

Innovations in Election Administration 1

**The Voting
Authority
Card**



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Introduction by the Clearinghouse

This report is the first of a new series on *Innovations in Election Administration* being published by the FEC's National Clearinghouse on Election Administration.

The purpose of this series is to acquaint State and local election officials with innovative election procedures and technologies that have been successfully implemented by their colleagues around the country.

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The Voting Authority Card

The Voting Authority Card (VAC) is a device used throughout the State of Maryland to accomplish a number of purposes in election administration. Defined simply, it is a document issued to a voter when he appears at the polls on election day. Issuance of the card is part of the process of checking the voter in, when the pollworkers ascertain that the person who appears to vote is indeed entitled to vote. It also serves other purposes during the voting hours, and in the postelection period.

The VAC has a long history in the State, required by the election law since early in this century when paper ballot voting gave way to the mechanical lever voting machine. Its original function was limited: it was a ticket of admission to the voting machine, issued by the pollworker who confirmed the voter's qualification. The voter was not permitted to enter the machine and cast his ballot unless he presented a correctly filled out VAC to the pollworker attending the machine.

The functions of the VAC expanded as voting practices changed. First the old ledgers in which the names of voters were recorded were replaced with original voter registration records filed in loose leaf binders, each such record having been signed by the voter when he registered. Signature comparison was introduced to confirm identity — an election day signature on the VAC matched against the signature on the original record. Later, the poll book came into use, in which a pollworker recorded on numbered lines the names of all voters in sequence as they ap-

peared. For each voter, the poll book number was also recorded on the VAC as part of the documentation of the election, used in the postelection audit to reconcile the poll books, VACs, and the voter check-offs on the binder cards

Maryland election law still requires that the VAC be used, regardless of the voting system employed — whether lever machine, punchcard, or optically scanned ballots (paper ballots are no longer used in the State). It should be noted that while use of a “voting authority card” is mandatory, the document is not defined in law and the only requirement for its use is that the voter must sign the card. But a hint of what computerization was to bring to the VAC system appeared in a 1969 amendment to the election law which provides that the VAC may be “electronically reproduced” and “preprinted” with specific data for each voter

Law and tradition permit considerable autonomy in election administration in the 24 Maryland counties, and the counties have taken full advantage of that grant of independence as they have exploited computer technology to expand the uses of the VAC substantially beyond what is required by law. All but one use a computer-produced, preprinted card which is machine-read after election, but there are many variations in content, procedures, and technology employed. (The one exception, Baltimore City, still uses the simple, manual VAC, but the computerized voter list is printed on card stock and one portion of the page, on which the check-off mark is made, is torn off after election and pro-

cessed through an optical reader to update the voter history.)

How the Voting Authority Card Works

At its fullest development, the Voting Authority Card generated for each voter includes the following:

■ **The form itself**, usually press-printed in quantity, ordered from a forms vendor:

- Designated spaces in which voter data will be computer-printed.
- Designated blank blocks for making changes in preprinted data pertaining to the voter.
- Designated spaces for signature of voter, ballot stub and/or poll book number, and initials of issuing pollworker.
- Name of local election agency.

Use of a poll book is not required by law, and some counties opt not to use it.

■ **Computer-printed on the form** for each voter:

- Precinct number
- Voter identification number (ID).

If the card is read optically, the ID will be printed either (1) in OCR characters, or (2) as a bar code — as well as in ordinary type face.

If the VAC is a punch card, the ID will be punched as well as printed.

- Voter name
- Birth date
- Party affiliation
- Voter address, including apartment number and zip code

Such a VAC is produced for each voter on the eligible list for a particular election. Cards are batched by precinct, and the VACs for a polling

place are kept in alphabetical order in a file box on the pollworkers' table.

Maryland holds closed primary elections, with the voter permitted to vote only in the primary of the party with which he is registered. In some counties, nonpartisan primary elections for school board are held at the same time as the party primary. Those registered with a party vote both in their party contests and in the nonpartisan contests; those not registered with a party vote only in the nonpartisan contests.

VACs for a primary election indicate the party affiliation of the voter in one or more ways: (1) Use of colored stock, or a colored top edging on the card, often the same color as the stock on which the party's ballots are printed; if the VAC is to be optically read, the background of the field that will be read — bar code or OCR ID number — is left white. (2) Printing party affiliation as part of the voter data. (3) Printing an instruction to the pollworker such as: ISSUE A DEMOCRATIC BALLOT TO THIS VOTER.

The voter list for the polling place, a computer printout, is generated from the same voter registry database as are the VACs, and contains much the same data for each voter. When the voter appears at the polls and announces his name, one pollworker finds his name on the list of voters, while another pollworker locates the corresponding VAC.

The voter is asked his month and day of birth, which are compared to the preprinted birth date, thus confirming his identity (Maryland no longer requires signature comparison as part of voter check-in.) He is then asked to verify his address; and if there has been a change to a location other than what is on file and printed on the card, the voter makes the correction in the spaces provided on the VAC. In the same way a change of name or correction of other data can be indicated.

If the VAC for a voter is missing, but his name is on the voter list, the pollworker makes up a VAC for the voter, entering the appropriate data from the voter list. Blank VACs are provided for

this purpose. In the postelection processing, such handwritten VACs are individually entered to update the voter history file.

Prince George's County VAC production software includes serially numbering the cards for each precinct as they are printed and punched. The totals for each precinct are compared with those in the voter registration tabulation, and if a precinct batch is found to be short the missing VAC can be identified and a substitute produced.

The county election offices report, however, that — contrary to their fears when they introduced computer-printed VACs — missing cards are a rarity. One county with 300,000 voters verified the entire VAC production and found only four cards missing.

If a document (punchcard or mark sense) ballot is used.

