175: 25, \\
& 176: 7,176: 8, \\
& \text { 178:19, 178:20, } \\
& \text { 179:8, 179:14, } \\
& \text { 179:19, 180:23, } \\
& 206: 23 \\
& \text { Insurance }[1]-88: 17 \\
& \text { intelligent }[1]-214: 19 \\
& \text { intend }[2]-60: 6, \\
& 216: 3 \\
& \text { intended }[3]-44: 18, \\
& 44: 25,194: 25 \\
& \text { Intensive }[3]-134: 16, \\
& 140: 14,141: 5 \\
& \text { intent }[2]-171: 7, \\
& \text { 191:11 } \\
& \text { interest }[15]-20: 7, \\
& 21: 6,112: 8,112: 9, \\
& 112: 12,112: 17, \\
& 113: 15,114: 18, \\
& 114: 19,115: 9, \\
& 123: 12,195: 2, \\
& 195: 16,195: 17, \\
& 195: 23 \\
& \text { interesting }[1]-210: 5 \\
& \text { interference }[1]- \\
& 44: 13 \\
& \text { intergenerational }[1]- \\
& 9: 25 \\
& \text { intermediate }[1]-62: 1 \\
& \text { internal }[1]-100: 6 \\
& \text { International }[1]- \\
& 65: 7 \\
& \text { interpose }[1]-31: 1 \\
& \text { interpret }[6]-18: 23, \\
& 21: 13,21: 16,42: 2, \\
& 42: 4,154: 15 \\
& \text { interpreting }[1]-19: 1 \\
& \text { interrupt }[2]-13: 13, \\
& 87: 24 \\
& \text { interrupting }[2]-30: 4, \\
& 169: 12 \\
& \text { Intervention }[1]- \\
& 29: 16 \\
& \text { intervention }[1]- \\
& 30: 11 \\
& \text { interventions }[11]- \\
& 10: 24,11: 14,11: 23, \\
& 15: 12,15: 24,16: 14, \\
& 26: 18,27: 24,29: 3, \\
& 29: 18,176: 24
\end{aligned}
\] & ```
Interventions [6] -
    139:3, 139:6, 140:3,
    140:14, 141:5,
    178:17
introduce [2] - 31:5,
    55:22
introduction [1] -
    124:24
invest [1]-168:2
invested [4]-112:11,
    114:18, 195:2,
    195:16
investigate [1] -
    200:21
investigated [1] -
    174:9
investigator's \({ }_{[1]}\) -
    20:15
investment [2] -
    113:5, 118:23
Investment [1]-20:15
investments [1] -
    112:18
involve [1] - 169:9
involved [4]-25:2,
    82:21, 92:6, 146:4
involves [1] - 164:7
involving [2] - 82:17,
    198:11
Irpino [1] - 3:7
irrelevant [4]-175:17,
    175:19, 179:23,
    211:23
Irvine [1] - 16:19
ISIA [1] - 5:4
Island [14]-22:14,
    26:4, 34:16, 34:17,
    34:22, 38:2, 39:12,
    39:13, 39:21, 40:9,
    54:10, 217:18,
    217:22, 218:17
issuance [1] - 146:16
issue [21] \(-8: 1,8: 4\),
    8:7, 25:7, 32:16,
    44:4, 48:19, 48:23,
    50:3, 50:12, 51:25,
    52:9, 89:20, 151:19,
    153:1, 163:19,
    171:2, 171:6, 191:9,
    192:23, 212:7
issued [1] - 113:7
issues [6] - 51:4,
    56:18, 81:17, 87:9,
    199:8, 206:13
Item [2]-93:15,
    149:14
item [55] - 57:13,
57:14, 57:15, 68:13,
68:17, 70:4, 70:7,
71:1, 71:3, 72:18,
``` \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline  & \[
\] & \[
\begin{aligned}
& \text { label }[1]-129: 25 \\
& \text { labels }[1]-130: 1 \\
& \text { Labor }[6]-71: 10, \\
& \text { 85:24, 86:5, } 91: 18, \\
& 94: 18,124: 9 \\
& \text { Labor's }[2]-71: 10, \\
& 91: 2 \\
& \text { labs }[1]-20: 17 \\
& \text { lack }[2]-167: 23, \\
& \text { 167:24 } \\
& \text { lacks }[2]-42: 13,44: 6 \\
& \text { laid }[4]-11: 14,53: 19, \\
& 89: 5,126: 7 \\
& \text { Lanier }[1]-3: 4 \\
& \text { large }[7]-48: 6,77: 24, \\
& 145: 11,145: 16, \\
& \text { 145:17, } 145: 19, \\
& \text { 172:25 } \\
& \text { larger }[1]-198: 7 \\
& \text { largest }[14]-119: 1, \\
& \text { 144:10, 144:23, } \\
& \text { 145:8, 170:6, } \\
& \text { 174:10, 174:13, } \\
& \text { 176:16, 176:18, } \\
& \text { 176:21, 177:18, } \\
& \text { 177:22, 178:1, 178:3 } \\
& \text { last }[14]-21: 20, \\
& 49: 24,50: 1,53: 12, \\
& 54: 2,54: 4,59: 5, \\
& 61: 13,61: 18,91: 14, \\
& 92: 11,94: 22, \\
& 212: 14,218: 23 \\
& \text { late }[2]-31: 3,31: 7 \\
& \text { latter }[1]-29: 5 \\
& \text { laudable }[1]-46: 11 \\
& \text { LAURA }[1]-5: 10 \\
& \text { Law }[7]-3: 4,3: 7, \\
& 3: 12,71: 19,99: 2, \\
& 99: 5,137: 7 \\
& \text { law }[6]-27: 5,27: 12, \\
& 27: 19,41: 10,73: 10, \\
& 179: 23 \\
& \text { Lawrence }[1]-186: 13 \\
& \text { lawsuit }[4]-24: 18, \\
& 46: 2,46: 3,49: 19 \\
& \text { lawyers }[2]-41: 22, \\
& 51: 10 \\
& \text { lead }[1]-124: 6 \\
& \text { LEAD }[12]-71: 20, \\
& 71: 23,99: 3,99: 5, \\
& 99: 9,99: 13,99: 15, \\
& 99: 21,99: 24,100: 6, \\
& 137: 8 \\
& \text { leadership }[3]-65: 10, \\
& 65: 19,110: 11 \\
& \text { Leadership }[1]- \\
& \text { 132:25 } \\
& \text { leading }[5]-12: 21, \\
& 51: 6,124: 4,125: 5, \\
& \text { 199:14 }
\end{aligned}
\] & ```
learned [1] - 201:17
learning \({ }_{[1]}-22: 5\)
least [2]-162:17,
    204:3
leaving [1] - 165:16
Lee [1]-3:12
left [7] - 81:23, 82:5,
    90:10, 92:16, 92:19,
    102:7, 103:5
Legal [1] - 64:3
legal [6] - 46:4, 50:5,
    51:4, 52:1, 169:16,
    169:17
legally [1] - 45:6
legitimate [2]-49:1,
    179:25
length \({ }_{[1]}\) - 123:23
Leon [2]-2:4, 2:14
less [5] - 22:18, 85:2,
    87:20, 114:23
level [19]-15:12,
    22:13, 22:20, 47:7,
    67:21, 68:2, 70:9,
    71:7, 74:3, 76:4,
    77:20, 78:21, 83:7,
    87:3, 111:25,
    160:10, 163:17,
    163:18, 170:1
levels [11] - 172:2,
    172:11, 173:10,
    173:19, 173:21,
    173:22, 201:4,
    201:5, 201:8, 201:9
Levin [1] - 2:10
LEYIMU [1] - 4:13
liability \([4]-44: 16\),
    44:21, 53:12, 211:23
liable [1] - 50:8
licensing \({ }_{[1]}\) - 11:9
life [3] - 82:25, 144:12,
    145:4
lifecare [15] - 56:21,
    57:7, 57:8, 57:11,
    66:18, 71:1, 71:2,
    73:2, 74:24, 79:8,
    79:18, 183:20,
    201:6, 201:8, 205:4
lifted [1] - 8:9
likelihood [1] - 10:3
likely \([3]-26: 1,26: 17\),
    123:15
likewise [1] - 197:8
Lily's [1] - 167:1
limit [1]-127:20
limited [3] - 24:6,
    167:21, 168:10
LINDA [1] - 4:8
Line [1] - 144:21
line [11] - 154:7,
159:1, 159:5,
``` &  \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \begin{tabular}{l}
```

    157:6, 158:10,
    158:20, 158:25,
    160:4, 163:9,
    166:16, 168:20,
    168:21, 172:3,
    172:8, 172:9,
    173:13, 174:10,
    176:16, 177:18,
    178:2, 182:6,
    182:11, 183:5,
    184:13, 186:20,
    196:15, 197:8,
    203:7, 203:16,
    203:22, 207:8, 218:7
    looked [15] - 15:5,
24:25, 27:1, 27:22,
95:5, 101:3, 112:16,
112:19, 112:20,
112:22, 155:18,
158:22, 171:22
looking [21] - 19:10,
21:16, 25:13, 28:18,
39:24, 40:22, 47:14,
84:23, 102:25,
109:25, 115:24,
123:20, 129:15,
129:18, 149:11,
149:14, 150:5,
158:23, 178:14,
187:25, 204:19
looks [1] - 174:23
loop [1] - 131:4
loss [2]-56:18,
188:19
losses [1] - 58:1
lost [3]-56:23, 146:4,
188:15
low [6] - 119:8,
123:13, 182:18,
201:18, 202:23,
205:11
lower [3]-184:8,
184:9, 201:13
lowest [1] - 201:13
luck [2] - 43:17, 209:7
lump [11]-112:8,
112:10, 114:17,
115:9, 195:1,
195:11, 195:14,
195:20, 195:23
lunch [3]-121:14,
121:20, 127:6
Lyn [1] - 191:6 <br>
M <br>
Machines [2] - 132:10,None

```
\end{tabular} &  & ```
    108:9, 114:11,
    121:18, 124:6,
    128:18, 180:3,
    197:22, 201:24,
    202:18, 206:4,
    206:8, 210:6, 211:16
major [2]-75:25,
    85:25
majority [1] - 144:2
management [1] -
    121:10
managing [3] -
    110:16, 181:10,
    182:2
Managing [2]-135:9,
    174:17
Mankato [1]-63:9
manuscript [2]-
    41:18, 64:18
manuscripts [1] -
    36:15
March [1]-61:18
Marine [1] - 88:17
Mark [1] - 122:5
MARK [1] - 3:14
marked [1]-186:4
market [12]-72:2,
    94:7, 96:23, 97:2,
    97:7, 97:9, 163:15,
    184:20, 185:11,
    185:24, 186:5,
    202:23
Marshall [2]-61:2,
    61:4
Maryland [2]-20:20,
    58:17
massive [1] - 46:15
Master [2]-61:1, 61:5
match [1] - 104:24
material [2]-88:13,
    89:9
materials [4]-13:19,
    21:17, 25:21, 40:18
math [8]-94:23,
    152:24, 190:17,
    193:11, 194:10,
    194:11, 210:8,
    215:25
mathematical [1] -
    92:19
mathematician [1] -
    210:12
matter [8]-17:11,
    25:1, 32:6, 144:23,
    161:1, 164:4,
    217:15, 219:17
matters [3]-8:14,
    144:4, 197:13
maturing [2]-112:19,
    112:20
``` & ```
maximize [1] - 18:17
mayor [3] - 209:11,
    214:24, 217:7
Mayor [1] - 213:12
MBA [2] - 61:2, 62:20
MC-WV-02308 [1] -
    30:23
MC-WV-2301 [1] -
    186:5
MCCLURE \({ }_{[1]}\) - 6:3
MCGINNESS [1] - 4:2
McGuire [4] - 44:5,
    44:6, 44:8, 212:16
McKesson [3] - 5:8,
    42:7, 143:15
MCWV-2308 [1] - 34:3
MCWV-2311 [1] - 34:7
MCWV-2314 [1] -
    34:15
MDL [4]-22:21, 24:5,
    30:24, 35:4
mean [28]-9:23, 14:1,
    18:15, 18:25, 23:6,
    25:9, 33:16, 35:24,
    36:5, 36:6, 36:14,
    36:17, 37:1, 37:6,
