

Statistical Anomalies at the County-Level in Ohio

November 11, 2004

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This document serves to help guide the process of examining the Ohio vote, by demonstrating the statistical outliers of the Presidential voting in Ohio. It is not intended to prove fraud. However, it does point out many anomalies and the five counties with the most anomalies and where investigations should probably begin are: Athens, Cuyahoga, Trumbull, Hamilton, and Mahoning.

There are four types of statistical outliers or anomalies - cases where the voting tallies fall into an extreme:

1. Where the Bush votes in 2004 greatly surpass his votes in 2000, compared to the increase for the Democrats (adjusting for population gain);
2. Where the number of provisional ballots issued and the number of "missing votes" for President are unusually high in areas where Kerry had high levels of support;
3. Where the voter turnout in Kerry strongholds was unusually low; and
4. Where there is an unusually high number of votes for Badnarik, Peroutka or other non-major party candidates.

The following is a list of the 15 Ohio counties on my watch list, in order of how suspicious the preliminary vote tally seems to be:

<u>County</u>	<u>Issues</u>
1. Athens	Top on the list! Very high number of provisional ballots; low voter turnout; high number of votes for Badnarik (97) and Peroutka (87).
2. Cuyahoga	Oh my! Over 37,000 provisional ballots or ballots with "missing" Presidential vote. Many statistical anomalies at the precinct level. (Please see the separate report at: http://www.indybay.org/news/2004/11/1704733.php)
3. Trumbull	Low voter turnout; urban county in NE Ohio that moved toward Bush; high provisional ballot count and high number of "missing" Presidential votes.
4. Hamilton	Another major urban center (Cincinnati) with over 24,000 provisional ballots or ballots with "missing" Presidential vote.
5. Mahoning	Is an urban center (Youngstown), yet shifted toward Bush. (Most of NE and urban centers moved toward Kerry.) Nearly 1,000 votes for Badnarik and Peroutka.
6. Jefferson	Low voter turnout; high number of "missing" Presidential votes; pro Kerry county that moved substantially toward Bush.
7. Franklin	A high number (> 14,400) of provisional ballots in major urban center (Columbus); high number of votes (> 2,600) for Badnarik and Peroutka.

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| 8. Greene | Two liberal universities (Wilberforce, Antioch) yet substantial movement toward Bush. |
| 9. Belmont | This pro Kerry county moved further toward Bush than any other pro Kerry county. Low voter turnout. |
| 10. Montgomery | County with a major urban center (Dayton), yet shifted toward Bush. (All other major urban centers moved toward Kerry.) High number of provisional ballots (over 9,000). |
| 11. Lucas | A high number (> 6,700) of provisional ballots in major urban center (Toledo). |
| 12. Ashtabula | Somewhat low voter turnout and rather high number of provisional ballots or ballots with "missing" Presidential vote in pro-Kerry county; nearly 300 votes for Badnarik and Peroutka. |
| 13. Summit | Over 11,000 provisional ballots and ballots with "missing" Presidential vote in pro-Kerry county. |
| 14. Stark | Nearly 10,000 provisional ballots and ballots with "missing" Presidential vote in hotly contested county. |
| 15. Morgan | This rural county in southeastern Ohio moved substantially toward Kerry in 2004 but had one of the highest percentages of votes for Badnarik and Peroutka, possibly indicating machine error in certain precincts. |

Definitions

The primary indicators used are the change in votes cast for Bush from 2000 to 2004 as a percentage; the change in votes cast for Kerry in 2004 compared to the 2000 Gore plus Nader vote, as a percentage; the percentage of "spoiled" ballots where valid ballots were cast but no Presidential preference was tallied; the percentage of provisional ballots issues; and the overall voter turnout increase, adjusted for the estimated population gain from 2000 to 2004. The voting tallies used in this document are provisional -- they do not include all absentee ballots (how many?) nor have provisional ballots (> 150,000) been validated and counted.

