

Racial and ethnic proportions of early in-person voters in Cuyahoga County, General Election 2008, and implications for 2012

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Summary: Data from the Cuyahoga BOE giving addresses and voting times of all voters in the 2008 General Election were used to reconstruct racial voting patterns amongst early in-person (EIP) voters vs. those who voted by mail or on election day (non-EIP) voters. It was assumed that voting by race or Hispanic ethnicity in any census block was in proportion to the percentage of African Americans or Hispanics in that block

The likelihood that an EIP voter was black was 56.4%, while the probability that an election day or vote-by-mail voter was black was 25.7%. White voters showed the reverse pattern, comprising 40.0% of EIP voters and 69.4% of non-EIP voters. The likelihood of those voting in 2008 during different EIP time periods to be African American were similar: 59% during the 3-days (+Friday after 6 pm) period just before election day, eliminated by state law; 56% during regular EIP business hours and also during the 4 weekends prior to the last; and 54% during after-hours. An estimated 15.6% of all votes cast by African Americans were EIP vs. 4.5% of all votes cast by whites. Mapping of EIP early voting showed a clear visual correlation with the geographic distribution of African-Americans. The proportion of Hispanic voters was only slightly different between EIP and non-EIP voters. Finally a correlation analysis at the block level showed that the apparent African American predominance during EIP was not due to some special factor prevailing on weekends or after-hours, because there was also high participation by African-Americans during regular business hours. Nearly half of the hours and days of EIP in which African Americans were a majority may be cut in 2012. We conclude that in Cuyahoga County, and quite probably in other counties with substantial black populations, elimination of ANY EIP voting period clearly disproportionately affects African Americans in an election similar to 2008.

Introduction:

Several current and upcoming decisions on curtailing early in-person voting (EIP) in Ohio in the General Election of 2012 rest on an important unstated assumption: that EIP voters are no different in racial composition than "non-EIP" voters who voted either absentee (mail-in) or on election day. If this assumption is true, then curtailing early voting would affect the entire electorate equally, imposing an equal loss of voting opportunities on all racial voter groups. On the other hand, if it were found that EIP in 2008 was disproportionately used by one racial group, such as African-Americans, then the new restrictions would in effect disproportionately limit voting times in 2012 that were clearly heavily utilized by one class of citizens. Indeed, in the Florida 2008 election 22% of EIP voters were African-American whereas African Americans were only 9% of non-EIP voters (Miller & Herron, 2012). Also, a study using ZIP codes to estimate racial proportions found that about 59 or 65% (depending on the method) of total EIP voters in Cuyahoga 2008 were likely to be African American, in a county with a 28% adult African American population (Robbins, 2012).

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The questions we address

The debate on whether or not to curtail EIP is going on local and state levels (Weiser & Norden, 2011). At the state level in Ohio, contested but passed legislation now bans EIP in the formerly used 3 days before election day and also after 6 p.m. on the Friday before elections. Was this 3-day+ period used disproportionately by African Americans in 2008?

At the Cuyahoga County level, the Board of Elections of Cuyahoga County (CCBOE) reached a split decision on whether or not to maintain weekend and after-hours weekday EIP as used in 2008 and subsequent elections. The Ohio Secretary of State broke the tie in favor of cutting voting opportunities in part because, as he states, he wanted consistency between counties in early voting hours. However, if this consistency disproportionately and negatively affects African Americans in Cuyahoga County in 2012, then it is creating another kind of inconsistency, which could very well differentially affect all Ohio counties with substantial African American populations. The question, then, is whether the specific newly-eliminated hours (4 weekends and after CCBOE business hours on weekdays) would disproportionately affect African Americans in 2012 based on the experience of 2008.