All document ballots in Maryland are computer-counted, some punchcards and some mark sense. Manually counted paper ballots are no longer used in the State, although the following procedures would apply to manual paper ballot systems.

Ballots have a perforated stub on one end, which stubs are serially numbered. The pollworker selects the next-numbered ballot of the appropriate type for the voter, and provides a secrecy shield with it. The same pollworker records the ballot's stub number on the VAC, initials it and gives it to the voter for signature. Another pollworker checks off his name on the list of voters. With check-in completed, the voter takes his ballot, shield and VAC and goes to the voting booth to mark the ballot.

After marking the ballot, the voter proceeds to the ballot box, carrying both the marked ballot in the shield with stub protruding and the VAC. The pollworker attending the ballot box ascertains that the ballot number written on the VAC matches the number on the ballot stub. The stub is torn off and returned to the voter, and the ballot

deposited in the ballot box. The VAC is retained by the pollworker.

If voting is by lever or direct recording electronic machine.

The pollworker records the voter's name on a numbered line in the poll book, records that number on the VAC, initials the VAC, and gives it to the voter for signature. Another pollworker checks off his name on the voter list. The voter then takes the signed VAC with him to the voting machine.

The pollworker attending the machine reviews the VAC to assure that it is signed by the voter and initialed by the pollworker. In a primary election, the pollworker sets the primary lever to assure that the voter votes the correct ballot, and activates the machine for use. Again, the VAC is retained by the pollworker.

After the polls close, the VACs of all those who voted are bundled together, labelled, and returned with other polling place materials to the county election office.

In the postelection audit of the election records, the voted VACs can be balanced with the names checked off on the voters list, with names listed in the poll book, and with either the ballot accounting reports or the public counter readings of the machines — all of which will verify the correctness and authenticity of the election.

The next use of the voted VACs is for updating voter histories on the registration database to indicate which voters voted in the election. In some instances, this function is accomplished by manual keying of the ID number of each person who voted; the software will record a vote for each record so identified. Preferably, however, the voted VACs are machine-read, on an automatic feed reader, and the software records a vote in the election on the record of each card read. The latter method is both faster and more accurate, and is used with punchcard and OCR VACs. Bar codes were read either by scanning the bar code

on each card with a wand, or by passing each card through a scanner; neither method used automatic feed and, therefore, is time-consuming.

Finally, those VACs which include changes of data authorized by the voter are sorted out, to serve as source documents for transactions to the voter registration file which will effect the changes.

What the Voting Authority Card Accomplishes During Voting Hours

Checking the Voter In

Establishing that a person is qualified to vote, in the polling place where he appears and at the election held on that day, is basic in the conduct of elections. It is the whole reason for having voter registration, for collecting data on the citizen which identifies him, defines his residence and his party affiliation choice. States have devised requirements to establish that only the qualified participate in the election. In Maryland, the VAC plays an important role in administering the process at the polls.

The voter signature, pollworker initials and ballot stub/poll book number that are recorded on the VAC confirm that the the admitting pollworkers have found the person qualified to vote. The completed VAC which he presents at the ballot box, or at the voting machine, is his "ticket" to cast a ballot.

Assuring That the Voter Votes the Correct Ballot: Closed Primaries and Split Precincts.

When a State conducts closed primary elections — as does Maryland — the voter can only vote in the primary of the party with which he is registered. Such a requirement sounds self-evident and easily complied with, to one who has not administered elections. Party affiliation is listed on the voter list; that should make it easy to issue the ballot for that party. But in fact, pollworkers under pressure often do make mistakes in issuing

ballots or in positioning the primary lever on the voting machine; it is a Murphy's Law situation — if something can go wrong, it will. Moreover, some voters can be oblivious that the ballot before them is not the correct one. Accordingly, it behooves the election administrator to incorporate a "back up" procedure for assuring that the correct ballot is issued, or activated on the voting machine by correct positioning of the primary lever.

Since the VAC is the "ticket" for voting, it is a natural means to provide this assurance. Maryland counties accomplish that purpose in a number of ways:

- The VAC can be color-coded to the ballots or to the background label on the primary lever. Punchcard VACs can be printed on the same color stock as the ballots for the voter's party. For optically read VACs, the background of the part of the VAC that will be scanned is left white., but a colored band or strip can be printed on the top edge of the card.
- Party affiliation is preprinted on the VAC.
- A specific instruction is printed: ISSUE A REPUBLICAN BALLOT, or ISSUE A PINK REPUBLICAN BALLOT — the latter if the jurisdiction also uses distinctive colors for ballots of various parties.

Sometimes providing the correct ballot is a matter of residence location within the precinct. For example, a "split precinct" results when the boundary line between two taxing districts bisects a precinct. In such a precinct there will be more than one ballot style for voters. The VAC can be used to indicate what ballot style is correct for the voter, using the same techniques to differentiate an electorate subdivided by ballot style as are used to differentiate an electorate subdivided by party.

Identifying and Recording Corrections to be Made in the Voter Registration Record.

For a registered voter in Maryland, the only grounds for challenging his right to vote, in the

polls on election day, is identity — that he is not the person whose name he has given and which name appears on the voter list. All other challenges to his qualifications must be made before election day, in fact before the closing of registration four weeks before election.

So a person who comes to the polls, whose name is on the voter list, and whose identity is not questioned, not only may vote but also may make changes in the particulars of his voter registration record. The law requires that he be asked if the listed address is still his residence; if not, he is obliged to supply the current address. The address change does not affect his right to vote that day. If the new location is within the county, he will retain his registration status but the address will be changed. If he has moved to another Maryland county or to another State, the registration will be cancelled and he must reregister for voting from the new residence. Changes of name likewise can be indicated, or correction of errors of any kind in the data.

In most counties these changes are recorded on the VAC, thus making it unnecessary to supply other forms with the polling place supplies.

