November 30, 2013

Ngozi Ndulue
Ohio Justice & Policy Center
215 E. 9th Street, Suite 601
Cincinnati, Ohio 45202

Dear Ms. Ndulue,

I provide the attached report titled "Analysis of the Number of Incarcerated Registered Voters who Could Not Vote During Their Incarceration on the Weekend and Monday Before the November 2012 General Election" in response for your request for such a study.

The report constitutes:

(i) a complete statement of all opinions and the basis and reasons for them;
(ii) the facts or data considered in forming them; and
(iii) exhibits that are used to summarize or support them.

In addition I have provided my curriculum vita, including publications, and a list of testimony, depositions, and affidavits for other court cases.

As you know, I have volunteered my time, free of charge, for this work. My normal fee for this work is $100 per hour.

Sincerely,

[Signature]

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Senior Research Associate
Maxine Goodman Levin College of Urban Affairs
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Analysis of the Number of Incarcerated Registered Voters who could not Vote During Their Incarceration on the Weekend and Monday before the November 2012 General Election

Mark Salling, PhD, GISP
Senior Research Associate
Maxine Goodman Levin College of Urban Affairs
Cleveland State University

October 30, 2013

This study calculates the number of jailed persons, in nine Ohio counties, who were registered to vote and had not voted by absentee ballot, but could not exercise their voting rights during their confinement the three days before the election on November 6, 2012. The following nine counties are analyzed: Adams, Athens, Butler, Cuyahoga, Franklin, Hamilton, Lawrence, Montgomery, and Summit. These counties included the five most populous counties in Ohio, as well as four smaller counties — accounting for 42 percent of the state’s 2010 population.

Data and Methods

The study objective is to identify and count inmates who were registered to vote, had not voted absentee, and were incarcerated for the entire period from Saturday, November 3, 2012, through Tuesday, November 6, 2012, or later. This count does not include inmates if they were released on Election Day since such persons would have had the opportunity to vote if released before the polls closed. The calculation of the number of persons denied opportunity to vote just before the election is thus made more conservative by this exclusion, since some of these excluded persons may not have been able to vote that day.

The time frame used here for counting persons who could not vote due to incarceration also excludes persons jailed Friday evening, November 2, 2012, after close of the offices of the boards of elections (BOEs), even though persons entering jails that evening and not leaving until after Election Day would have been unable to vote.

Thus the time frame used in this study — entering jail after midnight on Friday the 2nd and not discharged until midnight Tuesday the 6th or later — provides a conservative window of time in which incarcerated persons would be prevented from voting.

All the 12 Hour, 12 Day, Minimum Security and Full Service Jails in the nine counties were subpoenaed for data on all inmates held between November 2, 2012 and November 6, 2012. The inmate information includes booking data from all these jails with the exclusion of four jails that did not

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1 The analysis was requested by the Ohio Justice & Policy Center and data used in the analysis were supplied by that organization. See Appendix A.
2 The nine counties had 42.2 percent of the state’s adult (age 18 and older) 2010 population.
respond to the subpoena in time for this analysis - Euclid City Jail, Shaker Heights Jail, and North Randall Village Jail in Cuyahoga County, and Richfield Village Jail in Summit County.

The process of identifying such persons involves the following basic steps:

1) Identify the registered electorate who voted absentee.
2) Identify and count persons who were incarcerated in jails during the target period noted above, were registered to vote, and had not already voted absentee.

The boards of elections of the nine counties were subpoenaed for data on registered and absentee voters. Boards of Elections for Cuyahoga, Hamilton, Franklin, Lawrence, and Montgomery counties provided data files that enabled automated (computerized) matching of registered voters to those who voted with absentee ballots. \(^3\) These records were then matched to records of jailed persons. Those that were held in jails throughout the target period were flagged as to whether they were registered but had not voted with an absentee ballot. These records were then summed.

Files obtained from Adams, Athens, Butler, and Summit County BOEs were in PDF form and were not suitable for automated (computer) manipulation and calculation. For the last four counties, matching inmates to the absentee and registered voter records was performed manually and then summed to get counts of persons in jail during the target period, were registered to vote, and had not cast an absentee ballot.

Criteria used to match absentee and registered voter records, and well as jailed person records to the registration and absentee data, are indicated in Table 1.