Finally, some claim that the reason for so many African Americans appearing to vote EIP, especially on weekends, was the mobilization effort undertaken by African American churches and other organizations especially on weekends. If so, there should be disproportionate voting by African-Americans on weekends compared to other early voting periods (i.e., weekdays or weekday-extended hours). In order to answer these questions more definitively and in more detail than in a previous brief report (Robbins, 2012), data sets of all individual EIP and non-EIP voters, supplied by the CCBOE and including dates and hours of individual voting, were geocoded at the census block level, to estimate racial/ethnic proportions of EIP voters in Cuyahoga County in the General Election of 2008.

Methods:

Two data bases supplied by the CCBOE were used in this study: a list of all voters in the 2008 election, with names, addresses and identity number; and a list of all early in-person voters with the same information but also including the day and hour on which they voted. Duplicate entries were eliminated in both data bases, and then data on the EIP voters were added to the all-voter database to create a single database of voters, including day and time of voting for the EIP voters. The EIP data were also sorted according to groups voting in different time periods, as described in Results.

In order to estimate racial likelihood of any voter, the voter's address was geocoded to the census block level, and the 2010 census data on racial proportions of each block were used to determine the likelihood of the voter being African American, white, or Hispanic (mixed racial results were excluded). A key assumption in this analysis is that voting by different racial/ethnic groups in any census block was proportionate to their demographic proportions in that block. For instance, if a voter's address geocoded to a census block with a census population that was 75% black and 25% white, that voter was considered to have a 75% probability of being black and a 25% probability of being white. The cumulative probabilities of being black or white in all EIP or non-EIP voters were averaged and used for statistical comparisons between subgroups.

The mean estimated percentages by race/ethnicity for any voting period were tested against one another using Tukey's Studentized range test, and results were considered significant if $p < 0.05$. Also, a correlation analysis, as described in Results, between percentage of any racial/ethnic group

and likelihood of being in one of the voting groups, was conducted using Pearson Correlation Coefficients.

Results:

1. Overall comparison of racial proportions, EIP vs. non-EIP voters:

In 2008, EIP included 4 types of early voters during the 35 day period before election day: 1) voters from the Friday at 6 p.m. prior to Tuesday election day through the weekend and Monday; 2) voters on 4 weekends before the final weekend; 3) voters during regular BOE business hours prior to Friday at 6 p.m. before the election; and 4) voters during extended weekday hours, usually from 4:30 pm to 7 p.m. The numbers of voters in these groups, available in corrected data sets from the Cuyahoga BOE (see Methods), and percentage of the entire electorate, are given in Table 1.

Table 1: Numbers of voters in different categories, and percentages of all votes cast

Grouping of voters	Number in group ²	Percent of all votes cast
EIP: 3 days before election day and after 6 p.m. preceding Friday*	10,766	1.64%
EIP: business hours	26,186	3.98%
EIP: 4 weekends [^]	7,121	1.08%
EIP: weekdays, after hours [^]	7,241	1.10%
Election Day	606,965	92.20%

*Eliminated for 2012 election by HB 224.

[^]Also to be eliminated in 2012 if current tie vote and Sec of State tie-break is sustained

EIP votes made up 7.8% of all votes cast in Cuyahoga County in 2008, and nearly half (3.8%) were cast on days and hours that either are or may be eliminated in 2012.

When all 4 EIP groups were pooled, the results (Table 2) showed that 56.4% of voters in the EIP group were African-American whereas African Americans were only 25.7% of the non-EIP electorate. The reverse racial proportions were seen in the white population where 69.4% of the non-EIP voters and 39.0% of the EIP voters were estimated to be white.³ In other words, EIP voting was disproportionally used by African Americans and disproportionately less used by white voters, in both cases in comparison to the percentages of both groups that voted by mail or on election day (non-EIP). These differences in the proportions of EIP voters and non-EIP voters were statistically significant at the 95% confidence level or greater for both racial groups.

A consequence of so many African Americans voting EIP was that an estimated 15.6% of all votes cast by African Americans were EIP vs. 4.5% of all votes cast by whites.

²More than 99 percent of voters' addressees were associated with census blocks in the county. Thus the complete number of voters supplied by the CCBOE was about 1% greater.

