EXHIBIT 1

	UNITED STATES DISTRICT COURT
£ 2	CENTRAL DISTRICT OF CALIFORNIA - WESTERN DIVISION
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5	MICHELLE FLANAGAN, SAMUEL GOLDEN, DOMINIC NARDONE, JACOB PERKIO, and THE CALLFORNIA RIFLE & PISTOL ASSOCIATION,
Survive Tarray of the second s	Plaintiffs,
10 11 12 13	vs. No. 2:16-cv-06164- JAK-AS CALIFORNIA ATTORNEY GENERAL XAVIER BECERRA, in her official capacity as Attorney General of the state of California, SHERIFF JAMES McDONNELL, in his official capacity as Sheriff of Los Angeles County, California, and DOES 1-10,
14	Defendants.
15	
16	
17	DEPOSITION OF
18	JOHN J. DONOHUE
1.9	Wednesday, July 12, 2017
20	9:47 a.m.
21	180 East Ocean Boulevard, Suite 200
22	Long Beach, California
23	
24	Sherryl Dobson, RPR, CCRR, CSR No. 5713
25	



The state of the s	APPEARANCES OF COUNSEL:	
2		
5. mark 3	For the Plaintiffs:	
4 5 6 7	MICHEL & ASSOCIATES BY: SEAN A. BRADY, ESQ. ANNA BARVIR, ESQ. 180 East Ocean Boulevard, Suite 200 Long Beach, California 90802 562-216-4444 sbrady@michellawyers.com	
8		
69	For the Defendants:	
11 11 12 13	JONATHAN M. EISENBERG, Deputy Attorney General STATE OF CALIFORNIA, DEPARTMENT OF JUSTICE, OFFICE OF THE ATTORNEY GENERAL 300 South Spring Street, Suite 1702 Los Angeles, California 90013 213-897-6505 jonathan.eisenberg@doj.ca.gov	
14		
15	Also Present:	
1.6	MATTHEW NGUYEN	
17		
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(21)		!
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23		
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25		



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Control of	DEPOSITION OF JOHN J. DONOHUE
2	Wednesday, July 12, 2017
3	
4	JOHN J. DONOHUE,
55	having been first sworn, testified as follows:
6	EXAMINATION
7	BY MR. BRADY:
8	Q Good morning. Can you state your name for the
9	record, please?
10	A John Donohue.
11	MR. BRADY: And I'm going to mark this Exhibit 1.
12	(Exhibit 1 was marked.)
13	BY MR. BRADY:
14	Q Have you seen this before?
15	A I don't know if I've seen this.
16	MR. EISENBERG: Yeah, I don't think I forwarded
17	this one to him.
18	MR. BRADY: Yeah.
19	MR. EISENBERG: This one came in very recently,
20	right?
21	MR. BRADY: Yes.
22	MR. EISENBERG: So I'll represent that I did not
23	send this to him, but I just communicated with him about
24.	the change of the location, as, obviously, he's here.
25	MR. BRADY: Yeah, yeah, of course. Yeah, that's

1	A No, I have not revised the report.
2	Q Only Exhibit B?
3	A Yes.
4	Q So then the answer is you have not finished
5	your assignment in this matter?
6	MR. EISENBERG: Objection. Ambiguous.
7	But you may answer.
8	THE WITNESS: Okay. I just wasn't sure if I was
9	supposed to answer.
10	I mean, I think of myself as having finished
11	the expert report, and in that sense although my
12	you know, my job is to be a researcher and, you know,
13	until this paper is published, I'll be working on it. So
14	that process goes on.
15	So I think my task here was to write the expert
16	report, but my task, you know, and my job as a Stanford
17	researcher is to, you know, get that paper published, and
18	I'll be working on that until it finally is published.
19	BY MR. BRADY:
20	Q So that the paper that was attached as
21	Exhibit B, both the original Exhibit B and the updated
22	one neither is published; is that correct?
23	A That's right.
24	MR. EISENBERG: Wait. Objection. Ambiguous as to
25	the word "published."

	THE WITNESS: Yeah, just
2	BY MR. BRADY;
3	Q You just did you just say that it is your
4	paper is not published yet?
5	A Yeah. What I
4 6	Q What did you mean by it is not published?
7.000	A I finished the paper and sent it off to the
8	National Bureau of Economic Research, and they released
9	it as an NBER working paper. So in one sense that's
10	publication.
(11	But when I was referring to publication, I was
12	meaning whenever I finish a major paper, I would
13	submit it to a peer review journal, and that,
14	unfortunately, takes a long time.
15	I have submitted this paper, and, you know,
16	it'll be a while before I hear back from them. And, you
17	know, it would be it wouldn't be unusual for them to
18	say, you know, do this or do that, you know, can you add
£19	a table or something like that. So in that sense
20	there'll be a process before the ultimate publication
21	comes.
22	Q Okay. So what does "working paper" mean
23	exactly?
24	A Well, the National Bureau of Economic
25	Research I'm very happy to be a member of it really
L	·



61	is the most elite group of empirical academic economists
2	or empirical economists in the country.
3	And if you're a fellow of the National Bureau
4	of Economic Research as a way to facilitate your
- 5	research, getting out into the public domain more
6	rapidly, they will, you know, essentially publish it and
Company of Communication	reprint it and I could even show you what the they
8	do.
9	I think I brought a copy of the actual
10	publication that they were so like this is the NBER
91	working paper publication, and this goes on to, you know,
12	everyone in the world that they have on the mailing list.
13	MR. EISENBERG: Do you have multiple copies of
14	that?
15	THE WITNESS: I do have multiple copies, although
16	I don't have multiple copies with me.
17	MR. EISENBERG: Right.
18	THE WITNESS: But certainly, people can take this
19	one, or I can send them to them.
20	MR. EISENBERG: Can we mark this I mean, it's
21	your deposition but if he wanted to mark it as an
22	exhibit and it would stay here, is that going to
23	present
24	THE WITNESS: Oh, no, no, problem. I have a
25	stack of these. They send maybe ten of them.

1	MR. BRADY: Okay. Then we mark this as Exhibit 3,
2	please.
3	(Exhibit 3 was marked.)
4	THE WITNESS: I should have thought about bringing
5	more. I probably have thrown them all out.
6	BY MR. BRADY:
7	Q So a working paper, to be clear, has not been
8	peer reviewed?
9	A No, it's only something that a research fellow
10	of the NBER has submitted. Jim Poterba, who's the head
11	of it, then makes a judgment about whether it's
12	appropriate to send out, and he does send it out if it
13	is.
14	Q Do people in your field cite to working
15	papers
16	MR. EISENBERG: Objection. Ambiguous as to
17	"field" oh, I'm sorry, you're not finished? Okay. I
18	thought you'd finished.
19	BY MR. BRADY:
20	Q Do people in research fields rely on working
21	papers in supporting other in supporting their
22	studies?
23	MR. EISENBERG: Objection. Vague and ambiguous.
24	The term "research field" is overbroad and may go beyond
25	the particular expertise of Professor Donohue.



£ 1	But you may answer.
2	THE WITNESS: Okay. Yeah, in my experience, it
3	would be unusual in my well, I don't know if I want to
4	go that far. It would be very common in reading a piece
5	in my field to see an NBER working paper cited.
6	BY MR. BRADY:
7.	Q I'm sorry, it would be unusual to see
8	something
9	A No, it would be very common to see NBER working
10	papers cited.
11	Q It would be common to see a published
12	peer-reviewed study cite a working paper?
13	A Yes. And I'm sure I've done it many times.
14	Q How long did it take you to prepare the report
15	in this matter?
16	MR. EISENBERG: Objection. Ambiguous as to
17	"report."
18	Are you speaking about the expert report or the
19	exhibit?
20	MR. BRADY: The report in this matter.
21	MR. EISENBERG: Okay.
22	BY MR. BRADY:
23	Q Under Federal Rule of Civil Procedures Rule 26,
24	you had to prepare a report, correct?
25	A Yes.

Ĺ	Q Okay. At the outset I'd like to get some terms
de ser lama en en el destro de la companya de la co	squared away, because I barely passed statistics class.
13	So I'm going to need your assistance.
4	What is panel data analysis?
(5)	A Yeah, this this is
6	Q And before you begin, we just need the
State of Sta	elementary dumb it down for me a little bit, just so I
8	can understand this.
9	A Sure. And I this is my life is sort of
(10	talking about this, because I do teach this to law
111	students, which, on the whole, know zero about
12	statistics. In fact, most of them have gone to law
Design Control of the	school because they never wanted to see math again.
14	But John Lott's initial study was a panel data
515 b	study, and so what is that? It was actually an
16	interesting innovation in studies designed to evaluate
print the state of	laws and policies that has one very nice feature, that
18	you not only look at the states that you're interested in
19	that may have had a change in the law, but you also look
20	over time. And you also look at the states that don't
21	have the change.
22	So essentially, what I refer to when I say
23	panel data is I have data on many jurisdictions it
24	could be state; it could be county; it could be city
25	plus I follow all of them over some period of time.

Ĺ	And so the sort of simplest study is often a
2	time series study, where you're just looking at, let's
3	say, California. They made some change, and you compare
San are Angeles are the san ar	before and after. So that would be a time series
(5	analysis.
66	Another time analysis is you just look you
7	know, crime in 2015 across 50 states. That's a
	cross-section, looking at one spot in time. And panel
9	data sort of combines both of them.
al O	It not only looks across in my study, the 50
Single Control of the	or 51 jurisdictions and then over a period of years as
12	well. So it has all of the advantages of time series and
13	a cross-section combined. And that was considered to be
14	a major advance in the study of impact of law and policy.
15	Q Okay. You talked about jurisdiction and time.
(L6	These are two components of a panel data
17	analysis; is that correct?
18	A Yes.
19	Q Are those what you call fixed effects?
20	A Well, the there's an interesting element in
21	panel data. One thing that people have realized over
22	time is that it's often hard to fully capture all of the
23	influences on in this case crime, but it could be
24	whatever you're interested in looking at with
25	explanatory variables that you can collect.

1 like me would like to have perfect data, and I could include all of that into my statistical model, but that's unrealistic. There are going to be many things that we
San A-1997 - 199
4 unrealistic. There are going to be many things that we
won't be able to capture.
And so what panel data with fixed effects
7 allows you to do is it says, We know we can't explain
8 every reason why South Dakota has a lower crime rate than
9 Louisiana. So what we will assert into our model is that
there is some enduring fixed effect that explains why
11 crime is lower in South Dakota than it is in Louisiana,
12 in addition to whatever things that we can control for,
13 that we can see.
14 So like one thing you could notice about
15 Louisiana is it has a different demographic makeup than
16 South Dakota, and that would influence crime, and I can
17 control for those things.
18 But in panel data you get this nice benefit of
19 being able to have this fixed effect captured by the
state fixed effect, which gives you a little bit more
power in being able to draw inferences about the impact
of a change in law or policy. So that is a nice feature
of the data.
Q Can you have a panel data analysis without
25 fixed effects?



1	A Yes, yes, yes.
2	Q And just to be clear, the fixed effects in
3	your that you're referring to are geographic, state,
4	and time?
65	A Yes. So the other fixed effect that we have
6	used and everyone who has looked at this has done it
######################################	since John Lott initiated this literature would look
8	at the fact that there's a very interesting dimension to
9	crime in the United States, and even internationally,
IO	that there are waves with crime.
11	So if you plot the data for, let's say, murder
12	in the United States and murder in Canada, they track
13	each other almost perfectly, even though Canada has less
14	than one-third the murder rate that we have.
15	So the Canadian fixed effect means that they
16	have a lower level of crime, but the year fixed effect
17	means that they get the same change in crime. So it's a
1.8	very interesting dynamic of how whatever's in the ether
19	and ethos of society can impact crime.
2.0	And these panel data models allow you to
21	capture that through what's called the year fixed effect.
22	Q Okay. What is a synthetic control?
23	A So this is a I mentioned that panel data was
24	considered a sort of big leap forward in the empirical
25	evaluation of law. There have been some areas where the

T.	panel data results have been a little bit more ambiguous
2	or uncertain or fragile than people have liked, and it
3	turns out this area is one of those.
4	And because of that, some researchers at
5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Harvard Economics Department, specifically Alberto Abadie
• 6	and his coauthors, devised a new technique to do a better
7	job of predicting the actual causal impact of legal or
By the British of the Con-	policy interventions. And they called it the synthetic
9	controls approach.
10	Essentially, what it does is it says, well, one
11	problem that we have with the panel data approach is that
1.2	you're always trying to replicate as closely as you can
13	something like the experience of a randomized control
14	experiment that you would see in the medical realm. So
15	they have a treatment group and a control group.
16	In the greatest of all worlds, you've
17	randomized people into those groups and that's the gold
1.8	standard of identifying causal impacts. Very hard to do
19	that in this domain and in many social domains. So
20	that's why panel data was implemented as a way to get
21	better estimates.
22	But the critique of panel data is you separated
23	the world into the treatment group, the states that adopt
24	the right right-to-carry laws, and the control group, the
25	states that haven't yet adopted it. But that may not be

612	the best comparison study.
2	There may be too much imprecision because
3	and this turned out to be the problem with John Lott's
4	original work. He had a small number of states that had
5	adopted right-to-carry laws, but they were states like
6	South Dakota, Maine, and when you take those as your
[7	treatment statements and compare those to the
€ 8	non-treatment states, the states that did not adopt right
9	to carry, your estimates are a little less precise than
(10	you would like.
11	And so the idea behind Abadie's work is, rather
12	than having every state as a panel data be the control lf
13	you're not a treatment, I think we can do better, and we
14	can find a protocol to identify what are a better set of
15	control states. And that s what the synthetic control
16	tries to do.
17	It tries to concoct a better control, so that
18	we can answer the the big question in this literature
19	is what is the counterfactual. So when Texas adopts a
20	right-to-carry law, we see what happens afterwards. We
21	can't see what would have happened, had they not adopted
22	the right-to-carry law.
23	And the synthetic control is going to give you
24	an estimate of what would have happened, had Texas not
25	adopted a right-to-carry law.
i	