Cases of High Voter Turnout for Bush in 2004

The four counties in Table 1 are all along or close to the Indiana border. Since they are all in the same geographic region this seems to indicate a strong regional trend rather than a vote tally anomaly.

County	Percent for Bush	Change in Bush Vote 2000 to 2004	Change in Kerry Vote 2000 (Gore+Nader) to 2004	Percentile Difference (rounded)
Shelby	71%	+25%	-11%	36
Mercer	75%	+20%	-12%	32
Van Wert	72%	+22%	-7%	30
Darke	70%	+21%	-6%	27
State Average	51%	+18%	+15%	3

Note: Change in Votes is adjusted for estimated change in population 2000 to 2004 (US Census).

Most of the cases where there is very large movement toward Bush are in rural counties, so it is helpful to look at larger counties that also showed significant movement toward Bush. Miami County is next to several of the counties mentioned in the previous table, so it seems likely that it is part of the same regional trend. Clermont is a quickly growing Cincinnati suburban area and, like Warren County, it has significant Republican voting. So both of these cases are more likely a regional demographic trend.

County	Urban Centers	Percent for Bush	Change in Bush Vote 2000 to 2004	Change in Kerry Vote, 2000 (G+N) to 2004	Percentile Difference (rounded)
Miami	Piqua, Troy	66%	+25%	+2%	23
Clermont	Eastern Cincinnati suburbs	71%	+26%	+9%	17

Note: Change in Votes is adjusted for estimated change in population 2000 to 2004 (US Census).

Most urban counties in Ohio moved toward Kerry in 2004, so that's why the five counties in Table 3 are somewhat troubling. The first three counties are in southwest Ohio, so it could be part of the regional trend toward Bush (west Ohio / southwest Ohio) already discussed. However, the movement toward Bush in Greene County is worth examining because it is home to two progressive universities – Wilberforce and Antioch. Yet Kerry's turnout increased only by 7% there over 2000, as in Butler County, home to Miami University. Trumbull and Mahoning are in northeast Ohio, where most counties moved toward Kerry from 2000 to 2004. Yet both counties moved toward Bush in 2004.

County	Urban Centers	Percent for Bush	Change in Bush Vote 2000 to 2004	Change in Kerry Vote, 2000 (G+N) to 2004	Percentile Difference (rounded)
Greene	Beavercreek, Xenia, Wilberforce, Antioch	61%	+21%	+7%	13
Butler	Hamilton, Middletown, Miami U.	66%	+19%	+7%	13
Warren	Northeast Cincinnati suburbs	72%	+20%	+8%	12
Trumbull	Warren, Niles	38%	+18%	+10%	8
Mahoning	Youngstown	37%	+21%	+15%	6

Note: Change in Votes is adjusted for estimated change in population 2000 to 2004 (US Census).

Of the 16 Ohio counties that favored Gore over Bush in 2000, 11 moved toward Bush in 2004 (movement toward Kerry is based on the combined Gore and Nader vote in 2000). The largest movement toward Kerry was seen in Athens, Franklin and Monroe counties. Perhaps not coincidentally, Athens is home to Ohio University and Franklin is home to Ohio State University.

On the other hand, four counties showed a rather considerable movement toward Bush in 2004 (Table 4). Belmont had the largest shift toward Bush of any pro-Kerry County. Belmont is in eastern Ohio, across from Wheeling, West Virginia. Jefferson (home of Steubenville) and Harrison counties to the north also had large movement toward Bush, but Monroe County to the south moved toward Kerry in 2004. So there is no clear regional trend to explain Belmont. Trumbull County was already mentioned in Table 3. Montgomery County is home to Dayton and may have been part of the southwest Ohio regional trend toward Bush but it also has a large urban population and was the only urban county to trend more than 2 percent toward Bush, including Hamilton (Cincinnati) which is also in southwest Ohio.