³ Though the 2010 Census provided for multiple race association of persons, the one race categories are used in this analysis. Approximately 1.3% of voting age persons in the county identified multiple races for themselves.

Hispanics tended to vote on election day or by mail rather than in early in-person voting, although the differences in voting pattern was small.

Table 2. Racial/ethnic proportions of all EIP vs. all non-EIP voters

Race-Ethnicity	All EIP Voters, 2008	All Non-EIP voters (VBM + election day), 2008
African-American	56.4%	25.7%
White	39.0%	69.4%
Hispanic	2.6%	3.3%

The results in Table 2 for African-American voting patterns can be readily visualized in a county map showing the percentage of early voting by all groups (in census blocks) and another showing percentage of African Americans living in those census blocks (Figures 1 and 2).

2. Comparison between sub-groups voting EIP in different time periods, and comparison with the non-early voting electorate:
 - a. EIP voters during the 3 days before election (and after 6 p.m. on Friday) were disproportionately more African American than those not voting EIP (Table 3). This time period for early voting was eliminated for 2012 by HB224 and Sec. of State Directive 2012-26.

Table 3. Racial/ethnic proportions of EIP voters during the 3 days+ before election day vs. all non-EIP voters

Race-Ethnicity	All EIP Voters, 3 days+ before election day, 2008	All Non-EIP voters (VBM + election day), 2008
African-American	58.9%	25.7%
White	36.1%	69.4%
Hispanic	2.8%	3.3%

- b. Use of weekends and extended weekday early voting hours, i.e. hours at the discretion of the CCBOE, and regular business hours. Those voting early during regular business hours are not currently subject to change. From Table 4, it is clear that ALL these subgroups of EIP voters, regardless of which hours or days are considered, had similar proportions of white and black voters, and again show a two-fold disproportionate participation of black voters in EIP voting compared to non-EIP voting.

Table 4. Racial/ethnic proportions of EIP voters during specified periods other than the 3 days+ before election day vs. all non-EIP voters

Race-Ethnicity	4 weekends before last weekend	After-hours weekdays	Early, during regular business hours	All Non-EIP voters (VBM +election day), 2008
African-American	56.3%	53.6%	55.9%	25.7%
White	39.1%	41.0%	39.5%	69.4%
Hispanic	2.3%	2.7%	2.6%	3.3%

3. Correlation analysis of EIP voting with race and Hispanic/Latino ethnicity by census block

Another way to view the likelihood of voting by African Americans or whites in either EIP or non-EIP periods, is to analyze the strength of statistical correlation, at the census block level, between percentages voting in the different periods of EIP and non-EIP voting and percentages of voting age population that are white and black. Correlation coefficients range from +1 to -1. A large positive correlation coefficient indicates a high positive association between when voters voted and their race, i.e., that those in that race more likely voted during that period.⁴ A negative correlation indicates that those in that race were less likely to vote in that period.

Table 5. Pearson correlation coefficients of likelihood of when voting occurred

	3 days before election day +preceding Friday after 6 p.m.	EIP: regular business hours	EIP: weekdays, off-hours	EIP: 4 weekends prior to last before election day	EIP: first 5 weekdays, after hours
African American	0.34	0.46	0.23	0.27	0.09
White	-0.34	-0.45	-0.23	-0.26	-0.09

All the correlations in Table 5 are statistically significant at the 99 percent confidence level or greater. Positive and strong correlations were found for African-American voting during all EIP groups, except for a far weaker correlation during the off-hours of the first 5 week-days of EIP. This group was analyzed separately in this table because it was proposed by one BOE member as the only extra hours of EIP that might be maintained. The finding that the correlation with African American voting was greatest during regular EIP business hours indicates that African American favored and utilized all available EIP hours, whereas white populations were far less likely to vote EIP, regardless of days or hours available.

⁴ We assume that the probability of a voter's race is proportionate to the percentage of voting age population of that race in the census block in which they live.