1	statistical approach.
2	Q So you did both a panel data analysis and a
3	synthetic controls analysis?
4	A Yes.
5	Q And they both reach the same conclusion?
6	A They varied on some items, but they both reach
7	the same conclusion on the impact of right-to-carry laws
8 1 10 20	on violent crime. They came out differently on property
9	crime.
10	Q And could you summarize your conclusion of what
11	is the ultimate conclusion of both of those?
12	A Yes. So I mean, the take-away that I got from
(13	the research was that right-to-carry laws increased
14	violent crime in the neighborhood of, you know, 13 to 15
15	percent, and that comes from the synthetic controls
16	assessment.
17	And so when I say 13 to 15 percent, just to be
1.8	a little more precise, the pattern seems to be an
19	incrementally rising violent crime effect, and since I
20	looked for ten years after adoption, the tenth year
21	effect was 13 to 15 percent, depending on which specific
22	model one looked at.
23	And so that was what I took away as the
24	strongest conclusion from the paper. The right-to-carry
25	results are somewhat different in form, but essentially



{1 }	were supportive of that rough conclusion if one looked at
2	the models that I thought were the most appropriate,
43	panel data models.
4	Q And for those models, how many regressions did
5	you run?
6	A You know, essentially, what I tried to do was,
7	you know, just do my own panel data model. I refer to
8	that as DAW, for the initials of the three authors,
9	Donohue, Aneja, and Weber.
10	And so I run a basic statistical model in two
	ways, a sometimes referred to as a dummy variable
12	model, where you're just predicting an average change in
13	crime in the aftermath of right-to-carry, and then a
(14	trend model that is trying to predict the change in the
(15)	trend of crime in the aftermath.
16	Q Do both of those require running regressions?
(17	$oldsymbol{\lambda}$ Yes.
1.8	Q Okay:
19	A Yeah. And so those would be two regressions
20	that I would run for the right-to-carry estimates, using
21	my model.
22	But then I did versions of those for both
23	murder, violent crime, and property crime. And then I
24	went to other people's published models to see if they
25	would generate the same results. So everything I tried

A TOP A CONTROL OF THE CONTROL OF TH	to do with my model, then I would try to replicate with
2	other published models to see if the results would come
	out the same.
1 4	Q Are you able to say how many regressions you
Service Control of the Control of th	Tan?
6	A You know, I could I could count them up, but
(1) 10 To 10	it would take me a while. So in just thinking about it,
8	eight for the DAW model over the full period, and then I
9	would also do eight for the Brennan Center model, eight
10	for the Lott and Mustard model, eight for the Marvell and
(111	Moody model.
	But I also then showed results for a limited
	time period in the aftermath of the crack cocaine
14	epidemic. So I, you know, again, showed more regressions
15	along those lines.
16	And then it depends on whether you consider
	synthetic controls to be in this category, but I have a
18	series of estimates for them as well.
19	Q And what would those estimates be?
20	A So for the synthetic controls approach, it's
21	sort of a two-stage analysis, that you would get an
22	estimate for each individual state and then aggregate
23	those into a single estimate for the impact for each year
24	for ten years, which is the way I did the analysis.
25	And so, again, I did that for both the DAW



Tribe a Lawrence	model as well as for the Brennan Center model and the
2	Lott and Mustard and Marvell and Moody models.
£_3	Q Okay. Did you include all of those regressions
4	in your in the DAW?
1 5	A Yes. So in the full paper, not in the expert
6	report, they would all be included, but not in the more
7	limited expert report.
8	O So all regressions that you ran are
9	contemplated in your paper, in your in DAW?
10	Should we just refer to it as DAW? Would that
	help?
12	A Whatever works for you is fine with me.
13	Q That seems to be your terminology, correct?
14	A Yes.
15	Q So all of the regressions you ran are
16	contemplated in the DAW?
17	A You know, it's hard to know I literally
48	haven't run a regression in years. Hard to know how much
1.9	the staff was working away, but all of the ones that I
20	looked at and evaluated appear in the paper, in, you
21	know, the various versions of the paper that I've done.
22	Q So you had staff helping you run regressions
23	A Yes.
24	Q for the DAW?
25	A Yes.

(1	Q Did you rely on staff to present the
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	regressions that you reviewed to you?
3	A Yes. I mean, I'm fortunate that I'm able to
4	hire research assistants to actually, you know, run the
£::5::::	regressions for me. So I don't have to do that myself.
6	Q Could they have and when I say the staff,
Free Table	your assistants.
8	Could they have withheld certain regressions
9	without your knowledge?
10	A It's conceivable, because one never knows what
11	someone does that you don't know, but they typically just
12	do what I tell them to do. So they would then bring
13	whatever I tell them to do to me.
14	Q What would be the effect of omitting
15	regressions?
16	A You know
17	MR. EISENBERG: Wait a minute. I'll just
18	interpose an objection. Vague and ambiguous.
19	But you may answer.
20	THE WITNESS: Yeah. I mean, it's one could
21	imagine a world where someone runs lots of regression
22	analyses and gets results that they don't like and then
23	buries them and then because there's always a certain
24	amount of statistical noise in any of these models, if
25	you run them enough different ways, you can bounce the

1	the public would be interested if they followed this
2	debate over the years, what would the models of Lott and
3	Mustard and Marvell and Moody show. So I included those.
4	Now, I've been critical of those models, but I
5	still thought it would be useful to alert people to what
6	those models those models that Lott and Mustard
7	thought were the best ones and Marvell and Moody thought
8	were the best ones estimated on the data set that I
9	had created. So that was my selection criterion.
10	One, what did I think was best; and, two, what
11	were other models that had been used to advocate the
12	opposing view so those were Lott and Mustard and
13	Marvell and Moody and what is just another general
14	crime model that was sort of widely referred to in the
15	literature.
16	Q What criteria did you think were best?
17	A Well, for me, you know, there were there are
18	a lot of small decisions that you have to make when
19	you re doing these analyses.
20	You know, for example, Lott and Mustard didn't
21	include police and incarceration in their paper. And I
22	have always included police and incarceration, because I
23	think of those as two explanatory variables that play an
24	important role in influencing crime.
25	So, you know, if you just go down the

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1 explanatory variables that I include, you get a sense of	
the ones that I think were most appropriate. And, you	
3 know, you can do the same thing for the Lott and Mustard	
4 and Marvell and Moody, to see what they thought were mos	100
appropriate.	
6 It's interesting how many choices you have to	
7 make to implement a statistical model. And that's why	
8 you're always concerned about the integrity of the	
9 researcher, because you don't want someone going through	
10 and tweaking the model and you know, literally, a	
hundred different ways, running a hundred different	
12 regressions, and then just showing you the one where the	
13 statistical noise bounced it.	
14 Now, remember we talk about statistical	
15 significance. And so what that term actually means is,	
significance. And so what that term actually means is, if you really had a zero effect, how likely is it that we	
if you really had a zero effect, how likely is it that we would estimate a true effect? And well, I'm being ambiguous here.	
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if you really had a zero effect, how likely is it that we would estimate a true effect? And well, I'm being ambiguous here. If you really had a zero effect, how likely is it that your statistical estimate would suggest that there was a significant effect? And if you're using the five-percent level as your measure of statistical significance, it means five out of a hundred times you	



Section 1	random chance.
2	And so if somebody is dishonest, they could run
	the model a hundred times and you know, about two and
4 100	a half of those will be on one side, and you're
S. War Date of the	estimating an increase in crime, for example. Two and a
6	half percent would be on the other side, estimating a
7	decrease.
9	And if you were dishonest, you could just show
99	the best one that shows either the increase, if you
1.0	wanted to show an increase, or a decrease, if you wanted
	to show a decrease. So that's one thing that is very
in 1 in 2 in a second	important, I think, in this area, is that there be
(13	transparency and not an effort to take advantage of this
	random or stochastic component of the estimates, which
15	can bounce around a little bit.
£16	Q Did you only run regressions for states that
	didn't change their laws for ten years after an RTC law?
18	And just to be clear "RTC" is the term used for
<u> </u>	right-to-carry laws, right, so we understand each other?
20	A Yes.
21	Q And is that you only ran regressions for
22	states that didn't change their laws for ten years after
23	an RTC Law was adopted?
24	A Well, for the panel data models, everything
25	gets included in all of those. For the synthetic



[200]	controls models, what I did there was only identify what
2	the estimated impact was for the ten years after
3	right-to-carry adoption. And so any state that had not
4	adopted a right-to-carry law in that ten-year period
5	could be a potential control in doing the synthetic
(6	control analysis.
7	So for example, Wisconsin adopted a
Barrens Barrens A	right-to-carry law in 2011. And that means if I'm trying
9	to figure out the effect of the right-to-carry law in
10	Texas, which adopted in 1996, I can consider Wisconsin as
11	a potential synthetic control, because, for the period
12	from 1996 to 2006, Wisconsin did not have a
13	right-to-carry law in effect, and therefore, that is part
14	of the potential cohort of controls for the synthetic
15	control analysis of Texas.
1.6	Q So then for running regressions on the
17	synthetic control analysis, you only considered you
1.8	only ran regressions for states that didn't change their
19	laws for ten years after a right-to-carry?
20	A Well, remember, all I'm trying to do is get an
21	estimate for the impact on crime of any state that does
22	change their right-to-carry law over my data period.
23	And so what I need to do, using the synthetic
24	controls, is find states that are good control states to
25	compare to the treatment state, the treatment state being



A to stopp 1	the state that adopts the right-to-carry law.
2	And so every state that adopted over my period,
3	you know, before, I think, 2007, I come up with an
4	estimate, and I show the estimated effect for each year
5	up to ten years after they passed their right-to-carry
6	Law
7.	That help you?
8	Q Well, I'm really just asking a yes-or-no
9	question.
(1.0	A Oh, I'm sorry.
	Q It's okay.
12	Did you only run regressions for states that
13	didn't change their laws for ten years after an RTC law?
14	A No.
(15	Q So you ran regressions for and we're talking
(16	about just for the synthetic controls.
(17	The answer's still no, just for synthetic
18	eonurols?
19	A Yes.
20	Q So you ran regressions on states that had
21	that didn't change their laws for less than ten years?
22	A Well, the thing is, for the synthetic controls,
23	I came up with a synthetic control estimate for all of
24	the 33 states that changed their right-to-carry law over
25	my data period. And I would allow any state to be a



10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	potential control as long as they didn't adopt a
2	right-to-carry law in the ten years after the state that
(3	I was interested in.
4.	Does that make sense?
5	Q Are you saying that you would not run a
6	regression on a state that had a right-to-carry law in
A CONTRACTOR OF THE PROPERTY O	place for less than ten years if you were comparing it to
8	a state that did have that for more than ten years?
9.00	A Well, for the for the synthetic controls
10	analysis you know, Texas, for example, passed their
(11:	law in 1996. So they had a right-to-carry law in effect
12	for more than ten years. But I only estimated the effect
13	for Texas and for every state for the ten years
	The state of the s
14	afterwards.
14	The state of the s
	afterwards.
(L5	afterwards. But every state that adopted a right-to-carry
16 17 18	afterwards. But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in,
16 17	afterwards. But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in,
16 17 18	afterwards. But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in,
16 17 18	afterwards. But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in, let's say, 2007, I would only maybe have seven years of
16 17 18 19 (20	But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in, let's say, 2007, I would only maybe have seven years of estimates. That data ended at 2014.
16 17 18 19 (20 (21	But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in, let's say, 2007, I would only maybe have seven years of estimates. That data ended at 2014. Q So then you did try running regressions for a
15 16 17 18 (19 (20 (21 22	But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states if they adopted in, let's say, 2007, I would only maybe have seven years of estimates. That data ended at 2014. Q So then you did try running regressions for a set of years less than ten on at least some states?
16 17 18 (19 (20 (21 (22 23	But every state that adopted a right-to-carry law I did come up with as long an estimate as I could. So if I had ten years post adoption, I'd have ten years of estimates. For a few states — if they adopted in, let's say, 2007, I would only maybe have seven years of estimates. That data ended at 2014. Q So then you did try running regressions for a set of years less than ten on at least some states? A Yes. For a state that adopted so late in the

	Q And in running those, did you try using
2	different combinations of control variables in generating
\$ 1100 B	that synthetic
4	A Yes. So I tried to do the same thing that I
	did for the panel data; in that, you can you can use
* 6	explanatory variables in the synthetic controls
7	assessment as well as in the panel data evaluation.
(8	So as we mentioned with respect to the panel
19	data, I essentially used four different schemes, one
(10	being, you know, my preferred specification, DAW, then
11	the Brennan Center, then the Lott and Mustard and then
122	the Marvell and Moody, and so I went through that same
1.3	assessment for the synthetic controls as well.
14	Q So I'd like to talk a little bit about fixed
15	effects, just
16	MR. EISENBERG: If I can interject. So we've been
17	going an hour and five minutes. I'm wondering if anybody
18	wants a break.
19	BY MR. BRADY:
20	Q You're free to request a break at any time.
21	MR. EISENBERG: Or keep going. Just wanted to
22	raise that.
23	BY MR. BRADY:
24	Q It's your call. There's the restroom is out
25	there. The bar is in here. I'm sure Mr. Eisenberg would

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really well, then I would say, well, maybe you don't need 1 2 fixed effects. 3 But it turns out, even controlling for all the 4 things that I just mentioned -- you know, San Francisco has a lot lower crime rate than, you know, St. Louis. 5 6 Not a good example. But San Francisco has a lot lower 7 crime rate than many other states, and it's an enduringly 8 lower crime rate that's not well explained by just those 9 factors. 10 So basically, the test would be, if the factors 11 that you can easily measure really capture all of the 12 variation in the cross-section, then you'd say we don't 13 need fixed effects. If they can't capture it, then you would say probably helpful to have the fixed effects in 14 15 there. 16 Q Is it ever unhelpful to have -- to consider 17 fixed effects? 18 A Well, it's -- it turns out that regression follows the normal economic laws as there's no free 19 20 lunch. So every time you add an explanatory variable, 21 there are -- there are costs to it. 22 It can -- there's an interesting paper by Gary 23 King at Harvard, who's a university professor at Harvard, 24 and he said something like, you know, every variable that 25 you add to a model makes it harder to get a precise



