Statistical Estimates of Noncitizen Registration or Attempted Registration

Richman Estimates

"At the low end his estimates are above 1,000, and at the high end they are above 18,000. Indeed, there was even one estimate that could go as high as 32,000, although we are not relying on that one because it is such a small sample size."

Source: Defendant Secretary of State Kris Kobach, Mar. 6, 2018 (Day 1 AM), Trial Tr. at 46:4-7.

Dr. Jesse Richman

Does survey research for a "popular audience"

Never been qualified as an expert witness

Criticized in open letter signed by 200 political scientists

Uses the CCES for his only publication of note

Source: Dr. Jesse Richman, Mar. 13, 2018 AM Rough Draft Trial Tr. at 50-51 (never qualified); 54 (popular audience); 122-23 (open letter); Mar. 12, 2018 PM Rough Draft Trial Tr. 97-98 (CCES)

Dr. Stephen Ansolabehere

Plaintiffs' Expert
Dr. Stephen Ansolabehere,
Harvard University

5 Books; 80 Articles

CalTech/MIT Voting Tech Project; CBS Election Night Desk

Expert witness in appx 10 cases, cited by Supreme Court in Cooper v. Harris

Designed and implements the CCES

Source: PX 136, Ansolabehere CV; Testimony of Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. 108-115

Meta-Analysis

Take Richman at Face Value

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his first report?
A. Well, a sam
preferable because
much weight to stu
sample sizes of 19
study with a sampl
statistical terms,
estimate based on
on a sample size o
Q. Okay. So i
report as your met
A. Yes.
Q. And what as
meta-analysis make
Richman's underlyi
A. This meta-a
It assumes that th
it assumes that th
there are no non-r
misreporting probl
value as if they w
representative sam
Q. And what do
A. That is the
non-citizens in the state of Kansas who are registered

Kelli Stewart, CSR, RPR, CRR, RMR

16 A. This meta-analysis takes the data at face value.
17 It assumes that the data are representative or random,
18 it assumes that there are no measurement error problems,
19 there are no non-response problems, there are no
20 misreporting problems. It just treats the data on face
21 value as if they were drawn from an unbiased and
22 representative sample.

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. 122:16-22

Meta-Analysis

Problem 1: Estimates are <u>Inconsistent with Each Other</u>

Anywhere from 1,000 (Sedgwick) to 32,000 (CCES)

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or attempted to register. Treating again the data at face value.

Q. Okay. So if we take Doctor Richman's data at face value, we assume it's accurate, we assume it's representative of the entire non-citizen po[illegible] of Kansas, you're telling me that we get an es[illegible] 1.3 percent of non-citizens in Kansas are r[illegible] vote?

A. Correct.

Q. And--

A. Or attempted to.

Q. Or attempted to register to vote. T[illegible]

In your opinion as an expert on stat[illegible] survey research and voter registration, Doc[illegible] Ansolabehere, when you do that, when you ta[illegible] data at face value, assume it's accurate, a[illegible] are no representativeness problems, does th[illegible] provide persuasive evidence of a statistica[illegible] significant rate of non-citizen registratio[illegible] state of Kansas?

A. No, because there's a great amount o[illegible] from study to study and that variation refl[illegible] uncertainty about the actual estimate.

Normally if we were just drawing ran[illegible] as if we were, say, doing surveys for publi[illegible]

Kelli Stewart, CSR, RPR, CRR, RMR

17 are no representativeness problems, does that data
18 provide persuasive evidence of a statistically
19 significant rate of non-citizen registration in the
20 state of Kansas?
21 A. No, because there's a great amount of variation
22 from study to study and that variation reflects our
23 uncertainty about the actual estimate.

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. 123:17-23)

Meta-Analysis

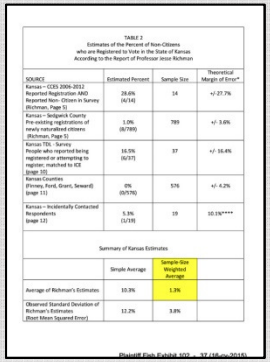


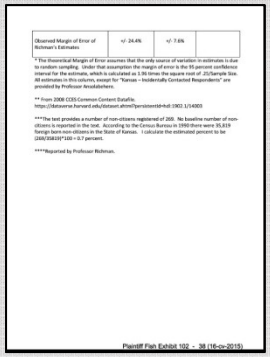
TABLE 2
Estimates of the Percent of Non-Citizens who are Registered to Vote in the State of Kansas According to the Report of Professor Jesse Richman