Discussion:

By any measure, the key finding of this study was that early voting in Cuyahoga County in 2008 was disproportionately favored and used by African Americans, in almost twofold their participation in non-EIP voting. This disproportion prevailed in every early in-person time period chosen for analysis, and was readily seen on maps of EIP voting and African-American census blocks. If the same pattern were to hold in 2012, then the elimination of EIP voting by state law HB224 will disproportionately affect the African American voting age population in Cuyahoga County and most likely in other urban counties with large African-American populations. By the same token, the recent tie vote by the CCBOE and tie-breaker by the Secretary of State, eliminating EIP voting during 4 weekends and after-hours weekdays, also unequally affects African-Americans (as opposed to white and Hispanic voters, who are disproportionately less affected).

An interesting secondary finding was that the high percentage of African-Americans using EIP prevailed both during regular BOE business hours and during all other EIP periods. This uniformity suggests that increased African-American participation was not due to special bussing or mobilization on weekends or after-hours, but rather to a uniform proclivity of African-Americans to vote in person, using all opportunities to do so.

As noted in the introduction, one argument for reducing early in-person voting hours was that there are ample hours for early voting between regular BOE hours and vote-by-mail. However, in the 2008 election, many African Americans in Cuyahoga County who had these options, still chose to vote disproportionately in the 3 days before election day and during extended hours and weekends. Indeed, nearly half of their in-person early votes were cast during these hours. Therefore, taking away these hours in 2012 clearly could disproportionately reduce access to voting by African Americans in Cuyahoga County. It is not an across-the-board ban that affects all voters equally. BOEs make all sorts of accommodations to reduce barriers for other groups – disabled, Hispanic, etc. – but it is peculiar that in Cuyahoga County, this one group is in effect restricted more than others. One can ask whether this provides a consistent set of policies accommodating different groups of voters within Cuyahoga County.

An argument for eliminating extra EIP voting put forth by the Ohio Secretary of State (see references) is that it makes early voting hours less costly to BOEs and more consistent across all 88 counties. Yet this consistency in fact imposes an unequal burden or a different type of inconsistency on Ohio's voters, which varies from county to county. In a study of racial profiles for EIP voting in Florida's 2008 General Election (Miller & Herron, 2012), disproportionate use of EIP by African Americans was found in a statewide compilation, almost certainly reflecting results from at least several racially diverse counties. Therefore, it is likely that the present results for Cuyahoga County will pertain to at least some other Ohio counties. Of the 13 Ohio counties where more than 100,000 votes each were cast in 2008, 5 have African American voting age populations of 18-28% of the adult population, whereas 4 have only 3 to 7% adults who are African Americans (Item 1, Appendix). Voters in the first group of counties will be strongly affected by the so-called consistent rule eliminating extended hours, whereas the effect on voters in the second group of counties is much less likely to have any substantial race-specific consequence. Thus, it appears that "consistency" in restricting EIP voting hours could lead to a serious inconsistency in restricting voting opportunities for one racial group.

The Secretary of State has also argued that "there is sufficient time already available during the Cuyahoga County board's regular business hours for the casting of absent voters' ballots in

person." (Husted, 2012). However, in 2008, African Americans strongly utilized EIP, and therefore it is likely that if extended hours and weekends are removed, African Americans, rather than turning to vote by mail (which was also available to them in 2008), may choose to vote in-person at the BOE. However, because of the new restrictions, they would likely confront even more crowded conditions in attempting to vote during regular business hours at the BOE than those of the normally busy last week before the election. Numbers of votes per hour during regular business hours in this last week could conceivably double, from 366 votes/hour (2008) to 723/hour (See calculation, item 2, Appendix). This crowding of voting facilities would undoubtedly lead to long waits of several hours, as it did in 2008 during the last weekend, when at several times, rates of over 700 votes per hour were recorded. However, because long waits would occur on week-days, when jobs, family care, and transportation time are competing priorities, many such voters might abandon this attempt to vote. In sum, the elimination of days and hours for EIP in 2012 could lead to crowded conditions during regular BOE business hours, in contrast with Sec. Husted's assumption that there will be sufficient time available during these hours. This would constitute both an impediment to voting, especially by African Americans, and a large burden on the BOE staff and resources.

