

APPENDIX II

SUPPLEMENTAL FACT FINDINGS BY THE COURT AFTER THE TRIAL

Dr. Martha Kropf Trial Testimony:

- 99) Dr. Kropf opined that undervoting on purpose is rare, but relied on the data for this opinion from the University of Michigan's National Election Study (NES) and Voters News Service (VNS) studies, which were based on post-election polling.<sup>1</sup>
- 100) NES studies consistently over-report voter turnout.<sup>2</sup>
- 101) The VNS database, which is based on a nationwide survey, has 54,806 voters for the 1992 election, and is not just specific to Ohio.<sup>3</sup>
- 102) The 2000 NES survey involved questions submitted to 7,699 voters but there was no proof that any of the voters were from Ohio.<sup>4</sup>
- 103) Dr. Kropf's report was based on national data and not data specifically from Ohio.<sup>5</sup>
- 104) Dr. Kropf's report, which included a paper on voided ballots in the 1996 election, did

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<sup>1</sup> See Trial Transcript, pp. 85-86.

<sup>2</sup> The following testimony was elicited from the cross-examination of Dr. Kropf as follows:

Q. Did you hear Mr. Coglianese's opening statement?

A. I heard a little bit of it.

Q. Did you hear him say that there had been reports that NES data consistently overreports voter turnout?

A. I've heard that separately from his opening statement, and I did hear a little bit about that, yes.

See Transcript, pg. 109, ln. 15-19.

<sup>3</sup> See Transcript, pg. 110.

<sup>4</sup> See Transcript, pg. 112.

<sup>5</sup> See Transcript, pg. 121.

not include education as a factor when evaluating intentional undervoting.<sup>6</sup>

- 105) The 1992 NES survey began on November 4, 1992 and ended on January 13, 1993.<sup>7</sup>
- 106) The 1996 NES survey began on November 6, 1996 and ended on December 24, 1996.<sup>8</sup>
- 107) The NES overestimated voter turnout.<sup>9</sup>
- 108) The 2000 NES survey began on November 8, 2000 and ended on December 18, 2000.<sup>10</sup>

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<sup>6</sup> Dr. Kropf offered the following testimony regarding her paper on voided ballots in the 1996 election as follows:

- Q. You mentioned that you did a paper, Voided Ballots in the 1996 Election?
- A. Yes, sir.
- Q. And that that was a county level analysis?
- A. Yes, sir.
- Q. What county was that we are talking about?
- A. Well, it's looking at about two-thirds of the counties in the 1996 election for which data were available.
- Q. All right. On a national basis?
- A. On a national basis.
- Q. Okay.
- A. That's right.
- Q. All right. In the report that you submitted, looking at Tables 1, 2 and 3, and 3 in particular, did you control for education?
- A. No. When we had originally ran the analysis, education hadn't mattered, so we just didn't include it because it reduced our sample size unacceptably.  
It's not asked in every state on the exit polls and, I don't know, but it's not.
- Q. Do you think that would be something that might be important with regard to a question of intentional undervoting?
- A. Well, I'll say yes, it is important, but it is not included here.

See Transcript, pg. 121, ln. 9 through pg. 122, ln. 8.

<sup>7</sup> See Transcript, pg. 208, Exhibit TT, pg. 28.

<sup>8</sup> See Transcript, pg. 209, Exhibit UU, p. 9, Table 3.

<sup>9</sup> See Transcript, pg. 210, and Exhibit UU, p. 11.

<sup>10</sup> See Transcript, pg. 213 and Exhibit W, p. 10.

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- 109) The 1988 NES survey began on November 8, 1988 through January 30, 1989.<sup>11</sup>
- 110) The only way to tell if someone who has been the subject of a post-election questionnaire to determine whether the person so questioned actually voted is to look at voting and registration records.<sup>12</sup>
- 111) The 1988 NES survey checked on those surveyed to determine if there was a record of them voting but determined that there was no record of an actual vote by 3-5% of those surveyed.<sup>13</sup>
- 112) Dr. Kropf conducted a nationwide regression analysis with controlling factors, but not in each county in Ohio.<sup>14</sup>

Dana Walch Trial Testimony:

- 113) Ohio counties used four types of voting equipment in 2000 – punch cards, lever machines, optical scan devices and direct recording electronic devices (DRE's).<sup>15</sup>
- 114) House Bill 262 requires that, in 2006, all DRE voting devices in Ohio must use Voter Verified Paper Audit Trails (VVPAT). House Bill 262 also mandates that any receipt or paper verification be behind glass.<sup>16</sup>
- 115) House Bill 262 requires that a paper record be the official vote if there is a recount, so vendors are working on different systems to keep official voter records with VVPAT.<sup>17</sup>
- 116) The Secretary of State intends to use HAVA money for DRE or precinct-count optical scan systems. Such non-notice systems would provide more options to voters in

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<sup>11</sup> See Transcript, pg. 214 and Exhibit SS, p. 9.

<sup>12</sup> See Transcript, pg. 215, and Exhibit SS, p. 18.

<sup>13</sup> See Transcript, pg. 216.