In a large county, with a mobile population, thousands of changes to the voter registration database are initiated by voters each election day — most of them changes of address. Indeed, because keeping voter registration records accurate is a major concern in election administration in order to ensure integrity of the process, Maryland takes advantage of the face-to-face encounter with the voter to verify his vital data.

Preventing Chain Voting.

“Chain voting” is a scheme for corrupting elections which use a document ballot. It was a major reason for the change from paper ballots to mechanical lever machines in large American electorates beginning at the turn of the century.

This particular fraud is perpetrated by a campaign worker who gives a voter an already marked ballot before he goes into the polling place. The

voter conceals the marked ballot while he checks in, but once in the privacy of the voting booth he switches it for the blank ballot he was issued by the pollworkers, emerges from the booth and casts the marked ballot. When he leaves the building, he gives the blank ballot to the campaign worker who will subsequently mark it and pass it on to another voter. Thus the “chain” is kept in operation, and votes cast by the links in the chain reflect the position of the campaign worker, not the free will of the voters.

Preventing chain voting requires a method for assuring that the voter casts the ballot he was issued by the polling place staff. In Maryland, the VAC plays a vital role in such prevention. Ballots must have a perforated, serially numbered stub. At ballot issuance, the stub number is recorded on the VAC. When the voter comes to the ballot box, his voted ballot in a shield from which the stub protrudes, the pollworker compares the number on the VAC with the stub number. After confirming that the numbers are identical and before the ballot is placed in the ballot box, the stub is torn off and returned to the voter for his disposition — usually in a conveniently placed trash basket. Thus the procedure ensures that the voter casts the ballot he was issued, while secrecy of the ballot is maintained by removal of the numbered stub before it is cast.

Determining How Many People Have Voted at Intervals During Election Day.

VACs of those who vote are collected either at the voting machine or at the ballot box station. They may be stored in a box, or they may be hung on a hook or placed on a spindle through a hole in the short end of the card. Pollworkers are instructed to batch the VACs as they accumulate, usually by 50s, so that a count can readily be made of the number of people who have voted at any particular time. For a primary election, VACs for the parties, distinctively identified, are accumulated separately so a count can be given for each party.

The periodic count is of interest to media and to campaigns, who can then make judgments regarding turnout. In addition, the election office often keeps a year to year record of the traffic flow through the polling places.

What the Voting Authority Card Accomplishes After the Election

Auditing

In a number of ways, the VAC is essential to the election audit, which supports the accuracy and integrity of the result:

- For “balancing the books”, the number of people who voted should equal the number of ballots cast. Thus the names checked off on the voter list should equal the number of voted VACs and also the number of ballots cast (or total voters on machine public counters); if poll books are used, the total number of names listed also should correspond.
- The VAC documents that the voter was qualified, and which pollworker checked him in. If there is a problem with the quality of the work product (e. g., voters with signed VACs, but not checked off on the list), remedial pollworker training can be targeted.
- The voter signature and the pollworker identification may be needed in an official investigation or in a court of law.

Updating Voter History

Following each election, the VACs of those who voted are source documents for updating the voter history field of each voter’s record. In some counties the update is done by manual entry from each VAC, or by scanning the bar code on each VAC with a wand; the program then will credit the record with voting in that election. Preferably, however, VACs are machine-read, by automatic feed, thus considerably reducing the time and labor involved and assuring greater accuracy.

Voter turnout reports produced from the voter registration database can be more complete than those based on ballots cast by the vote-tallying program. Tying voter history to the voter registration record means that voters can be categorized by party, by gender, by age, by length of registration, or by any other data items in the registration record — thus facilitating analysis of the turnout data to ascertain the effect of various factors on electoral participation. Such classification is impossible when ballots are the basis for turnout tabulation, since they do not reveal the characteristics of the one who cast each ballot.

An equally important use for the voter history database is the capability it provides for administering the Maryland requirement for cancelling the registration of one who has not voted for five years. (Most states have such a requirement, although the nonvoting period varies.) From the voter history data on file, a program can identify those voters who have been registered for at least five years and have not voted in the most recent five year period, can produce either mailing labels or mail-ready notices, as well as the appropriate reports to document the activity associated with the purge. Before computerization, enforcing the failure-to-vote provision was a labor-intensive, error-prone, mind-numbing job, which involved manual review of every original voter registration record, removing those who had been in the file for the last five years but had not been checked off for voting in that time, followed by manual production of an envelope or mailing label for each which would be used for mailing a notification.

Correcting Voter Registration Records

After auditing the election and updating the voter history file, those VACs on which changes and corrections have been recorded serve as source documents for updating the file. The ID number which is used to access the individual records is available for reference; the changes to be effected are in designated blocks; and the voter’s signa-

ture (which is required by Maryland law in order for personal data changes to be made) is on the source document.

With all changes to voter registration records, whether ordered by the voter or initiated by the election office, confirmation of the change is sent to the voter by first class mail.

VACs of those who did not vote usually are discarded soon after the election.

Once the voted VACs have served their purpose for the election, they are stored for future reference for a period of time which corresponds with the State and county records retention policy. Factors which affect that policy include: period for contesting an election result; federal requirements relating to preservation of materials used in elections to federal office; need to document the purge of voters who fail to vote for five years; need to document changes to the record ordered by the voter.

Advantages and Disadvantages of the VAC

The Voting Authority Card is exceedingly popular with Maryland election officials. Without exception, they report that they would not discontinue its use even if the law did not require it. As its advantages, they cite labor saving and therefore cost benefits; accuracy enhancement, both in the polling place operation and in postelection processes; and combining so many election administration tasks in a single document. They particularly expressed satisfaction to be relieved of the exacting, tedious job of identifying nonvoters from original voter registration records, and manually producing the mail notices to go to them.