In any event, it is clear that in 2012, early in-person voting opportunities, many now slated for removal, will be important in providing access for African Americans to the democratic process of elections.

References:

Husted, J. (2012) Ohio Secretary of State Jon Husted decides against extended hours for in-person absentee voting. Cleveland Plain Dealer, July 13, 2012, available at: http://www.cleveland.com/metro/index.ssf/2012/07/ohio_secretary_of_state_jon_hu.html
Quote from that article:

In a letter sent Friday to Jane Platten, director of the Elections Board, Husted wrote: "I cannot create unequal access from one county board to another, but I must also keep in mind the resources available to each county. The reality is that local boards are operating under tight budget constraints on a day-to-day basis under their normal business hours. There is sufficient time already available during the Cuyahoga County board's regular business hours for the casting of absent voters' ballots in person."

Robbins, N. (2012) Racial representation of early in-person voters in Cuyahoga County, 2008 General Election. Submitted May 13, 2012 and placed in the record of the U.S. Senate Judiciary Subcommittee on the Constitution, Civil Rights and Human Rights, in relation to the Subcommittee's Field Hearings in Cleveland on May 7, 2012. In press.

Smith, D. & Herron, M. (2012) Testimony before the United States Senate Committee on the Judiciary Subcommittee on the Constitution, Civil Rights and Human Rights "New State Voting Laws II: Protecting the Right to Vote in the Sunshine State"
January 27, 2012 <http://www.dartmouth.edu/~herron/HerronSmithTestimony.pdf>
Data presented here calculated from numbers in their Graphic 1 (not including one error re: Hispanic voters).

Weiser, W.R. & Norden, L. (2011) Voting law changes in 2012. Brennan Center for Justice. Available at: http://brennan.3cdn.net/a42d9fb1d3d4bb2f4a_40m6bji7n.pdf

Appendix:**Item 1. Percent of African-Americans 18 years and older in Counties where voters cast over 100,000 votes in 2008**

County	Votes cast in 2008	% African-Americans 18 years & older
Cuyahoga	672,750	28
Franklin	564,971	20
Hamilton	429,267	24
Summit	280,841	13
Montgomery	280,746	20
Lucas	221,905	18
Stark	189,796	7
Butler	175,132	7
Lorain	148,218	8
Mahoning	128,914	14
Lake	122,793	3
Trumbull	108,441	8
Warren	106,951	4

Item 2. Calculation of potential crowding during regular business hours at the CCBOE in the last week before election, given the elimination of after-hours and last-3-days voting in 2012: i.e., what would be the effect on crowding during business hours if voters who in 2008 cast their ballots during now excluded hours (last 3 days before election, weekdays 4:30-7 pm except the Friday before election) were to show up and vote during regular business hours?.

Using the CCBOE's hourly tabulation of EIP votes in 2008 (in which numbers were somewhat greater than those in our corrected databases), there were about 14,800 votes cast after 4:30 p.m. Mon-Thurs. and during the next 3 days before the election, i.e. at hours slated to be eliminated in the 2012 election (In making this calculation, it was assumed that half the votes cast from 4:00 to 5:00 p.m. were cast after 4:30 p.m.). During business hours (8 to 4:30) of the last full week and through 6+ p.m. Friday before the election, about 15,200 votes were cast, or about 366 per hour. If one added the 14,800 votes cast in hours now to be excluded to the number of votes already cast during business hours in the last week, 723 votes per hour would be cast during regular business hours (including Friday through 6 pm).