<sup>14</sup> See Transcript, pg. 220.

<sup>15</sup> See Transcript, pg. 134.

<sup>16</sup> See Transcript, pg. 142-143.

<sup>17</sup> See Transcript, pg. 147-148.

reducing error rates.<sup>18</sup>

- 117) The Secretary of State has progressed with his procurement process, and wants to implement new voting technology by 2005.<sup>19</sup>
- 118) No vendor has passed a final security check in Ohio for new DREs.<sup>20</sup>
- 119) The Secretary of State did not approve and deploy optical scan in-precinct count because he wanted the counties to retain the ability to choose what system they wanted. Also, simply choosing optical scan does not meet the requirements of HAVA because such a system does little in helping people with disabilities vote.<sup>21</sup>

Dr. Herb Asher's Testimony:

- 120) Dr. Asher's study of punch card ballots found that precincts with a higher concentration of poverty had a nonvoted ballot rate higher than the average nonvoted ballot rate in Ohio.<sup>22</sup>
- 121) Factors such as race, education and poverty are predictor variables.<sup>23</sup>
- 122) Dr. Asher's 1982 report contends that punch card voting has a higher ballot completion at the bottom of the ballot.<sup>24</sup>
- 123) In his report for the year 2000, Dr. Asher studied the Ohio Appalachian counties of Pike, Adams, Vinton, Meigs, Noble, Monroe, Jackson, and Gallia, which all have a substantially higher percentage of Caucasians in their population when compared with

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<sup>18</sup> See Transcript, pg. 159-160.

<sup>19</sup> See Transcript, pg. 732.

<sup>20</sup> See Transcript, pg. 732.

<sup>21</sup> See Transcript, pg. 752, 753.

<sup>22</sup> See Transcript, pg. p. 797.

<sup>23</sup> See Transcript, pg. 800.

<sup>24</sup> See Transcript, pg. 813.

the percentage of Caucasians in other Ohio counties.<sup>25</sup>

- 124) The population of African Americans in Adams County is 0.2% and it has a lower education attainment standard than Ohio's average, and its median income level is lower than the rest of the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 4.6%.<sup>26</sup>
- 125) The population of African Americans in Jackson County is 0.6%, and it has a lower educational level, a lower number of high school graduates, and a lower median income level than the rest of the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 3.3%.<sup>27</sup>
- 126) The population of African Americans in Gallia County is 2.7% and it has a lower educational level, and a lower median income level than the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 3.2%.<sup>28</sup>
- 127) The population of African Americans in Monroe County is 0.3% and it has a lower educational level, a lower number of high school and college graduates, and a lower median income level than the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 3.6%.<sup>29</sup>
- 128) The population of African Americans in Pike County is 0.9% and it has a lower educational level, a lower education attainment standard, and a lower median income levels than the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 4.7%.<sup>30</sup>
- 129) The population of African Americans in Vinton County is 0.4% and it has a lower population of African Americans (0.4%), a lower educational level, a lower number of high school and college graduates, and a lower median income level than the state as a

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<sup>25</sup> See Transcript, pg. 819.

<sup>26</sup> See Transcript pg. 820 and Plaintiffs' Exhibit 35.

<sup>27</sup> See Transcript, pg. 821 and Plaintiffs' Exhibit 35.

<sup>28</sup> See Transcript, pg. 821- 822 and Plaintiffs' Exhibit 35.

<sup>29</sup> See Transcript, pg. 822 and Plaintiffs' Exhibit 35.

<sup>30</sup> See Transcript, pg. 822-823 and Plaintiffs' Exhibit 35.

whole. The residual or nonvoted ballot rate for President in the year 2000 was 4.6%.<sup>31</sup>

- 130) The population of African Americans in Noble County is 6.7% and it has a lower population of African Americans (6.7%), a lower educational level, a lower number of high school and college graduates, and lower median income levels than the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 3.6%.<sup>32</sup>
- 131) The population of African Americans in Meigs County is 0.7% and it has a lower population of African Americans (0.7%), a lower educational level, a lower number of high school and college graduates, and lower median income levels than the state as a whole. The residual or nonvoted ballot rate for President in the year 2000 was 4.2%.<sup>33</sup>
- 132) In Pike, Adams, Vinton, Meigs, Noble, Monroe, Jackson, and Gallia Counties, where African Americans make up less than 1% of the population, something besides race caused nonvoted ballots, such as educational and income levels.<sup>34</sup>
- 133) One factor could never be the sole factor in error rate and the explanation for everything.<sup>35</sup>

Dr. Richard Engstrom Trial Testimony:

- 134) Dr. Engstrom's study of the Presidential election in the year 2000 in Ohio was limited to

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<sup>31</sup> See Transcript, pg. 823. and Plaintiffs' Exhibit 35

<sup>32</sup> See transcript, pg. 823-824 and Plaintiffs' Exhibit 35. The Court has accurately recorded the figure of 6.7% as the percentage of African-Americans in Noble County reported in Dr. Asher's deposition testimony that was read into the record. The Court, however, believes that figure to be inaccurate. Dr. Asher's later statement, which comprises fact finding #132, that African-Americans are less than 1% of the population of Noble County leads the Court to believe that the actual figure is more likely 0.67% or 0.7%. The Court, therefore, will recognize the accuracy of fact finding #132 and treat Noble County as having an African-American population of less than 1%.