County	Percent for Bush	Change in Bush Vote 2000 to 2004	Change in Kerry Vote 2000 (Gore+Nader) to 2004	Percentile Difference (rounded)
Belmont	47%	+22%	+4%	18
Jefferson	47%	+16%	+5%	11
Trumbull	38%	+18%	+10%	8
Montgomery	49%	+24%	+17%	7

Note: Change in Votes is adjusted for estimated change in population 2000 to 2004 (US Census).

Cases of High Levels of Provisional Balloting and Missing Presidential Votes

Overall in Ohio, according to the Ohio Secretary of State, there were 155,428 provisional ballots issued and 92,672 ballots with no tallied Presidential preference (“missing” Presidential votes). Over two out of three (68 percent, 105,407) of all provisional ballots were issued either in either one of the ten most urban counties (largest population) or in a county that was pro-Kerry (Kerry majority). Sixty percent (55,259) of valid ballots that had no Presidential preference tallied were issued in one of this same group of 19 counties, while the total ballots cast in these 19 counties also accounted for 60 percent of the Ohio total.

Athens County (Table 5) had the highest percentage of provisional ballots (8.2 percent). As this was the county that moved the most toward Kerry in 2004, this is very disconcerting and could be a sign of suppressing the student vote. Coshocton County had the highest percentage of ballots with no Presidential tally (7.9 percent). Coshocton is on the edge of the Amish country so it is possible that its “missing” Presidential votes are a protest vote. However, except for neighboring Holmes County, other counties with a high number of Amish did not have a high level of “missing” votes.

In terms of numbers, the counties with the most “missing” Presidential tallies combined with the number of provisional ballots were Cuyahoga (> 37,000), Hamilton (> 24,000), Franklin (> 17,000), Montgomery (> 14,000), Summit (> 11,000), Stark (>9,000), Lucas (> 8,000), and Trumbull (>5,000). The Cuyahoga and Hamilton county totals are staggering. Stark (home of Canton) went to Bush in 2000 and was one of the most hotly contested counties. In 2004 it went for Kerry. With some of the additional 6,653 provisional votes there, Kerry probably would have won the county by even more. Other disconcerting numbers here are in Monroe County, a pro Kerry County that moved even more toward Kerry, where 3.3% of all ballots cast had no recorded Presidential vote. Montgomery County, another high contentious county, had a very high level of provisional ballots (3.2%).

Table 5: Shift Toward Kerry or Majority for Kerry But High Number of “Missing Votes” and Provisional Ballots on the Presidential Race

County	Percent for Kerry, 2004	Movement from Bush to Kerry 2000 to 2004 (percentiles)	Number of Missing Presidential Votes	Percentage of Missing Presidential Votes	Number of Provisional Ballots Issued	Percentage of Provisional Ballots Issued
Cuyahoga	66%	3	12,953	1.9%	24,788	3.6%
Franklin	54%	11	3,053	0.6%	14,446	2.7%
Hamilton	47%	6	9,763	2.3%	14,386	3.3%
Montgomery	50%	-7	5,654	2.0%	9,227	3.2%
Lucas	60%	-2	1,653	0.8%	6,719	3.0%
Stark	50%	1	1,288	1.9%	6,653	3.4%
Summit	57%	2	5,307	1.9%	5,932	2.1%
Trumbull	62%	-8	2,508	2.3%	2,700	2.4%
Athens	63%	15	495	1.8%	2,504	8.2%
Ashtabula	53%	-3	1,009	2.2%	1,142	2.4%
Erie	53%	-1	954	2.4%	972	2.4%
Jefferson	52%	-11	806	2.2%	650	1.7%
Coshocton	42%	4	1,365	7.9%	277	1.6%
Monroe	55%	4	263	3.3%	132	1.7%
State	49%	-3	92,672	1.7%	155,428	2.7%

Note: Movement from Bush to Kerry refers to the difference between the percentage increase in Kerry votes and the percentage increase in Bush votes from 2000 (Gore plus Nader) to 2004. Number of “missing Presidential votes” refers to valid ballots cast with no preference tallied in the Presidential race.