    37:7, 37:8, 38:5,
    39:16, 40:17, 41:19,
    86:21, 128:2, 128:4,
    166:1, 203:23,
    206:7, 208:17,
    211:17
means [11]-19:3,
    32:22, 41:18, 45:6,
    45:8, 52:4, 93:22,
    111:21, 153:2, 211:7
meant [2] - 190:12,
    192:9
measure [2]-83:24,
    124:19
measures [1] - 26:2
mechanical \([1]-6: 19\)
mechanics [1] -
    196:10
median [6] - 71:7,
    90:18, 91:4, 187:9,
    187:12, 187:13
Medicaid [21] - 172:2,
    172:11, 172:20,
    173:10, 173:11,
    173:17, 173:22,
    174:1, 174:7,
    175:24, 178:20,
    201:2, 201:4, 201:9,
    201:12, 201:17,
    202:2, 202:14,
    202:22, 203:2,
    203:23
medical [32]-56:24,
    57:1, 69:4, 81:17,
``` & ```
    145:21, 150:12,
    150:23, 161:13,
    161:17, 170:13,
    170:17, 170:23,
    171:17, 173:25,
    174:5, 175:1, 178:6,
    186:21, 187:4,
    187:8, 187:16,
    187:18, 187:24,
    188:3, 188:4,
    188:22, 189:2,
    200:8, 200:11,
    201:2, 201:12,
    201:13
Medical [4]-11:8,
    20:24, 73:11, 136:2
medical-related [1] -
    170:17
Medicare [1] - 175:15
medicine [1] - 162:11
Medicine [4]-11:8,
    20:14, 161:21, 162:2
meet [2] - 143:15,
    210:3
meeting [1] - 95:7
meetings [1] - 73:8
member [5]-64:25,
    65:4, 65:8, 65:14,
    165:2
members [1] - 167:10
memory [5] - 60:8,
    145:8, 165:9,
    165:22, 165:25
mental [2]-111:1,
    163:13
Mental \({ }_{[1]}\) - 138:9
mentioned [2] - 144:6,
    218:16
mentoring [1] -
    117:25
messenger \({ }_{[1]}\) -
    215:10
met [2] - 52:21, 166:8
Methadone [2] -
    135:3, 173:14
method [5] - 66:14,
    85:16, 111:10,
    142:4, 157:5
methodological [1] -
    48:19
methodologies [3] -
    56:7, 113:3, 198:5
methodology [12] -
    48:24, 51:10, 72:12,
    73:24, 75:4, 79:25,
    103:11, 103:13,
    160:13, 166:15,
    198:1, 205:2
methods [6]-21:25,
    111:9, 111:13,
``` \\
\hline
\end{tabular}


Ayme A. Cochran, RMR, CRR (304) 347-3128
\begin{tabular}{|c|c|c|c|c|}
\hline 214:23, 215:3, & 136:15, 136:24 & 200:17 & 211:4 & 184:16, 191:3, \\
\hline 215:10, 216:3, & Naltrexone [1] - 135:6 & needs [14] - 30:3, & non-defendants [1] - & 192:20, 192:25, \\
\hline 216:6, 216:16, & name [5] - 55:12, & :5, 47:5, 47:8, & 211 & 193:1, 193:6 \\
\hline 216:18, 216:23, & 55:13, 55:24 & 7:18, 48:10, 53:14, & non-hypothetical [1] - & 193:18, 193:25 \\
\hline 217:1, 217:3, 217:6, & 129:24, 143: & 7:9, 68:4, 98:7, & 9:13 & 203:2, 205:4, 208:9, \\
\hline 217:12, 217:15, & named [1] - 62:24 & 7:20, 158:23 & non-party [1] - 50:11 & 208:10, 208:13 \\
\hline 217:17, 218:5, & names [2]-109:17 & 195:12, 214:4 & normally [2] - 74:23, & 215:13, 215:14 \\
\hline \[
\begin{aligned}
& \text { 218:11, 218:22, } \\
& 219: 5
\end{aligned}
\] & 109:21 & Needs [2] - 111:2
138:12 & 88:19 & \begin{tabular}{l}
numbers [80] - 7:12 \\
33:9, 60:8, 67:16
\end{tabular} \\
\hline 219:5 & naming [1] - 87:4 & 38:1 & Norris [1]-122:5 & 33:9, 60:8, 67:16, \\
\hline MS [77] - 3:3, 3:6, 4:2, & Narcan [3]-136:12 & Neonatal [1] - 10:20 & North [1] - 183:15 & 67:20, 80:6, 80:13, \\
\hline \[
4: 18,4: 20,5: 3,5: 4,
\] & \[
\begin{array}{r}
\text { 136:21, } 137 \\
\text { narrow }[3]-2
\end{array}
\] & \[
\begin{gathered}
\text { net }[4]-53: 1,19 \\
195: 8,195: 20
\end{gathered}
\] & 43:6, 89:8 & \[
\begin{aligned}
& : 23,90: 20,91: 6, \\
& : 16,92: 23,92: 25,
\end{aligned}
\] \\
\hline 5:10, 6:3, 6:7, 6:14, & 189:12, 191:14 & Network [1] - 17:21 & noted [2] - 13:4, 34:17 & 97:14, 98:10, 98:13, \\
\hline 8:22, 9:1, 9:5, 12:24, & narrowly [1] - 27:14 & never [7] - 45:13, 49:3, & notes [2]-112:21, & 98:15, 101:5, 104:7, \\
\hline \[
\begin{aligned}
& \text { 12:25, 13:13, 13:18, } \\
& \text { 13:24, 14:4, 14:8, }
\end{aligned}
\] & NAS [7]-45:22, 174:8, & 50:25, 144:7, & 121:15 & 104:10, 104:11,
104:24, 106:9, \\
\hline \[
14: 10,14: 19,14: 22
\] & \[
17
\] & ne & nothing [9]-11:21, & 106:13, 111:18, \\
\hline 15:1, 17:7, 17:14, & 180:21 & :5 & 17, & 15:20, 116:3, \\
\hline 19:13, 19:14, 19:18, & nation [1]-49:16 & new [12] - 49:15, & 51:5, 179:12 & 18:22, 118:25 \\
\hline 19:20, 20:4, 20:8, & National [7]-20:2, & 11:3, 117:12 & notice [2] - 32:9, & 119:1, 125:16, \\
\hline \[
\begin{aligned}
& 23: 11,23: 14,23: 16, \\
& 30: 3,31: 21,42: 25,
\end{aligned}
\] & 20:13, 20:17, 20:21, & 129:17, 166:20, & 50:11 & \[
\begin{aligned}
& \text { 125:24, 127:6, } \\
& \text { 127:9, 130:21, }
\end{aligned}
\] \\
\hline \[
43: 4,43: 12,43: 25 \text {, }
\] & 21:10, 21:11, 65:4 & 19:' & noticed [3] - 91:6, & 141:12, 141:17, \\
\hline 44:2, 46:25, 48:5, & \[
22: 19,23: 25,24: 2,
\] & 180:21, 181:11, & November [1]-64:24 & 141:20, 141:21, \\
\hline 51:14, 52:14, 52:16,
\(66: 5,87 \cdot 24,89 \cdot 19\) & 24:9, 25:5, 25:14, & 196:9 & nuisance [5] - 44:15, & \begin{tabular}{l}
\[
141: 25,142: 2,
\] \\
142:10 142:11
\end{tabular} \\
\hline \[
\begin{aligned}
& \text { 66:5, 87:24, 89:19, } \\
& 90: 2,113: 18,114: 6,
\end{aligned}
\] & \[
74: 3,96: 7,97: 13
\] & \[
\begin{gathered}
\text { New }[4]-3: 5,3: 8 \text {, } \\
58: 18,138: 14
\end{gathered}
\] & \[
44: 23,50: 21,53: 14
\] & \[
\begin{aligned}
& \text { 142:10, 142:11, } \\
& \text { 142:13, 142:16, }
\end{aligned}
\] \\
\hline 122:2, 122:9, &  & Newly [1] - 137:25 & & 142:17, 142:19, \\
\hline 122:20, 122:22, & nationwide [1] - 96:25 & newly [1] - 95:20 & number [91] - 13:8, & 147:5, 147:20, \\
\hline 122:24, 128:2,
128:4, 169:11, & nature [1] - 21:18 & next [27]-11:25, & 21:15, 27:9, 35:7 & 153:4, 153:15, \\
\hline 128:4, 169:11,
169:21, 197:17, & nearly [1] - 49:18 & 15:18, 31:5, 33:25, & 35:17, 60:8, 66:23, & 153:16, 153:19, \\
\hline \[
\begin{aligned}
& \text { 169:21, 197:17, } \\
& \text { 203:13, 204:2, }
\end{aligned}
\] & necessarily [5] - & \[
48: 3,48: 5,90: 17,
\] & 69:15, 76:16, 78:3, & \[
\begin{aligned}
& \text { 153:24, 155:19, } \\
& \text { 155:20, 155:22, }
\end{aligned}
\] \\
\hline 209:2, 209:12, & \[
10: 17,19: 3,42: 7
\] & 1:19, 91:23, 93:25,
\[
4: 1,94: 9,134: 2
\] & \[
79: 14,80: 1,80: 4,
\] & 156:4, 156:6, \\
\hline 209:16, 210:11, & necessary [6] - 8:13, & \[
4: 5,139: 21,
\] & 87:16, 87:17, 90:23, & 164:17, 164:25, \\
\hline \[
\begin{aligned}
& \text { 216:8, 216:17, } \\
& 216: 22
\end{aligned}
\] & \[
47: 22,57: 4,67: 23
\] & 5:2, 150:15 & 92:20, 92:23, 93:17, & 167:16, 179:18, 181:16, 182:20 \\
\hline MSA [1] - 185:22 & 79:25, 127:8 & \[
\begin{aligned}
& 5: 1: 158: 1, \\
& 8: 3.174: 16
\end{aligned}
\] & 93:20, 94:4, 95:1, & 183:11, 183:13, \\
\hline \[
\begin{aligned}
& \text { Mt }[3]-4: 4,4: 12,4: 15 \\
& \text { multi }[1]-198: 11
\end{aligned}
\] & \[
78: 20,117: 23
\] & 76:16, 176:18, & 99:8, 101:1, 104:21, & \[
\begin{aligned}
& \text { 183:14, 193:23, } \\
& \text { 196:7, 199:21, }
\end{aligned}
\] \\
\hline multi-billion-dollar \({ }_{[1]}\) & need [33] - 8:14, 23:8,
25:23, 33:21, 47:8, & \[
177: 22,182: 11
\] & \[
\begin{aligned}
& \text { 106:11, 106:24, } \\
& \text { 109:2, 109:4, 110:1, }
\end{aligned}
\] & 199:23, 200:1, \\
\hline - 198:11 & \[
60: 12,60: 14,68: 6,
\] & nexus [1]-46:6 & 114:22, 114:23, & 202:24, 203:4, \\
\hline multiple [5] - 62:10, & \[
68: 16,72: 15,74: 25,
\] & NICHOLAS [12] - 6:11, & 115:23, 116:11, & 205:10, 205:14, \\
\hline 69:2, 82:10, 174:22, & \[
75: 1,75: 16,80: 4,
\] & 66:3, 197:20 & 117:8, 118:15, & 207:1 \\
\hline 192:9 & 29:17, & 10, 214:17 & :4, 127:1 & numerical \({ }_{[1]}\) - 99:13 \\
\hline multiplication [2] - & 148:17, 148:25, & 4:23, 215:10 & 130:24, 145:17, & numerous [1]-65:8 \\
\hline 70:6, 92:18 & 150:1, 168:6, 180:5, & 6:3, 216:16, & 5:19, 149:16, & NW [6] - 4:6, 4:9, 4:19, \\
\hline multiplied [1] - 101:5 & 187:21, 188:6, & 6:18, 216:23 & 149:23, 150:20, & \[
4: 21,5: 5,5: 12
\] \\
\hline Multiplied [1] - 192:25 & 189:6, 200:13 & 217:3 & 50:22, 151:3, & NY [1] - 3:5 \\
\hline \[
\begin{gathered}
\text { multiply }[5]-98: 7, \\
154: 18,187: 7,
\end{gathered}
\] & \[
\begin{aligned}
& \text { 200:15, 200:16, } \\
& \text { 204:9, 204:18, }
\end{aligned}
\] & Nicholas [4] - 197:19, 213:9, 214:15, 215:9 & 151:13, 151:14, 151:20, 152:22, & 0 \\
\hline \[
\begin{gathered}
\text { must }[3]-44: 10, \\
44: 16,45: 10
\end{gathered}
\] & \[
\begin{aligned}
& \text { 206:10, 206:18, } \\
