



STATE BOARD OF ELECTIONS

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April 2013 SBOE-DMV ID Analysis

In order to determine how many registered voters have a North Carolina driver license or special non-operator's identification card (hereinafter "ID card"), the State Board of Elections (SBOE) compared the statewide voter registration database system with the North Carolina Department of Motor Vehicle (NCDMV) customer database. This report summarizes this analysis and presents findings to show the total number of registered voters for whom the SBOE believe will have access to a NCDMV-issued photo ID and the remaining total number of registered voters for whom the SBOE are unable to confirm have a NCDMV-issued photo ID.

This April 2013 DMV ID analysis supplants our January 7, 2013 analysis and its March 5, 2013 supplemental report. The SBOE prepared these analyses as a result of various legislative and media inquiries concerning the possible number of registered voters who may not have NCDMV-issued photo identification. As the title of our reports show, these analyses were only intended to compare the voter registration database against the NCDMV's full customer database and were never intended to be a comprehensive *study* on the number of voters who may not have *any* photo ID, regardless of source. At the recent request of legislative leaders and staff, this agency is updating our earlier analysis to: (1) reflect the reduction of the total number of registered voters through list maintenance procedures in the statewide voter registration database since January 1, 2013¹ and (2) apply additional matching criteria to the analysis in order to determine the most accurate estimate on the number of voters for whom we cannot determine to have a photo ID issued by the North Carolina Department of Motor Vehicles.

Methodology

In order to perform its analysis, SBOE used database queries to match the entire statewide voter registration database against the NCDMV'S full customer database.

NCDMV Database

SBOE obtained a bulk file of the NCDMV's full list of customers as of March 22, 2013. This bulk file consisted of a total of 12,380,444 NCDMV records for customers who had either been issued a North

¹ Between January 1, 2013 and March 25, 2013, the total number of registered voters decreased from 6,624,672 to 6,425,820 because as is required by statute following a general election, county boards of elections began removing voters from the voter rolls who had remained in *inactive* status for two general elections.

Carolina driver license or special ID card. The file data included licenses and identification cards that were in active, inactive, cancelled, suspended, revoked and deceased statuses. The following fields were in the NCDMV bulk file:

1. First name
2. Middle name
3. Last name
4. Suffix
5. Address 1
6. Address 2
7. City
8. State
9. Zip
10. Birth date
11. Customer number
12. License Group Code
13. License Class Code
14. SSN-Last-4-digits
15. Driver status code

State Board of Elections Database

The State Board of Elections downloaded a snapshot of the data in the State Elections Information Management System (SEIMS) on March 25, 2013. SEIMS refers to North Carolina's statewide voter registration database system. Pursuant to G.S. § 163-82.12, the statewide voter registration system is used to:

. . . to facilitate voter registration and to provide a central database containing voter registration information for each county. The system [] serve[s] as the single system for storing and managing the official list of registered voters in the State. The system [] serve[s] as the official voter registration list for the conduct of all elections in the State.

SBOE downloaded two comprehensive data files from SEIMS: (1) The total number of voters registered in the state as of March 25, 2013, consisting of 6,425,820 records; and (2) the total number of voters, irrespective of voter status, with voter history in the 2012 general election, consisting of 4,544,014 records. "Registered" voters are voters who are qualified and eligible to vote in an election. Their voter status in the database is either *active* or *inactive* voters.² In North Carolina, once a person's voter registration application is processed, the person becomes an *active* voter and remains an *active* voter unless there is some intervening event that changes the voter's registration status. Subsequent to being initially registered and made an *active* voter, a voter's registration status may change to: (1) *denied*; (2) *removed*; or (3) *inactive*.

- *Denied*: A voter's registration may be denied if the county determines that the person is not qualified to vote based on age, citizenship, residence or conviction of a felony. Once a voter

² There are also voters who have a voter status of *temporary* in the voter registration database. *Temporary* voters are those military and overseas citizens who registered to vote using a Federal Postcard Application (FPCA) or Federal Write-in Absentee Ballot (FWAB) under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) and according to state law, their registration will expire at the end of the calendar year they submitted their FPCA or FWAB. *Temporary* registrants are not included in the SBOE's analysis.

votes and receives voter history for an election, their registration may no longer be denied, if it is later found that the person is not qualified to vote at the address given.