SOURCE	Estimated Percent	Sample Size	Theoretical Margin of Error*
Kansas – CCES 2004-2012 Reported Registration AND Reported Non- Citizen in Survey (Richman, Page 5)	28.6% (4/14)	14	+/-27.7%
Kansas – Sedgwick County Pre-existing registrations of newly-naturalized citizens (Richman, Page 5)	1.0% (8/789)	789	+/- 3.6%
Kansas TDL - Survey People who reported being registered or attempting to register; matched to ICE (page 10)	16.5% (6/37)	37	+/- 16.4%
Kansas Counties (Finney, Ford, Grant, Seward) (page 11)	0% (0/576)	576	+/- 4.2%
Kansas – Incidentally Contacted Respondents (page 12)	5.3% (1/19)	19	10.1%****

Summary of Kansas Estimates

	Simple Average	Sample-Size Weighted Average	
Average of Richman's Estimates	10.3%	1.3%	
Observed Standard Deviation of Richman's Estimates (Root Mean Squared Error)	12.2%	3.8%	

Plaintiff Fish Exhibit 102 – 37 (16-cv-2015)



Observed Margin of Error of Richman's Estimates	+/- 24.4%	+/- 7.6%	

* The theoretical Margin of Error assumes that the only source of variation in estimates is due to random sampling. Under that assumption the margin of error is the 95 percent confidence interval for the estimate, which is calculated as 1.96 times the square root of .25/Sample Size. All estimates in this column, except for "Kansas – Incidentally Contacted Respondents" are provided by Professor Ansolabehere.

** From 2008 CCES Common Content Datafile. https://dataverse.harvard.edu/dataset.xhtml?persistentId=hdl:1902.1/14003

***The text provides a number of non-citizens registered of 269. No baseline number of non-citizens is reported in the text. According to the Census Bureau in 1990 there were 35,819 foreign born non-citizens in the State of Kansas. I calculate the estimated percent to be (269/35819)*100 = 0.7 percent.

****Reported by Professor Richman.

Plaintiff Fish Exhibit 102 – 38 (16-cv-2015)

Summary of Kansas Estimates

	Simple Average	Sample-Size Weighted Average	
Average of Richman's Estimates	10.3%	1.3%	
Observed Standard Deviation of Richman's Estimates (Root Mean Squared Error)	12.2%	3.8%	
Observed Margin of Error of Richman's Estimates	+/- 24.4%	+/- 7.6%	

Source: PX 102, Ansolabehere Report, Table 2

Meta-Analysis

Problem 2: Not Statistically Distinct from Zero

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polls over and over again, we'd expect a
variation based on the formulas, the theo
formulas that are developed on sampling t
Since we have multiple studies, we
take the variation across the studies as
variation. And that's what I've done her
row. And that gives me the degree of unc
about the estimate. That degree of uncer
3.8 percent. And the standard-- the marg
associated with that is roughly two times
uncertainty, that's 7.6 percent. So it's
margin of error for a 1.3 percent estimat
So in statistical terms, I wouldn'
reject the hypothesis that the rate of no
voting was, in fact, 0 or extremely close
higher, perhaps as high as 8 or 9 percent
anywhere in that range. There's just a g
uncertainty with these estimates.
Q. And I believe you said the rate of
voting, did you mean the rate of non-citi
registration?
A. Sorry, registration.
Q. Registration or attempted registra
A. Correct.
Q. Would it be an accurate representa

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about the estimate. That degree of uncertainty is
3.8 percent. And the standard-- the margin of error
associated with that is roughly two times the degree of
uncertainty, that's 7.6 percent. So it's a very wide
margin of error for a 1.3 percent estimate.
So in statistical terms, I wouldn't-- we couldn't
reject the hypothesis that the rate of non-citizen
voting was, in fact, 0 or extremely close to 0 or
higher, perhaps as high as 8 or 9 percent. It could be

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. 124:8-16

Confidence Intervals

Richman's Unconventional Methods

- Did not calculate confidence intervals for 3 of 4 estimates in initial report , contrary to peer-review standards (Dr. Jesse Richman, Mar. 13, 2018 PM Rough Draft Trial Tr. at 103-04; 106)

- Used unconventional methods that he had never used prior to his supplemental report (Dr. Jesse Richman, Mar. 13, 2018 PM Rough Draft Trial Tr. at 112)