& \text { 213:7 } \\
& \text { needed }[18]-7: 8,
\end{aligned}
\] & \[
\begin{gathered}
\text { night }[3]-31: 15, \\
31: 18,32: 12 \\
\text { nights }[1]-31: 19
\end{gathered}
\] & 154:13, 154:16, 155:5, 155:25, 156:17, 158:5, & \begin{tabular}{l}
O'Connell [1] - 191:6 \\
oar [1] - 213:20 \\
oath [1] - 55:10
\end{tabular} \\
\hline N &  & \[
\text { Ninth }[1]-4: 9
\] & 159:11, 159:16, & \[
\begin{aligned}
& \text { object }[9]-12: 21 \text {, } \\
& 13: 15,87: 25,104: 4,
\end{aligned}
\] \\
\hline \begin{tabular}{l}
nail [2] - 157:4, 214:22 \\
naloxone [1] - 110:19 \\
Naloxone [3] - 136:8,
\end{tabular} & 95:3, 95:7, 156:16, 156:17, 167:17, 167:22, 168:21, & \[
\begin{aligned}
& 87: 4 \\
& \text { nominal }[1]-84: 25 \\
& \text { non }[3]-9: 13,50: 11,
\end{aligned}
\] & \[
\begin{aligned}
& \text { 170:9, 170:10, } \\
& \text { 180:24, 182:24, } \\
& \text { 183:25, 184:8, }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 124:4, 125:5, 126:9, } \\
& \text { 169:18, 204:5 } \\
& \text { Object }[1]-199: 14
\end{aligned}
\] \\
\hline
\end{tabular}

pages [8]-35:4,
35:10, 35:13, 37:21,
38:2, 159:8, 172:25,
207:17
Pages [4] - 35:7, 35:8,
35:15, 35:22
paid [11]-71:7, 163:15, 170:13,
171:12, 175:15,
177:13, 187:24,
189:16, 189:21,
189:24, 190:4
panel [1] - 18:6
Papantonio [1] - 2:10 paper [26] - 14:12, 14:16, 15:16, 28:21, 28:22, 28:23, 29:8, 29:18, 30:10, 30:12, 38:22, 38:23, 39:3, 39:6, 39:9, 40:8, 40:14, 41:2, 41:3, 41:25, 42:3, 42:11, 54:10, 124:15, 124:23
papers [13] - 16:7,
16:17, 26:20, 27:5,
27:7, 27:13, 27:14,
27:17, 30:13, 33:8,
43:20, 101:16, 150:1
Paragraph [6] - 27:22,
27:23, 28:8, 28:17,
28:18, 28:24
paragraph [4] - 27:22,
30:11, 34:10, 173:12
parameters [1] - 36:10
parcel [1] - 10:11
parent [1] - 176:24
Parent [2] - 140:14, 141:5
parent-child [1] 176:24
Parent-Child [2] 140:14, 141:5 parentheses [1] 32:12
Parents [2] - 139:23, 140:2
part [21] - 8:4, 10:11, 13:14, 33:7, 63:17, 64:15, 77:15, 79:22, 79:25, 84:9, 90:16, 101:8, 126:12, 146:11, 154:8, 167:13, 170:25, 189:17, 196:20, 212:8
part-time [1] - 90:16
partial [1] - 213:17
participate [1] -
161:17
participating [1] -
190:6
particular [26]-11:24
27:1, 41:17, 57:5,
57:7, 58:1, 62:9,
63:21, 66:14, 66:25
69:1, 71:21, 90:15,
94:13, 96:7, 96:23,
97:6, 102:19,
122:13, 122:14,
\(125: 13,144: 23\),
\(147: 12,150: 11\),
\(151: 13,172: 24\)
particularly [3] -
43:13, 89:3, 123:25
parties [3] - 22:8,
207:2, 213:15
partner [1] - 62:25
parts [1] - 188:16
party [1] - 50:11
pass [1] - 143:9
passing [2] - 60:10, 67:12
past [7]-9:19, 50:2,
83:11, 99:21,
100:17, 123:8, 146:3
patient [2] - 110:7,
190:24
Patient [1] - 131:14 patients [1] - 11:16
PAUL [2] - 2:3, 5:9
Pause [6] - 23:15, 43:24, 142:25, 204:11, 206:20, 208:1
pay [14] - 46:4, 46:24, 47:20, 47:25, 48:8, 48:9, 124:20, 161:2, 161:4, 167:22, 169:1, 170:17, 171:10, 195:1
paying [5] - 45:6,
160:21, 171:9,
176:11, 211:9
payment [3] - 177:16,
195:11, 195:20
payments [1] - 206:23
payroll [1] - 124:19
pays [10] - 47:24,
48:16, 169:5, 171:14, 177:2, 177:5, 177:14, 189:13, 191:11, 201:12
PEARL [1] - 3:6
peer [18] - 17:17,
17:25, 18:9, 18:12, 18:15, 27:9, 36:15, 41:7, 63:19, 63:20, 64:6, 64:19, 65:17,
```

85:18, 113:3,
117:25, 163:12,
163:15
Peer [2] - 133:16,
134:5
peer-review [6] -
17:17, 17:25, 18:9,
18:12, 18:15, 64:19
peer-reviewed [7] -
27:9, 36:15, 41:7,
63:20, 64:6, 85:18,
113:3
Pennsylvania [1] -
58:17
Pensacola [1] - 2:11
people [50]-9:8,

```
    10:15, 22:16, 45:13,
    45:25, 73:4, 79:14,
    80:1, 95:7, 95:10,
    95:12, 98:10,
    151:13, 152:13,
    152:16, 154:13,
    155:9, 155:12,
    158:5, 158:16,
    159:3, 159:22,
    160:6, 160:19,
    162:11, 164:11,
    164:14, 164:21,
    174:20, 180:18,
    180:19, 187:16,
    187:17, 190:9,
    190:13, 191:8,
    191:16, 191:17,
    192:6, 196:1, 196:9,
    196:12, 196:17,
    196:19, 196:22,
    196:23, 197:4,
    197:5, 197:9
    per [21] - 94:14, 97:15,
    99:15, 100:9,
    100:10, 148:15,
    150:9, 151:2,
    151:12, 151:16,
    152:12, 159:2,
    182:9, 184:19,
    185:24, 185:25,
    190:24
    Per [4]-100:10,
    132:14, 140:6,
    140:22
percent [25] - 15:14, 28:4, 28:20, 46:10, 47:11, 47:12, 59:6, 59:7, 91:14, 91:17, 91:25, 94:14, 97:24, 100:25, 112:14, 112:24, 113:14, 123:21, 125:25, 150:14, 150:15, 150:16, 150:18,
plan [101] - 9:7, 10:23, 11:19, 23:3, 23:9, 24:10, 24:21, 25:6, 26:6, 26:14, 45:3, 45:12, 45:17, 45:20, 46:5, 46:16, 46:22, 47:4, 49:4, 52:23, 53:5, 53:20, 57:8, 66:12, 66:15, 66:18, 66:22, 66:23, 66:25, 67:1, 67:10, 67:15, 68:13, 71:2, 74:15, 74:16, 74:24, 78:4, 79:8, 79:15, 79:18, 80:2, 82:2, 82:25, 84:16, 119:1, 119:13, 120:8, 121:6, 121:7, 121:12, 141:14, 144:8, 144:9, 144:12, 145:4, 156:19, 157:16, 157:19, 158:3, 158:4, 159:21, 162:6, 163:2, 163:23, 164:1, 164:23, 165:4, 167:11, 167:15, 167:19, 168:17, 169:2, 171:11, 182:3, 183:20, 184:24, 185:1, 185:13, 195:1, 196:1, 196:8, 196:9, 196:20, 205:5,
205:20, 206:2,
206:17, 207:11, 209:22, 212:17, 213:7, 214:7, 214:19, 215:5
Plan [3]-167:12, 168:13, 168:21
plan's [2]-11:15, 120:14
planner [4]-57:8,
57:11, 73:2, 201:6
planners [1]-201:9
plans [4]-56:21, 176:7, 176:8
Pleasant [3] - 4:4,
4:12, 4:15
plus [2]-176:14, 181:21
point [34]-13:25,
32:6, 35:18, 36:11, 36:22, 38:8, 48:7,
49:18, 50:1, 53:12, 104:8, 114:3, 115:9, 118:2, 121:14, 122:11, 122:15,
\begin{tabular}{|c|c|}
\hline 125:14, 150:20, & potential [3]-21:6, \\
\hline 153:3, 168:10, & 204:15, 205:19 \\
\hline 169:19, 172:21, & potentially [1] - 10:21 \\
\hline 179:21, 180:6, & Powell [1] - 2:6 \\
\hline 191:15, 191:25, & PR [2] - 2:5, 2:14 \\
\hline 210:14, 213:1, & practice [7]-18:19, \\
\hline 218:17, 218:20, & 56:15, 63:21, 72:9, \\
\hline 218:24, 219:4 & 85:19, 161:22, \\
\hline pointed [1]-203:14 & 195:19 \\
\hline
\end{tabular}
practicing [1] - 189:4 practitioners [5] -
123:18, 161:14, 161:16, 186:22, 187:23
pre [1]-114:9 pre-but \({ }_{[1]}\) - 114:9 precise [1] - 32:6 precision [1] - 22:14 predecessor [1] 62:21
predictions [1] - 90:5 prefer [1]-18:5
pregnant [5] - 45:22, 111:3, 177:19, 180:20, 181:11
Pregnant [1] - 138:14 premise [1]-88:18
Prenatal [5]-138:15, 138:19, 138:25, 178:15, 178:16 preparation [1] - 59:8 prepared [4]-17:8,
78:17, 144:7, 193:11 preparing [3] - 12:5, 73:15, 76:18
prescriber [1]-161:23 prescribers [5] 11:17, 162:3, 186:22, 187:4, 187:9
prescribing [2]92:24, 161:22 prescription [10] 10:6, 10:10, 10:11, 45:13, 120:15, 162:10, 162:15, 210:22, 211:2, 212:3 prescriptions [1] 212:6
present [28]-63:19, 111:17, 112:4, 112:9, 112:13, 113:24, 114:13, 114:20, 114:21, 114:22, 115:1, 115:2, 115:10, 115:12, 116:13, 116:17, 116:19, 118:2, 125:22, 129:8, 183:19, 194:22, 195:4,
```

195:8, 195:12,
195:20, 200:9,
215:11
presentation [2] -
52:25, 95:5
presentations [2]-
215:16, 215:21
presented [11] -
74:17, 74:21, 83:14,
88:21, 94:14,
111:20, 112:7,
121:3, 124:15,
124:23, 207:18

```
presenting [1] - 190:5
preserve \({ }_{[1]}\) - 126:22
preserved [1] - 126:24
president [1]-65:16
Prestera [1] - 163:13
presuming [1] - 40:2
pretty [2]-34:12,
    79:19
prevention [5] - 11:15,
    75:22, 78:6, 110:9,
    154:22
Prevention [5]-20:20,
    109:22, 132:24,
    139:15, 154:5
preview [1] - 86:11
previous [1] - 64:12
previously [13] - 53:8,
    74:21, 81:15, 82:6,
    111:22, 113:21,
    114:23, 115:23,
    123:10, 182:17,
    191:22, 195:6,
    201:21
price [3]-86:4,
    148:15, 150:12
priced [3] - 163:2,
    185:4, 185:7
prices [8] - 62:5,
    69:25, 70:1, 83:4, 201:11, 201:14, 202:2, 202:22 pricing [3] - 62:6, 156:11, 184:14 primarily [2]-25:25, 62:3
Primarily [2]-56:17, 58:14
principle [2]-69:23, 188:11
principles [1] - 213:3
print \({ }_{[2]}\) - 38:4, 102:16
printed [1] - 130:14
printouts [1] - 12:1 prison [5] - 164:11, 164:15, 164:16, 164:21, 165:6
private [1] - 175:24

PROACT [3] - 191:7, 191:15, 191:19 probabilities [9] -
35:19, 35:20, 35:23, 36:1, 36:2, 36:11,
36:13, 36:23
probe [1]-202:16
problem [2]-128:14, 128:15 proceed [3] - 19:5, 34:20, 123:5 proceedings [1] 219:17
Proceedings [3]-
6:19, 55:5, 180:13
PROCEEDINGS \({ }_{[1]}\) 7:1
process [8] - 18:12, 18:14, 25:20, 43:9, 62:4, 64:21, 82:17
Proctor [1] - 2:10
produced [3]-6:19, 37:2, 185:1