Andrew Townson	estimate of the thing that you're most interested in.
2	And so there's this art of good statistics,
3	where you don't want to leave out something that's
4	important, but you don't want to add in a lot of things
5	that are unimportant, because there are going to be costs
6	in either of those choices.
Bayes and a second	Q Could omitting one fixed effect significantly
8	alter results?
	A I mean, are you saying like omitting either
10	state or year fixed effects?
11	Q Yeah.
12	So if you just used state and you don't use
13	<u>time</u>
14	A Yeah.
15	Q could that be result in a drastically
16	different outcome than if you used both state and time?
17	A It could, and it goes back to this point that
18	we talked about a second ago.
(19	The more your included explanatory variables do
20	a good job of capturing the variation in your in this
21	case crime measure, the less you need to rely on state
22	and year fixed effects.
23	And it does turn out in the crime arena that
24	it's harder to fully articulate the factors that explain
25	crime than in some arenas. And therefore, you would



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PARTITION OF THE PARTIT	typically use state and year fixed effects to capture
2	what you're not able to explicitly explain,
3	Q So in at least some instances, omitting one
4	fixed effect could significantly change the outcome?
\$1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A It could, yes.
6	Q Could it ever result in the opposite
Committee of the commit	conclusion? Or outcome, I'm sorry.
8	A Yeah, I mean, I think I take the question to
9	mean if you run a state and year and if you run a
10	panel data model with state and year fixed effects and
	conclude that, let's say, crime is going up by ten
12	percent, if you left out the state or year fixed effects,
13	could it alter that conclusion. And yes, the answer is
1-4	it could alter that conclusion.
<u> 1</u> 5	Q I was asking could it be the opposite? So to
16	use your example that says crime is going up by ten
17	percent, could it ever say that crime went down by ten
1.8	percent by
(19	A It certainly could if the factor that is being
20	captured by the fixed effect, you know, is powerfully
21	correlated with whether the state adopts a right-to-carry
22	law. If it's uncorrelated with that, then it would never
23	reverse the sign. It might move it towards zero, but if
24	it's powerfully correlated, then it could reverse the
25	sign.



	Q Okay. In creating the DAW, you consider a
2	report from the National Research Council; is that
(3	correct?
4	A Yes.
5	Q You state in your report at Page 3, Paragraph
6	4, that that report, quote, "Emphatically rejected the
17	conclusion" I'm sorry, "Emphatically rejected," close
8	quote, the conclusion, quote, "that RTC laws could
9	actually reduce violent crime, " close quote.
10	Do you see that?
11	A Yeah. So the
12	Q Is that an accurate description of your
13	assessment in this report?
14	A Yeah. I'm just saying that they emphatically
£15	rejected the conclusion that RTC laws reduce violent
16	crime:
	Q Okay. Where exactly in the NRC report does the
£118	committee reject that notion?
10	A In the probably the most precise language
20	was the the committee had a disagreement I think it
21	was 16 to 1, where one member of the committee said,
22	yeah, the panel data results are all over the map, but I
23	think the murder results are consistent, and that
24	supports the notion that right-to-carry laws reduce
25	murder.



A CONTROL OF THE CONT	And the other 16 members said, We emphatically
	reject this conclusion, because the it is without
\$1.000 mg 200 000 000 000 000 000 000 000 000 00	scientific support, or there's no statistical basis for
(4	this conclusion. So that was the language that I was
(5	referring to when I wrote that sentence.
6	Q So was it an emphatic rejection of the
	dissent's views?
Service Services	A Yeah, it was an emphatic rejection of the
£11.9	conclusion that the evidence suggested right-to-carry
10	laws, in that case, reduced murder.
11	Q Reduced murder.
(12	You say that they rejected the conclusion that
[13]	RTC laws could actually reduce violent crime, though.
L	Is that right?
in Established	A Yes. And just to be clear, the dissenter in
16	that case who you'll be happy to know was a lifetime
17	NRA member joined NRA at age 12. He told me he
1.8	said, Yeah, the results are much too ambiguous and
(19	conflicting to draw any conclusion about overall violent
20	crime or the individual categories of it, but I think the
21	evidence supports the conclusion that murder is reduced
22	by right-to-carry laws.
23	And the state said, Yeah, we agree with you
24	they used this precise language we agree with you that
25	the evidence is too ambiguous on these other factors, but



	we emphatically reject your conclusion about murder,
2	because we think the evidence is as ambiguous for murder
3	as it is for these other categories.
4	Q So is it fair to say they were emphatically
= 5	rejecting the definitive claim that right-to-carry laws
6	reduce murder?
7	A Yes.
8	Q But not you could not say that about the
£ 9	report saying that about violent crime; is that correct?
10	MR. EISENBERG: Objection. Vague and ambiguous
	with double negatives.
12	BY MR. BRADY:
13	Q Okay. Let me rephrase.
(14	The council made no emphatic rejection of RTC
15	laws effect on violent crime; is that correct?
16	A The committee was unanimous on the conclusion
17	that the evidence available at that time was not strong
18	enough to draw conclusion on any crime category other
19	than murder.
20	The committee was split on the murder, 16 to 1,
21	where they said where the one said, We think there's
22	evidence or I think there's evidence, he said, that
22	murder is reduced by right-to-carry laws, and the
24	committee said the scientific evidence does not support
25	that conclusion.



Application of the second of t	Q Did the NRC report make any other conclusions
2	about RTC laws that you're aware of?
3	A You know, for my purposes, the main focus of
4	the report that I was interested in the report is
5	called "Firearms and Violence," and so it was a broader
6	examination than simply right-to-carry laws, but I was
1 7	focused on the chapter that tried to estimate what is the
8	impact of right-to-carry laws on crime.
9	Q So you're not aware of any other conclusions?
10	A You know, it's a long report. I'm certainly
	broadly familiar, and as the National Research Council
(12	reported, it's usually filled with "and we need more
13	evidence, using better statistical models, to draw firmer
14	conclusions."
15	But just off the top of my head, I'm not I'm
16	not sure if I if I'm aware of other specific findings.
17	Q Isn't that the conclusion that they reached
18	with right-to-carry laws, that they simply needed more
19	A.Yes
2.0	Q research?
21	A Yeah, they felt that you need more data and,
22	hopefully, better statistical approaches.
23	MR. BRADY: I actually have more this time.
24	Mark this as 4.
25	(Exhibit 4 was marked.)



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1	MR. EISENBERG: Objection. Vague and ambiguous.
2	But you can answer.
3	THE WITNESS: They were trying to say, We, as a
4	committee, feel that we don't know the answer at this
5	point what is the impact of right-to-carry laws on crime,
6	and, you know, more data and new and better statistical
7	techniques are likely to be necessary before that
8	conclusion will change.
9	BY MR. BRADY:
10	Q Did you rely on this conclusion by the NRC
11	report in making your conclusions in your study?
12	A Yeah, and in fact, the that conclusion is
13	what led me to the reliance on the synthetic controls
14	approach. Because again, one of my colleagues, a very
15	brilliant empiricist at Stanford named Dan Ho, H-o, had
16	been looking into synthetic controls and encouraged me to
17	use this as a new and better tool to identify the causal
18	impact of right-to-carry laws.
19	And so that became sort of the motivation
20	behind the paper that is now released as the NBER working
21	paper.
22	Q I'd like to direct you to same page, same
23	paragraph of your report, Page 3, Paragraph 4. Right
24	after Footnote 7, starting with, "Nothing that the
25	estimated effects of RTC laws" or I'm sorry, let me



1	strike that.
2	"Noting that the estimated effects of RTC laws
3	were highly sensitive to the particular choice of
4	explanatory variables."
5	Is that would you consider that a conclusion
6	of the NRC report, that the estimated effects of
7	right-to-carry laws are highly sensitive to the
8	particular choice of explanatory variables?
9	MR. EISENBERG: Objection. Are you isolating that
10	part of the sentence, or do you want him to take into
11	account the rest of the sentence?
12	BY MR. BRADY:
13	Q Well, so my understanding is correct me if
14	I'm wrong this is a description of what they said.
115	And I guess it might be easier to go to refer to the
16	exhibit.
17	Let me ask you this. Did the NRC report
18	conclude that the estimated effects of RTC laws were
19	highly sensitive to the particular choice of explanatory
20	variables?
21	Δ Yes.
2.2	Q Okay. Did you take that into account in
23	preparing your report?
24	A. Yes.
25	Q Now, you mentioned that the NRC report



1	considered other firearm restrictions beyond RTC laws.
2	· Is that correct?
3	A That's right.
4	Q Do you recall how many?
5	A You know, I think they spoke about, you know,
6	quite an array of regulations and, you know, things like
7	safe storage laws, et cetera.
8	But it turned out that this is this area had
9	richer research foundation than many others. So they
10	spent a lot more time focused on this one question than
11	they were able to do on any other single issue.
12	Q Do you recall, of those laws that the other
13	firearm restriction laws that the NRC committee
14	considered, do you recall how many, if any, the NRC
15	concluded would reduce violent crime?
16	A You know, I don't think the NRC report took a
17	position on any on the impact of any particular law or
1.8	policy. I think it was much more sort of a review of the
19	literature and then a call for more data and, you know,
20	new statistical techniques.
21	Q Including is that your view for the RTC laws
22	portion of the report as well?
23	A Yes, I think that I think that's what they
24	were trying to say, that we don't have enough evidence at
25	this point to draw a firm conclusion on the impact of

sacion beautiful and a second	right-to-carry laws.
2	Q Does that conclusion sound consistent with your
13	description that they emphatically rejected the effect of
4	RTC Laws?
5	A Oh, you know, I'm hoping I didn't mislead in
6	any way. I was trying to say they emphatically rejected
Simulation of the state of the	the conclusion that right-to-carry laws reduce murder.
(8	So that's all I was trying to say, that, you
9	know, John Lott sort of authored the position that the
10	impact of right-to-carry laws was very suppressive of
	crime overall, and that what the committee ended up
12	saying, you know, the statistical evidence at this point
12	does not support that conclusion.
14	Q So then it would be more accurate to strike
	"violent crime" from your report, where it says, "The NRC
16	report emphatically rejected the conclusion that RTC laws
17	could actually reduce violent crime, " and replace
18	"violent crime" with "murder"?
119	MR. EISENBERG: Objection. Argumentative.
20	THE WITNESS: Yeah, I mean, I think I think
21	that the statement is correct for the following reason.
22	Because one of the main reasons that they undertook the
2.3	study was that there was discontent in the academic
24	community that state legislators were relying on Lott's
25	study when many people thought that Lott's study was not

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[1] a credible study.
2 And so the panel addressed this and sort of
uniformly said, Well, we all agree that what Lott has
said about, you know, every category of crime is
inaccurate, except there's a difference of opinion, 16 to
1, on whether murder has an impact. And the one said it
did, and the 16 emphatically rejected his conclusion.
8 But I think the overall theme is everybody
agreed that there was no basis for concluding that crime,
10 other than murder, fell, and only one of the 17 thought
11 that there was a basis for concluding that murder fell in
12 the wake of adoption of right-to-carry laws.
13 BY MR. BRADY:
Q So then by your logic, couldn't one say that
15 the panel emphatically rejected the claim that any of the
16 gun controls it was considering worked?
17 MR. EISENBERG: Objection. Argumentative and
going outside the subject matter on which the expert was
19 retained to testify
But you may answer if you can.
21 THE WITNESS: Yeah, I'm not sure that I would I
22 would go that far.
23 BY MR. BRADY:
Q You do not agree that, by your logic, if the
25 committee agreed that more research is required for all
·

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	of these
£ 2	A Yeah.
5 - A	Q That's correct, right?
4	They agreed that more research is required for
5	the RTC laws, correct?
6.000	A Yes.
A STATE OF THE STA	Q But they do not emphatically reject the notion
SALVEY OF THE SA	that these other gun-control laws worked, but they do
9	reject that RTC laws reduce crime?
(10	MR. EISENBERG: Objection. Compound. And I 11
(11	reiterate the prior objections about outside the scope.
£1:2	But you may answer if you understand the
13	question.
2237 - 37733 283 28 - 8 - 2	
(14	THE WITNESS: Yeah. I'm just I'm just trying
14 15	THE WITNESS: Yeah. I'm just I'm just trying to get my head around the question fully.
7901.0.01/0070707070	
15	to get my head around the question fully.
15 16	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was
15 16	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that
115 116 117 (18	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was
15 16 17 (18 (19	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was unanimity that his study did not establish that, except
15 16 17 (18 (19 (20	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was unanimity that his study did not establish that, except for the murder question, where it was 16 to 1 to say that
15 16 17 (18 (19 (20 (21	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was unanimity that his study did not establish that, except for the murder question, where it was 16 to 1 to say that we believe that John Lott did not establish that.
15 16 17 (18 (19 (20 (21 22	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was unanimity that his study did not establish that, except for the murder question, where it was 16 to 1 to say that we believe that John Lott did not establish that. So they were in a sense emphatically rejecting
15 17 (18 (19 (20 (21 (22 (23)	to get my head around the question fully. But all I was trying to say there is that there was a very strong claim that by John Lott that right-to-carry laws reduced crime, and there was unanimity that his study did not establish that, except for the murder question, where it was 16 to 1 to say that we believe that John Lott did not establish that. So they were in a sense emphatically rejecting Lott's conclusion and saying we really need more and

1	Q Okay. To be clear, the NRC report did not
2	expressly support any of the laws it was considering?
3	Is that accurate?
4	MR. EISENBERG: Again, I'll just make a standing
5	objection about outside the scope to the extent you're
6	asking about all those other than right-to-carry laws.
7 .	MR. BRADY: Okay. I'll strike it.
8	Q Do you know this, though? How many of the
9	other laws being considered in the NRC report generated a
10	dissent?
11	A As far as I know, there was only one dissent.
12	In fact, it's pretty unusual that there's ever a dissent
13	in the NRC reports.
14	Q Are you aware of any other dissents?
15	A Not off the top of my head.
16	Q So you couldn't say how often a dissent is
17	generated?
18	A I mean, I think it's unusual, and I know
19	Wilson, you know, commented about it being an unusual
20	thing for him to have done.
21	Q All right. Do you know how many published
22	studies there are on the impacts of RTC laws?
23	A You know, there are a lot now. I don't know
24	the general number, but I've done 11, I think.
25	Q So you account for about a dozen? So all the