- Unconventional methods had two effects
  - (1) reduced confidence intervals (but not enough to make them reliable – margins of error still above 20 percentage points);
  - (2) shifted lower bound upward, to make results appear statistically significant

Confidence Intervals

Ansolabehere uses conventional method

- **A version of the same method used by Richman in his peer-reviewed article on noncitizen registration, and in his initial report in this case**

- **Assumes "ignorance prior" – no assumptions about actual level of noncitizen registration**
  - **Consistent with what courts expect of objective, unbiased experts**
  - **Methodologically appropriate in political science**
  - **Real-world applications, e.g., all medical research**

Source: See Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. at 149 (addressing Richman rebuttal); 184-85 (application to medical research); 171, 175-76, 221-23 (ignorance prior)

Richman: 4 Estimates

CCES

Sedgwick County

TDL Survey

Incidentally-Contacted Noncitizens

Richman: 4 Estimates

Sample Sizes too Small (CCES, TDL, Incidental)

Not Statistically Significant (Sedgwick, Incidental)

Not All Non-Citizens (CCES)

Not Registered (CCES, TDL)

Biased Samples (ALL)

Richman: 4 Estimates

CCES

Sedgwick County

TDL Survey

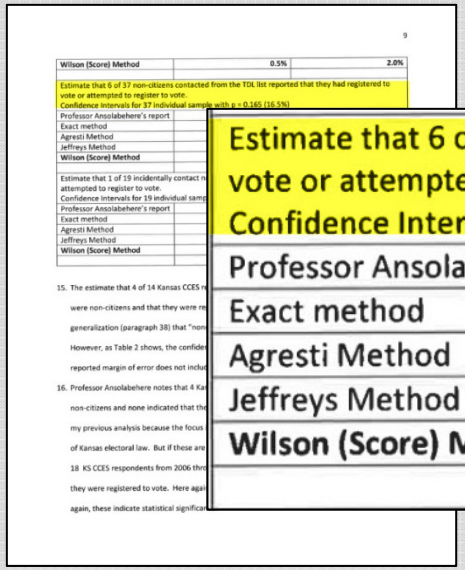
Incidentally-Contacted Noncitizens

TDL Survey Estimate

Survey of 37 TDL Holders

6 said they were registered or "had attempted to register"

Estimate: 16.5% of noncitizen adults in Kansas / 18,000 total



Estimate that 6 of 37 non-citizens contacted from the TDL list reported that they had registered to vote or attempted to register to vote. Confidence Intervals for 37 individual sample with p = 0.165 (16.5%)		
Professor Ansolabehere's report	0.10%	32.90%
Exact method	6.2%	32%
Agresti Method	7.3%	28.1%
Jeffreys Method	7.1%	30.4%
Wilson (Score) Method	**7.7%**	**31.1%**

Source: Dr. Jesse Richman, Mar. 13, 2018 AM Rough Draft Trial Tr. at 134-35

TDL Survey Estimate

The Key Estimate In This Case

"And so we'll be suggesting the iceberg is-- we know that it is in the thousands and we believe that the best estimate is that is over 18,000 people currently on the Kansas voter rolls."

Defendant Secretary of State Kris Kobach, Mar. 6, 2018 (Day 1 AM), Trial Tr. at 46:4-7.

TDL Survey Estimate

Richman and Kobach <u>Do Not Agree</u>

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affect of reducing your estimate by about a thi
right?
A. It cut it to something like 111.4 percen
Q. Okay. And that's about 13,000 non-citiz
registered in Kansas?
A. I think so.
Q. And you'd say as a political scientist t
13,000 number that that's more reliable than th
number that was not weighted to match the total
non-citizen population of Kansas; correct?
A. I think that weighting to match the over
population is probably a better estimate.
Q. Okay. Dr. Richman, are you aware that during
opening arguments in this case Secretary Kobach
represented that in his view your estimate of 18,000
non-citizens on the voter rolls based on the TDL survey
as described in your initial report was the best
estimate of non-citizen registration in Kansas?
A. I'm not aware or I wasn't.
Q. Okay. You're aware of it now?
A. (Witness nods head.)
Q. You'd agree with me Dr. Richman that's not your
best estimate of non-citizen registration in Kansas
because the weighted estimate is a better one; right?
A. I think the weighted estimate has some advantages

7 Q. And you'd say as a political scientist that that
8 13,000 number that that's more reliable than the 18,000
9 number that was not weighted to match the total
10 non-citizen population of Kansas; correct?
11 A. I think that weighting to match the overall
12 population is probably a better estimate.