Pressed for deeper assessment, however, they admit there are some minuses in the use of computerized VACs. Some of these are being solved with advances in technology.

- Preparing for the election, the voter registration records must be printed twice — once for the voter list, and once to produce VACs.

Printing with the impact line printer that long has been the mainstay for producing hard copy in a computer facility is the lengthiest of computer operations. In a large jurisdiction these two jobs take a very long time, with round-the-clock operation. Moving to a high speed laser printer, if available, could shorten printing time.

- Base forms can be expensive. They are press-printed with the format, and sometimes also prenumbered, prepunched, pin hole edged for continuous feed, and perforated for separation.

Again, laser printing technology may offer an attractive option. One Maryland county is considering a change in its VAC production where the VAC would be printed entirely by the laser printer, both the basic form and the entries for the voter. It would use letter-size stock, 8-1/2" x 11", on which VACs are printed three to a page. A stack of pages would be automatically sliced into three parts with a guillotine cutter, resulting in finished cards that are 8-1/2" X 3-1/3", read horizontally.

- If continuous forms are used, they must be burst in a process that splits the cards apart and also removes the pin feed edging. The job is time-consuming, and has to be watched carefully so cards stack in sequence and are not damaged in the machine.
- Punchcard VACs users are having increasing difficulty in obtaining and maintaining card readers. Punchcards are no longer used as data input for computers, and the machines that punch them and the readers that interpret them are not on the market. If the jurisdiction uses a punchcard voting system — and many still do — they have card readers, and maintain them, for ballot-counting; the same equipment can be used to read VACs. If card reading capability is not available, the jurisdiction would be advised to opt for either OCR or bar coding. OCR can be machine-read with automatic feed, either in-

house or by contract to a bank. Bar codes, at this stage of development of the technology, are read either with a wand or by insertion of each document into a scanner; no automatic feed reading is available. Accordingly, a large jurisdiction, with tens or hundreds of thousands of voters, could find the task of postelection reading unacceptably slow. One jurisdiction with 300,000 voters, where the file is updated after election by passing a wand over the ID number of each person who voted, finds that the job takes a week, with five persons working at all times. By contrast, a jurisdiction with 400,000 voters reads all of its punchcard VACs in one day.

New Trends in VAC Systems in Maryland

The first computerized VACs in Maryland were introduced in Montgomery County in the late 1960's, as part of the automation of the voter registration system. From the beginning, it was intended that the VAC would serve as many purposes as possible, eliminating manual tasks and making it possible to accomplish certain things that could not be done manually. The planners were foresighted, because in terms of the multiple uses of the VAC, it is still as advanced as any alternative technique.

But Montgomery's computer technology — based on punchcards — is far from advanced. When the system was designed, the established method for data input from documents was punchcards. Optical reading was unknown in local government computer rooms. Moreover, the county did not have equipment that would simultaneously punch and print cards. For those reasons the system uses continuous forms which contain preprinted and prepunched serial numbers, and voter data is printed on the forms by the line printer. During the process a suspense file is created which links the serial number of the VAC to the voter ID number. After the election, cards of those who voted at the polls are read to tape

(using the ballot card readers); the tape is sent to the county computer facility, sorted by card sequence number, and matched to the suspense file in order to obtain the ID number of the voter. The voter's record is then updated with the appropriate information identifying the election type. (Voter history for an absentee voter is updated on-line through the terminals when the ballot is returned.)

The next punchcard system was developed in Prince George's County, where individual 80-column cards, press-printed as the VAC form, are used. The requisite election and voter data are simultaneously punched and computer-printed using an IBM 3505/3525 card reader/card punch. This design eliminated the expense of pre-numbered (punch and print) stock, the suspense file in processing, and the time and travail of bursting. But at this time it still poses the problem of the diminishing, even disappearing, availability of card reader equipment, and Prince George's is planning a conversion to bar coded, optically read VACs.

The State Board of Elections (SABEL) developed a computerized VAC system in 1973. (The State Board maintains the voter registry for 14 small Maryland counties, 300,000 voters total, serviced through the State's central data processing facility.) Because the State used OCR technology for the administration of income tax records, that technology was used for VACs as well. Recently, however, SABEL was notified that the data processing department will no longer have OCR capability, and SABEL is now planning a conversion to bar coded, optically scanned VACs.

Baltimore County used punchcard VACs for years, sending them to the nearby Baltimore City computer facility for reading. Notified recently that the city is abandoning its card reading unit, the county election office is converting to optical scanning technology. The VACs will be laser-printed with OCR identifiers by the county's own print shop, and will be sent out to a bank for reading

Installing a Voting Authority Card System

Jurisdictions that choose to develop and install a VAC system have a number of choices to make early in the program planning, in order that the VAC can be exploited to serve as many purposes as possible.

To produce voter turnout reports based on the number of persons who voted and to computerize the purge of nonvoters, the individual voter registration record must include a voter history field, which is updated following each election. The period for which voter history is maintained should be considered: perpetual? most recent five years, or ten years?

If turnout reports are to be produced by age, gender, or party, those data have to be part of the record. Age is most easily computed from a birthdate in the record, but in the absence of that information can be estimated to the closest full year if the file contains both date of registration and age at time of registration.

To serve certain purposes in the polling place, the VAC must be designed and printed appropriately:

- If voters in a single precinct do not all vote the same ballot — because of a party primary, or because the precinct is split geographically — will the VAC be used to ensure that the correct ballot is issued? If so, what method will be used — color coding? a printed indicator or message on the card?
- If the VAC is to be used to prevent chain voting, there must be a method to assure that the voter is casting the same ballot he was issued. Maryland requires a numbered perforated stub on the ballot, and the stub number is recorded on the ballot when both ballot and VAC are issued at check-in. The numbers must match before the ballot can be cast.
- To identify which pollworker checked in which voter, the VAC must include a designated

space for the pollworker's signature or initials.