<sup>33</sup> See Transcript, pg. 824 and Plaintiffs' Exhibit 35.

<sup>34</sup> See Transcript, pg. 825.

<sup>35</sup> See Transcript, pg. 826

Hamilton, Franklin, Summit and Montgomery counties.<sup>36</sup>

- 135) Dr. Engstrom's study in the year 2000 did not include any other race except for the office of the President. He did not look at any other county in Ohio, or any other elected office except the 2000 presidential race.<sup>37</sup>
- 136) Dr. Engstrom's study of the Presidential race in the year 2000 as to residual or nonvoted ballots did not account for income levels, education levels, age, disabilities, or foreign languages.<sup>38</sup>
- 137) The residual vote for non-African-Americans in Summit County in the 2000 Presidential election was higher than residual vote of African-Americans in Hamilton County.<sup>39</sup>
- 138) Using ecological inference analysis, racial disparity is four times higher in Franklin County than in Hamilton County.<sup>40</sup>
- 139) Dr. Engstrom found that using the ecological regression analysis, Hamilton County's residual vote rate was slightly higher and, in comparing homogeneous precincts in Hamilton County and Franklin County, the residual vote rate was nearly identical.<sup>41</sup>
- 140) Dr. Engstrom conceded, that in terms of undervoting, Franklin County voting technology actually increases, decreases or has the same racial disparity as Hamilton County.<sup>42</sup>

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<sup>36</sup> See Transcript, pg. 484.

<sup>37</sup> See Transcript, pg. 485.

<sup>38</sup> See Transcripts, pg. 488-489.

<sup>39</sup> See Transcripts, pg. 490-491.

<sup>40</sup> See Transcripts, pg. 493.

<sup>41</sup> See Transcripts, pg. 493.

<sup>42</sup> See Transcript, pg. 493, line 1 through pg. 494, line 6, where the following testimony of Dr. Engstrom appears:

- Q. Okay, Let's take a look at the difference [sic] categories as well.  
It appears as though, at least according to ecological inference, when we compare Hamilton County to Franklin County, the racial disparity in Hamilton County is

Dr. John Lott Trial Testimony:

- 141) Dr. Lott examined 1992, 1996 and 2000 presidential election data, and looked at other political races besides the presidential race.<sup>43</sup>
- 142) Dr. Lott examined the entire state of Ohio and not just three counties.<sup>44</sup>
- 143) Based on Dr. Lott's study, punch card voting technology in the U.S. Senate races for the years 1992 and 2000 had a lower nonvoted ballot rate than electronic or lever machines. The residual vote or nonvoted ballot rate increases with races other than for the presidency. However, the residual vote does not increase as quickly as the residual vote from most other forms of voting technology.<sup>45</sup>
- 144) Punch cards outperformed electronic machines in congressional races regarding

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.22, while the racial disparity in Franklin County is .81.

So, in fact, it is a true statement that according to ecological inference, the racial disparity in Franklin County is approximately four times higher than Hamilton County, is that correct?

A. That would be correct.

Q. For purposes of the ecological regression, the racial disparity in Hamilton County is .75 compared to .65 in Franklin County, so Franklin County fares slightly better in that analysis, correct?

A. Yes. Hamilton – excuse me – Franklin –

Q. Franklin County fares slightly better?

A. Okay. Lower, the disparity is lower, correct.

Q. Right. But for purposes of homogeneous precinct, in Hamilton County it's .85 and in Franklin County it's .84, I think you previously told His Honor that's identical for all practical purposes, is that right?

A. Yes. I wouldn't make a distinction between them.

Q. So depending on which numbers we want to look at, actually we can claim the voting technology in Franklin County actually increases the racial disparity, decreases the racial disparity, or is the same racial disparity as it relates to Hamilton County, is that correct?

A. In terms of undervoting?

Q. Yes.

A. Yes.

<sup>43</sup> See Transcript pg. 544.

<sup>44</sup> See Transcript, pg. 545.

<sup>45</sup> See Transcript, pg. 561.

nonvoted ballot rates. By looking to other races, the data demonstrates that focusing only on presidential races does not produce a complete picture because other races have much higher rates of nonvoted ballots.<sup>46</sup>

- 145) For presidential races, punch cards tend to do relatively poorly, but as the voter goes down the ballot, the punch cards improve relative to other voting machines.<sup>47</sup> (Punch cards indeed do extremely well across all five races with a low number of nonvoted ballots.)
- 146) For the races of 1992, 1996 and 2000, punch cards produced fewer nonvoted ballots than either electronic voting machines or lever machines and produced virtually the same results as optical scan machines.<sup>48</sup>

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<sup>46</sup> See Transcript, pg. 562.

<sup>47</sup> See Transcript, pg. 570.

<sup>48</sup> See Transcript, pg. 574.