- Source: Dr. Jesse Richman, Mar. 13, 2018 AM Rough Draft Trial Tr. at 138:7-12

TDL Survey Estimate

TDL Survey Estimate

Unreliable for 5 Reasons

TDL Survey Estimate

Problem 1: Sample Size of 37 Is Too Small for a Reliable Estimate

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Kansas TDL survey estimate. Staying on Table 2 of your report. What's your understanding of what Doctor Richman did here?

A. The temporary driver's license list are people who have a temporary driver's license because they are not citizens and they conducted a survey of the TDL and measured how many people reported or attempted-- being registered or attempted to be registered.

Q. Now, let's again assume there are no errors in the data and let's assume that this sample is representative of the non-citizen population in Kansas.

In your opinion as an expert on statistics, survey research and voter registration, if we'd make those assumptions, does Doctor Richman's data here based on the TDL survey provide adequate statistical information to make an informed estimate about the rate of non-citizen registration in Kansas?

A. No, it has an extremely wide theoretical margin of error. That's assuming everything is okay with the sampling and there's no other biases. The-- the width of that confidence interval is 16.4 percent, so this could be-- if this study is the only study we had, the estimate could be anywhere from .1 percent to 37 percent.

Q. I want to ask you about a different document in

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In your opinion as an expert on statistics, survey research and voter registration, if we'd make those assumptions, does Doctor Richman's data here based on the TDL survey provide adequate statistical information to make an informed estimate about the rate of non-citizen registration in Kansas?

A. No, it has an extremely wide theoretical margin of error. That's assuming everything is okay with the sampling and there's no other biases. The-- the width of that confidence interval is 16.4 percent, so this could be-- if this study is the only study we had, the estimate could be anywhere from .1 percent to 37 percent.

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. 137:12-24

TDL Survey Estimate

Problem 1: Sample Size of 37 Is Too Small for a Reliable Estimate

Richman conceded:

Has "weak statistical power"

Confidence Interval is more than 20 percentage points

- Source: Dr. Jesse Richman, Mar. 13, 2018 AM Rough Draft Trial Tr. at 135-36

TDL Survey Estimate

Problem 2 – Biased Estimate (Unrepresentative Sample)

<u>Excludes:</u>
Undocumented Immigrants,
Green Card Holders
Non-Drivers

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. at 141-142

TDL Survey Estimate

Problem 3 – Biased Estimate (Non-Response Bias)

37 Respondents out of Unknown Number of TDL Holders Called

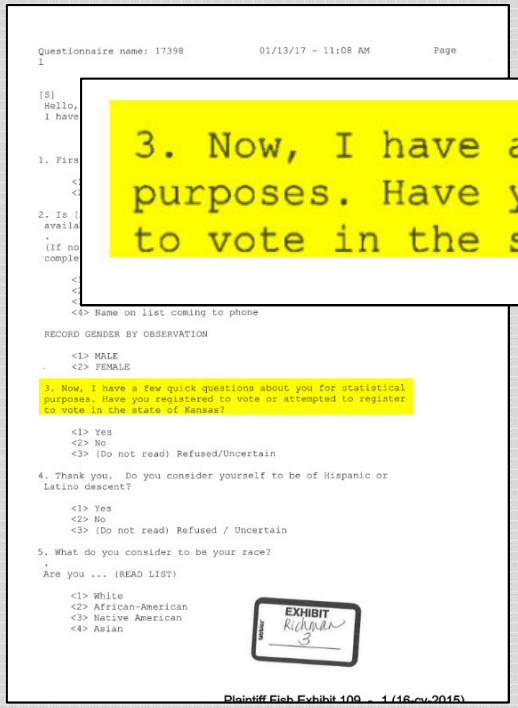
No way to calculate Response Rate

Overall Response Rate (5% vs. 16%) irrelevant – cannot calculate response rate for TDL Holders specifically

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. at 140

TDL Survey Estimate

Problem 4: Survey Doesn't Tell Us If Any Actually Registered



Questionnaire name: 17398 01/13/17 - 11:08 AM Page 1

[S] Hello, I have

1. Firs

2. Is [availa . (If no comple

<4> Name on list coming to phone

RECORD GENDER BY OBSERVATION

<1> MALE
<2> FEMALE

3. Now, I have a few quick questions about you for statistical purposes. Have you registered to vote or attempted to register to vote in the state of Kansas?