- To serve as a source document for updating voter data — principally changes of address, but also including error corrections —, the VAC must have designated spaces for the changes.
- If the voter's signature is to be captured on the VAC, that space must be provided.

Choices must be made among available technologies. The voter's ID number can be punched, printed in OCR characters or printed as a bar code. If the jurisdiction has the equipment, it may be able to develop a VAC which would be entirely printed in one pass — both the form itself and the data from an individual record.

Punchcards should be used only if card reading capability can be assured — if, for instance, the jurisdiction uses punchcard ballots and has card readers for ballot reading. The reading of VACs with OCR identifiers can be either by hand-held wand or automatic feed readers; if machine capability is not available in-house, reading can be contracted out to a bank, where that technology is widely used for identifying checks. Bar code identifiers, considered by many to be the state-of-the-art method, can be read either by hand-held wand or passing through a scanner, both of which methods require handling of each card individually and will take an inordinately long time for a large jurisdiction..

In the appendix of this report, specimens of VACs from various Maryland counties are reproduced, along with descriptive material regarding VAC systems and examples of statistical reports produced from VAC data.

Alternatives to the VAC - How Other States Accomplish the Same Purposes the VAC Serves in Maryland

Fewer than half of the states issue a document which meets the criteria defined in this study for

a Voting Authority Card to the voter as he checks in at the polling place. With two exceptions, the card is not of the type used in Maryland — pre-printed, machine processed, and multipurpose. Those exceptions are (1) Delaware, where the Commissioner of Elections produces and processes the documents, called computer-generated signature cards, for the State's three counties; the technology used is OCR and the postelection reading of the voted cards to update the State voter registration file is contracted out to a bank. (2) Certain counties in Illinois, where they are called Ballot Applications. (There may well be other uses of a comprehensive VAC in local jurisdictions; but such instances were not reported by the State election authorities, the sources of information for this study.)

The same purposes cited for the Voting Authority Card in Maryland are met in other States in a variety of other ways:

Assuring That the Voter Votes the Correct Ballot

Some of the documents issued serve only this purpose, particularly where voting machines are used. The document indicates party, and sometimes is color-coded, to assure correct positioning of the party lever. New York and Virginia are two such States.

Users of Votomatic systems sometimes color-code the punchcard ballot issued to match the vote recorder pages.

Most States, however, do not consider the possibility of a voter getting the wrong primary ballot to be a problem and see no need to have a back-up check for correctness. A typical comment from one such State, "The party affiliation is on the voter list, so that the correct ballot is issued."

Identifying Incorrect Data In Voter Registration Records

Most states permit the voter, at the polls, to identify and authorize changes and/or correc-

tions to be made in his data; in some instances, any of the data items can be targeted for updating; in other instances only certain changes can be ordered that day. In a few states, if the residence address on record is not current, the person cannot vote that day.

Where change orders are permitted, most often a special form or document is provided for that purpose — sometimes a number of forms, the one used dependent on the type of change to be made. Where separate forms are not used, changes are usually made on the voter list itself. Only in Delaware and in some Maryland counties is the VAC used for indicating changes and corrections.

Preventing Chain Voting (applies only where a document ballot is used)

Just under half of the States that reported using a document ballot have devised a procedure to prevent chain voting. The most frequent methods are (1) a perforated numbered stub on the ballot which number is recorded on the VAC; numbers are matched and the stub removed before the ballot can be cast; or (2) the issuing pollworker signs or initials the ballot; signature or initials must be confirmed by pollworker at ballot box before casting. One State stamps the ballot as it is issued with an "official election stamp".

Texas uses both methods: two pollworkers sign the ballot, and in addition the ballot stub number is recorded on the voter list and the numbers are compared before the ballot is cast.

One State election director responded that her State has no specific protection against chain voting, and in fact she had never thought of the possibility of such fraud. She went on to comment, however, that a number of her State's jurisdictions use the three-sided voting booth, which would make it more difficult to switch the marked ballot with the issued ballot without detection, and also that mark sense ballots are large and cannot be folded, thus also foiling concealment.

A number of States are satisfied that their ballot security procedures and “the vigilance of election officials” prevent chain voting.

Determining at Intervals How Many People Have Voted.

VACs of those who have voted are only one source of information to meet this need. Others include (1) adding up the public counters of voting machines in the polling place; (2) counting names checked off on voter list; (3) number of names recorded in the poll books; (4) last ballot number used, where ballots have serially numbered stubs; (5) last number crossed off on a prenumbered tally sheet.

VACs will, in addition, yield the count by party, for both primary and general elections, since they indicate party affiliation of each voter and can be assembled or spindled separately at they are surrendered at the ballot box or voting machine.

Auditing.

The States have ample and sufficient methods for reconciling election documentation. All use two or more of the following: VACs, public counter readings, names recorded in poll books, names checked off on voter lists; tally sheets, retained ballot stubs, number of ballots cast, and voter history update reports.

Most States require the voter to sign his name as he checks in at the polls, but only a fraction of them compare that signature to the signature-of-record as part of qualification. Besides the VAC, places for the election day signature to be captured are the original voter registration record in the binder, the poll book, or the voter list.

Updating Voter History

About half the States have computerized voter registration records, and about half of those record voter history. Alternatives to the machine-read VAC for entering this data include

- manual reading by wand from the voter list, scanning the ID number, OCR or bar code, of those checked off as voting;
- manual data entry from names listed in poll book;
- manual data entry of ID numbers of names checked off on voter list; and
- manual data entry from check-offs on original voter registration records in binders.

All of the above accomplish the purpose, but all are labor-intensive, time-consuming, and subject to human error.