- *Removed*: A voter can be removed from the voter lists if it is found that the voter is no longer qualified to vote or the voter chooses to be removed. There are various reasons why a voter may need to be removed. These reasons include: death, notification of a move out of the county, registering in another county or state, conviction of a felony, duplicate registration, a request by the voter, a sustained challenge, or voter inactivity after two federal general elections. A voter may also be removed if it is determined that the voter is a legal presence customer with NCDMV and subsequent follow up with the voter indicates that the voter is not a U.S. citizen.
- *Inactive*: A voter's status can change to *inactive* if at any point after the person's initial registration is verified by mail³ the voter later fails to receive a subsequent verification mailing. Put simply, the *inactive* status is an administrative distinction that alerts a county board of elections to the fact that there is some issue with a registered voter's address. There are various reasons why a registered voter may receive a subsequent verification mailing:
 - Voter Change: If a voter requests a change in name, address or party affiliation, the voter will be sent a new voter card to provide the voter with notice that the change has been made. A voter card is a non-forwardable verification mailing. If it is returned undeliverable in this case, then the voter will be sent a forwardable confirming mailing. The voter must then respond to the confirmation notice within 30 days of its mailing. If the voter does not respond within this time, then the voter's status will be changed to *inactive*.
 - Administrative Mailing: County boards of elections may send administrative notices advising voters of polling place, redistricting, or county GIS address changes. These administrative changes are normally sent as updated voter cards, thus they are verification mailings. If these mailings are returned undeliverable, then the voter will be sent a forwardable confirming mailing. The voter must then respond to the confirmation notice within 30 days of its mailing. If the voter does not respond within this time, then the voter's status will be changed to *inactive*.
 - National Change of Address (NCOA): County boards will send a notice to any voter that appears to have updated their address with the U.S. Postal Service. The voter is asked to respond to a NCOA mailing within 30 days of its mailing. If the voter does not respond to a NCOA mailing, then the voter will then be sent an address confirmation notice which too must be responded to within 30 days of its mailing. Failure to respond to an address confirmation mailing will cause the voter's status to be changed to *inactive*.
 - No Contact: If a county board of elections has not had any direct contact with a voter over two general election periods (the voter has not voted, updated their address, signed a petition, ran for office, worked as a poll worker, etc.), then the county board will send the voter a "no-contact" mailing. The no-contact mailing is

³ A voter's registration is "verified" by mail when the non-forwardable voter card is sent to the voter and it is not returned as undeliverable by the postal service after at least 15 days of its mailing.

simply a voter card – the non-forwardable verification mailing. If these mailings are returned undeliverable, then the voter will be sent a forwardable confirming mailing. The voter must then respond to the confirmation notice within 30 days of its mailing. If the voter does not respond within this time, then the voter's status will be changed to *inactive*.

If a county board of elections does not have contact with an *inactive* voter through two federal general election cycles, then the voter will be *removed* from the voter lists. In many instances, cards are not returned even when the addressee no longer resides at the address because the voter has moved or died. The current resident may throw the mailing away instead of placing the voter's notice back into the mail with a return to sender notation. The mail carrier, due to personal knowledge of the addressee may not even attempt delivery of certain mailings. In these instances, a county board will not receive the necessary information that a mailing did not reach the intended voter or just as important, they will not receive notification that the mail was undeliverable. In these cases, the voter will remain an *active* voter because the county board did not receive notice that the mail was undeliverable. These situations account for how the voter lists may have voters who are no longer qualified due to death or change in residence.

The voters' data records downloaded included the following fields:

1. First name
2. Middle name
3. Last name
4. Suffix
5. Residential⁴ street number
6. Residential street name
7. Residential street type
8. Residential street prefix/direction
9. Residential street suffix/direction
10. Residential city
11. Residential zip code
12. Date of birth
13. NCDMV driver license number or identification number
14. SSN – last 4 digits

Matching Criteria

In order to determine the voters who appear to have a NCDMV-issued photo ID, the SBOE used database queries to compare voter records with records in the NCDMV customer database. SBOE used matching queries in the order that follows:

1. Exact first and last name and driver's license number
2. Exact first and last name and social security number
3. Similar first name using a Soundex⁵ comparison, exact last name, and driver's license number
4. Similar first name using a Soundex comparison, exact last name, and social security number

⁴ North Carolina voter records include residential address data and mailing address data.

⁵ Soundex matching refers to using a phonetic algorithm for indexing names by sound.