<1> Yes
<2> No
<3> (Do not read) Refused/Uncertain

4. Thank you. Do you consider yourself to be of Hispanic or Latino descent?

<1> Yes
<2> No
<3> (Do not read) Refused / Uncertain

5. What do you consider to be your race?

Are you ... (READ LIST)

<1> White
<2> African-American
<3> Native American
<4> Asian

EXHIBIT Richman 3

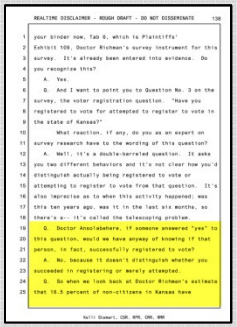
Plaintiff Fish Exhibit 109 - 1 (16-cv-2015)

3. Now, I have a few quick questions about you for statistical purposes. Have you registered to vote or attempted to register to vote in the state of Kansas?

Source: PX 109, Richman Survey Instrument

TDL Survey Estimate

Problem 4: Survey Doesn't Tell Us If Actually Registered



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your binder now, Tab 6, which is Plaintiffs' Exhibit 109, Doctor Richman's survey instrument for this survey. It's already been entered into evidence. Do you recognize this?

A. Yes.

Q. And I want to point you to Question No. 3 on the survey, the voter registration question. "Have you registered to vote for attempted to register to vote in the state of Kansas?"

What reaction, if any, do you as an expert on survey research have to the wording of this question?

A. Well, it's a double-barreled question. It asks you two different behaviors and it's not clear how you'd distinguish actually being registered to vote or attempting to register to vote from that question. It's also imprecise as to when this activity happened; was this ten years ago, was it in the last six months, so there's a... it's called the telescoping problem.

Q. Doctor Ansolabehere, if someone answered "yes" to this question, would we have anyway of knowing if that person, in fact, successfully registered to vote?

A. No, because it doesn't distinguish whether you succeeded in registering or merely attempted.

Q. So when we look back at Doctor Richman's estimate that 16.5 percent of non-citizens in Kansas have

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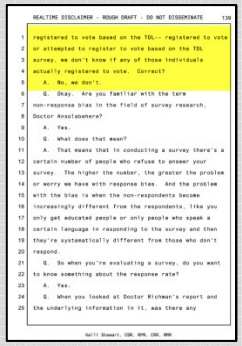

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registered to vote based on the TDL-- registered to vote or attempted to register to vote based on the TDL survey, we don't know if any of those individuals actually registered to vote. Correct?

A. No, we don't.

Q. Okay. Are you familiar with the term non-response bias in the field of survey research, Doctor Ansolabehere?

A. Yes.

Q. What does that mean?

A. That means that in conducting a survey there's a certain number of people who refuse to answer your survey. The higher the number, the greater the problem or worry we have with response bias. And the problem with the bias is when the non-respondents become increasingly different from the respondents, like you only get educated people or only people who speak a certain language in responding to the survey and then they're systematically different from those who don't respond.

Q. So when you're evaluating a survey, do you want to know something about the response rate?

A. Yes.

Q. When you looked at Doctor Richman's report and the underlying information in it, was there any

Kelli Stewart, CSR, RPR, CRR, RMR

24	Q. So when we look back at Doctor Richman's estimate
25	that 16.5 percent of non-citizens in Kansas have

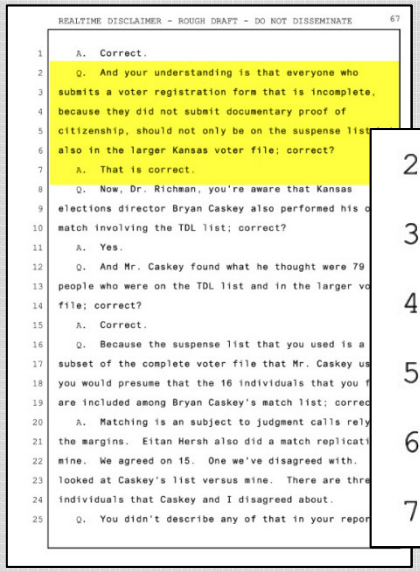
1	registered to vote based on the TDL-- registered to vote
2	or attempted to register to vote based on the TDL
3	survey, we don't know if any of those individuals
4	actually registered to vote. Correct?
5	A. No, we don't.