A CONTROL OF THE CONT	others are we talking about dozens? Scores?
2	Hundreds? Would you feel comfortable
3	A You know, it's hard to know, but maybe 70
4	others or something.
5	Q Okay.
6	A It's a number.
17	Q Okay. How many do you think you consider
CANCEL OF THE PARTY OF THE PART	how many of those do you think you considered in
STATE OF THE PROPERTY OF THE P	preparing the is it DAW?
10	A (No audible response)
[11]	Q The DAW, yes. I'm going to write that right
12	here. Sorry.
13	A You know, I I try to I try to consider
14	all of them, you know. Every time I see a paper, I like
15	to read it and think about what they did and, you know,
16	is there anything that we learn from this or, you know,
17	sometimes you say, oh, this is not the right way to go.
18	But, you know, sometimes you say, oh, you know,
19	I got to think about that, or isn't that result
20	interesting, or isn't that technique that they're using
21	interesting.
22	Q Of that universe of 70 or so, you only selected
23	some to be in your report, correct?
24	MR. EISENBERG: Objection. Lacks foundation,
25	assumes that all those studies that were referred to use

The part of the pa	the same type of statistical techniques.
2	THE WITNESS: I did select a subset.
(3	BY MR. BRADY:
4	Q One of those studies is the Zimmerman 2015
5	study, is that correct?
€ 6	A Yes
	Q Why did you rely on that study in particular?
8	A You know, there were a couple of reasons. One
Service Servic	is that Zimmerman was a coauthor of John Lott. They
10	published papers on right-to-carry together. And
(111	sometimes there's a feeling that, you know, some
12	researchers in this area are sort of blased in a certain
(13	direction, and so the fact that Zimmerman had coauthored
(14	with John Lott on right-to-carry stuff, I thought, at
15	least eliminated any taint that existed there.
416	It also had one other feature I don't know
17	if I don't know if he mentioned this, but it had one
18	attractive feature in it, which is that one of the one
19	of the real problems in right-to-carry literature has
2.0	been the crack cocaine issue. And that's one of those
21	issues that it's hard to get a particular explanatory
22	measure that captures the influence of crack on crime in
23	a certain state in a certain year.
24	And so the thing that I liked about the
25	Zimmerman paper was I believe he did the study from
	·



	1999 to 2010. And that was pretty much after the impact
(2	of crack had subsided. So you're getting sort of a
3.	post-crack look at what the impact of right-to-carry laws
4	is. And so and in part because I think that that
£ 5	is at least worth thinking about.
6	I did my own analysis. I think I did it from
CP To the control of	2000 to 2014, because if you look at the national crime
. 5. 8	pattern, it really flattened out after 2000. And so
(9 -	that's the thing I liked about the Zimmerman paper, that
(10	it It takes crack off the table to a large extent.
	I think I did it a little bit more cleanly, and
12	I had four years of extra data, but there was that
(13	similarity.
14	Q Okay. So would it be fair to say that the
15	Zimmerman study is more reliable because of those
16	atum butes?
(17	A You know, as we said, almost everything you do
18	in this area, there's going to be a tradeoff.
119	So the good part of Zimmerman's paper is it's
20	post largely post crack. I would have started a year
21	later, but he didn't have as much data as I had. So
22	that s the good part.
23	The bad part is that you had a shorter period
24	of time, and you also have fewer states adopting. (
25	think there were only maybe eight states that adopted



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	over the period that he looked at. And so while I'm
€ 2	getting estimates based on 33 states, he's getting
3	estimates based on eight states.
4	So the sort of big lesson in statistics is, you
5	know, finding the most helpful empirical strategies,
6	because when you move in one direction, you may gain
17	something, but there's always the potential you're losing
8	something else, and what he lost was only a narrower set
9	of states were being evaluated.
10	Q Beyond that flaw, if you will, do you find
11	anything else objectionable about the Zimmerman study?
12	A You know what? I'd have to look back a little
Part of the second of the seco	more carefully to see exactly, you know, what choices he
14	was making.
14 15	was making. Off the top of my head, I don!t recall, but
Table in the day in the same	
15	Off the top of my head, I don't recall, but
15	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at
15 16 17	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at
15 16 17	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at
15 16 17 18	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at the right-to-carry issue without the problem of crack.
15 16 17 18 19	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at the right-to-carry issue without the problem of crack. Two, it was done by someone who had coauthored
15 16 17 18 19 20 (21	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at the right-to-carry issue without the problem of crack. Two, it was done by someone who had coauthored with Lott and was sort of supportive of Lott in general.
15 16 17 18 19 20 (21 22	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at the right-to-carry issue without the problem of crack. Two, it was done by someone who had coauthored with Lott and was sort of supportive of bott in general. And therefore, that sort of undermined the fear that
15 16 17 18 19 20 (21 22	Off the top of my head, I don't recall, but I I think one thing that was useful or, you know three things, I think, were useful about the Zimmerman study. One, it was at least an opportunity to look at the right-to-carry issue without the problem of crack. Two, it was done by someone who had coauthored with Lott and was sort of supportive of Lott in general. And therefore, that sort of undermined the fear that exists in this literature that someone may be biased in a

The second secon	that sometimes Lott and others will say there's a you
2	know, not to use a recent result is unusual, because he
3	finds that crime goes up, and I sort of pointed out a
4	number of other papers have also found that effect.
5	Q Does Zimmerman account for both types of fixed
6	effects?
7	A That's a good question. I would have to look
8	back at what he did. Certainly, when I show my results
9	for the same data period or slightly differentiated
10	data period from 2000 to 2014, I do include that.
11	Q So in general, you feel Zimmerman's work is
12	trustworthy, reliable?
13	A You know, I'm a sort of a hard critic. So it's
14	hard for me to buy onto anybody's study without doing my
15	own work. And so I, you know in general, I like to
16	try to replicate somebody's results before I would be
17	fully comfortable with saying I adopt their methodology
18	or something like that.
19	Q Okay. I refer you to Page 7 of Exhibit 2.
20	And I guess going onto Page 8.
21	MR. EISENBERG: You got these highlighted
22	sentences?
23	BY MR. BRADY:
24	Q Yeah.
25	Can you read the highlighted portion, please?



1	A So this is is this my expert report?
2	Q Yes.
3	A Oh, okay.
4	"Zimmerman describes his finding as follows.
5	The shall-issue coefficient takes a positive sign in all
6	regressions save for the rape model and is statistically
7	significant in the murder, robbery, assault, burglary,
, 8	and larceny models. These latter findings may imply that
9	the passage of shall-issue laws increases the propensity
10	for crime, as some recent research has suggested."
11	Q And that's a quote from Zimmerman's study,
12	correct?
13	A Yes, it is.
14	Q And the only part you left out, which I don't
15	blame you, is the "e.g., Aneja, Donohue & Zhang 2012,"
16	referring to your that's referring to your study,
17	correct?
18	A The yellow didn't go over that. So I ignored
19	that.
20	Q So that's my fault, then.
21	I'd like to now refer you to Footnote 9 of
22	Exhibit 2.
23	Can you read that for me, please.
24	A "See the discussion of Zimmerman below, which
25	supports my finding that right-to-carry laws increase

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	crime "
2	Q So is it your view that Zimmerman unequivocally
f:::3	supports your finding that RTC laws increase crime?
4	MR. EISENBERG: Objection. Argumentative,
E E	ambiguous as to "unequivocally."
6	THE WITNESS: Yeah, I was just saying, you know,
£.7	see the discussion of Zimmerman, which does support the
8	finding. So I quoted the passage where he said this
(9)	model shows or suggests that right-to-carry laws
(10	increase crime. That's all I'm saying.
	BY MR. BRADY:
1.2	Q So it's your view that Zimmerman does
13	support this Zimmerman study does support your
14	findings that RTC laws increase crime?
(15	A He shows the statistical models that generate
16	that result. That's all I was saying.
17	MR. BRADY: Exhibit 5.
18	(Exhibit 5 was marked.)
19	MR. BRADY: This is Exhibit 5.
20	MR. EISENBERG: Should we mark the version with
21	the highlighting as a separate exhibit?
22	MR. BRADY: If you would like to.
23	MR. EISENBERG: May as well. We could make that
24	one
25	MR. BRADY: Mark that as Exhibit 5 and mark this

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А	8. Because Exhibit 8 sort of shows that
Zimmerman	is certainly not someone who's, you know,
deferring	to me or someone who would be identified as on
my side.	I thought that the earlier Zimmerman paper was
sort of mo	ore valuable to show that, when he did his own
analysis,	this is what he came up with.

Q So then you did not include this report -- or this study in your -- in preparing your study, Exhibit 8?

A Yeah, I mean, I didn't cite this study, but

I -- you know, in general, I think about these things as

I'm doing my work.

Q Would it -- is it your view that the portion that I read of Exhibit 8 contradicts your conclusion in your report?

A Yeah. And if you actually look at my NBER working paper, I do cite this paper, sort of, on Page 2. So I didn't put it into my expert report, but I do cite his paper in the first footnote of the NBER working paper.

Q Okay. So then you did consider this study in preparing your report?

A Yeah, no, I said I considered it. I just didn't cite it in my expert report, but I did cite it in the -- in the working paper.

Q Would it be fair to say that the quotes that I



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(I	just read from this study contradict your conclusions in
2	your expert report?
3	A Okay. Let me just sort of look back for one
4	second.
£5.	O Actually, I can
6	A Yeah. So he says the most result the most
12	robust result is that the net effect of RTC laws is to
(8	decrease murder. So I would disagree with that
9.00	conclusion, but that's what he did say.
10	And then he goes on to say, "However, there is
11	evidence that state data right-to-carry laws may increase
12	robbery and assault." So in some ways he's supporting
13	me; in some way he's contradicting what I found.
14	Q His ultimate conclusion, is it fair to say, is
15	that RTC laws are socially beneficial? Is that correct?
16	A Yes, that's what that's how he or how
17	this paper ends.
18	Q You also rely on the Durlauf, d-u-r-l-a-u-f,
19	Navarro, and Rivers paper as supporting your
20	conclusions; is that correct?
21	A I did cite that paper.
22	Q Does that paper support your conclusions in
23	your report?
24	A Their preferred model supports my conclusion.
25	Q What made you cite to that paper out of the

1	have used the more complete data that was available when
2	he wrote this paper.
3	BY MR. BRADY:
4	Q So then this study does not have an ultimate
5	conclusion that says RTC laws increase violent crime?
6	A I mean, it just says in the best in what his
7	Bayesian approach said was the best model, violent crime
8	increases at the rate suggested here. But he was
9	somewhat retrained in saying that, you know, therefore,
10	I'm convinced that violent crime increases.
13	Q Okay. So we've marked the Durlauf study as
12	Exhibite 9.
13	For your assistance you don't have to wade
14	through it can you read the highlight right there?
15	A Sure.
16	Q Aloud, please.
17	A "Overall, we conclude that the evidence that
18	shall-issue right-to-carry laws generate either an
19	increase or decrease in crime on average seems weak."
20	Q Have you seen that sentence before?
21	A Yes, yes.
22	Q And you omitted it from your report, correct?
23	A Yeah, because, essentially, as I said, that was
24	the conclusion of the National Research Council, which
25	had looked at the data through 2000, and Steve was

Service of the servic	saying, Yes, I sort of support that conclusion.
2	But it wasn't really relevant to my report, now
	that we have the more complete data. So I was able to
English America	draw stronger conclusions than he was able to.
5-5	Q Were there any other conclusions in the Durlauf
6	study that you considered in preparing your report?
(7	A You know, I I looked at them, and I can't
8	remember if he hinted about property crime being
·(9	influenced, but I didn't you know, at this point I
(10	basically don't look back to analyses that exclude data
A STATE OF THE STA	after 2000, because we have a much richer data set at
12	this point.
	Q Can you read for me the first highlighted line
14	there from the Durlauf study?
15	A Yeah. "Relative to the strong claims made by
166	particular papers in the literature, we find evidence
17	that the estimated effects of shall-issue right-to-carry
18	laws on crime are very sensitive to modeling
19	assumptions."
20	Q What is your understanding of that quote?
21	A You know, this is essentially the identical
22	conclusion of the National Research Council study that
23	was also using the same county-level data set through
24	2000 that Steve was looking at and reached, really, very
25	much the same conclusion, that the results are sensitive
i	

1	Q Would that be the same for rape?
.2	A Yes. I'm sure that would be true.
3	Q And robbery?
4	A Probably for robbery as well.
5	Q What about aggravated assaults?
6	A Aggravated assault I think was pretty
.7.	consistent that aggravated assault was associated with
8	a rise in aggravated assaults resulted from the
9	right-to-carry laws.
10	Q What does significant mean in that context?
11	A All I meant was that there was sort of credible
12	statistical support for the idea that right-to-carry laws
13	increased aggravated assault.
14	Q Did your report in this case or the DAW analyze
15	the effect of right-to-carry laws on robbery rates?
16	A In this paper I only look at murder and the
17	aggregated property and violent crime categories.
(18	Q Violent crime. So what is the definition of
19	violent crime for the purposes of your report?
20	A So I just I just followed the FBI definition
21	of violent crime, which is taking the four categories of
22	murder, rape, robbery and aggravated assault as, quote,
23	violent crime. And then taking the three categories of
24	property crime, which would be burglary, motor vehicle
25	theft, and Larceny, as the three property crime