5. Exact first name, similar last name using a Soundex comparison, and driver's license number
6. Exact first name, similar last name using a Soundex comparison, and social security number
7. Driver's license number and similar first and last names using Soundex Comparisons
8. Driver's license number and date of birth
9. Driver's license number, street address, and zip code
10. Driver's license number and street address
11. Driver's license number and zip code
12. Driver's license number and exact last name
13. Driver's license number and exact first name
14. Driver's license number and similar last name using a Soundex comparison
15. Driver's license number and similar first name using a Soundex comparison
16. Driver's license number
17. Social security number, date of birth, street address, and zip code
18. Social security number, date of birth, and street address
19. Exact first and last name, date of birth, address, zip
20. Soundex first name, exact last name, date of birth, address, zip
21. Exact first and last name, date of birth, zip
22. Soundex first name, exact last name, date of birth, zip
23. Exact first and last name, date of birth
24. Soundex first name & exact last name, date of birth
25. Exact last name, date of birth, zip
26. Soundex last name, date of birth, zip
27. Social security number, date of birth, and zip code
28. Social security number, street address, and zip code
29. Social security number and street address

Using these queries, as voters were matched with records in the NCDMV database, their records were removed from further queries, and only the remaining unmatched SBOE records were used in subsequent queries.

Consistency with Prior Analyses

In February 2011 and January 2013, the SBOE conducted similar comparative analyses of the voter registration and NCDMV customer databases. These earlier analyses were prepared as a result of various inquiries that the SBOE received from legislative leaders, legislative staff and members of the media. In these earlier analyses, this agency used the usual and customary procedures that we have adopted in our list maintenance efforts. In order to identify voters who may need to be removed from the voter lists because they are no longer qualified (due to removal out of the county, death, felony conviction, etc.), it has been our usual practice to only identify *exact* name matches for the county boards, thus in 2011 and early 2013, the only matching criteria used was: (1) exact first name, last name and NCDMV customer number; (2) exact first name, last name and the last four digits of a SSN; (3) exact first name, last name and date of birth; and (4) NCDMV customer number and date of birth. With this April 2013 analysis, the SBOE is expanded its matching criteria to allow for additional variation in voters' names and data entry errors on driver license number, social security number or date of birth in either of the databases.

Matching Results

After 29 separate relational queries, the SBOE was able to match over 95% of the voters in the voter registration database as of March 25, 2013 and almost 97% of those voters who participated in the 2012 general election with customers in the NCDMV database. A total of 5,185,085 voters, or 81% of registered voters could be matched on an exact match of the voters' first name, last name and NCDMV customer number. Comparably, 83% of those who participated in the 2012 general election were matched with NCDMV customers based on this exact matching criterion. Subsequent queries using other criteria permitted the SBOE to further reduce the number of voters who could not be matched with customers in the NCDMV database. The total number of registered voters for whom the SBOE could not match with the NCDMV database is 318,643 and the total number of voters with voter history in the 2012 general election for whom the SBOE could not match is 138,425.

Table 1: Results of SBOE Matching Analysis of the Voter Registration and NCDMV Customer Databases

Matching Criteria	Total Registered	Remaining Unmatched	2012 General Voter History	Remaining Unmatched
	Total Matched		Total Matched	
	6,425,820		4,544,014	
1. Exact first and last name and NCDMV customer number	5,185,085	1,240,735	3,769,074	774,940
2. Exact first and last name and social security number	23,166	1,217,569	30,897	744,043
3. Similar first name using a Soundex comparison, exact last name, and NCDMV customer number	24,317	1,193,252	20,983	723,060
4. Similar first name using a Soundex comparison, exact last name, and social security number	4,634	1,188,618	2,856	720,204
5. Exact first name, similar last name using a Soundex comparison, and NCDMV customer number	11,972	1,176,646	7,767	712,437
6. Exact first name, similar last name using a Soundex comparison, and social security number	2,303	1,174,343	1,244	711,193
7. NCDMV customer number and similar first and last names using Soundex Comparisons	242	1,174,101	150	711,043
8. NCDMV customer number and date of birth	91,395	1,082,706	49,846	661,197
9. NCDMV customer number, street address, and zip code	9	1,082,697	9	661,188
10. NCDMV customer number and street address	0	1,082,697	0	661,188
11. NCDMV customer number and zip code	214	1,082,483	142	661,046
12. NCDMV customer number and exact last name	29	1,082,454	15	661,031
13. NCDMV customer number and exact first name	47	1,082,407	32	660,999
14. NCDMV customer number and similar last name using a Soundex comparison	0	1,082,407	0	660,999
15. NCDMV customer number and similar first name using a Soundex comparison	0	1,082,407	0	660,999
16. NCDMV customer number	77	1,082,330	61	660,938
17. Social security number, date of birth, street address, and zip code	306	1,082,024	180	660,758
18. Social security number, date of birth, and street address	1	1,082,023	1	660,757
19. Exact first and last name, date of birth, address, zip code	19,131	1,062,892	14,762	645,995
20. Soundex first name, exact last name, date of birth, address, zip code	1,480	1,061,412	1,128	644,867
21. Exact first and last name, date of birth, zip code	542,127	519,285	402,915	241,952
22. Soundex first name, exact last name, date of birth, zip code	30,754	488,531	22,499	219,453
23. Exact first and last name, date of birth	104,580	383,951	40,583	178,870
24. Soundex first name & exact last name, date of birth	6,319	377,632	1,891	176,979
25. Exact last name, date of birth, zip code	42,463	335,169	30,250	146,729
26. Soundex last name, date of birth, zip code	11,908	323,261	6,070	140,659
27. Social security number, date of birth, and zip code	4,562	318,699	2,204	138,455
28. Social security number, street address, and zip code	56	318,643	30	138,425
29. Social security number and street address	0	318,643	0	138,425
Total Voters for Whom No NCDMV Record Could be Identified		318,643		138,425