product [3]-36:25, 128:7, 128:14 productivity \({ }_{[1]}-86: 1\) products [1]-62:9 profession [3] -
187:23, 189:13, 189:25
professional [11] 61:24, 64:25, 71:24, 78:6, 86:25, 106:15, 106:21, 106:22, 110:6, 141:19, 188:4
Professional [2] 71:20, 161:12
Professionals [1] 65:8
professionals [3] 11:16, 188:3, 189:14 professor [1]-63:7
professors [1] - 72:22
profits [2]-56:23, 146:4
program [18] - 45:14,
47:10, 61:12, 99:15, 99:21, 102:2, 119:19, 148:10, 150:11, 152:11, 159:1, 161:22,
161:25, 162:1,
162:7, 167:8, 207:2, 211:10
Program [12]-11:9,
137:8, 147:21,
147:25, 148:16,
151:4, 151:24,
152:3, 152:12,
152:15, 153:5
\begin{tabular}{|c|c|c|c|c|}
\hline ```
program's [1] - 125:21
programs [46] - 25:23,
    47:7, 47:24, 48:1,
    48:8, 48:14, 86:7,
    92:7, 99:9, 99:14,
    101:12, 103:16,
    115:11, 119:13,
    120:2, 154:22,
    156:12, 156:19,
    156:23, 157:6,
    157:10, 157:16,
    158:15, 160:22,
    161:2, 162:9,
    162:14, 163:8,
    163:10, 163:21,
    163:22, 164:5,
    164:6, 165:6,
    165:20, 165:21,
    165:22, 166:5,
    166:7, 166:22,
    169:6, 170:2,
    171:12, 189:14,
    190:6, 207:6
Programs [5] -
    131:17, 132:7,
    134:8, 139:15, 148:8
project [1] - 57:18
projected \({ }_{[1]}\) - 84:13
projecting [1] - 85:22
projection [6] - 84:19,
    84:21, 123:10,
    123:19, 123:24,
    124:1
projections [2] -
    125:1, 200:8
prolong [1] - 43:5
promise [1] - 9:1
proper [5] - 41:14,
    64:16, 114:8,
    148:24, 213:2
properly [1] - 208:12
proportion [1] - 46:18
propose [1]-15:12
proposed [9]-15:24,
    27:25, 29:3, 66:14,
    99:20, 144:11,
    144:24, 145:16,
    152:20
proposes [1] - 156:24
proposing [2]-26:15,
    187:20
proprietary [2] - 37:5,
    37:10
prorate [1] - 116:13
prorated [3]-104:7,
    104:12, 116:5
Prorated [1] - 116:9
prospect [2] - 10:14,
    213:22
protocol [1] - 75:21
``` &  & ```
psychosocial [1] -
    178:11
Public [7]-17:20,
    110:20, 131:14,
    136:24, 137:2,
    137:5, 137:6
public [17] - 37:6,
    37:7, 44:14, 44:15,
    44:23, 45:24, 46:1,
    50:21, 53:13, 53:15,
    56:8, 82:9, 99:4,
    110:7, 110:22,
    200:12
publication [4]-40:2,
    63:23, 64:4, 64:20
publications [3] -
    63:13, 63:14, 63:24
publish [4]-14:20,
    37:9, 59:12, \(63: 20\)
published [11] -
    17:17, 17:24, 18:18,
    37:8, 40:3, 64:1,
    64:22, 64:23, 96:2,
    96:4, 219:2
PubMed [1]-41:4
pull [17] - 15:8, 18:2,
    19:6, 19:13, 21:2,
    77:10, 81:2, 83:18,
    86:9, 95:15, 102:4,
    122:20, 128:25,
    149:3, 159:9,
    165:12, 198:19
purporting [1] -
    169:17
purpose [3]-46:12,
    147:19, 162:23
purposes [5] - 36:3,
    45:8, 52:3, 130:15,
    148:14
put [12] - 21:19, 33:11,
    33:13, 48:6, 48:13,
    49:14, 54:2, 88:8,
    167:11, 202:25,
    212:14, 214:11
putting [1] - 45:2None
```

```
QRT) [3] - 133:24,
    134:2, 134:5
qualifications [2] -
    60:21, 200:23
qualified [16] - 58:5,
    58:10, 90:7, 119:17,
    145:20, 153:1,
    153:8, 163:24,
    170:3, 183:24,
    199:10, 199:25,
    200:3, 200:21,
    200:23, 211:20
```

```
QRT) [3] - 133:24,
    134:2, 134:5
qualifications [2] -
    60:21, 200:23
qualified [16] - 58:5,
    58:10, 90:7, 119:17,
    145:20, 153:1,
    153:8, 163:24,
    170:3, 183:24,
    199:10, 199:25,
    200:3, 200:21,
    200:23, 211:20
``` & \begin{tabular}{l}
```

qualifies [1] - 74:19 <br>
qualify ${ }_{[1]}$ - 126:25 <br>
quality $[2]-18: 17$, <br>
41:20 <br>
quantities [1] - 101:24 <br>
query [1]-22:2 <br>
questioning [2] - <br>
202:12, 217:17 <br>
questions [21] - 9:6, 9:10, 9:12, 11:3, <br>
11:6, 21:20, 25:18, 42:23, 44:9, 76:22, 103:10, 171:9, 181:19, 186:25, 197:17, 197:20, 198:21, 204:25, 205:18, 208:25, 209:2 <br>
quick [2]-31:2, 217:15 <br>
Quick [1] - 133:22 <br>
quickly [1] - 94:24 <br>
Quintero [1]-122:6 <br>
quite [10]-50:16, <br>
57:2, 58:16, 65:21, <br>
124:24, 144:13, <br>
154:3, 186:18, <br>
201:17, 210:8

```
\begin{tabular}{c} 
R \\
\hline Rafferty \([1]-2: 10\) \\
raise \([3]-55: 14\), \\
\(213: 10,213: 11\) \\
raised \([2]-126: 10\), \\
\(218: 18\) \\
rampant \([1]-10: 2\) \\
ran \([1]-152: 2\) \\
range \([8]-58: 13\), \\
\(79: 5,80: 15,119: 5\), \\
\(119: 6,190: 17\), \\
\(201: 13,205: 6\) \\
ranges \([1]-119: 3\) \\
rank \([1]-177: 24\) \\
rate \([29]-57: 17,83: 9\), \\
\(91: 22,94: 9,94: 11\), \\
\(94: 13,94: 16,97: 21\), \\
\(97: 24,100: 24\), \\
\(112: 12,112: 25\), \\
\(113: 5,113: 11\), \\
\(113: 13,113: 15\), \\
\(113: 17,114: 7\), \\
\(150: 18,177: 8\), \\
177:9, 182:25, \\
187:17, 190:22, \\
202:23, 208:13, \\
208:20, 208:21 \\
rates \([18]-85: 7,85: 9\), \\
\(94: 7,94: 20,100: 22\), \\
\(112: 17,112: 22\),
\end{tabular}
\end{tabular} & ```
    112:23, 113:2,
    123:11, 123:12,
    123:13, 123:14,
    125:21, 163:15,
    172:20, 194:2,
    201:17
rather [7]-12:15,
    17:12, 27:14, 27:15,
    123:9, 125:22,
    125:23
ratio [5]-97:8, 97:11,
    166:17, 194:8
rationale [1] - 42:18
re \([7]-8: 21,17: 10\),
    23:18, 23:19, 31:11,
    42:24, 51:25
\(\operatorname{Re}[1]-137: 22\)
re-cross [4]-17:10,
    23:18, 23:19, 42:24
re-direct [2]-8:21,
    31:11
Re-Entry [1]-137:22
re-visit [1] - 51:25
reached [2]-151:7,
    153:9
read [31]-8:2, 15:19,
    16:24, 50:13, 50:14,
    50:16, 102:16,
    106:11, 106:24,
    109:17, 109:20,
    117:8, 127:5, 127:8,
    128:24, 129:25,
    130:21, 141:12,
    141:18, 141:21,
    142:11, 142:13,
    142:14, 142:17,
    156:15, 203:8,
    203:19, 204:6,
    204:12, 219:4
reading [5]-15:9,
    60:5, 110:4, 130:15,
    203:24
reads [1] - 28:25
ready [3] - 54:2,
    122:16, 123:4
real \([4]-10: 14,81: 18\),
    93:6, 218:20
realize [1] - 122:11
really [18] - 25:13,
    49:13, 120:5,
    121:13, 123:13,
    123:14, 153:1,
    157:4, 160:10,
    163:24, 171:13,
    175:20, 179:16,
    183:24, 197:2,
    209:23
reason [13]-10:14,
    34:6, 40:5, 43:8,
84:22, 118:8,
``` \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline ```
    120:17, 125:2,
    127:10, 178:1,
    199:4, 199:6
reasonable [7]-9:14,
    31:10, 106:14,
    114:2, 141:19,
    143:5, 205:7
reasonably [2] -
    111:13, 142:7
    reasons [3]-48:17,
    126:5, 209:18
    rebut [4]-49:7,
    113:20, 216:4,
    216:24
    rebuttal [8]-31:22,
    31:23, 32:13, 32:19,
    32:20, 33:3, 216:19,
    217:4
    receive [6] - 159:12,
    159:22, 187:16,
    189:18, 189:24,
    192:6
    received [1] - 156:4
    receiving [2] - 20:23,
    80:1
recent [3]-12:17,
    13:6, 145:12
recently [4] - 32:15,
    104:11, 191:6,
    198:10
Recess [4] - 55:4,
    122:1, 180:12, 215:7
recess [2]-121:22,
    215:5
recessed [1] - 219:11
recognize [4]-15:2,
    67:13, 175:6, 194:12
recognized [3] -
    66:16, 74:22, 205:2
recollection [5] - 12:9,
    19:11, 60:4, 144:21,
    145:11
recommend [1] - 57:5
recommendation [1] -
    96:21
recommendations [8]
    - 22:7, 25:1, 25:4,
    25:12, 26:24, 36:10,
    36:19, 37:16
recommended [12] -
    66:22, 68:14, 68:25,
    79:15, 80:16, 87:21,
    92:22, 96:21, 98:6,
    154:10, 156:2, 164:1
recommending [1] -
    190:23
record [30]-32:17,
    32:24, 43:6, 44:4,
    46:15, 47:24, 67:9,
104:15, 104:16,
``` &  & ```
    160:11, 161:10,
    166:13, 166:19,
    168:3, 168:17,
    171:1, 171:7, 172:1,
    172:8, 172:9,
    172:22, 175:2,
    175:4, 177:10,
    183:5, 183:10,
    183:15, 187:3,
    187:12, 188:6,
    188:20, 191:11,
    192:5, 196:1,
    196:13, 196:20,
    199:12, 199:18,
    201:6, 208:14,
    211:19
reduce \([7]-15: 13\),
    28:3, 46:10, 47:11,
    113:24, 184:12,
    195:8
reduced [3] - 28:20,
    114:22, 195:12
Reducing [2] - 109:22,
    136:5
reducing [1] - 195:4
Reduction [1] -
    137:16
reduction [1]-110:10
Reed [2]-6:4, 6:11
reenforcements [1] -
    31:20
reengineering [1] -
    110:25
Reengineering \({ }_{[1]}\) -
    138:6
refer [12]-8:10, 54:9,
    57:20, 57:22, 62:7,
    70:2, 72:13, 83:6,
    91:10, 114:3, 150:2,
    203:10
reference [10]-14:15,
    15:9, 18:6, 27:18,
    40:6, 54:16, 87:14,
    92:4, 184:15, 218:25
Reference [1] - 39:8
referenced [2]-17:1,
    28:15
references [9]-20:7,
    38:14, 38:21, 38:25,
    39:4, 81:21, 173:14,
    173:17
referral [1]-100:5
referred [2] - 39:9,
    169:14
referring [4]-17:4,
    102:23, 159:14,
    172:21
refers [1] - 34:11
reflect [2] - 78:24,