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	categories.
2	That it is true that they do measure other
13	property and violent crimes, but those are the those
4	are the breakdowns that the FBI uses. If you read a
	report that says violent crime or property crime, that's
6	the way they re counting that.
7	Q Does violent crime, the term that you use
9	the way you use it, does it include murder, or are you
1 9	dealing with murder separately?
10	A No, it includes murder.
	Q Includes murder?
12	A Yeah.
(13	Q So you did a separate analysis for murder and
1.4	then a separate analysis for violent crime including
	murder?
16	À Yes.
1 7	Q And violent crime does not the DAW does not
1.8	distinguish between the specific crimes of rape, robbery,
1.9	and aggravated assault, as you did in your previous
20	study; is that correct?
21	A Yeah, in this paper I just looked at murder,
22	violent crime, and property. I didn't disaggregate
23	further in either the property or the violent category,
24	apart from murder being segregated out.
25	Q So what is the benefit to the quality of the
•	

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A CONTRACTOR OF THE CONTRACTOR	data set by lumping all of these crimes treating them
€ 2	as violent treating all these individual crimes as
(3	violent crimes instead of dealing with them individually,
4	as you did in your previous study?
The state of the s	A Yean.
6	MR. EISENBERG: Objection. Argumentative.
17	THE WITNESS: You know, probably the standard way
8	I've done it in many crime papers is just to show murder,
9	property, and violent crime. When I was trying to sort
10	of follow in John Lott's footsteps to sort of see how my
	results compared to his, I was disaggregating.
12	But in this paper, as I think I said earlier, I
123	really just said, you know, now sort of come up with your
14	own model and
15.	BY MR. BRADY:
16	O So why did your own model decide to aggregate
17	those terms? What's the benefit of doing that
18	MR. EISENBERG: Were you finished answering?
19	THE WITNESS: Yeah, so I can I can say more in
20	response to the question.
21	So essentially, there were couple of reasons.
22	Some of them are theoretical, and some of them were sort
23	of pragmatic.
24	The pragmatic reason is, you know, the paper's
25	already a hundred pages long, and I do like to go through



Constructions of the construction of the const	a fair number of robustness checks, and the more
2	individual categories you're using, the more you're sort
	of multiplying your tables, and just the verbiage. And I
4	already have to cut this down a lot to try to get this
5	published. So that's sort of a pragmatic factor.
6	But as we said earlier, there's always these
7	issues about, you know, if you move in a certain
8	direction, you get some benefits, and you give up
(9	something. Move in the other direction, you'll maybe
(1.0	gain some benefits and lose something.
1.1	So aggregation makes it easier to generate
(12	statistically significant results. So we can see, if you
13	compare murder versus violent crime, you do tend to see
14	more - you know, more precise estimates, which is what
15	you need to get statistically significant results in the
16	violent crime category than the murder category.
17	And that is, in general, true, that the more
18	you try to narrow your focus, the harder it is going to
19	be to get precise estimates. So if you look at the
20	all of my - all the estimates that I have in the paper
21	will have, in parentheses underneath, a standard error.
22	And the bigger that standard error is, the
23	harder it's going to be to generate statistically
24	significant results. And you do get lower standard
25	errors with aggregated violent crime than individual

1	categories. So it is going to be easier to get
2	statistically significant result.
	On the other hand, as your question sort of
4	suggests, you're getting, you know, in some sense, a
5	better estimate of a more aggregated phenomenon, and
6	sometimes we want to know, you know, more precisely about
17	the disaggregate effects. And so that's what we can do
8	with this, and I I actually have run those exact same
9	regressions in this context as well.
1.0	BY MR. BRADY:
[1]	Q Is that reflected in your report?
12	A You know, I didn't put them into this report,
[13]	but I do I have done those, and I've looked at them.
14	And, you know, in essence, it sort of conforms to the
1.5	pattern of what we see in this report, that you get, you
16	know, more precise estimates for the aggregated numbers
17	than you do for the disaggregated numbers, like murder.
18	Q So you ran regressions for the disaggregated
19	crimes in preparing this report, but you did not include
. 20	chem?
21	A No, I actually ran them after there was
22	criticism of not doing it. And, you know, it pretty much
23	conformed to the findings of what we saw here.
24	Q Well, then why wouldn't you include it in your
25.	report? That would seem to suggest to bolster your



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A CONTROL OF THE PROPERTY OF T	argument, no?
2	A Well, I said I ran them after there was a
€ 3	criticism of not including them. Which == so my report
4	had already been done.
(5	O So they are not included in your current
(₂ 6	report?
A SCALLAND CAD TO BE A STALLAND CAD TO BE A STALLAN	A That's right. So I think Gary Kleck criticized
5 AND 8 SECTION S	me for not doing that. So I just sald to my research
9.,	assistant, you know, run those and
10	Q But you're still making revisions to your
	report or to your study, as we've learned here today,
12	correct?
13	A Yes.
14	Q You don't think it's important to respond to a
(15	critic and simultaneously bolster your argument with
16	additional regressions?
17	A You know, I didn't ask if I was allowed to do
18	another report in response to Kleck, but I I really
19	can't add any more to this paper, because I already am
20	way over what the American Economic Review and other top
21	journals wants from a publishable paper.
22	But, you know, if they ask me to write a
23	supplement, it would be very easy for me to run those
24	regressions and show them in this context as well.
25	Q When did you run those regressions?



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1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	A As I said, I ran them or had my staff run
12	them right after I read the Kleck report.
33	Q Does any other study analyzing the impact of
4	right-to-carry laws aggregate the different crimes into
by a section of the s	the term violent into one single category of violent
6	crime like your report does?
A COMPANY OF THE PROPERTY OF T	, A Yeah, we were just looking at the Durlauf
8	study, and he does the exact same thing, breaks it down
9	into murder, property, and violent. It's a fairly
. (10	standard way. And he's
111	Q Fairly standard.
12	Are there any other besides Durlauf?
	A Well, many of my papers have done it that way.
14	As I mentioned, the papers in which I'm sort of
15	responding to Lott I would do it in which ever way he did
1.5	it. But it is fairly traditional to break it the
17	Brennan Center report, which is as I said here, also
1.8	followed that protocol.
19	Q So then your aggregating these terms is not
20	uncommon in your field of research?
21	A No, it's not uncommon.
22	Q Other than Durlauf, are there any other
23	reports any other studies that you cite to in your
24	report that use the same violent crime aggregate term as
25	you?



	A Yeah, the Brennan Center report does that as
2	well. So the four major studies that I or models that
	I would look at are, you know, mine, the Brennan Center,
24	Lott and Mustard and Marvell and Moody, and the Brennan
(5)	Center also looks at aggregated violent crime.
6	O Are there any studies or reports cited in yours
	that did not use the aggregate term for violent crime?
To the second of	A Yeah, so Lott and Mustard and Marvell and
9	Moody, I believe, disaggregated.
10	Q Do you see any problems in comparing studies
11	that use two different approaches?
12	A You know, for me it's never a problem, because
13	I will just you know, if I want to compare how my
14	results work to someone who has done the aggregated or
15	the disaggregated form, I would usually, you know, create
16	the data set and then just do the analysis myself
17	whichever way I thought was better to do it.
18	And if somebody used only violent and I was
19	interested in the subcategory, then I would I could
20	use their overall model. Because the choice of
21	explanatory variables and the way you specify them would
22	be the same whether you're looking at violent crime or
23	murder or rape.
24	And so I don't need to be bound by whatever
25	choice the other researchers made. I can aggregate it or



1	disaggregate as I think necessary.
2	Q You can aggregate or disaggregate, right?
5.3	Aren't you limited to their conclusion the
4	other authors conclusions in their study?
# 5	A You know, so for example, Lott has a model
6	that he used, and I can run that I can run his exact
Total Transfer	model on my data, either disaggregating or aggregating,
8	and come to my own conclusion based on that and so in
9	general, if you look at my report, you will see like
10	using Lott's model, the results definitely do not support
11	what Lott contends.
12	So I think that that's pretty powerful
13	evidence. Because just using the exact identical model
1.4	but using it on a longer time period and more complete
15	data and, you know, the results support the opposite of
16	what John Lott says.
17	So that's the nice thing about empirical
18	evaluation of the law, that you don't have to rely on
19	anyone's word. You just need to get the data and run
20	the run the model, and then you find out. As long as
21	you're very honest and open in what you're doing, there
22	isn't there isn't any way to criticize the
23	implementation of the model.
24	You can always criticize whether the model is
25	appropriate, but once you have a model, you run it on the



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**************************************	data, and that's going to give you the answer for that
. 2	model.
Service Servic	Q Did the increased violent crimes that result
4	from right-to-carry laws that you conclude occur in your
5	report
6	A Yeah.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Q Do all of those crimes involve firearms?
8	A No. No.
9	Q How do you know that?
.10	A The increase that were or in essence, what
#ILL	our models are trying to do is show net effects. And so
(12	there could be some benefits in right-to-carry laws,
(13	there could be some costs, and all we're able to conclude
14	is here is the overall net effect.
(15	And when it's a positive estimate, as it is for
16	violent crime, that's telling us that violent crime has
17	gone up more than it's gone down. So you can't say too
18	much more from that narrow finding than what I just said.
(19	But we can make inferences about how the
20	effects are playing out that would lead me to believe
21	that we're getting declines in both gun crime and non-gun
22	crime.
23	Q If right-to-carry laws are responsible for
24	increased violent crime
25	A Yes.

1	broad terms, two parts of the study. The panel data
2	study did show fairly strong increases in property crime.
3	The synthetic controls did not.
4	And since I tend to trust the synthetic
5	controls more than the panel, I'm sort of leaning to the
6	view that, whatever the effect is on property crime, is
7	it's smaller and, therefore, you know, not showing up as
8	statistically significant in the synthetic controls. But
9	if you believe the panel data results, then there does
10	seem to be an elevation in property crime as well.
11	Q A statistically significant increase in
12	property crime?
13	A Yeah, if you just look at the tables
14	Q That's the conclusion in your report?
15	A Yes. I mean, it's if you look at the
16	tables, you'll see two asterisks next to the property
17	crime levels. And that's true with the Brennan Center
18	study or mine.
	Q What evidence did you rely on in making the
20	representation that criminals feel emboldened to steal
21	guns and carry guns and enforce their will as a result of
22	a right-to-carry law? What evidence did you look at?
23	MR. EISENBERG: Objection. Misstates the prior
$\{24$	testimony or the report, however you want to characterize
(25	that.



2 contact of the cont	THE WITNESS: Well, there's a lot of evidence that
2	carrying guns outside the home promotes gun theft and
43	leads to more gun theft, and this has become a big issue
4	in the public debate now, where many police chiefs are
5	encouraging people not to take guns out of the home
6	because the theft problem has become so bad.
V	And so that s just the nature of, you know, the
8	world we live in now. Guns are probably one of the most
9	attractive things for criminals to steal. You know, TV
10	sets are no longer as appealing as they once might have
	been to burglars. Much of the time, when criminals are
12	trying to steal things, they're looking for guns.
123	BY MR, BRADY:
	1
14	Q Have you looked have you done any research
14 (15	Q Have you looked have you done any research on the theft of firearms in public?
· · · · · · · · · · · · · · · · · · ·	
	on the theft of firearms in public?
16	on the theft of firearms in public? A I have spent a fair amount of time reviewing
16 17	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research.
16 17 18	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research. Q And what does that research say? How do
15 16 17 18	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research. Q And what does that research say? How do firearms get stolen in public?
15 16 17 18 19 (20	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research. Q And what does that research say? How do firearms get stolen in public? A You know, one of the biggest ways is out of
15 16 17 18 19 (20 21	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research. Q And what does that research say? How do firearms get stolen in public? A You know, one of the biggest ways is out of cars. So, you know, here in California, Sean Penn
15 16 17 18 19 (20 21 22	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research. Q And what does that research say? How do firearms get stolen in public? A You know, one of the biggest ways is out of cars. So, you know, here in California, Sean Penn created quite a stir when he left his two guns in his car
15 16 17 18 19 (20 21 22 (23	on the theft of firearms in public? A I have spent a fair amount of time reviewing the research. I have not done the research. Q And what does that research say? How do firearms get stolen in public? A You know, one of the biggest ways is out of cars. So, you know, here in California, Sean Penn created quite a stir when he left his two guns in his car when he went to Chez Panisse for dinner one night, came



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And of course, it's it's such a bad problem, now the criminals have a gun that can't be and they can use that gun for whatever purposes t. Now, of course I don't think Sean Penn would ot anybody, but I'm not so sure about the people
and they can use that gun for whatever purposes t. Now, of course I don't think Sean Penn would
t. Now, of course I don't think Sean Penn would
Now, of course I don't think Sean Penn would
was well with the second of th
of anybody, but I'm not so sure about the people
le Sean Penn's gun, whoever they gave that gun
uspect that those guys probably were shooting
And that's one of the main avenues that
-carry laws increase violent crime.
So just I just want to be clear.
-carry laws adoption of right-to-carry laws
n increased property crime, such as gun thefts,
correct, in your report?
Yeah, I mean, I I just want to be clear. We
d sort of the ambiguities about what the net
s on property crime, but we said for just
at gun thefts, right-to-carry laws theoretically
gun bheft.
So I guess what I'm asking your is it
say the premise of your paper is that the net
f right-to-carry laws is the increase of violent
a whole, regardless of a firearm being involved
rime?
le Sean Penn's gun, whoever they gave that gun uspect that those guys probably were shooting. And that's one of the main avenues that carry laws increase violent crime. So just I just want to be clear. carry laws adoption of right-to-carry laws n increased property crime, such as gun thefts, correct, in your report? Yeah, I mean, I I just want to be clear. I d sort of the ambiguities about what the net s on property crime, but we said for just at gun thefts, right-to-carry laws theoretically gun theft. So I guess what I'm asking your is it say the premise of your paper is that the net f right-to-carry laws is the increase of violence a whole, regardless of a firearm being involved.



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A CONTRACTOR OF THE PROPERTY O	Q Well, I wasn't just to be clear, I was
22	quoting from your report that says, quote, "The fact that
4.3	California, Wisconsin, and Nebraska did not have RTC laws
4	led to their better performance in reducing violent
:::5::::i	crime. That's a quote from your report.
6	Do you
A A GORDAN CONTROL OF THE STREET OF THE STRE	A Yes.
8	Q Do you not agree with that statement in your
(9	report?
(10	A So now you're referring to one of the synthetic
	controls comparisons, I believe. And so I can't remember
12	which state I thought was that Texas versus
13	Q Yes.
(14	A So yes. So there we're saying - we're
(IS	comparing those three states, and the percentages that
16	the synthetic control comes up with as the relative
17	percentage
18	And that's the conclusion that comes out of
19	that particular comparison, that those states are a good
20	comparative set of states for the violent crime
21	performance of Texas in the period before they adopted a
22	right to-carry law. And that the reason that they
[23]	continued to do better than California better than
24	Texas after Texas adopted was that they didn't have a
25	right-to-carry.