Figure 1

When Votes Were Cast in the 2008 General Election Cuyahoga County, by Census Block

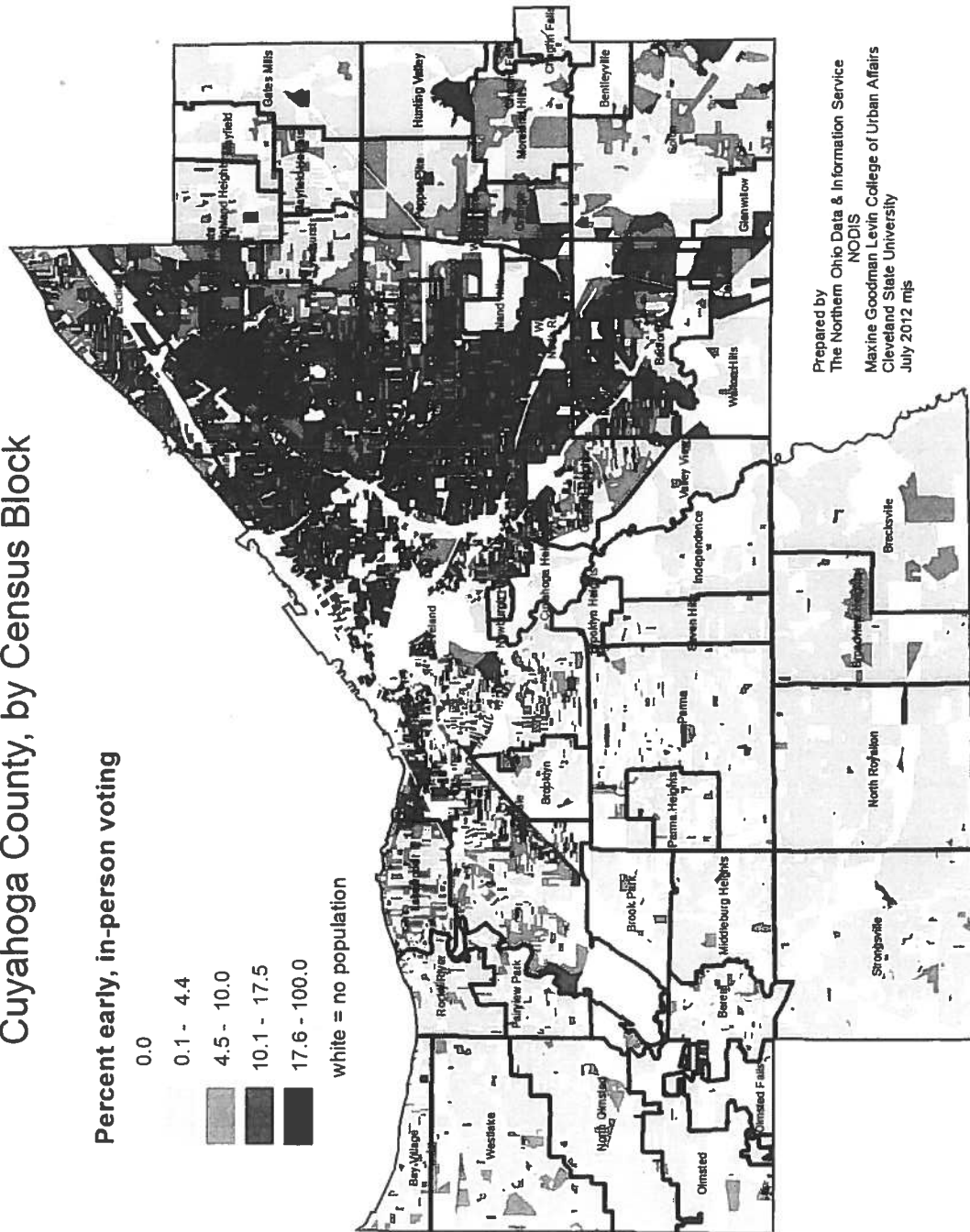


Figure 2