    153:3
``` & \[
\begin{aligned}
& \text { reflected }[1]-198: 23 \\
& \text { reflection }[4]-84: 20, \\
& 123: 19,123: 23, \\
& 124: 1 \\
& \text { reflects }[1]-208: 21 \\
& \text { refresh }[6]-19: 11, \\
& 60: 4,144: 14,145: 8 \text {, } \\
& 165: 9,165: 21 \\
& \text { refreshes }[1]-144: 21 \\
& \text { refreshing }[1]-165: 25 \\
& \text { refuse }[1]-45: 24 \\
& \text { regard }[4]-8: 18, \\
& 115: 21,119: 18, \\
& 185: 21 \\
& \text { regarding }[13]-21: 22, \\
& 44: 5,50: 4,59: 17, \\
& 64: 16,66: 21,71: 15, \\
& 71: 22,76: 22,87: 8, \\
& 99: 22,141: 21, \\
& 163: 12 \\
& \text { regardless }[2]- \\
& 202: 13,210: 9 \\
& \text { regular }[3]-96: 12, \\
& 96: 14,96: 18 \\
& \text { rehabilitation }[4]- \\
& 61: 6,61: 10,63: 8, \\
& 144: 1 \\
& \text { Rehabilitation }[4]- \\
& 64: 4,65: 6,65: 7, \\
& 65: 15 \\
& \text { reimbursement } \\
& \text { 172:2, 172:11, - } \\
& 172: 20,173: 10, \\
& 173: 19,173: 22, \\
& 177: 8,201: 4, \\
& 201: 17,202: 15 \\
& \text { reintegrate }[1]- \\
& 164: 13 \\
& \text { Reintegration }[3]- \\
& 110: 21,137: 6, \\
& 137: 22 \\
& \text { reintroduced } \\
& \text { 96:1 } \\
& \text { reiterate }[1]- \\
& \text { reiterated }[1]-212: 19 \\
& \text { rejected }[2]-49: 15, \\
& 50: 2 \\
& \text { relate }[3]-81: 22, \\
& 82: 3,96: 24 \\
& \text { related }[22]-20: 16, \\
& 21: 21,24: 18,28: 4, \\
& 28: 20,57: 7,72: 14, \\
& 72: 19,72: 21,72: 24, \\
& 87: 9,119: 21,120: 2, \\
& 170: 17,200: 14, \\
& 200: 20,200: 21, \\
& 211: 20,212: 5,212: 6 \\
& \text { relates }[4]-56: 22, \\
& 110: 1,176: 24,200: 7 \\
& \text { relating }[1]-95: 24
\end{aligned}
\] & \[
\begin{aligned}
& \text { relation }[3]-24: 9, \\
& \text { 24:22, 104:9 } \\
& \text { relationships }[1]- \\
& \text { 171:23 } \\
& \text { Released }[1]-137: 25 \\
& \text { released }[8]-95: 20, \\
& \text { 95:25, 164:11, } \\
& \text { 164:15, 164:19, } \\
& \text { 164:22, 165:6 } \\
& \text { relevant }[12]-41: 23, \\
& 42: 1,44: 9,45: 1, \\
& 46: 13,52: 7,52: 8, \\
& 68: 13,154: 17, \\
& \text { 155:3, 156:1, 164:25 } \\
& \text { reliability }[3]-118: 19, \\
& 147: 16,200: 24 \\
& \text { reliable }[4]-74: 12, \\
& 85: 16,147: 15, \\
& 153: 21 \\
& \text { reliably }[1]-23: 8 \\
& \text { reliance }[3]-13: 19, \\
& 111: 12,142: 5 \\
& \text { relied }[31]-8: 18, \\
& 13: 25,14: 1,14: 7, \\
& 16: 5,16: 25,17: 2, \\
& 17: 22,18: 9,18: 21, \\
& 21: 24,27: 8,37: 15, \\
& 70: 12,70: 15,70: 21, \\
& 70: 23,72: 7,73: 18, \\
& 111: 13,120: 6, \\
& 142: 7,153: 11, \\
& 155: 21,155: 24, \\
& 156: 11,161: 9, \\
& 162: 4,164: 17, \\
& 184: 23,218: 8 \\
& \text { relief }[1]-49: 20 \\
& \text { relies }[1]-89: 24 \\
& \text { rely }[17]-8: 14,12: 4, \\
& 72: 9,72: 13,88: 5, \\
& 88: 7,88: 14,88: 19, \\
& 88: 20,89: 3,89: 7, \\
& 89: 9,119: 20, \\
& 167: 18,200: 13, \\
& 202: 8,211: 20 \\
& \text { relying }[3]-156: 9, \\
& 197: 12,202: 5 \\
& \text { remain }[1]-62: 25 \\
& \text { remediation }[5]- \\
& 24: 10,24: 21,25: 6, \\
& 26: 6,26: 14 \\
& \text { remedy }[8]-44: 24, \\
& 46: 14,47: 14,49: 4, \\
& 49: 20,49: 25,50: 5, \\
& 211: 5 \\
& \text { remember }[2]- \\
& 166: 25,196: 16 \\
& \text { reminded }[1]-90: 4 \\
& \text { remote }[1]-61: 19 \\
& \text { remove }[1]-43: 20 \\
& \text { renegotiate }[1]-33: 5
\end{aligned}
\] \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|c|c|}
\hline 202:25, 203:23 & 15:19, 15:25, 16:24, & 162:17 & 124:25, 128:13, & 102:16, 117:15, \\
\hline Screening [4] - & 28:5, 28:8, 28:10, & seven-city [1] - 97:13 & 156:14, 160:22, & 207: \\
\hline 135:11, 138:16, & 28:18, 28:24, 28:25, & sever [1] - 50:24 & 164:2, 182:16 & smaller [1] - 38:4 \\
\hline 139:18, 178:16 & 29:5 & several [7] - 10 & 188:20, 218:11 & Smith [2] - 6:4, 6:11 \\
\hline scroll [3] - 18:6, & separate [8] - 194:21 & 7, 33:25, 35:13, & simulating [1] - 23 & smooth [2] - 85:5, \\
\hline 19:18, \(20: 5\) & 196:22, 197:3, & \[
71: 23,118: 15
\] & SINGER [27] - 4:8, & 123:16 \\
\hline search [1] - 43:7 & 197:6, 215:15, & 184:18 & 8:22, 9:1, 9:5, 12:24, & snapshot [1] - 53:3 \\
\hline seat [1] - 55:17 & 215:21, 218:23, & severally [1] - 50:8 & \[
12: 25,13: 18,14: 4
\] & Social [1] - 136:2 \\
\hline second [14] - 10:5, & September [11] & shaking [1] - 128:3 & 14:10, 14:19, 14:22, & social [8] - 56:3, 56:6, \\
\hline \begin{tabular}{l}
34:10, 44:23, 54:4 \\
\(68 \cdot 7,68 \cdot 23,69 \cdot 7\)
\end{tabular} & \begin{tabular}{l}
September [11] \\
115:4, 115:5,
\end{tabular} & \begin{tabular}{l}
shall [1] - 43: \\
SHANNON
\end{tabular} & \[
\begin{aligned}
& 15: 1,17: 14,19: 13 \\
& 19: 14,19: 18,19: 20
\end{aligned}
\] & 69:8, 73:12, 81:20, \\
\hline 99:12, 102:13, & 115:8, 115:19, & sheet [1] - 174:11 & \[
20: 4,20: 8,23: 11
\] & societies [1] - 65:9 \\
\hline 117:10, 199:21, & \[
\begin{aligned}
& \text { 116:2, 117:20, } \\
& 117.21 \quad 110.2
\end{aligned}
\] & shelter [2]-94:17, & \[
23: 14,23: 16,30: 3
\] & society [4] - 47:21, \\
\hline 199:25, 211:18 & \begin{tabular}{l}
117:24, 118:3, \\
144:18, 165:13
\end{tabular} & \[
97: 23
\] & \[
\begin{aligned}
& 43: 4,43: 12,52: 14 \\
& 52: 16
\end{aligned}
\] & \[
56: 4,96: 1,164: 13
\] \\
\hline 199:21, 199:25, & \begin{tabular}{l}
series [1] - 64:16 \\
seriously [1] - 54
\end{tabular} & short [2] - 24:17, & singer [6] - 8:21, & \[
141: 1
\] \\
\hline  &  & sh & 12:23, 13:17, 14:
\[
17: 13,26: 19
\] & Socio-Emotional [2] - \\
\hline section [1] - 211:5 & served [8] - 23:4, 63:5, & \[
24: 17
\] & single [5] - 49:1 & sold [1] - 62:6 \\
\hline sector [1] - 86:1 & \[
63: 7,65: 14,65: 15
\] & shortcut [1] - 128:18 & \[
50: 5,145: 3,205: 4
\]
\[
206 \cdot 12
\] & sole [2] - 29:8, 30:10 \\
\hline \[
\begin{aligned}
& \text { security }[1]-112: 20 \\
& \text { see }[60]-15: 6,18: 7,
\end{aligned}
\] & service [4] - 57:13, & shorter [2] - 124:1 & sit [3] - 19:7, 21:17, & someone [3] - 164:3 \\
\hline 19:23, 28:5, 28:9, & 99:24, 171:14 & shoulders [1] - 36:7 & 40:4 & sometimes [2] \\
\hline 34:10, 34:17, 35:8, & 171:17 & show [7] - 30:17, 67:7, & sitting [3] - 29:20 & 83:14, 189:16 \\
\hline 35:20, 38:5, 39:5, & Service [1] - 132:7 & , 144:20 & 42:16, 54:25 & somewhere [1] \\
\hline 39:6, 39:11, 40:22 & Services [17] - 73:11, & 159:11, 182:8, 183:2 & situation [2]-25:3 & 36:12 \\
\hline 75:19, 76:3, 78:1, & 138:20, 138:23 & showed [1] - 165:9 & 73:13 & Sorry [1] - 115:16 \\
\hline 78:5, 79:21, 82:1, & 139:1, 139:10, & showing [2] - 30:15 & \[
\mathbf{s i x}[5]-87: 22,112: 19,
\] & sorry [38] - 7:12, \\
\hline 82:5, 82:8, 82:10, & 147:21, 147:25, & 81:11 & \[
2: 3,206
\] & 12:14, 13:13, 15:8 \\
\hline 82:12, 82:21, 91:16, & 148:8, 148:16, & shown [7] - 12:1, 12:8, &  & 25:16, 28:7, 35:10, \\
\hline 99:13, 103:22, & 151:4, 151:24, & 12:20, 91:22, 93:18, & six-month [1]-112:19 & \[
35: 18,38: 13,38: 16
\] \\
\hline 118:22, 128:3, & 152:12, 152:15
153:5. 163:13 & 106:20, 182:20 & six-tenths [1] - 87:22 & \[
54: 25,71: 2,79: 9
\] \\
\hline \[
\begin{aligned}
& 133: 23,144: 20 \\
& 144: 25,145: 5
\end{aligned}
\] & \[
\begin{aligned}
& \text { 153:5, 163:13, } \\
& 178: 17
\end{aligned}
\] & shows [3] - 13:7 114:1, 148:7 & \begin{tabular}{l}
six-week [1] - 215:14 \\
Sixth [2] - 49:21,
\end{tabular} & \[
\begin{aligned}
& 87: 24,108: 7,109: 2 \\
& 116: 17,122: 2
\end{aligned}
\] \\
\hline 148:18, 149:17 & \[
\text { services }[34]-9: 8
\] & \[
\begin{array}{r}
114: 1,148: 7 \\
\text { sic }[2]-133: 1
\end{array}
\] & 51:22 & 122:10, 128:4, \\
\hline 158:6, 158:10, & 11:4, 23:4, 25:23 & 08:1 & size [1] - 177:24 & 129:12, 129:19, \\
\hline 158:11, 158:12 & 45:13, 53:2, 53:3 & si & sizes [1] - 25:22 & 31:9, 134:7 \\
\hline 159:5, 159:13, & 57:9, 80:1, 92:8, & :8, 102:4, 103:7, & sky [1] - 47:10 & 46:23, 147:24 \\
\hline 165:17, 172:10, & 94:20, 96:17, 96:20, & 58:10 & slicing [1] - 142:1 & 158:3, 172:15 \\
\hline 172:19, 173:8, & 101:4, 109:13, & side-by-side & Slide [26]-59:15 & 81:7, 181:23 \\
\hline 173:9, 173:11, & 119:23, 150:23, & \[
7: 11,102: 4
\] & 63:10, 81:2, 83:18 & 193:21, 204:2 \\
\hline \[
\begin{aligned}
& 173: 14,173: 17 \\
& 174: 18,176: 6
\end{aligned}
\] & \[
\begin{aligned}
& 163: 25,167: 22, \\
& 171: 5.176: 25 .