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Company of the compan	Q Why are they good comparisons? Why is
2	California a good comparison state?
Section 3. Programme of the section	A Yeah. So this is simply the nature of the
4	synthetic control approach. It's not a choice that I
Fire Branch	make in my own decision-making. It allows the
€ 6	maximization routine that Abadie created to pick out the
	states that will best mimic the pattern of crime that we
W C AND D C AN	see in Texas.
9	And so if you look at the picture, it s a
(10	fairly wavy pattern of violent crime, and the best
A CONTROL OF THE PARTY OF THE P	mimicking of that pattern comes from taking those three
(12	states and the percentages that I indicate in the figures
(13	to come up with the, quote, synthetic control, which is
4-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	essentially trying to identify, had Texas not adopted a
(15:	right-to-carry state, this is our best guess as to what
1.6 · · · · · · · · · · · · · · · · · · ·	crime would have looked like in the ten years after 1996.
ELJ.	Q So It's a guess?
18	A Well, we like to say a prudent estimate.
(19	9 Suide.
20	But that goes you do say suggest. Your
21	conclusion in your report says the evidence suggests,
22	right? So you could be wrong; is that correct?
23	A Oh, yes. You know, there's no there's no
24	certainty in doing empirical work. It's all a matter of
25	craftsmanship and following appropriate protocols to get



Andrew Parket Control of the Control	the best estimate that we have, but as we mentioned with
2	statistical significance, one out of 20 times, a pure
3	random effect will show up as, quote, statistically
4	significant, and so you always have to be aware of the
5	possibility that you got stung by a, you know, spurious
6	result
Canada Tomas Canada Can	Q So but you try not for that, you try to
8	get at the best result, right?
£ 9	A Yes, yes, yes.
10	Q And you've indicated that an important factor
11	in getting there is law enforcement, correct?
12	A Yes, yes.
13	Q In comparing California and Texas, did you
14	A Yes.
15	Q consider the fact, during the '90s, that
16	California had a three-strikes law and Texas did not?
17	A You know, I only considered the levels of
1.8	incarceration of the two states, and so I was controlling
(19	for, you know, how many people were in prison relative to
20	the population in the various states.
21	But I didn't do a more refined assessment of
22	how much incarceration was playing a role in the, you
23	know, crime rate of the states beyond that factor.
24	Q Did you consider the impact of inventions of
25	antidepressants like Prozac during that time period?



1	MR. EISENBERG: Objection. Lacks foundation.
2	THE WITNESS: So that's an interesting question.
3	The
4	BY MR. BRADY:
4 5	Q I'm just curious if you did consider it or not.
6	A Yeah, I actually did consider it. Because it's
7	an important and interesting thought. The and this is
8	one of the areas that people think of as panel data
9	capturing a year fixed effect.
10	So as something like antidepressants came into
11	America, they're sort of diffusing throughout the
. 12	society. And as long as they re diffusing uniformly,
13	then the year fixed effect is picking that up. If they
14	were - if they were diffusing less than uniformly, then
1.5	your year fixed effect is not picking it up.
16	So I did think about this, and I thought, given
17	the data limitations, that the best assumption I can make
18	on this ground is that it's something captured in the
19	year fixed effect, but if if you had good data, you
20	could refine that assumption and try to see where
21	antidepressants of one kind are coming into different
22	jurisdictions.
23	Q Did you consider the impact of abortion rates?
24	A I certainly did, yes.
25	Q Do Texas and California have similar rates of
23	Q Did you consider the impact of abortion rates? A I certainly did, yes.



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	abortion?
£ 2	A No, they probably don't. Off the top of my
13	head, I don't really know what Texas rates are, but I
4	assume that they re lower.
5	Q Did you consider the impact of gun control laws
(6	other than the right-to-carry?
1.7	A The only one that's explicitly considered in
\$ 18	the panel data analysis is the right-to-carry law. The
9	synthetic controls, which is again, one of the great
10	features of the synthetic controls is anything that
111	differentiates crime performance in the preadoption
12	period will be taken into account, as the synthetic
(13	controls protocol tries to identify the appropriate
(14	synthetic controls.
5.5	So let's say that you know, getting back to
16	Texas, where I think we said Wisconsin, California, and
17	one other state
1.8	Q Nebraska?
19	A Nebraska were the controls.
20	Whatever they're doing in those states is in
{21	the preadoption period of 1996 is mimicking the Texas
22	experience, and as long as those factors stay the same
23	going subsequent to 1996, then we're getting an
24	unbiased estimate of the impact of right-to-carry.
25	But if, for example, the world changes
ŀ	



The state of the s	dramatically for other reasons in Texas vis-a-vis those
∤ 2	three states, then you may be getting a less accurate
3	estimate of what the impact in right-to-carry laws is.
4	Q So if California adopted lots of gun control
5	laws post 1996
6	A Yeah.
7	Q that would affect the results of the
8	comparison between Texas and California?
9	A Yeah. Anything
10	Q I'm sorry, was that a yes?
11	A Well, I have to be a little precise here.
12	Anything that, "A," influences violent crime; and, "B,"
13	changes differentially after the adoption in the
14	synthetic controls analysis will impair the accuracy of
15	your estimate.
16	And so you know, to just get a precision,
17	let's say that, prior to 1996, this combination of
18	California, Wisconsin, and Nebraska is a perfect
19	mimicking of Vermont and Texas, but then after 1996
20	California changes, really, any major law that impacts
21	violent crime, and nobody else changes anything. Then
22	that is going to give you a less accurate picture of what
23	the true impact of right-to-carry law was in Texas.
24	Q So if California did adopt several gun control
25	laws post '96 and adopted a three-strikes law post '96,



	that would call into question the accuracy of the
2	comparison between the accuracy of the conclusions of
3	companing Texas and California?
4	A If the factors that you mention only impacted
6 5	the controls and not the treatments so in other words,
6	California, Wisconsin, and Nebraska, or some part of
7	them, and not the treatment group, Texas, then that would
8	render your estimate less accurate.
9	But of course, something could be happening in
10	Texas to upset it and and I think the maybe the
	most important thing about the synthetic controls
12	which is also true for the panel data is that we get
13	much better aggregate estimates than we get single-state
14	estimates. Because they're for just the reason you
15	mention.
16	There is noise in any single-state estimate,
17	but then when we average over 33 states, that noise will
18	tend to bounce out. So I would not put a lot of emphasis
19	on a single-state estimate.
2.0	So I was just on NPR yesterday, and David
21	Kopel, who is an NRA spokesperson, said, Oh, you know,
22	I'm in Colorado, and it looks like our law didn't have an
23	increase in crime.
24	And I didn't I didn't have time to say this,
25	but I would say, Well, I wouldn't believe a single-state



1	estimate, really, as much as the aggregated estimate,
{ 2	because the noise will tend to be averaged out in the
(3	aggregate estimate, while you do have to deal with the
4	noise in the individual-state estimates.
5	Q The increase in violent crime rates that you
6	conclude occur as a result of RTC laws, is it the holders
7	of carry licenses that are committing this crime?
8	A You know, some of it is done by the carry
19	holders. I mean, just in the last couple of days you
10	have the horrible case of road rage, shooting a woman in
	the head in Pennsylvania. And the other on the guy
12	coming home from the wedding drunk in his Uber and kills
(13	his wife by shooting her in the head.
14	So those were permit holders. And those were
15	crimes that almost certainly would not have happened, had
16	there not been a right-to-carry law in place. These were
17	generally law-abiding people, and it was only the quick
18	access to guns that allowed them to commit these crimes.
19	But a lot of the crime is also committed by the
20	people who steal the guns that the permit holders
21	essentially turn over to them. So you know, I mean,
22	there's no question that more guns are stolen from
23	Law-abiding citizens than are used defensively.
24	Q On what do you base that?
25	A Tons of studies and evidence.

	Q Can you cite one?
2 2	A Yeah. I mean, there are lots of them but, you
3	know
4	Q Is that reflected in your report?
5	A Yeah, I mean, I wasn't I wasn't focused on
6	that precise question.
7	Q Well, you were focused on the theft of you
8	were focused on property crime and your correct me if
9	I'm wrong. Your position's that the theft of firearms is
10	a significant element of the increase in crime, both
11	property crimes being a property crime and in violent
12	crime, because they use those guns; is that not correct?
13	A Yes. And I think that that's true and
14	Q So you have no support of the vast evidence out
15	there that more guns are stolen than used in self defense
16	in your paper?
17	A No, I and I'd have to look back to see if
18	I've cited this literature, but I certainly could cite
19	that literature.
20	Q Can you give me an estimate, based on having
21	reviewed that literature do you feel comfortable
22	making an estimate about how many self defense gun uses
23	there are in a given year?
24	MR. EISENBERG: Objection. Outside the topic.
25	Actually, could we go off the record for a

1 .	a permit, you have to go through a background check.
2	Q Do you dispute that license holders have a
3	significant impact on stopping shootings?
4	A By mass shootings?
5	Q Sure.
6	MR. EISENBERG: Vague and ambiguous as to
7	"significant."
8	THE WITNESS: Yeah, I think the evidence shows
9	that it's very, very unusual for a permit holder to play
10	any positive role in a mass-shooting incident.
11	BY MR. BRADY:
12	Q So mark as exhibit wherever we are
13	THE REPORTER: It's 12.
14	MR. BRADY: 12.
15	(Exhibit 12 was marked.)
16	BY MR. BRADY:
17	Q Have you seen this document before?
18	A No, I've never seen this before.
(1.9	Q Have you what evidence did you rely on in
20	concluding that license holders do not stop shootings?
21	A The FBI actually did a study on this and looked
22	at a hundred and 60 cases between 2000 and 2013 that met
23	their definition of active shooting incidents. And they
24	found that, you know, police stopped them a lot; suicide
25	by the killer stops them a lot; unarmed citizens stopped



	them 21 times. But security guard stopped them
2	occasionally
3	But there was only one case so 1-21 of the
4	number of times stopped by an unarmed citizen was a
(5	permit holder able to stop one of the hundred and 60
6	cases they looked at, and that guy was an active-duty
fin James	Marine who quite well could have stopped the thing
8	without a gun regardless. But that is always an
9	uncertainty as well.
(10	So the bottom line is, you know, I would not
Ì	put much confidence in non-active-duty military person
12	being much help in a mass shooting incident.
13	Q On what do you base that?
14	A Well, I just mentioned the FBL study. If this
15	had been a frequent occurrence, you would have seen it
16	happen more than one out of a hundred and 60 times.
17	Q Is it possible, as is indicated in this article
18	that we're looking at, Exhibit 12, that citizens who stop
19	mass public shootings don't get news coverage because
20	they stop anyone from being killed?
21	A I mean, that is an interesting point. How much
22	of a role is played by people who shoot someone very
23	quickly, and what would have happened in the aftermath.
24	And so that's worth thinking about, which is why I said I
25	do spend time looking at the NRA defensive gun use

1	support for, you know, preventing open carry in the
2	United States in California when he was Governor, and
3	his statements that there's no reason for anybody to be
4	walking on the streets with a loaded weapon. But beyond
5	that, I didn't focus on open carry in this paper.
6	Q Your report also relied upon research by
7	others, where they examined concealed carry and
8	criminality rates in other states, correct?
9	A Could you repeat that question? I'm sorry.
10	Q Sure.
11	Your report relied upon others' research, who
12	examined concealed carry and criminality rates in other
13	states, correct?
14	A I'm not sure if I'm understanding. Let me
15	just
16	Q They examined the criminal the crime rates
17	in conjunction with right-to-carry laws.
18	A Yeah, I was focusing on crime rates for
19	right-to-carry laws.
20	Q Are you aware of research by anybody else who
21	has examined open carry and its potential effects on
22	criminality?
23	A I don't know of any comparable studies to the
24	sort that I was doing for right-to-carry. There is
25	discussion about what the consequences of open carry are,



E reach of the control of the contro	and so I've read that literature, but I'm not familiar
2 -	with anyone that's tried to do for open carry what I've
3	done here for right-to-carry.
4	Q That literature that you referenced, where is
5	that where are you locating that?
6	A Discussions about open carry
1	Q Correct.
8	A You know, there's a fair amount written every
9	time a state adopts open carry. So Texas, who recently
1.0	adopted open carry, there was a fair amount written about
11	that. Police chiefs were discussing, you know, will this
12	lead to more gun thefts, and there was even a debate
13	among some permit holders because the way Texas moved
14	to open carry was they said, if you have a concealed
15	carry permit, then you're allowed to carry open.
16	And so I did try to follow some of the
17	discourse among permit holders. Is it a good idea to
18	openly carry or not. Also, there was a fair amount of
.19	public discussion and writing over taking guns into
20	stores like, you know, Starbucks and stuff like that.
21	Q None of that literature is cited in your
22	report; is it?
23	A No. I didn't go into that in my report.
24	Q So your report doesn't rely upon data or
25	reports from any other research, where that researcher



1	examined open carry and its potential effects on
2	criminality?
3	A Well, I I made a number of points in my
4	report that are reflective of the literature that I was
5	just alluding to, but I don't know of any study that, you
-6	know, tried to statistically estimate the impact on crime
17	of adopting open carry.
8	Q Please turn to Paragraph 34 of your report.
9	A Yeah.
10	Q There you state, "Open carry might conceivably
11	confer a benefit if it could dissuade potential criminals
(1.2	from targeting certain individuals if they or someone
13	nearby has a weapon, but in general, the greatest effect
14	of open carry would likely only be to move crime away
(15	from the armed target to an unarmed target. In general,
16	spending resources that shift burdens of crime to one
17	group to another without reducing the overall burden is a
18	net waste of resources."
19	Is that a correct close quote.
20	Is that a correct reading of your quote, your
21	Paragraph 34 in your report?
22	A Yes.
23	Q When you talk about burdens of crime there, to
24	what specific burdens were you referring?
25	A Well, part of this is that it is a sort of



1.	standard view in public economics that we don't want to
2	expend resources in a way that just moves around cost
3	among the population where we're trying to engage in
4	expenditures that reduce total social costs.
5	And so, for example, there's a discussion about
6	using a Club in a vehicle to stop your car being stolen.
The state of the s	And many economists have written it's not a socially
8	beneficial thing, because you put The Club on, and that
1. Learn 9 the private special speci	just means your car doesn't get stolen, but the car next
1.0	to you gets stolen.
11	And, you know, there are more complicated
12	assessments that you could engage in, but the bottom
13	point is the same, that concealed carry has a better
14	possibility of being socially beneficial than open carry,
15	because if there is deterrence from people carrying
16	around guns, you get more of it if they don't know who
17	has the gun than if they do know who has the gun, because
1.8	then they just go to the other target.
(19	Q But you have no data to support that
20	conclusion, correct?
21	A I mean, that has been written about in many
22	crime prevention contexts, but I'm not aware of any that
23	have, you know, tested for this phenomenon, as opposed to
24	just referring to it in the literature.
2.5	Q It's not written about in your report; is it?