Correcting Individual Voter Registration Records

Where law permits such changes to be identified and authorized on election day, and where the VAC is not used, other separate forms are supplied to the pollworkers for recording such changes. They constitute good source documents for the purpose, but they also require that additional pieces of paper be included in the polling place supplies, handled by pollworkers, and returned to the election office.

Appendix 1

Glossary

The following terms have the meaning stated when used in this report:

Chain voting. A method of corrupting document ballot elections in which a campaign worker gives a voter an already marked ballot before he goes into the building to vote, which the voter conceals while he checks in. Once in the privacy of the voting booth, he switches the marked ballot with the blank ballot he was issued at check-in, emerges from the booth and casts the marked ballot. When he leaves the building, he gives the blank ballot to the campaign worker who will subsequently pass it to another voter. Thus the “chain” is kept in operation, and all votes cast by the links in the chain reflect the position of the campaign worker, not the free will of the voters.

Checking in a voter. The process by which the pollworkers ascertain that the person who appears to vote is indeed qualified and entitled to vote, at that polling place. The process is defined differently in every state, to comply with the provisions of that state’s law. It can be as simple as finding the voter’s name on a printout and checking off his name, but it can also include verifying voter’s identity; requiring the voter to sign his name and comparing that signature with the one on file; confirming that the voter still resides at the address on file; etc.

Document ballot. A ballot printed on a piece of paper and one is given to each voter. Includes paper ballot, punchcard, and optically read such as mark sense.

Inapplicable with a lever voting machine or a direct recording electronic machine, where the printed ballot appears on the face of the machine.

List of voters. A computer-produced list of the eligible voters in a voting district. Usually used to confirm that the person qualifies for voting, with the name checked-off as he votes.

Other names used by various states for this list: Checklist; roster index, polling place roster, or just roster; precinct register; printout.

Original voter registration. The document filled out, and signed by the voter, as part of the registration process. Also sometimes called the voter registration card, affidavit, or application. Some states require that the original records, usually kept in binders for each polling place, be used at the polls on election day as the source to determine that the person is registered, and for comparison of the original signature with that signed on election day.

Some states where law requires signature comparison in order to qualify for voting are now digitizing the signature from the original record, storing it electronically, and reproducing it on the computer-produced voter list used at the polls — thus eliminating the need to transport original records to the voting sites.

Poll Book. A document, usually multi-paged and bound as a booklet, with sequentially numbered lines on which voter’s names are listed as they are processed for voting. Attending pollworker usually records the names, but in some states the voter himself records his name.

Other names used by various states for this listing: poll list; names of voters; receipt book.

Pollworker: A member of the official staff who conduct the election in the polling place. Does not include campaign workers, watchers, challengers, etc., who represent entities other than the government agency conducting the election.

Other names used by various states for these personnel: inspector; election judge; judge of election; officer of election; and many others.

Voting Authority Card. A document issued to, or filled out by, a voter when he appears to vote at the polls on election day. It can serve *one or more* of the following purposes in processing the voter through the voting: (1) a “ticket” to vote, presented either at the voting machine or at the ballot box, which indicates that the voter has been found to be qualified to vote; (2) back-up assurance that the voter is casting the correct ballot, as in party primary elections and/or when

more than one ballot style is used in a single polling place; (3) a place for the voter signature; (4) identifying which pollworker deemed the voter qualified; (5) protection against “chain voting”; (6) a means for correcting or updating the voter’s registration record; (7) an input document for postelection updating of voter history electronically, which in turn facilitates the process of purging from the registry those who have not voted in a stated period of time, and makes possible the production of extensively detailed voter turnout reports based on geographic location, party, gender, age, and other factors.; (8) documentation of voting, to be used in after-election audit, reconciling voting authority cards with names checked off, poll book listings; public and protective counter readings; ballot accounting reports, etc.

Other names used by various states for such a document: voter card; voter slip; entry card; signature card or slip; party card; voter’s certificate; voter receipt; ballot card; poll ticket; ballot application; application for ballot or application to vote; authorization to vote; declaration of eligibility. One state even referred to it as “a slip of paper”.

Voting history. The record indicating, for each individual voter, whether he voted in elections held during a specific period of time.

Appendix 2

Specimens of Voting Authority Cards

Board of Supervisors of Elections for Montgomery County
 GENERAL ELECTION, NOVEMBER 5th, 1968

DISTRICT _____ PRECINCT _____ VOTERS CERTIFICATE NO. _____

_____ Address if other than shown on registry books

○ _____

City _____ Zip Code _____

Signature of Voter _____
(Signature must be written so it can be read)

_____ (Initials of Issuing Judge)

If voter does not vote return this card to Judges

FORM 22 NOVEMBER 5, 1991 1370-47-19

MAYORALTY GENERAL ELECTION


Precinct _____ Ward _____ Voting Authority No. _____

Signature of Voter: _____

_____ The above named person is authorized to vote

○ _____ Judge must print full name of voter

_____ Date of birth _____

Code No. _____ } Judge Must Fill In 

_____ (Initials of issuing judge)

Board of Supervisors of Elections of Baltimore City

The manually processed VAC, used in Montgomery County MD until 1968, and the similar VAC still used in Baltimore City MD. The information is handwritten by the pollworkers. (This VAC cannot be machine-read to update voter history, but Baltimore City has a voter list which is optically scanned for that purpose.)