Factors Which Affected Ability to Match Records

There are various factors that affected the SBOE's ability to match voter records with records in the NCDMV database. First, out of the more than 6.4 million registered voter records analyzed, 1,107,104 voters did not have a NCDMV number recorded in their voter record. 64% of these voters registered prior to 2004, or prior to the time that federal law first required States to request an ID number from voter registration applicants.⁶ Without a NCDMV-issue number on a voter's record, the SBOE needed to use alternative matching criteria to determine if these voters have a license or ID card issued by NCDMV. Further, in some cases, there was a driver license or ID card number available on a voter's record, but the record could not be matched with a NCDMV record using exact matching criterion on the person's name and ID number. It is possible that the number may have been transposed by the voter when the application was completed or it may have been entered incorrectly by a county board of elections when the application was processed. Thus, in addition to exact matching criteria, the SBOE also used alternative methods to identify matched records in both the voter registration and NCDMV database. Queries were made using various combinations of name fields, date of birth data, and SSN data to attempt to match voter records with NCDMV records.

In addition to the lack of ID information or inaccurate ID information on a voter's record, name variations in both databases also affected the ability to match data records. Like incorrect ID information, these inaccuracies can be attributed to mistakes made by the voter when completing their application or data entry errors made by county boards when processing voter registration forms or NCDMV examiners when entering or updating customer information. Name variances are also attributable to voter name changes based on marriage or divorce, when the voter updates the name change with one agency, but fails to update the change with the other agency. Name discrepancies are also based on voters inconsistently using hyphenated names, intermixing their first and middle names as a full first name, or using abbreviated forms of their first name.

Finally, it is also possible that voters in the database could not be matched with NCDMV records because the voter is no longer qualified to vote in North Carolina. These voters may have since died or moved from this state. Our analysis found that 63,483 – almost 20% -- of the unmatched registered voters are in *inactive* status, which means that their county board of elections is unsure of these voters' current address. The SBOE also found that 10,853 -- 3.4% -- of the unmatched registered voters have a legacy date of birth on their voter registration record. Voters who registered prior to the implementation of the statewide voter registration database system⁷ and for whom the county board of elections had no record of their full date of birth, were given a date of birth in the SEIMS system of 01/01/1900. The inability of SBOE to match some of these older voter registration records with records in the NCDMV database may be an indication that these voters are no longer qualified to vote, but without information confirming their ineligibility,⁸ their county board of elections cannot remove these voters' names from the voter lists.

⁶ The Help America Vote Act (HAVA) of 2002 requires first time registrants to provide identification information at the time they submit their voter registration form, in order to avoid being required to show ID the first time they present to vote. This law, which was implemented in North Carolina in 2004, mandated that fields for a driver license number and social security number be added to voter registration applications. The state's first official voter registration form was introduced in 1993 that included an optional field for an applicant to provide their driver license number. The term "optional" was removed from this state's voter registration form in 2004 with the implementation of the HAVA.

⁷ North Carolina developed its statewide voter registration database system – SEIMS – following implementation of the National Voter Registration Act (NVRA) of 1993. All 100 counties were not added to the system until 2005.