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	A You know, I just made the point myself, and I
(2	didn't cite anybody in support of that point.
	Q So I think I understood you to say that the
4	burden is a monetary one? Is that or the burden
The second of a second of the	On 1255
6	A Well, yeah, just to just to complete the
7	point of Paragraph 34, you know, as someone who is most
, 8	interested in reducing the burdens of crime, the one
9	thing we know is that if we took the 5 billion or so that
10	people spend on guns and ammunition in the United States
11	and put that into an actual effective crime-reducing
12	measure, we'd really get some pop.
13	For \$5 billion you can reduce crime if you put
14	it into, you know, well-directed crime-reducing
15	technologies. So we know, almost as a matter of economic
16	certainty, that spending that 5 billion on guns in
17	private hands is giving less benefit than you would get,
18	in terms of other methods of allocation.
19	Now, why do I say I know that with certainty?
20	Because so much of what we've talked about today is
21	even the supporters of right-to-carry just say, Well,
22	doesn't really have any effect overall net on crime, and
23	we know that 5 billion on, let's say, well-trained police

So that means that if we knew nothing else,



24

25

will get you a big pop in reducing crime.

1	that is the job of the economist, who tries to help move
2	in that direction.
3	Q Just to be clear, you didn't rely upon any data
4	to measure the resource burdens that open carry imposes?
5	These are just your inferences; is that correct?
6	A Yeah, I am trying to make some theoretical
7	observations on what some of the likely consequences of
8	open carry are vis-a-vis concealed carry.
9	Q But you're making those assessments without
10	relying on any data, correct?
11	A Well
12	Q Let me be clear. Data specific to open carry.
13	A Yes. I mean, I am trying to draw inferences
14	from what we know about concealed carry and see how we
15	would expect the world to operate differently with open
16	carry than it does with concealed carry.
17	Q So you're inferring everything that you state
18	about open carry from your work on concealed carry study;
19	is that correct?
20	A Yeah, although, again, in light of the
21	conversations we've talked about you know, for
22	example, there's a literature right now about police
23	officers saying that open carry facilitates gun theft
24	even beyond concealed carry, because the criminals just
25	watch people, and if they see them get out of their car



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	with an empty holster, they know they've left their gun
2	in the car, and then they just steal the gun as soon as
Service of the servic	the guy leaves the premises.
4	So some police chiefs are saying the open carry
5	has exacerbated the problem of gun thefts. With
6.6.	concealed carry you don't have that mechanism operating.
The second secon	So every day I'm thinking about, in the light of the
PART OF THE PART O	current debate among police officials and criminologists,
9	as to what the impacts are.
10	Q So just to be clear, your conclusion that open
111	carry would cause a net waste of resources is not based
12	on a report, is not based on a study, is not based on
(13	data; is that correct?
14	A Well
15	Q Specific to open carry.
1.6	A Yeah, I mean, it's based on my review of the
17	relevant literature and my expertise in this area.
18	Q None of which is cited in your report?
1.9	A Well, of course, I think I ve cited a number of
20	things, and then I ve added further references in our
் நா	
21	discussion here.
22 22	discussion here. Q Nothing specific to open carry, correct?
***************************************	4 per min series de la transitation de la companya
22	Q Nothing specific to open carry, correct?
22	Q Nothing specific to open carry, correct? A Well, again, I think the literature about the



### 1	A I didn't cite that. I could have cited it, but
2	I mentioned it here today.
3	Q Let's talk about deterrence.
4	Do you have any opinions as to whether police
5	officers carrying firearms openly has a deterrent effect?
6	MR. EISENBERG: Objection. Outside the scope of
7	the expert's testimony.
8	But you can answer.
9	THE WITNESS: Yeah. Yeah, I think I think
10	police are probably the single most important public
11	investment influence on crime.
12	BY MR. BRADY:
13	Q Is there any data you rely upon in forming
14	those opinions?
15	A Yes.
16	Q Any reports that you rely on?
17	A Yeah, just empirical studies trying to evaluate
18	the impact of police on crime.
19	I mentioned the Steve Levitt paper using
20	instrumental variable of the mayoral election year to
21	show very large decreases in crime in the mayoral
22	election years, but there are many other papers as well.
23	Q So you conclude in Paragraph 33 that open carry
24	does not have the same deterrent effect as concealed
25	carry, because under an open carry scheme, criminals know

1	A Yeah. Yeah.
2	Q What data are you aware of that shows that
3	criminals, when confronted with a potential victim openly
4	carrying a firearm, generally choose another target?
5 .	A I mean, this is this is a little bit of the
6	premise of, you know, gun carrying, that you're going to
7	dissuade criminals if they see the gun. And so I was
8	just saying, if that's the consequence, it's probably
9	just going to dissuade them from going after you but not
10	dissuade them from
11 -	Q So you're saying even assume
12	MR. EISENBERG: Let him finish.
13	MR. BRADY: He was finished.
14	Q So you're saying, even assuming the deterrence
15	effect, that gun owners purport that, even if that were
16	the case, it wouldn't matter, because it's just shifting
17	the burden? Is that essentially what you're saying?
1.8	A Yeah, I was trying to make a relative
19	comparison. And it's sort of a two-step argument. One,
20	if you believe the conclusions of my study, then you
21	would say we know right-to-carry laws increase crime.
22	Then you say, well, maybe we could have open carry
23	instead of right-to-carry.
24	Then I would say, but there's probably more
25	benefits for concealed carry, even though they're

1	outweighed by the costs. So that would mean that open
2	carry would be less beneficial socially than concealed
3	carry. And we've already concluded from the initial
4	premise that concealed carry is bad.
4 5	So if concealed carry is bad, in terms of an
6	increase in crime, and yet concealed carry is better than
A CONTROL VINE AND A STATE OF THE STATE OF T	open carry, then we know open carry is the worst of the
8	three possible worlds, no carry, concealed carry, or open
9	carry. So that's just sort of a logical syllogism.
10	Q So you're basing that on logic, not on studies?
111	A Yeah, and, you know, the premise of the entire
12	argument is based on a study. Because
13	O But there's no study specific to open carry
14	saying what you're saying; is that correct?
£15	A Well, there's a lot of studies that discusses
16	this issue of the deterrence of open carry versus
17	concealed carry, and they all make the same point that I
18	make here
19	Q But none of them are mentioned in your report?
20	MR. EISENBERG: Please, you're cutting him off in
21	mid sentence. You've been doing it several times.
22	Please let him finish talking before you ask the next
23	question.
24	MR. BRADY: But we're running short on time, and
25	with all due respect to the professor, as much as I'm

1	deters crime against those who are openly carrying, but
2	your argument is based on supposition, correct?
3	A Well, I think I've identified the correct array
4	of issues, and then I'm drawing my inferences about, you
5	know, how I think those would play out in practice.
6	Q But I guess what I'm getting at is I'm
7	talking specifically about open carry.
8	A Yeah.
9	Q There's no data or report or study that says
10-	that you've pointed to that suggests that those who open
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	carry becomes targets; is that correct?
12	A Yeah, I mean, I mentioned this police officer
13	just within the last week comment or police chief
14	commenting that he was concerned about people carrying
1:5	guns in a very unguarded way. The specific quote was, I
16	don't think these guys realize how quickly this can turn
17	around on you when you carry a gun in your back pocket.
18	And so it could be seized by someone.
19	Q So you have anecdotes?
20	A Well, I have statement from police officers
21	discussing their experience.
22	Q None of which are included in your report,
23	correct?
24	A I don't know if I didn't include any of them,
25	but this one that I was just alluding to was not



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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	included.
2	Q Particularly about open carry I guess now is
3	a good time to ask you is there anything in your
4	report specific to open carry outside of Paragraphs 32
5	through 36?
6	A I don't think so.
7	Q So just to be clear, there is the possibility
8	that open carry deters crime against those who are openly
9	carrying?
10	MR. EISENBERG: Objection. Asked and answered.
11	But you may answer, yeah.
12	THE WITNESS: Okay. The it's just if the
13	question is do you think that open carry is likely to
14	dissuade some criminals from picking on the open carrier,
15	I think the answer to that is yes.
1 6	BY MR. BRADY:
17	Q Did you conduct any study of the benefits or
18	burdens of that deterrence in preparing your report?
19	A I mean, in a sense the report on concealed
20	carry is answering that to a degree, because the
21	mechanisms that operate for open carry are similar in
22	many respects to what's happening with concealed carry.
23	And you may have a bigger problem with gun thefts with
24	open carry than with concealed carry.

25

You certainly have a bigger problem of, you

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know, citizen complaints to 911. The clinic at Stanford 1 2 actually has a case going up to the Supreme Court now 3 where someone said, Oh, there's a man with a gun outside. And this was in an open carry jurisdiction, and the 4 5 police came and searched him, and the question is, you know, is that a lawful search. 6 So you are clearly taking up police time, and 7 if these are good guys, that means you're wasting police 8 time, and that, again, becomes a tax on police. Anything 9 10 that keeps police from doing their effective work in 11 reducing crime inhibits the -- that role. And this is 12 another area where that would operate. 13 Again, you said that -- correct me if I'm 14 wrong, but you said there's no study about police 15 responding to lawful open carriers; is that correct? 16 Or let me ask you this. Are you aware of any 17 study about police response to open carriers? 18 A I am aware of articles about police chief 19 concerns about open carry with respect to more theft and 20 with respect to this issue of the gun being carried in a 21 reckless way that could create opportunities for someone 22 to seize it from them quickly, as well as this issue 23 about alarm distraction from the police and this one case 24 where guy was walking down the street with an assault 25 weapon.



	It was legal to do that. And people called
2	911. The police said, Well, there's nothing we can do.
\$200,000 and \$200,	It's open carry. And then he started killing people.
4	And so that was problem one.
5	Problem two is the guy really is a good guy
6	with a gun, and people are calling 911, and they are then
A CONTROL OF THE CONT	taking up time sending police over to check out a
8	situation. So either way you going to be creating
9	problems once you have open carry.
10	Of course, in the Dallas shooting case, the
	police chief there said it made it much more complicated
1.2	for us, because there were open carriers around, when
(13	suddenly people are firing at us, and we didn't know who
14	the good guys and the bad guys were, and according to the
(15	Dallas police chief, we were fortunate that, you know,
1.6	none of these guys who were carrying guns got shot.
(17	But again, these are all things that burden
£1.8	police departments in the operation of their dealings,
1 ,9	and therefore, you know, will have a tendency to elevate
(20	crime overall, because the more you get in the way of
21	police doing their job, the less deterrence and crime
22	prevention you get from the police themselves.
23	Q What study or data set are you relying on in
24	saying the burden is outweighed by the benefit of open
25	carrying?
ļ	



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	A Again, because I am drawing a logical
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	nference that if the evidence persuades you which it
3	oes for me that right-to-carry laws increase violent
4	rime, I think there are strong reasons supported by
(5) p	olice chief discussions that open carry would have yet
6 m	ore burdens and less benefits.
Additional constraints of the second	So that's the sort of logical chance I relied
8 O	n my study for the premise, and then I rely on the
	iterature that discussing the likely consequence of open
LO with the same of the same o	arry to say, I interpret that evidence to say that open
	arry would be less socially beneficial than concealed
12 e	arry, and I've already drawn the conclusion that the
13	oncealed carry is socially harmful.
14	Q So you admit there's a distinction between open
155 a	nd concealed carry?
1.6	Δ Yes.
A CONTROL OF THE CONT	Q Okay. And the right-to-carry laws that you are
118	valuating in your reports and studies are solely
(v.[.:9]	oncealed-carry laws; is that correct?
20	A That's correct.
211-2000	Q Okay. So is it not problematic to utilize
22 r	eports and data on concealed carry, that you admit is
23 d	ifferent from open carry, to make conclusions about the
24	ffects of open carry?
25	MR. ETSENBERG: Objection. Vague and ambiguous as



Harris Description of second	to the word is "problematic." Vague and ambiguous as
2	to "problematic."
3	But you may answer.
4	THE WITNESS: You know, I think, given the factual
5	and empirical predicate of my argument, I feel on solid
\$	grounds drawing logical inferences about the impact of
TANTON AND THE PROPERTY OF T	open carry relative to the impact of concealed carry.
8	And since I think open carry would likely be
9	more socially harmful, given the factors that we've
10	discussed, it's it sort of follows that open carry
11	would, on balance, be socially harmful if we've already
(12	accepted the premise that concealed carry is socially
13	harmful.
14	BY MR. BRADY:
15	Q So what if you conclude that a criminal
16	would shift focus to an unarmed target if somebody's
17	openly carrying, right?
18	A (No audible response)
19	Q So but what if the prevalence of open carry
20	was so great that there's a significant chance that the
21	next victim would be openly carrying as well?
22	A Yeah.
23	Q Did you form any opinions about the benefits
24	and burdens of open carry under circumstances where open
25	