VOTER AUTHORITY CARD										1 0 0 0 0 0 0 6	
DIST.	PRCT.	NO.	LAST NAME	FIRST, MI	BIRTH DATE	PARTY	DATE				
01	01				11 09 41	D	03 03 92				
HOUSE/BOX		STREET NAME			TYPE	APT./ROUTE	ZIP				
							20882	1000006			
RECORD IN SPACES BELOW ANY CORRECTIONS TO VOTER DATA AS SHOWN ON REGISTRY. PRINT CLEARLY											
LAST NAME				FIRST NAME, MI			BIRTH DATE				○
HOUSE NO./BOX		STREET NAME			STREET TYPE	APT. NO. ROUTE	CITY OR TOWN	ZIP			
SIGNATURE OF VOTER: _____						BALLOT STUB NUMBER: _____					
ISSUE ONLY A **WHITE** DEMOCRATIC BALLOT						INITIALS OF ISSUING JUDGE: _____					
IF YOU DO NOT VOTE RETURN THIS CARD TO JUDGES											
BOARD OF SUPERVISORS OF ELECTIONS FOR MONTGOMERY COUNTY, MARYLAND											

VOTER AUTHORITY CARD											
DIST.	PRCT.	NO.	LAST NAME	FIRST, MI	BIRTH DATE	PARTY	DATE				
HOUSE/BOX		STREET NAME			TYPE	APT./ROUTE	ZIP				
RECORD IN SPACES BELOW ANY CORRECTIONS TO VOTER DATA AS SHOWN ON REGISTRY. PRINT CLEARLY											
LAST NAME				FIRST NAME, MI			BIRTH DATE				○
HOUSE NO./BOX		STREET NAME			STREET TYPE	APT. NO. ROUTE	CITY OR TOWN	ZIP			
SIGNATURE OF VOTER: _____						BALLOT STUB NUMBER: _____					
						INITIALS OF ISSUING JUDGE: _____					
IF YOU DO NOT VOTE RETURN THIS CARD TO JUDGES											
BOARD OF SUPERVISORS OF ELECTIONS FOR MONTGOMERY COUNTY, MARYLAND											

Computerized VAC, Montgomery County MD. Punchcard.

All cards are one color (deep peach) for all elections. Continuous forms, prepunched and preprinted by the vendor with an ID number. Hole at end of card is for placing it on a spindle. Designated spaces for recording changes in voter data. This card, prepared for a primary election, includes the voter's party indicator (D) in the party block, and also a printed message to issue a Democratic ballot. Stock: standard tabulating card.

Carol Evans, Elections Administrator
301-217-6450

VOTER'S AUTHORIZATION CARD	ATKINSON			LISA LASHARNE			000-0015	
	LAST NAME		JR. SR. ETC.	FIRST NAME AND MIDDLE NAME OR INITIAL			CONTROL NO.	
7153 109		121869		62	00	05/06/91		
VOTER ID		BIRTH DATE		DISTRICT	PRECINCT	PARTY	ELECTION DATE	

DO NOT REMOVE
THIS CARD
FROM POLLING PLACE

SUPERVISORS OF ELECTIONS
PRINCE GEORGE'S COUNTY

BIRTH DATE _____

THE ABOVE NAMED IS HEREBY AUTHORIZED TO VOTE

SIGNATURE OF VOTER _____

SIGNATURE OF ISSUING JUDGE _____

PRYOR 74452

VOTER'S AUTHORIZATION CARD								
	LAST NAME		JR. SR. ETC.	FIRST NAME AND MIDDLE NAME OR INITIAL			CONTROL NO.	
VOTER ID		BIRTH DATE		DISTRICT	PRECINCT	PARTY	ELECTION DATE	

DO NOT REMOVE
THIS CARD
FROM POLLING PLACE

SUPERVISORS OF ELECTIONS
PRINCE GEORGE'S COUNTY

BIRTH DATE _____

THE ABOVE NAMED IS HEREBY AUTHORIZED TO VOTE

SIGNATURE OF VOTER _____

SIGNATURE OF ISSUING JUDGE _____

PRYOR 74452

Computerized VAC, Prince George's County MD. Punchcard.

Cards are color coded for primary elections. Individual cards, produced by vendor as a form. Computer printed and punched by county data processing facility, using IBM 3505/3525 card reader/card punch. Changes in voter data are recorded on a separate form. Stock: standard tabulating card.

Robert J. Antonetti, Administrator
301-952-3270

MUNICIPAL ELECTION FOR CHESTERTOWN							000080	
DIST	PRCT	LAST NAME		TITLE	FIRST	MIDDLE	PARTY	DATE
01	000	CARPENTER		JR	RONALD	DANDELOT	D	12/09/91
HOUSE NO	STREET NAME			APT. NO./BOX		ZIP	BIRTH DATE	WHERE BORN
214	NORTH QUEEN ST			PO BX 266		21620	09/01/61	MD
ANY INFORMATION IF OTHER THAN SHOWN ABOVE. PRINT CLEARLY.								
LAST NAME			FIRST NAME			MIDDLE		BIRTH DATE
HOUSE NO	STREET NAME			APT. NO./BOX		ZIP	WHERE BORN	
SIGNATURE OF VOTER				VOTING CERTIFICATE NO.			INITIALS OF ISSUING JUDGE	
PLEASE PRINT YOUR NUMERALS LIKE THIS								
0 1 2 3 4 5 6 7 8 9								
015014564								
FORM NO. 3203 REV. 7-90								

DIST	PRCT	LAST NAME		TITLE	FIRST	MIDDLE	PARTY	DATE
HOUSE NO	STREET NAME			APT. NO./BOX		ZIP	BIRTH DATE	WHERE BORN
ANY INFORMATION IF OTHER THAN SHOWN ABOVE. PRINT CLEARLY.								
LAST NAME			FIRST NAME			MIDDLE		BIRTH DATE
HOUSE NO	STREET NAME			APT. NO./BOX		ZIP	WHERE BORN	
SIGNATURE OF VOTER				VOTING CERTIFICATE NO.			INITIALS OF ISSUING JUDGE	
PLEASE PRINT YOUR NUMERALS LIKE THIS								
0 1 2 3 4 5 6 7 8 9								
FORM NO. 3204 REV. 1-80								

Computerized VAC, produced by the Maryland State Board of Elections (SABEL) for the 14 counties for which the voter registry database is maintained by the State. OCR.