A unique voter ID was found on both the automated voter registration and absentee files for Hamilton and Montgomery counties and was used to match those records. After a cursory examination of the files from both Cuyahoga and Franklin counties, it was determined that matching absentee records to the registered voter file could be achieved using first and last names, address fields (street address, city, and ZIP code), and birth date.

Automated matching of inmate records to the registered/absentee records required testing several alternative combinations of criteria. It was determined that including middle names would lead to many missed correct matches since the data sources frequently recorded these names differently or not at all. Street addresses, too, missed some correct matches due to differences (including errors) in street spelling. In addition, even city names and ZIP codes were at times recorded differently. This may be due to a number of possible causes, including the possibility that a jailed person had moved since being registered to vote. Postal codes for mailing purposes can, at times, be different from actual residential postal code areas.

\(^3\) These included CSV or delimited txt files that could be readily converted to Microsoft Excel files and then ultimately to SAS data files.

Incarcerated Registered Voters who could not Vote During Weekend and Monday before the November 2012 General Election
Therefore, automated matching the jailed population records to the registered/absentee records used first and last name and birth date.

These automated matching procedures can lead to both incorrect matches (false positives) and missed matches that should have been made because the person in both files is the same. In regard to incorrect matches, for example, it is possible that a jailed inmate, who is not registered to vote, is incorrectly matched to a record in the registered voter file with the same name and birth date in that county.

Another instance of possible error of a false positive could occur if there are two registered voters with the same first and last names and birth date (in the same county) and both matched an inmate with the same first and last names and birth date. An incorrect result would occur if the matching procedure matched the wrong voter record to the jailed person record. That could mean that an inmate was incorrectly classified as one who was registered and had not voted absentee. It would improperly inflate the calculation of registered persons who could not vote. However, our programming would have detected this occurrence. It would have produced a duplicate record for that inmate in the output file, but no such duplicates were found in this analysis.

The alternative error is that the count is less than the actual number of persons who were registered and had not voted absentee. A difference or error in how a person’s name is spelled between the inmate and registered voter files, though both spellings refer to the same person, would result in a missed correct match (false negative).

Meanwhile, manual matching, though more time consuming for such large databases, is generally more reliable in avoiding missed correct matches since the person can make interpretations of data with more intelligence than a computer operation.

One other caution is noted. A small proportion in the inmate database may have been ineligible to vote due to being sentenced for a felony. It is my understanding that such persons are ineligible to vote.

Nevertheless, based on the process used in this analysis it is highly likely that this calculation of the number of incarcerated registered voters, unable to vote during the weekend and day before the election in November 2012, is not much different than the actual number of such persons. Based on my professional experience and common sense, I believe that the exclusion of persons who could not vote because they entered jail Friday evening or left it on Election Day after the polls closed, together with the false negatives from differences in name spelling, is likely greater than the number of false positives from identical names in conjunction with identical birth dates.
Table 1: Matching Variables

<table>
<thead>
<tr>
<th>County</th>
<th>match absentee to registered voters</th>
<th>match registered voters to jailed inmates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>NA</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Athens</td>
<td>NA</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Butler</td>
<td>NA</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Cuyahoga</td>
<td>fn, ln, mn, street address, city, ZIP code, bd</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Franklin</td>
<td>fn, ln, mn, street address, city, ZIP code, bd</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Hamilton</td>
<td>voter ID</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Lawrence</td>
<td>fn, ln, city, ZIP code</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Montgomery</td>
<td>voter ID</td>
<td>fn, ln, bd</td>
</tr>
<tr>
<td>Summit</td>
<td>NA</td>
<td>fn, ln, bd</td>
</tr>
</tbody>
</table>

Note: Matching for Adams, Athens, Butler, and Summit counties was done manually; thus there was not automated matching of absentee to registered voter records.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>fn</td>
<td>first name</td>
</tr>
<tr>
<td>ln</td>
<td>last name</td>
</tr>
<tr>
<td>mn</td>
<td>middle name</td>
</tr>
<tr>
<td>bd</td>
<td>birth date</td>
</tr>
</tbody>
</table>

Results

The results are presented in Table 2.

Among the eleven persons in the inmates file in Adams County, three were recorded as booked sometime after midnight, Friday, November 2nd and kept in jail until at least the end of the day (midnight) on Election Day, November 6, 2012. Of those, two were registered and had not voted absentee and one was not registered to vote. Among inmates in Athens County, six of the possible 19 jailed persons in that period were unable to vote though they were registered to do so. Butler County jails had 12, Cuyahoga 70, Franklin 36, Hamilton 26, Lawrence 3, Montgomery 21, and Summit County 20 such electors who were unable to exercise their voting rights while in jail that weekend and day before the election.