Source: Dr. Stephen Ansolabehere, Mar. 13, 2018 PM Rough Draft Trial Tr. 138:24 – 139:5

TDL Survey Estimate

Problem 5: None Even Attempted to Register

Everyone who attempts to register should be listed in the voter file.



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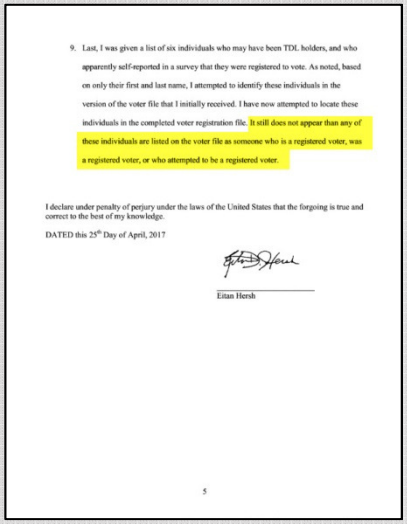
A. Correct.
Q. And your understanding is that everyone who submits a voter registration form that is incomplete, because they did not submit documentary proof of citizenship, should not only be on the suspense list but also in the larger Kansas voter file; correct?
A. That is correct.
Q. Now, Dr. Richman, you're aware that Kansas elections director Bryan Caskey also performed his o match involving the TDL list; correct?
A. Yes.
Q. And Mr. Caskey found what he thought were 79 people who were on the TDL list and in the larger vo file; correct?
A. Correct.
Q. Because the suspense list that you used is a subset of the complete voter file that Mr. Caskey us you would presume that the 16 individuals that you f are included among Bryan Caskey's match list; correc
A. Matching is an subject to judgment calls rely the margins. Eitan Hersh also did a match replicati mine. We agreed on 15. One we've disagreed with. looked at Caskey's list versus mine. There are thre individuals that Caskey and I disagreed about.
Q. You didn't describe any of that in your repor

2 Q. And your understanding is that everyone who
3 submits a voter registration form that is incomplete,
4 because they did not submit documentary proof of
5 citizenship, should not only be on the suspense list but
6 also in the larger Kansas voter file; correct?
7 A. That is correct.

Source: Dr. Jesse Richman, Mar. 13, 2018 AM Rough Draft Trial Tr. at 67:2-7

TDL Survey Estimate

Problem 5: None Even Attempted to Register



9. Last, I was given a list of six individuals who may have been TDL holders, and who apparently self-reported in a survey that they were registered to vote. As noted, based on only their first and last name, I attempted to identify these individuals in the version of the voter file that I initially received. I have now attempted to locate these individuals in the completed voter registration file. It still does not appear than any of these individuals are listed on the voter file as someone who is a registered voter, was a registered voter, or who attempted to be a registered voter.

I declare under penalty of perjury under the laws of the United States that the forgoing is true and correct to the best of my knowledge.

DATED this 25th Day of April, 2017

Eitan Hersh

5

9. Last, I was given a list of six individuals who may have been TDL holders, and who apparently self-reported in a survey that they were registered to vote. As noted, based on only their first and last name, I attempted to identify these individuals in the version of the voter file that I initially received. I have now attempted to locate these individuals in the completed voter registration file. It still does not appear than any of these individuals are listed on the voter file as someone who is a registered voter, was a registered voter, or who attempted to be a registered voter.

Source: Second Supplement to Hersh Report, Pg. 5, Para 9

TDL Survey Estimate

Problem 5: None Even Attempted to Register

"Q. Okay. And so when you submitted your supplemental expert report in this case in April 2017, **you did not dispute Doctor Hersh's conclusion that none of the six TDL holders from your survey** who said they were registered to vote or had attempted to register to vote **were actually in the Kansas voter file**. Correct?

A. That is correct."

Source: Dr. Jesse Richman, Mar. 13, 2018 PM Rough Draft Trial Tr. at 4:2-8

TDL Survey Estimate

Kobach's "Most Reliable" Estimate: 18,000

Richman's "Better" Estimate: 13,000

Correct Estimate: Zero

Secretary Kobach on Noncitizen Registration and Voting the 2016 Election

Cites Richman Analysis of CCES

Trump "is absolutely correct … illegal votes cast exceeds the popular vote margin" in 2016

Source: PX 133, Kobach Kansas City Star Interview

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