Low Gains in Voter Turnout

Ohio saw a 21 percent gain in voter turnout from 2000 to 2004, when corrected for population gain and including provisional ballots. This equals a 72 percent turnout (including provisional ballots). The highest turnout rate was in Sandusky (84 percent), while the lowest turnout rate was in Jackson (61 percent). Franklin had only a 63 percent turnout rate.

The largest gain in voter turnout was in Pickaway County (up 33%). The largest turnout increases among counties where a majority voted for Kerry were Montgomery (up 27%), Franklin (up 26%), and Lorain (up 25%). On the other hand, five counties where a majority voted for Kerry had turnout rates much lower than the state. Belmont and Jefferson counties had some of the smallest gains in voter turnout in the state. And Kerry’s vote total increased by only about 5% over 2000. The change in voter turnout could decrease substantially in Athens County if large numbers of its provisional ballots are rejected.

County	Percent for Kerry, 2004	Change in Bush Vote 2000 to 2004	Change in Kerry Vote, 2000 (G+N) to 2004	Percentile Difference (rounded)	Turnout Rate (with provisional ballots)	Overall Change in Voter Turnout, 2000 to 2004
Belmont	53%	+22%	+4%	+18	78%	+9%
Jefferson	52%	+16%	+5%	+11	75%	+11%
Monroe	55%	+9%	+13%	-4%	77%	+14%
Athens	63%	-2%	+13%	-15	68%	+15%
Trumbull	62%	+18%	+10%	+8%	78%	+15%
State	49%	+18%	+15%	+3%	72%	+21%

Note: Change in Votes is adjusted for estimated change in population 2000 to 2004 (US Census) and includes provisional ballots. For 2000, only ballots with tallied Presidential votes are included.

High Percentage of Votes for Badnarik and Peroutka

Libertarian Party candidate Michael Badnarik received 0.3 percent of the vote in Ohio and candidate Michael Peroutka received 0.2 percent of the vote. However, abnormally high percentages of votes for Badnarik and Peroutka at the precinct level, such as greater than 5 percent, might indicate ballot or machine error or some other problem. This most likely happened in several Cuyahoga precincts. (See <http://www.indybay.org/news/2004/11/1704733.php>) Without examining precinct voting, it is impossible to determine where this might have happened, but counties with higher percentages might be a place to begin.

Among the pro Kerry counties or counties moving toward Kerry, the two with the highest percentage for Badnarik and Peroutka (combined) are Morgan and Carroll. All of the counties mentioned in Table 7 are in the southeast or northeast part of the state, so it is possible that there was a small regional trend rejecting both major party candidates. But a precinct analysis should take place to ensure that there was no machine or ballot error here. Mahoning County totaled nearly 1,000 votes for candidates other than the major parties. Other counties with a high number of votes for the non-major candidates are: Cuyahoga, 3,495; Franklin, 2,650; Hamilton, 1,643; Montgomery 1,169; and Summit, 1,163.

Table 7: Majority for Kerry or Movement Toward Kerry But High Percentage of Votes for Badnarik and Peroutka

County	Percent for Kerry, 2004	Movement Toward Kerry	Total Votes Cast	Badnarik Votes	Peroutka Votes	Percentage of Badnarik & Peroutka Votes (Combined)
Morgan	43%	+8%	6,574	31	38	1.0%
Carroll	45%	+6%	13,854	75	58	1.0%
Monroe	55%	+4%	7,594	27	33	0.8%
Mahoning	63%	-6%	130,396	519	409	0.7%
Ashtabula	53%	-3%	44,465	141	158	0.7%
Athens	63%	+15%	27,465	97	87	0.7%
State	49%	-3%	5,481,804	14,331	11,614	0.5%

Note: Movement Toward Kerry is the percentage change in votes for Kerry (2000 to 2004) minus the percentage change in votes for Bush, 2000 to 2004. The base for Kerry is the sum of the votes of Gore and Nader in 2000.

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