⁸ County boards of elections routinely receive reports that permit them to remove voters who have moved, died or been convicted of a felony. When comparing the data on these reports to voters in the county database, an accurate date of birth is crucial for purposes of identifying individuals who are no longer qualified to vote.

Another indicator that these unmatched voters may no longer be qualified to vote is the fact that many of these individuals are not voting or participating in the elections process. The chart below shows that over one-third of the registered voters that could not be matched with the NCDMV database have not voted in the past five general elections.

Table 2: Voter History for Registered Voters for whom a NCDMV Match could not be Identified

Unmatched Registered Voters	Count
Did not vote in last General Election ⁹	182,121
Did not vote in last two General Elections	171,736
Did not vote in last three General Elections	137,189
Did not vote in last four General Elections	130,115
Did not vote in last five General Elections	115,291

With NVRA, states are not permitted to remove voters or “purge” the voter lists based on a voter’s failure to vote in a general election. Instead, if a county board of elections has not had any direct contact with a voter over two general election periods (the voter has not voted, updated their address, signed a petition, run for office, worked as a poll worker, etc.), then the county board may send the voter a “no-contact” mailing. The no-contact mailing is simply a voter card – the non-forwardable verification mailing. If these mailings are returned undeliverable, then the voter will be sent a forwardable confirming mailing. The voter must then respond to the confirmation notice within 30 days of its mailing. If the voter does not respond within this time, then the voter’s status will be changed to *inactive*. However, if the initial no-contact mailing is not returned by the postal service, then the voter will remain an *active, verified* voter. These no-contact mailings are sent to voters’ last known address, but if a voter has since moved or passed away, and the postal carrier delivers that voter’s card to the current residents of the address, and the current residents do not place the voter card back into the mail stream, then the voter’s card will not be returned as undeliverable and the county board of elections will not have any indication that the voter may no longer be qualified to vote.

⁹ A general election is conducted every even-numbered year.

Statistical Reports

The tables below show demographic information on the voters for whom the State Board of Elections could not identify a NCDMV ID match

Comparison of Total Registered Voters against NCDMV Database

	DEM	LIB	REP	UNA	Grand Total
ACTIVE	142,632	991	54,700	56,837	255,160
INACTIVE	33,459	135	12,939	16,950	63,483
Grand Total	176,091	1,126	67,639	73,787	318,643

	DEM	LIB	REP	UNA	Grand Total
ASIAN	1,590	17	483	1,977	4,067
BLACK or AFRICAN AMERICAN	91,927	126	2,549	13,079	107,681
INDIAN AMERICAN or ALASKA NATIVE	2,693	12	424	644	3,773
OTHER	3,417	47	1,278	2,921	7,663
TWO or MORE RACES	2,269	46	447	1,621	4,383
UNDESIGNATED	6,642	78	1,866	9,877	18,463
WHITE	67,553	800	60,592	43,668	172,613
Grand Total	176,091	1,126	67,639	73,787	318,643

	DEM	LIB	REP	UNA	Grand Total
FEMALE	116,424	555	43,721	42,014	202,714
MALE	56,829	535	22,920	26,429	106,713
UNDESIGNATED	2,838	36	998	5,344	9,216
Grand Total	176,091	1,126	67,639	73,787	318,643

Comparison of Voters with Voter History in 2012 General Election against NCDMV Database

	DEM	LIB	REP	UNA	Grand Total
ACTIVE	78,736	508	29,416	25,723	134,383
DENIED	2	0	0	0	2
INACTIVE	1,293	9	310	507	2,119
REMOVED	761	5	351	378	1,495
TEMPORARY	216	5	37	168	426
Grand Total	81,008	527	30,114	26,776	138,425

	DEM	LIB	REP	UNA	Grand Total
ASIAN	770	11	203	891	1,875
BLACK or AFRICAN AMERICAN	43,840	62	661	4,698	49,261
INDIAN AMERICAN or ALASKA NATIVE	1,016	6	130	150	1,302
OTHER	1,211	21	452	926	2,610
TWO or MORE RACES	964	30	182	639	1,815
UNDESIGNATED	2,913	36	814	3,553	7,316
WHITE	30,294	361	27,672	15,919	74,246
Grand Total	81,008	527	30,114	26,776	138,425

	DEM	LIB	REP	UNA	Grand Total
FEMALE	53,141	247	17,436	14,439	85,263
MALE	26,684	261	12,262	10,509	49,716
UNDESIGNATED	1,183	19	416	1,828	3,446
Grand Total	81,008	527	30,114	26,776	138,425