Because the methods of this analysis may have missed some such persons, it can be stated with some certainty that at least, but probably more than, 202 persons in the nine county study area were unable to vote due to these circumstances. It should also be noted that data on inmates in four jails in...
Cuyahoga County were not included in this study and may have increased the total had they been included.

A note is worth stating concerning what the totals for all 88 counties in the state would be. While there are other and possibly more accurate methods of determining the statewide total of such cases, a simple extrapolation using the relative portion of the state’s 2010 adult (18+) population in the nine counties in the study counties would result in an estimate of 479 persons statewide who were in jails and unable to vote.

And finally, the issue of the possible disparate racial impact of the inability of registered jail inmates to vote in the final three days before the election could be addressed with the inmate data since race is included in the file. Without undertaking that full analysis, it is worth noting that 46 percent of all the inmates in the database are Black, while there are 20 percent of the adult 2010 Ohio population that are Black (1 race category only).

Table 2: Results

<table>
<thead>
<tr>
<th>County</th>
<th>Total in inmates database</th>
<th>Total</th>
<th>Registered</th>
<th>Voted absentee</th>
<th>Not registered</th>
<th>Total registered voters</th>
<th>Total absentee voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Athens</td>
<td>45</td>
<td>19</td>
<td>6</td>
<td>0</td>
<td>13</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Butler</td>
<td>162</td>
<td>62</td>
<td>18</td>
<td>1</td>
<td>43</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cuyahoga</td>
<td>477</td>
<td>136</td>
<td>70</td>
<td>7</td>
<td>59</td>
<td>927,999</td>
<td>267,114</td>
</tr>
<tr>
<td>Franklin</td>
<td>271</td>
<td>108</td>
<td>36</td>
<td>5</td>
<td>67</td>
<td>814,246</td>
<td>201,227</td>
</tr>
<tr>
<td>Hamilton</td>
<td>152</td>
<td>92</td>
<td>26</td>
<td>2</td>
<td>64</td>
<td>546,693</td>
<td>173,459</td>
</tr>
<tr>
<td>Lawrence</td>
<td>22</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>54,021</td>
<td>7,670</td>
</tr>
<tr>
<td>Montgomery</td>
<td>125</td>
<td>48</td>
<td>21</td>
<td>0</td>
<td>27</td>
<td>656,797</td>
<td>52,831</td>
</tr>
<tr>
<td>Summit</td>
<td>111</td>
<td>67</td>
<td>20</td>
<td>3</td>
<td>44</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Total</td>
<td>1,376</td>
<td>543</td>
<td>202</td>
<td>19</td>
<td>322</td>
<td>3,239,973</td>
<td>753,474</td>
</tr>
</tbody>
</table>

Note: Counts on inmates were done manually for Adams, Athens, Butler, and Summit so no automated counts of those counties’ registered and absentee voters are available. Column totals do not include counts of registered and absentee voters for those four counties.
APPENDIX A: Documents Provided by Plaintiffs’ Counsel

- Adams County Registered Voter List
- Adams County Absentee Voter List
- Athens County Registered Voter List
- Athens County Absentee Voter List
- Butler County Registered Voter Lists
- Butler County Absentee Voter List
- Cuyahoga County Registered Voter List
- Cuyahoga County Absentee Voter List
- Franklin County Registered Voter List
- Franklin County Absentee Voter List
- Hamilton County Registered Voter List
- Hamilton County Absentee Voter List
- Lawrence County Registered Voter List
- Lawrence County Absentee Voter List
- Montgomery County Registered Voter List
- Montgomery County Absentee Voter List
- Summit County Registered Voter List
- Summit County Absentee Voter List
- Lists of Ohio jails
- List of Ohio hospitals
- Spreadsheet of inmates in jail on 11/6/2012 who had been jailed after 11/1/2012
- Spreadsheet of Annual Data Sheet Information from jail inspection records
- Spreadsheet of Bureau of Adult Detention 2010 Survey results
- Spreadsheets of Bureau of Adult Detention database contents
- Ohio Department of Rehabilitation and Correction jail inspection records
- Booking records from jails in Adams, Athens, Butler, Cuyahoga, Franklin, Hamilton, Montgomery, and Summit counties
- Pleadings in the Fair Elections Ohio v. Husted Case