\end{aligned}
\] & significant [1] - 48:23 & \[
83: 20,86: 9,86: 14
\] & 204:10, 204:18, \\
\hline 176:19, 183:8, & \[
177: 3,177: 6
\] & similar [12] - 25:19 & 93:8, 95:17, 98:24, & 209:12, 217:1 \\
\hline 186:6, 203:8, & 177:12, 178:11, & \[
28: 24,44: 4,49: 19
\] & \[
\begin{aligned}
& 100: 1,100: 2 \\
& 100: 11,102: 4
\end{aligned}
\] & sort [2] - 38:5, 67:20 \\
\hline 204:12, 216:20, & 179:4, 179:16, & \[
66: 18,74: 8,74: 23
\] & 100:11, 102:4 & sorts [1] - 71:16 \\
\hline 219:9 & 179:20, 181:5, & \[
24: 20,186: 16
\] & 102:11, 102:15 & \[
215: 13,216: 15
\] \\
\hline seeing [1] - 148:19 & 181:15, 188:4, & 198:2 & \[
102: 23,102: 24
\] & sounds [4] - 178: \\
\hline \[
\begin{aligned}
& \text { seeking }[1]-50: 22 \\
& \text { seem }[1]-202: 4
\end{aligned}
\] & \[
\begin{aligned}
& \text { 201:3, 201:12, } \\
& 201: 14
\end{aligned}
\] & Similar [1] - 97:22 & \[
3: 8,116: 23
\] & 215:12, 215:22, \\
\hline select [2]-11:22, & serving [2] - 152:16 & similarities [1] & \[
198: 19,198: 23
\] & source [29] - 12:5 \\
\hline selectively [1] - 40:6 & 01 & similarly [2] - 92:9 & slide [5] - 59:16, & 18:24, 19:3, 19:4, \\
\hline Senate [1] - 128:22 & set [8]-21:20, 24:17 & 120:14 & \[
93: 10,98: 14,98: 24
\] & \[
20: 1,41: 3,41: 18
\] \\
\hline Senior [1] - 7:2 & 80:25, 91:11, & simple [4] - 38:7 & \[
210: 1
\] & 71:17, 85:23, 92:4, \\
\hline SENIOR [1] - 1:17 & \[
\begin{aligned}
& 104: 11,117: 10 \\
& 197: 4,217: 11
\end{aligned}
\] & \[
77: 24,86: 12,94: 25
\] & slides [1] - 59:9 & 93:10, 94:6, 147:12, \\
\hline \begin{tabular}{l}
Sensabaugh [1]-5:14 \\
sense [4]-38:10
\end{tabular} & \[
\text { sets }[3]-80: 22,8
\] & simply [19] - 19:4, & \[
\begin{aligned}
& \text { slightly [2] - 18:7, } \\
& 117: 18
\end{aligned}
\] & \[
\begin{aligned}
& 156: 22,157: 2, \\
& 169: 9,169: 14
\end{aligned}
\] \\
\hline 123:25, 128:11 & 91:10 & \[
68: 15,69: 25,86: 22
\] & slots [3] - 160:2 & \[
\begin{aligned}
& 169: 9,169: 14, \\
& 172: 4,182: 20,
\end{aligned}
\] \\
\hline 204:3 & seven [5] - 32:14 & 92:17, 95:1, 96:22, & \[
161: 5,161: 8
\] & 32:21, 183:6, \\
\hline sentence [12] - 15:15, & & \[
\begin{aligned}
& \text { 97:8, 103:21, } \\
& \text { 118:20, 120:6, }
\end{aligned}
\] & small [5] - 22:16, & 183:10, 183:11, \\
\hline
\end{tabular}
```

186:16, 203:7,
203:9, 203:25,
212:20
sourced [1] - 92:9
sources [24]-16:4,
18:22, 21:6, 38:13,
41:17, 52:22, 53:8
69:2, 70:14, 72:6,
74:7, 74:11, 81:16,
83:13, 101:24,
103:11, 111:11,
142:4, 147:15,
182:13, 183:2,
183:9, 206:23
sourcing [2]-172:19,
173:9
South [1]-2:11
Southern [2]-7:3,
61:13
southern [1] - 204:15
SOUTHERN [1] - 1:1
Southwest [1] - 58:20
Southwestern [1] -
58:22
space [14] - 69:10,
70:20, 72:1, 72:2,
81:19, 93:23, 93:24,
94:2, 94:8, 95:4,
95:6, 97:22, 191:9
Space [2] - 93:15,
132:1
spaces [4]-93:18,
93:20, 95:8, 95:11
speaking [4]-25:10,
66:25, 159:21,
201:16
speaks [1] - 11:21
special [3]-75:23,
96:20, 146:15
Special [3] - 111:2,
138:13, 139:10
specialize [1] - 146:1
Specialized [1] -
137:13
specialized [4] -
72:14, 76:13,
154:23, 200:5
specializes [2]-
145:25, 166:9
specific [78] - 19:2,
36:10, 40:5, 44:19,
57:9, 57:13, 57:14,
68:3, 68:17, 68:19,
69:9, 69:16, 70:4,
70:7, 70:15, 70:16,
70:19, 70:21, 70:23,
70:24, 71:24, 72:5,
73:15, 73:18, 73:19,
74:1, 76:1, 76:8,
79:7, 79:13, 79:16,

```

81:24, 82:1, 82:14, 82:20, 82:22, 84:11, 85:2, 86:24, 87:12, 87:19, 87:21, 92:4, 93:14, 95:18, 95:24, 97:8, 97:13, 99:1, 102:3, 105:2, 119:18, 119:24, 131:8, 131:10, 144:13, 146:17, 146:18, 148:22, 155:3, 155:10, 155:15, 159:14, 159:17, 163:18, 165:21, 165:25, 171:6, 171:22, 183:25, 186:16, 187:11, 189:11, 200:6, 208:14 specifically [19] 13:21, 23:3, 85:25, 87:16, 89:8, 91:11, 92:25, 115:7, 145:18, 156:2, 167:2, 171:24, 174:24, 178:12, 196:4, 198:8, 203:3, 203:14, 208:18
Specifically [1] -
64:14
specificity [1] - 25:18 specifics [2]-24:12, 75:8
specify [1] - 93:23
speed [1] - 33:3
spelled [1] - 208:14
Spellman [5]-96:4,
96:24, 97:10, 97:12, 166:17
spend [3] - 210:7, 210:15, 210:16
spending [5] - 205:25, 210:19, 211:22, 211:23, 212:17
spent [5] - 48:20, 120:2, 120:9,
206:12, 210:4
split [1] - 120:14
spokesman [1] 215:8
spots [1] - 160:19
spread [1] - 96:9
spreadsheet [12] 101:20, 103:10, 103:22, 103:25, 126:4, 129:1, 170:4, 184:14, 191:25, 207:1, 207:3, 207:15
spring [3] - 198:16, 198:17, 198:18
square \([3]-94: 2\),
\(95: 3,95: 9\)

Square [2]-6:5, 6:12
SSPs [1] - 151:7
Staff [1] - 133:4
staff [1] - 189:4
Staffing [2] - 131:20, 131:23
stage [1] - 24:17
stakeholders [1] -
52:21
stand [6] - 46:8, 51:21, 88:3, 88:6, 88:13, 194:11
standard [1] - 18:16 standardized [1] 62:17
standing [5] - 36:7,
54:23, 54:24, 89:25, 213:19
standpoint [2] - 45:24, 46:1 stands [2] - 88:18, 99:5
STANNER [1] - 5:10
start [9]-7:12, 15:9, 49:14, 61:23, 115:2,
115:6, 146:23,
216:11, 217:13
started [2] - 115:5, 115:18
starting [3] - 116:2,
150:20, \(217: 7\)
starts [1] - 35:19
state [10] - 18:15,
18:24, 22:12, 22:19, 47:25, 55:12,
181:20, 183:22,
210:18
State [18]-11:4, 22:13, 26:5, 59:1, 60:24, 62:13, 62:18, 63:6, 63:8, 65:23, 177:2, 177:5, 177:9, 177:13, 177:14, 181:6, 219:1
statement [1] - 31:16 States [9]-7:2, 24:4,
49:19, 51:7, 51:8,
86:2, 88:15, 91:14, 96:9
STATES [2]-1:1, 1:17 states [3]-58:15,
64:17, 154:19
stating [2]-28:19,
68:12
statistic [1] - 155:10
statistical [4]-70:23, 74:2, 185:16, 186:9 Statistics [6] - 71:10,

85:24, 86:5, 91:3, 91:18, 94:18
Statistics' [1] - 124:9
Status [1] - 7:2
STATUS [1] - 1:17
stay [2] - 80:8, 82:24
stenography [1] - 6:19
step [11] - 57:20,
68:21, 68:22, 68:23,
75:4, 103:12,
111:10, 121:24,
142:4, 180:11
steps [3] - 57:19,
57:20, 184:18
STEVEN [1] - 4:22
stick [1] - 216:24
sticker [1] - 33:18
stickers [3]-33:9,
33:15, 33:25
Stigma [1] - 137:16
still [4]-7:19, 9:19,
14:17, 122:14
stipend [1] - 177:14
stipulated [1] - 20:22
stipulation [6]-7:16,
31:18, 31:21, 32:7,
32:22, 33:5
stop [4]-30:4, 68:7,
102:13, 180:7
stopped [1] - 68:21
stopping [2] - 121:14,
180:5
storage [3] - 110:8,
162:6, 162:10
Storage [1] - 131:17
straightforward [1] -
94:25
stream [1] - 195:21
Street [15] - 2:7, 2:11,
3:5, 3:7, 3:10, 3:12,
4:6, 4:9, 4:19, 4:21,
\(4: 24,5: 5,5: 12,6: 6\),
6:13
stricken [2]-44:4, 169:18
strike [1] - 125:19
Strips [1] - 132:16
strong [1]-34:12
structured [1] - 86:22
struggling [1] - 159:7
student [1] - 62:14
studies [3]-16:11, 42:18, 204:4 study [11] - 16:21,
18:23, 19:4, 19:15,
52:20, 56:4, 123:15,
172:3, 183:15,
185:23, 188:12
stuff [1] - 130:2
sub [4]-68:10, 103:2,

131:8, 131:10 subcategories [10] -
68:10, 68:11, 68:20, 81:25, 131:4, 131:5, 133:23, 142:11, 142:14, 159:17
Subcategory [5] 134:13, 137:20, 138:15, 138:19, 138:22
subcategory [81] 68:16, 82:11,
102:11, 131:3,
132:22, 132:23,
132:25, 133:1,
133:2, 133:4, 133:8,
133:10, 133:12,
133:13, 133:17,
133:20, 133:25,
134:3, 134:6, 134:9,
134:12, 134:14,
134:17, 134:20,
134:23, 135:1,
135:4, 135:7,
135:12, 135:15,
135:18, 135:20,
135:21, 135:24,
135:25, 136:3,
136:6, 136:9,
136:10, 136:13,
136:15, 136:16,
136:19, 136:22,
137:3, 137:11,
137:14, 137:17,
137:19, 137:23,
138:1, 138:10, 138:13, 138:15,
138:17, 139:3,
139:4, 139:6, 139:8,
139:12, 139:15,
139:16, 139:18,
139:19, 139:22,
139:24, 140:1,
140:3, 140:7, 140:9,
140:11, 140:13,
140:15, 140:19,
140:23, 140:25,
141:2, 141:4, 141:6,
141:9, 141:10
subheading [3]-76:4,
87:1, 102:12
subheadings [3] -
76:1, 77:25, 103:5
subject [10] - 121:4,
144:15, 152:7,
165:10, 174:1,
175:2, 175:24,
179:7, 180:22,
201:22
submissions [1] -
\begin{tabular}{|c|c|c|c|c|}
\hline ```
    122:8
submit [10] - 26:10,
    26:13, 49:2, 64:18,
    117:20, 118:5,
    122:4, 122:16,
    122:21, 218:14
submitted [22] -
    20:23, 20:25, 23:25,
    24:6, 24:9, 24:21,
    25:14, 26:3, 26:5,
    26:16, 30:18, 30:24,
    34:4, 34:8, 34:16,
    39:17, 97:4, 104:6,
    117:1, 117:10,
    185:2, 185:20
subsequent [3] - 10:3,