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1 Α Yeah. -- is openly carrying. Now, granted this is a 2 3 hypothetical. Would that change the view of the 4 5 benefits-versus-burden analysis? 6 MR. EISENBERG: Objection. Compound. 7 THE WITNESS: You know, I think it's unlikely . 8 you'd ever see 50 percent people carrying. I mean, we 9 live in California. 63 percent of people just voted to 10 tighten qun access considerably in the latest referendum. 11 So I don't see this playing a role. 12 And in the areas where you do see lots of guns openly carried, it's certainly not as though you see 13 14 major drops in crime. The major drops in crime over the 15 last 30 years have come in places like New York, which 16 has been the most aggressive of any jurisdiction in 17 trying to eliminate the role of guns, and, of course, in 18 Australia, which largely got rid of private guns and 19 prohibited self defense as a basis for applying for a qun 20 permit. 21 BY MR. BRADY: 22 Q So just to be clear, I was asking 23 hypothetically. I concede that nowhere would 50 percent 24 of the people -- I'm just -- I want to pose a 25 hypothetical to suggest -- is there a point at which the

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	level of open carrying would provide a deterrent effect,
(2	such that there would be a benefit?
(3	A I mean, it's hard for me to envision that
(4	world, but I suspect that if you ever got to that place,
(5	the number of accidental gun deaths would be so high that
6	there'd be a tremendous backlash with this. People'd be
17	leaving their guns all over the place.
£ 8	You know, a gun is a nuisance. It's heavy.
9	People don't like to carry heavy things on their person
10	the whole day, which is why they tend to put them down
	and leave them places.
(12	And so if you look at the number of phones that
13	get lost, it probably is a fairly good approximation of
14	the number of guns that would get lost, and so 50 percent
15	of Americans would carrying guns, you'd have a lot of
16	guns ending up in the hands of kids on playgrounds and
177	subways and buses. That would be a bad thing.
18	Q Are you aware of any studies that show that
19	people who open carry have accidents with their firearms?
20	A You know, there's certainly a lot of evidence
21	that people who carry guns have accidents with their
22	firearms. So whether you're openly carrying or concealed
23	carrying, it's probably, you know, equally likely that an
24	accident will occur.
25	Maybe higher with open carry, because you have

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Service Commence of the service of t	the potential of other people being involved in the
22	accident, as opposed to concealed carry where except
(3.5	the case of the Idaho mom whose two-year-old shot her in
4	the head because he was in the shopping cart and found
5	the gun.
ber with 6 page 1 miles	Most of the time when you have concealed carry,
17	you're not going to be exposing a gun in that way. But
8	open carry, at least a little more exposed.
9	Q Let's turn to Paragraph 36 really quick in your
(10	report.
· (111	Quote, "An openly displayed gun in public also
12	gives a muddy signal about the gun toter and could draw
L2	undue attention from police officers, directing law
	enforcement resources inefficiently, which, again, makes
(1,5	law firm less effective, thereby further promoting
16	crime," close quote.
17	Is that an accurate reading of your report?
18	A Yes.
19	Q Do you consider police officers giving undue
20	attention to open carriers a burden of open carry?
21	A That's a concern. We were discussing this
22	earlier. Police chiefs have said, you know, if you have
23	a choice between carrying openly and carrying concealed,
24	carry concealed, because we've got a lot of 911 calls
25	about open carriers. Obviously, that's tying up police



A STATE OF THE STA	resources.
2	And this case going up to the Supreme Court
(3	that the Stanford clinic is handling is exactly that
4	sort. Guy just carrying a gun openly where open carry is
§ 5	allowed suddenly triggers police intervention, and the
6	NRA is coming in on that case on the side of the Stanford
7	clinic, saying that that intervention was inappropriate,
8	but it happens, and it's costly.
9	Q But again, that's an anecdote.
10	You don't have any data about stops by police
11	officers of those openly carrying to support your
12	Paragraph 36; is that correct?
13	A Again, I don't have numbers on stops, but we do
14	have the discussions of police chiefs talking about the
15	amount of attention that gun carriers can encourage from
16	the public and the issues I was speaking earlier about
17	the Dallas police chief talking about the consequences of
18	open carry when the shooting in Dallas was going on, and
19	he considered it problematic that there were people on
20	the street with guns, because when people are shooting at
21	the police and you look around and you see a lot of
22	people with guns, you don't know if they're the good guys
23	or the bad guys.
24	So any of these things can complicate the
25	attention and the effectiveness of police, and since I
	1



**************************************	believe police are an extremely important element of
2	crime reduction, I don't want to make their job harder.
3	I want to make it easier.
4	Q So is it fair to say that the conclusion in
5	Paragraph 36 that police officers would be burdened by
6	open carriers is a major point of your report
Z.	MR. EISENBERG: Objection. Vague oh, pardon
8	me :
9	BY MR. BRADY:
10	Q opposing open carry?
11	MR. EISENBERG: Objection. Vague and ambiguous as
12	to "major point."
13	THE WITNESS: I mean, the major point is really
14	that concealed carry seems to be socially harmful, and
1.5	here are a number of reasons why I think open carry is
16	likely to be worse than concealed carry.
17	BY MR. BRADY:
18	Q But this is one of your main reasons for why
19	open carry is a burden, correct, that it burdens police
20	officers? That's one of your main points?
. 21	MR. EISENBERG: Objection. Misstates prior
22	testimony and same objection about the vagueness and
23	ambiguity of "major point."
24	THE WITNESS: And it is one of the factors and,
25	you know, thefts I think I've discussed how that could
24	THE WITNESS: And it is one of the factors and,

1	opportunities was an additional factor.
2	And then, you know, the big argument that has
3	always been made for concealed carry is that it provides
4	a deterrent umbrella. By carrying, I not only protect
5	myself, but I protect you, because the criminal doesn't
6	know which of us is carrying, and that gets taken away
7	when you have open carry, because now they do know.
8	Q You mentioned the anecdote about the police
9.	chief concerns about open carry several times now,
10	dorrect?
11	A Yeah.
12	Q So you found that anecdote compelling, correct?
13	A It wasn't an anecdote. It was his discussion
14	of the problem of theft in the wake of open carry.
15	Q You found his articulation of that problem with
16	open carry that he viewed to be compelling, correct?
17	A Yes.
18	Q Okay. Then why didn't you develop any reports
19	about stops by police officers on those who are openly
20	carrying?
21	MR. EISENBERG: Objection. Argumentative.
22	THE WITNESS: You know, I probably should have
23	added that to the report; but thankfully, we have this
24	deposition to fill flesh out the record.
25	BY MR. BRADY:

1	Q Well so you should have, meaning that if you
2	did and it came the conclusion or the findings of that
3	study were that there really is not a problem with police
4	officers stopping people because they're openly carrying,
5	would that change your conclusions in your report about
6	openly carrying about the effects of open carrying?
7	A I mean, if somebody had convincing evidence
8	that in an urban environment you don't have to worry
9	about the factors that I articulated, then, sure, I would
10	take that into account.
11	Q But just to be clear, you didn't review any
12	polls of law enforcement officers about the burdens they
13	perceive in encountering open carriers in preparing your
14	report?
15	A No, I didn't review polls.
16	Q Did you seek any data from any law enforcement
17	agencies about their experiences with open carriers?
18	A You know, I've alluded to the published record
19	on this, which I did seek out, but I didn't directly
20	inquire with particular police departments.
21	Q Are you aware of any public statements by chief
22	law enforcement officers, police chiefs or sheriffs,
23	indicating they need more funding to deal with people who
24	are openly carrying?
25	A You know, I haven't seen that, although there's

1	certainly discussion about the need for more funding than
2	just concealed carrying. And but I am not aware of
3	the literature on asking for more funding in the wake of
4	open carry.
5	Q So you have so do you have any knowledge
6	about the net burden of open carry policies on law
7	enforcement from a law enforcement source?
8	A You know, apart from the published discussions
9	that I've been referring to, I don't have anything else.
10	Q And those public discussions are not referred
11	to in your report, correct?
12	A Yeah, I don't think I added those.
13	Q So then, essentially, you've drawn your
14	conclusions about open carry about the net effect of
(15	open carry based on your conclusions that you've reached
16	about concealed carry; is that correct?
17	A Well, certainly, the conclusions about
128	concealed carry were a critical premise to this
19	
(20	the rest follows from my reading of the literature on
21	experience with open carry and then, you know, sort of
(22	the basic principles of deterrence theory and the
22	information about gun theft, and at least occasion of
24	resources
25	Q Okay. Did you analyze at all whether people



1	uniformly accepted that open carry doesn't have any
2	deterrent umbrella capacity the way concealed carry does
3.	and things of that nature. So I feel very comfortable
4	drawing relative comparisons about the effectiveness of
5	one versus the other.
6	Q Okay. You're using those inferences to
Section of the sectio	establish what you believe is a likelihood, correct?
£-8	A Yes.
1 9	Q Okay. But you are cannot use those inferences
10	to establish a certainty; is that correct?
11	A That's correct,
12	Q In other words, just like with concealed carry,
13	your analysis of concealed carry, where you admitted
14	earlier that you could be wrong; likewise, you could be
15	wrong about the open carry analysis as well; is that
16	correct?
17	A Yes. Any time I'm making a prediction or
18	estimate, I could be wrong.
19	Q All right. Moving on. We are in the home
20	stretch.
21	So have any of the studies you've conducted on
22	firearms-related matters ever conclude that a particular
23	gun-control law did not work?
24	MR. EISENBERG: Objection. Outside the scope of
25	testimony.



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The state of the s	THE WITNESS: Yeah. I mean, lots of things I
2	think don't work. Gun buy-backs I don't think work. You
3	know, any sort of very porous regulation, I think is
4	unlikely to work.
5	So, you know, even the Brady Bill is probably
6	vastly less effective because it's not uniform, and, you
7	know, a pure assault weapon ban without a restriction on
***************************************	large-capacity magazines probably have minimal effect on
9	overall crime.
10	BY MR. BRADY:
	Q Speaking of my relatives at the Brady campaign,
12	have you ever received any funding from the Brady
13	campaign?
14	ANO
15	Q What about any Bloomberg group?
16	A Mo.
17	Q Violence Policy Center?
18	A NO
19	Q Oh, the Law Center to Prevent Gun Violence?
20	A NO.
21	Q Everytown?
22	A The only thing I ve ever done from anyone, the
23	National Science Foundation and, you know, various
24	employers.
25	Q Have you been in communication with any gun

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DECLARATION UNDER PENALTY OF PERJURY

ASSIGNMENT NO. J0614175

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DEPOSITION ERRATA SHEET		·	
Page 24, Line 18			
Change:			
standard of identifying causal impacts. Very hard to do			
To:	•		
standard of identifying causal impacts. It is very hard to do			
Page 25			
Line 7	÷		
Change:			
treatment statements			
To:			
·treatment states		, .	
Line 12			
Change;			
·than having every state as a panel data be the control if	•		
To:			
than having every state in the panel data be a control if			

Page 27, Line 4

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·seeing do						
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Page 28, Line 6						
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used on this paper.	•					
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Page 35, Line 17				*.		
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Page 39, Line 13				٠		
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·statistical noise bounced it.	·			÷		
To:						
·statistical noise bounced it in a pa	nticular direction.					
Page 46, Line 19						

Change:
follows the normal economic laws as
To:
·follows the normal economic law that
Page 50, Line 23
Change:
·And the state said
To:
·And the NRC majority said
Page 51, Line 20
Change:
·The committee was split on the murder
To:
·The committee was split on the impact of RTC laws on murder
Page 77, Line 2
Change:
·police. · So that's what instruments
To:
·police. · So that's what an instrument
Page 82
Line 15

Change:
instrumented all – for police
То:
instrumented for police
Lines 19-20
Change:
have more confidence in the Table 3 shall results than the Table 4 shall results.
То:
have more confidence in the Table 3 "shall" results than the Table 4 "shall" results.
Page 97, Line 14
Change:
direction, that that's better,
То:
direction, then that's better,
Page 105, Line 25
Change:
essentially do a variance
То:
essentially do a variant
Page 124, Line 19
Change:
crime. So that's not including simple assault; it's not

·crime. · So that's not including simple assault; it's
Page 126, Line 7
Change:
those. You know, I gave a 2021 version
To:
those. You know, if I have a 2021 version
Page 160, Line 3
Change:
·But there was only one case so 1-21
To:
·But there was only one case so 1/21
Page 167, Line 16
Change:
·going to go down if you look at those people.
To:
going to go down if you lock up those people.
Page 174, Line 20
Change:
to the Vials Policy Center
То:
to the Violence Policy Center
Page 177, Line 7
Change:

often more about political power of special interest
To:
often more about political power of special interests
Page 197, Line 7
Change:
·So that's the sort of logical chance
To:
So that's the sort of logical stance
Page 211, Line 23
Change:
information about gun theft, and at least occasion of
To:
information about gun theft, and efficient allocation of
Page 215, Line 5
Change:
discussion in labor literature.
To:
·discussion in the labor literature.
Page 218, Line 9
Change:
·Those are arguments are on comparable
To:
·

·Those arguments are on comparable

Page 221

Line 8

Change:

·large-capacity magazines probably have minimal effect on

To:

·large-capacity magazines would probably have minimal effect on

Line 22

Change:

· A· The only thing I've ever done from anyone, the

To:

· A· The only thing I've ever gotten from anyone, the

DECLARATION UNDER PENALTY OF PERJURY

2 ASSIGNMENT NO. J0614175

FLANAGAN vs CALIFORNIA ATTORNEY GENERAL AVIER BECERRA

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I declare under penalty of perjury that I have read the entire transcript of my deposition taken in the captioned matter or the same has been read to me, and the same is true and accurate, save and except for changes and/or corrections, if any, as indicated by me on the DEPOSITION ERRATA SHEET hereof, with the understanding that I offer these changes as if still under oath.

12 13 14

Signed on the 22 day of August, 2017.

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LU

JOHN J. DONOHUE III

John J. Donothe II