    77:2, 117:18
Subsequently [1] -
    86:3
substantial [2] - 50:6,
    50:20
substantially [1] -
    145:12
subtotal [3]-133:2,
    136:25, 139:19
subtotals [1] - 115:24
subtracted [1] -
    210:19
successive [2] -
    91:17, 114:19
suddenly [1] - 203:17
suffers [1] - 188:18
sufficient [3] - 31:19,
    95:9, 162:23
suggest [2]-37:10,
    216:11
suggested [3] -
    101:12, 119:22,
    173:4
suggesting [2] -
    33:16, 87:19
Suite [9]-2:4, 2:7,
    2:10, 2:13, 3:15, 4:6,
    4:9, 6:5, 6:12
sum [17]-112:8,
    112:10, 114:17,
    115:9, 115:10,
    115:22, 118:2,
    159:19, 180:16,
    190:10, 195:1,
    195:11, 195:14,
    195:20, 195:23
sum-up [1] - 180:16
summarize [1] - 59:16
summarizes [2] -
    168:16, 210:1
summarizing [1] -
    128:16
summary [26]-8:7,
    77:24, 102:11,
``` & ```
    103:6, 115:16,
    126:19, 126:25,
    127:1, 127:2,
    127:17, 127:21,
    127:22, 127:23,
    128:5, 128:6, 128:9,
    128:13, 129:1,
    129:7, 130:6, 130:9,
    158:7, 170:4, 174:11
summer [2] - 145:3,
    145:13
Sunday [1] - 31:15
supervise [1] - 59:8
supplement \({ }_{[1]}\) -
    96:14
Supply [1] - 109:23
support [12] - 21:10,
    21:12, 21:14, 26:5,
    26:14, 26:17, 27:24,
    56:17, 72:10, 111:1,
    177:16, 212:20
Support [12] - 138:9,
    139:22, 140:1,
    140:5, 140:9,
    140:10, 140:13,
    140:17, 140:21,
    140:25, 141:1, 141:4
supported [1] - 20:3
Supporting [1] -
    110:12
Supportive [1] -
    141:10
Supreme [2]-49:21,
    50:2
Surveillance [1] -
    132:25
surveillance \({ }_{[1]}\) -
    110:11
survey [6] - 72:2, 94:7,
    123:15, 123:22,
    124:21, 125:13
surveys [2]-62:16,
    96:25
suspect [1] - 212:23
suspected [1] -
    128:20
sustain [4]-8:15,
    14:3, 108:8, 114:10
sustainability [1] -
    11:22
sustained \([3]\) - 12:22,
    14:9, 125:6
sustains [1] - 126:22
SUZANNE \({ }_{[1]}-4: 20\)
sweeping [1]-27:23
switch [4] - 86:6, 93:4,
    100:1, 111:16
SWORN \({ }_{[1]}-55: 16\)
Syndrome [1] - 10:20
syntheses [1]-29:2
``` & ```
synthesis [1] - 15:23
syringe [2] - 150:21,
    151:10
Syringe [11] - 132:7,
    147:20, 147:25,
    148:7, 148:16,
    151:4, 151:24,
    152:3, 152:12,
    152:15, 153:5
syringes [1]-148:11
System [1] - 137:19
system [3] - 10:19,
    73:11, 110:23
```

| T |
| :--- |
| Tab $[1]-192: 1$ |
| tab $[7]-87: 14,101: 19$, |
| 129:1, 172:24, |
| 186:24, 203:10, |
| 204:19 |
| table $[2]-78: 1,104: 7$ |
| tables $[1]-126: 19$ |
| Tabs $[1]-30: 18$ |
| tabs $[9]-86: 18$, |
| 101:11, 101:23, |
| 103:9, 103:13, |
| 104:25, 105:1, |
| 116:1, 207:14 |
| tailor $[1]-46: 16$ |
| take-back $[3]-162: 9$, |
| $162: 13,162: 22$ |
| Take-Home $[1]-$ |
| $136: 18$ |
| talks $[1]-32: 8$ |
| tally $[1]-70: 10$ |
| task $[2]-90: 15,160: 8$ |
| taught $[2]-63: 2$, |
| $85: 18$ |
| teach $[1]-72: 22$ |
| team $[13]-36: 4$, |
| $36: 12,36: 24,36: 25$, |
| $37: 3,37: 4,37: 5$, |
| $37: 13,37: 18,37: 19$, |
| $76: 18,76: 21$ |
| team's $[1]-37: 11$ |
| teams $[1]-82: 21$ |
| Teams $[1]-133: 22$ |
| technical $[7]-34: 25$, |
| $37: 9,37: 23,38: 17$, |
| $38: 18,39: 1,39: 13$ |
| techniques $[2]-56: 7$, |
| $61: 8$ |
| Technology |
| [1] - |
| 20:24 |
| telephone $[2]-73: 9$, |
| $76: 24$ |
| TEMITOPE $[1]-4: 13$ |
| temporary $[5]-164: 7$, |
| 164:12, 165:5, |
|  | \& \[

$$
\begin{aligned}
& \text { 165:15, 166:19 } \\
& \text { ten }[6]-45: 18,54: 1, \\
& \text { 55:2, 180:9, 215:5, } \\
& 216: 6 \\
& \text { ten-minute [1] - 215:5 } \\
& \text { ten-year-old }[1]- \\
& \text { 45:18 } \\
& \text { tender }[1]-65: 25 \\
& \text { tends }[1]-85: 5 \\
& \text { Tennessee }[1]-58: 16 \\
& \text { Tenth }[1]-5: 12 \\
& \text { tenths }[1]-87: 22 \\
& \text { term }[7]-10: 6,10: 10, \\
& 10: 11,23: 2,62: 1, \\
& 84: 20 \\
& \text { terminology }[1]- \\
& 169: 15 \\
& \text { terms }[6]-95: 1, \\
& 125: 19,157: 4, \\
& 162: 2,168: 19,181: 5 \\
& \text { Test }[1]-132: 16 \\
& \text { test }[1]-50: 5 \\
& \text { testified }[33]-12: 11, \\
& 12: 18,52: 18,52: 19, \\
& 58: 2,71: 14,79: 10, \\
& 85: 6,88: 3,88: 6, \\
& 91: 25,106: 13, \\
& 111: 10,115: 18, \\
& 116: 10,118: 15, \\
& 119: 12,143: 4, \\
& 143: 23,145: 9, \\
& 152: 2,152: 11, \\
& 152: 23,157: 15, \\
& 160: 18,166: 15, \\
& 176: 1,182: 17, \\
& 191: 6,191: 15, \\
& 192: 23,202: 3, \\
& 210: 25 \\
& \text { testifies }[1]-114: 7 \\
& \text { testify }[5]-8: 17, \\
& 89: 23,147: 16, \\
& 153: 22,212: 16 \\
& \text { testifying }[2]-196: 7, \\
& 201: 19 \\
& \text { testimonies }[1]- \\
& 85: 20 \\
& \text { testimony }[50]-8: 11, \\
& 8: 13,12: 13,17: 8, \\
& 21: 22,42: 14,44: 3, \\
& 44: 6,48: 10,51: 21, \\
& 51: 23,52: 25,53: 21, \\
& 58: 4,58: 15,59: 9, \\
& 59: 16,59: 21,75: 16, \\
& 87: 25,88: 9,89: 21, \\
& 90: 4,103: 12, \\
& 113: 10,113: 20, \\
& 113: 22,114: 3, \\
& 114: 9,144: 3,152: 7, \\
& 152: 14,157: 18, \\
& \text { 157:23, 163:4, }
\end{aligned}
$$
\] \& ```

    165:25, 169:18,
    192:8, 196:5, 196:6,
    196:16, 196:24,
    198:6, 200:19,
    206:22, 211:21,
    212:4, 218:6, 218:7,
    219:3
    testing [2] - 62:17,
179:4
textbooks [2]-63:20,
72:23
THE [160]-1:1, 1:1,
1:4, 1:17, 7:6, 7:23,
7:25, 8:25, 9:3,
12:22, 13:17, 14:3,
14:9, 14:21, 14:24,
17:10, 23:13, 23:18,
30:7, 31:20, 32:1,
32:4, 33:1, 33:20,
41:14, 41:16, 42:15,
42:16, 42:24, 43:2,
43:11, 43:14, 43:15,
43:16, 43:18, 43:21,
43:23, 44:1, 46:21,
48:3, 49:6, 49:12,
50:10, 50:13, 51:12,
52:15, 53:23, 54:5,
54:15, 54:19, 54:23,
55:2, 55:6, 55:9,
55:12, 55:13, 55:14,
55:17, 55:18, 55:19,
59:13, 60:2, 60:11,
60:15, 61:15, 61:17,
66:2, 66:6, 67:5,
67:13, 87:23, 88:23,
89:12, 90:1, 90:3,
90:6, 104:17, 108:6,
108:7, 108:8, 109:6,
109:8, 113:23,
114:5, 114:10,
121:17, 121:22,
121:25, 122:25,
123:2, 123:3, 123:5,
124:6, 125:6,
126:14, 126:25,
127:12, 127:15,
127:23, 127:25,
128:3, 128:9,
128:17, 128:21,
129:21, 130:12,
142:24, 143:10,
143:13, 149:6,
149:9, 150:6,
169:19, 180:2,
180:9, 193:15,
197:15, 197:19,
197:21, 199:15,
199:17, 201:23,
202:10, 202:17,
203:5, 203:21,
204:1, 204:8, 204:9,

``` \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline 204:21, 206:6, & three-hour \({ }_{[1]}\) & 67:20, 69:15, 70:6, & 1:12, 194:7, & 160:5, 160:18, \\
\hline 209:1, 209:5, 209:8, 209:9, 209:15 & 161:2 & 76:15, 85:10, 92:11, 92:23, 93:1, 94:22 & \[
194: 9,194: 2
\] & \[
160: 25,161: 5,
\] \\
\hline 210:10, 211:14 & three-step [5] - 57:20, & 97:25, 98:20, 100:7, & totality [1] - 39:16 & 163:22, 170:7 \\
\hline 213:5, 213:19, & 75:4, 103:12, & 103:4, 103:6, & totals [2]-104:24, & 171:2, 171:5 \\
\hline \(213: 22, ~ 214: 3\),
\(214: 9,214: 15\) & 111:10, 142:4
throughout \(51-23 \cdot 6\) & 103:16, 103:22 & tough [1]-33:14 & 171:17, 172:1,
173:5, 173:15, \\
\hline \[
\begin{aligned}
& 214: 9,214: 15, \\
& 214: 21,214: 24
\end{aligned}
\] & \[
\begin{gathered}
\text { throughout }[5]-23: 6, \\
57: 6,70: 1,89: 21,
\end{gathered}
\] & \[
\begin{aligned}
& \text { 104:1, 104:22, } \\
& \text { 105:5, 106:8, }
\end{aligned}
\] & \begin{tabular}{l}
tough [1] - 33:14 \\
toward [1] - 157
\end{tabular} & \[
\begin{aligned}
& \text { 173:5, 173:15, } \\
& \text { 173:21, 173:25, }
\end{aligned}
\] \\
\hline 215:4, 215:8, & 45:1 & 106:16, 106:17 & Tower [2] - 3:4, 4:23 & 74:5, 174:8 \\
\hline 215:24, 216:4 & th & 106:21, 109:5, & track [1] - 22:22 & 4:20, 175 \\
\hline 216:10, 216:25 & thrust \({ }_{[1]}\) - \(218: 1\) & 109:13, 109:14, & traditional \({ }_{[1]}-95: 19\) & 175:3, 178:6 \\
\hline 217:7, 217:14, & thumb [1] - 7:17 & 111:25, 115:12,
\(115: 22,116: 8\) & traditionally \({ }_{[2]}\) - & 178:24, 179:3, \\
\hline \[
\begin{aligned}
& 217: 16,218: 2, \\
& 218: 21,219: 3,
\end{aligned}
\] & Thursday [9] - 49:10, & \[
\begin{aligned}
& \text { 115:22, 116:8, } \\
& \text { 116:17, 116:19, }
\end{aligned}
\] & \[
112: 3,126: 18
\] & \[
\begin{aligned}
& \text { 180:17, 180:18 } \\
& \text { 180:20, 182:7, }
\end{aligned}
\] \\
\hline 219:6, 219:9 & & 116:25, 117:3, & tra & 2:21, 190: \\
\hline \[
\begin{gathered}
\text { theory }[3]-187: 19, \\
195: 4,196: 10
\end{gathered}
\] & 213:18, 214:10 & 117:17, 118:3, & :22, 188:6 & \[
90: 9,190: 12
\] \\
\hline therefore [3]-31:23, & tig & 130:9, 131:2, &  & 191:23, 191:24 \\
\hline 164:22, 187:2 & Timothy [1] - 143:14 & 131:12, 131:1 & Training [4] - 136 & 92:6, 192:7 \\
\hline thereto [1] - 8:18 & TIMOTHY [1]-5:9 & 131:18, 131:21, & 137:16, 138:3 & 22:12, 192:20 \\
\hline they've [2]-31:12, & tired [1] - 54:24 & \[
\begin{aligned}
& \text { 131:24, 132:2, } \\
& \text { 132:5, 132:8, }
\end{aligned}
\] & trajectory [1]-25:25 & 192:24, 193:3,
193:6, 193:19, \\
\hline \begin{tabular}{l}
31:25 \\
thicker [1]
\end{tabular} & title [6]-128:23 & \[
\begin{aligned}
& \text { 132:5, 132:8, } \\
& \text { 132:11, 132:14 }
\end{aligned}
\] & Tran [1] - 88:15 & \[
\begin{aligned}
& \text { 193:6, 193:19, } \\
& \text { 194:16, 194:17 }
\end{aligned}
\] \\
\hline thinking [3]-148:2, 158:8, 214:13 & 203:24, 204:7, & \[
\begin{aligned}
& \text { 132:16, 132:19, } \\
& \text { 133:5, 133:14, }
\end{aligned}
\] & \[
\begin{gathered}
\text { transcript }[4]-6: \\
\text { 109:25, 218:7, }
\end{gathered}
\] & \[
\begin{aligned}
& 34: 18,196: 1, \\
& 8: 3,208: 5,208: 9
\end{aligned}
\] \\
\hline third [2] - 80:3, 173:3 & titles [1]-204:2 & 133:17, 133:20, & transition [6] - 35:19, & 08:19, 210:15 \\
\hline Thomas [1] - 2:10 thorough \({ }^{11]}-67: 23\) & today [32]-10:19, & \[
\begin{aligned}
& \text { 133:25, 134:3, } \\
& \text { 134:6, 134:8, }
\end{aligned}
\] & \[
35: 20,35: 23,36: 11
\] & \[
\begin{aligned}
& \text { treats }[1]-45: 14 \\
& \text { trees }[1]-67: 12
\end{aligned}
\] \\
\hline thoroughly \({ }_{[1]}\) - & \[
: 4,40: 21,42: 17
\] & 134:14, 134:17, & transitional & trends [2] - 111:25 \\
\hline 204:21 & 45:21, 49:11, 57:19, & \[
\begin{aligned}
& \text { 134:19, 134:22, } \\
& \text { 134:25, 135:3, }
\end{aligned}
\] & 95:24, 96:8, 96:11, & \[
\begin{aligned}
& \text { 125:11 } \\
& \text { triage }[1]-100: 5
\end{aligned}
\] \\
\hline \begin{tabular}{l}
thousand [1] - 22:16 \\
thousands [1]-85:20
\end{tabular} & 59:22, 111:18, & \[
\begin{aligned}
& 134: 25,135: 3, \\
& 135: 6,135: 12,
\end{aligned}
\] & 96:15, 96:21, 97:12, & \[
\begin{aligned}
& \text { triage }_{[1]}-100: 5 \\
& \text { Trial }_{[1]}-219: 11
\end{aligned}
\] \\
\hline threat \({ }_{[1]}\) - 127:9 & \[
2: 17,143: 3
\] & 135:14, 135:18, & \[
4: 25,166:
\] & RIAL [1] - 1:16 \\
\hline Three [1]-6:5 & 4:7, 160:19 & 135:21, 135:25, & 184:15, 184:1 & \[
\text { trial }[8]-33: 8,33: 1
\] \\
\hline \[
\begin{gathered}
\text { three }[65]-6: 12, \\
12: 15,26: 4,26
\end{gathered}
\] & \[
\begin{aligned}
& 1: 5,161: 8, \\
& 1: 16,162: 1
\end{aligned}
\] & 136:3, 136:6,
136:10, 136:13, & Transitional [2] & \[
\begin{aligned}
& 51: 19,58: 3,58: 5, \\
& 58: 9,89: 17,215: 14
\end{aligned}
\] \\
\hline 30:17, 30:21, 30:22, & \[
2: 19,163: 4
\] & 136:16, 136:19, & \[
\mathrm{Tr}
\] & tried [3]-70:16, \\
\hline 39:21, 40:9, 40:14, & :3, 171:3 & 136:22, 137:3, & \[
20: 18,20: 1 \mathrm{~s}
\] & 164:6, 167:3 \\
\hline 42:12, 44:20, 45:3, & 4:23, 196:3 & \[
\begin{aligned}
& \text { 137:8, 137:11, } \\
& \text { 137:14, 137:16, }
\end{aligned}
\] & Transportation [1] & Trong [1]-88:16 \\
\hline \begin{tabular}{l}
48:22, 57:11, 57:19, \\
57:20, 66:21, 67:24,
\end{tabular} & \[
\begin{aligned}
& 196: 23,197: 5, \\
& 213: 6,217: 18
\end{aligned}
\] & 137:20, 137:23, & 133:19 & \[
\begin{aligned}
& \text { true }[7]-51: 16,51: 20, \\
& 98: 16,176: 3,
\end{aligned}
\] \\
\hline 68:22, 69:2, 69:18, & today's [2]-10:25 & \[
138: 1,138: 4,138: 7
\] & treasury [2]-112: & \[
8: 24,198: 2
\] \\
\hline 72:17, 75:4, 76:11, & 111:1 & 138:10, 138:16, & tr & 5:24 \\
\hline 76:14, 79:13, 81:16, & together \({ }_{[7]}-36\) & 138:19, 138:22, & treating [3] - 110:1 & rue [1]-190:21 \\
\hline 82:21, 92:13, 93:19, & 167:11, 175:5 & 138:25, 139:4 & 158:11, 174:13 & truly [1] - 127:22 \\
\hline 95:7, 95:11, 95:12, & 5:8, 175:17 & 139:16, 139:24, & Treating [2] - 134:11, & \[
\operatorname{try}[7]-9: 2,33: 11
\] \\
\hline \[
\begin{aligned}
& 98: 3,101: 8,103 \\
& 111: 10,133: 23,
\end{aligned}
\] & & 140:3, 140:6, & 190:19
Treatment [9] - & \[
214: 6,214: 18
\] \\
\hline 142:4, 156:15, & tomorr & 140:10, 140:1 & & trying [8]-38:7, 46:9, \\
\hline 161:21, 180:22, & 8:1 & 140:18, 140:2 & 134:13, 134:16 & 7:4, 159:20 \\
\hline 181:9, 181:12, & 214:24, 217:8, 219:7 & 141:1, 141:6 & \[
19,134: 2
\] & \[
60: 13,175: 20
\] \\
\hline 182:12, 182:16, & \[
\text { took }[11]-25: 5,31: 9,
\] & \[
\begin{aligned}
& \text { 141:10, 141:13, } \\
& \text { 151:3. 151:22. }
\end{aligned}
\] & \[
35: 14,135: 1
\] & 218:20, 218:25 \\
\hline 182:20, 183:2, & 101:17, 101:18 & & 135:20 & Tuesday [1] - 217:13 \\
\hline \[
\begin{aligned}
& \text { 183:9, 183:18, } \\
& \text { 184:1, 200:16, }
\end{aligned}
\] & 105:1, 181:3, & 154:21, 158:11, & treatment [68]-45:12, & \[
\begin{aligned}
& \text { turn }[2]-16: 10, \\
& 184: 13
\end{aligned}
\] \\
\hline 202:24, 203:14, &  & 159:19, 168:16, & & Twelfth [3] - \\
\hline 203:17, 205:9, & 184:23 & 170.9, 175:10 & 158:15, 158:20, & \[
4: 21,5: 5
\] \\
\hline 205:13, 205:14, & \[
\text { top }[2]-47: 8,103: 20
\] &  & \[
59: 1,159: 2,
\] & two [46]-10:13, 24:7, \\
\hline 205:17, 215:15, & topic [1] - 11:25 & 179:17, 179:20, & 159:12, 159:18, & \[
24: 10,24: 18,24: 22
\] \\
\hline 218:13 & total [133]-66:12, & 184:6, 187:8, & 159:23, 160:4, & 24:24, 25:6, 25:15, \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|c|}
\hline  & ```
    143:9, 143:23,
    144:3, 169:13,
    179:25, 203:3,
    203:13, 204:4,
    206:4, 209:1, 209:3,
    209:10, 209:13,
    210:6, 212:14,
    213:12, 213:25,
    217:11
WITNESS [24] - 8:25,
    41:16, 42:16, 43:15,
    43:18, 43:23, 55:13,
    55:16, 55:18, 60:15,
    61:17, 67:13, 90:6,
    108:7, 121:25,
    123:2, 129:21,
    143:13, 149:6,
    149:9, 150:6,
    199:17, 204:9, 209:8
witness's [1]-202:16
witnesses [7]-33:13,
    48:11, 89:7, 122:13,
    160:17, 176:1
WOELFEL [1] - 3:9
Woelfel [2]-3:9
woman [1]-45:20
Women [1] - 138:14
women [4]-111:3,
    177:19, 180:21,
    181:11
word [3] - 40:18,
    152:25, 173:11
words [6] - 32:13,
    44:14, 150:20,
    162:10, 167:16,
    187:15
wore [1] - 179:16
worker [1] - 166:8
Workers [1] - 136:2
workers [3]-73:12,
    83:23, 167:5
workforce [1] - 110:18
Workforce [1] -
    135:23
Workplace [1] - 138:6
workplace [1] -
    110:25
works [1] - 64:1
worksheet [1] -
    148:17
worksheets [1] -
    207:17
world [3]-56:4,
    188:10, 200:5
worry [1] - 43:21
worse [1] - 32:7
writ [2]-50:3, 50:17
write [1]-64:18
written [1] - 14:12
wrongful [2]-56:19,
``` & \[
\begin{aligned}
& 144: 4 \\
& \mathbf{W U}_{[1]}-5: 10 \\
& \mathbf{W V}_{[6]}-2: 8,3: 10, \\
& 3: 13,4: 24,5: 15,6: 9 \\
& \mathbf{W V U}_{[1]}-61: 8
\end{aligned}
\]
 & ```
103:6, 105:4,
    106:17, 112:17,
    112:23, 123:8,
    123:14, 123:15,
    124:25, 125:3,
    125:8, 125:9,
    125:10, 125:12,
    125:20, 125:22,
    125:23, 151:11,
    152:19, 158:2,
    168:4, 190:10,
    193:4, 194:1, 198:9,
    205:24, 206:15,
    206:21, 210:8,
    210:13
yesterday [31] - 9:6,
    9:24, 11:3, 11:18,
    12:2, 12:16, 12:18,
    13:3, 13:5, 14:7,
    14:11, 14:25, 15:5,
    15:18, 17:8, 18:20,
    22:25, 24:15, 29:10,
    31:3, 45:17, 126:5,
    126:10, 128:15,
    157:15, 192:8,
    192:23, 196:16,
    196:25
Yogi [1] - 90:4
York [2] - 3:5, 58:18
Young [11]-69:8,
    81:19, 89:23,
    117:14, 119:23,
    119:25, 139:14,
    147:3, 153:12,
    153:18, 156:5
young [1] - 111:4
Young's [2] - 70:13,
    118:1
yourself [2] - 49:3,
    55:23
Zerkle [2]-160:17,
    160:25
zeros [1] - 206:18
``` \\
\hline
\end{tabular}```