Cards are color-striped at top for primary elections. Continuous forms. All voter data is computer-printed in OCR font, including ID number (lower left of card) which is machine-read to update the voter history field. Designated spaces for recording changes in voter data. If the pollworker must hand write a VAC (because it is missing, although the voter is on the voter list), the ID number is written in the blocks in lower right corner, in format demonstrated directly above those blocks. Stock: 24 lb. bond or 60 lb. book weight.

Gene M. Raynor, State Administrator
301-974-3711

PLEASE PRINT ANY CHANGES BELOW				DAYTIME TELEPHONE NUMBER (IN THE EVENT WE NEED CLARIFYING INFORMATION)		
				WORK _____		
				HOME _____		
LAST NAME	JR/SR	FIRST NAME	FULL MIDDLE NAME	DATE OF BIRTH		
				MONTH	DAY	YEAR
STREET ADDRESS (INCLUDING APT. #)						
COMMUNITY / DEVELOPMENT		CITY / TOWN			ZIP CODE	
MAILING ADDRESS (IF DIFFERENT FROM RESIDENCE ADDRESS)						
PLEASE CHANGE MY PARTY AFFILIATION						
FROM _____ TO _____						
FOR OFFICE USE ONLY						
				DIST.	PREC.	

Front side


<p>FILL IN BACK IF NAME OR ADDRESS OTHER THAN SHOWN</p> <p>NO. _____</p>	<p>BOARD OF SUPERVISORS OF ELECTIONS OF ANNE ARUNDEL COUNTY</p> <p>DISTRICT _____ PRECINCT _____</p>
<p>DO NOT WRITE IN THIS BLOCK</p>	<p>SIGNATURE OF VOTER _____</p> <p style="text-align: center;">THE ABOVE NAMED IS HEREBY AUTHORIZED TO VOTE</p>
<p style="text-align: center;">IF YOU DO NOT VOTE RETURN THIS CARD TO JUDGES</p>	
<p style="text-align: right;">INITIALS OF ISSUING JUDGE _____</p>	


Reverse side

Computerized VAC, Anne Arundel County MD. OCR.

Cards are color-coded for primary elections, except for block where ID number is printed, which if left white. Continuous forms. Forms are press-printed on two sides; designated spaces for recording changes to voter data on reverse side of card. Stock: 24 lb. bond or 60 lb. book weight.

Nancy Crawford, Administrator
301-222-6600

P-030392									
VOTER ID NO.	LAST NAME	TITLE	FIRST	MIDDLE	PARTY	DIST	PREC		
004336	CONAWAY		RAYMOND	N	R	14	02		
STREET ADDRESS			APT. NO.	P.O. BOX NO.	ZIP	BIRTH DATE		BIRTH-PL	
5112 WOODBINE RD					21797	07/17/15		MD	
ANY INFORMATION IF OTHER THAN SHOWN ABOVE. PRINT CLEARLY.									
LAST NAME			FIRST NAME		MIDDLE		BIRTH DATE		
HOUSE NO.	STREET NAME			APT. NO.	P.O. BOX NO.	ZIP	BIRTH-PLACE		
SIGNATURE OF VOTER				BALLOT NO.		POLL BOOK NO.	INITIALS OF ISSUING JUDGE		
X									
BOARD OF SUPERVISORS OF ELECTIONS									
FOR CARROLL COUNTY, MARYLAND									
 004336									
IF YOU DO NOT VOTE RETURN THIS CARD TO JUDGES									

P-030392									
VOTER ID NO.	LAST NAME	TITLE	FIRST	MIDDLE	PARTY	DIST	PREC		
094212	BEVER		VIOLA	RUTH	D	08	02		
STREET ADDRESS			APT. NO.	P.O. BOX NO.	ZIP	BIRTH DATE		BIRTH-PL	
4430 UPPER BECKLEYSVILLE RD					21074	03/15/25		MD	
ANY INFORMATION IF OTHER THAN SHOWN ABOVE. PRINT CLEARLY.									
LAST NAME			FIRST NAME		MIDDLE		BIRTH DATE		
HOUSE NO.	STREET NAME			APT. NO.	P.O. BOX NO.	ZIP	BIRTH-PLACE		
SIGNATURE OF VOTER				BALLOT NO.		POLL BOOK NO.	INITIALS OF ISSUING JUDGE		
X									
BOARD OF SUPERVISORS OF ELECTIONS									
FOR CARROLL COUNTY, MARYLAND									
 094212									
IF YOU DO NOT VOTE RETURN THIS CARD TO JUDGES									

Computerized VAC, Carroll County MD. Bar coded.

Cards are color-coded for primary election with color stripe along top edge. Continuous forms, printed by a vendor. Voter data is printed on the forms in the county computer facility, including ID number which is both in bar code and numerals, lower right corner. Designated spaces for recording changes in voter data, for signature of voter, ballot number and poll book number, and initials of pollworker. The two specimens were prepared for the 1992 primary election, one for a Democratic voter and one for a Republican voter. Stock: 24 lb. bond or 60 lb. book weight.

Rosemary McCloskey, Elections Administrator
 Thomas Van de Bussche, Chief, Management Information Services
 301-857-2080

VOTER: PLEASE FILL IN BIRTHDATE ON SECOND LINE AND SIGN CARD:

DIST	PRCT	LAST NAME	TITLE	FIRST	MIDDLE	PARTY	REG DATE
02	013	MURPHY		ELLEN	R	DEM	021672
HOUSE NO	STREET NAME		APT /BOX	ZIP	BIRTH DATE	WHERE BORN	
3766	PLUM MEADOW DR			21042	121439	MARYLAND, USA	

IS THE ABOVE INFORMATION CORRECT? ____ YES ____ NO If not, please complete correction form.

SIGNATURE OF VOTER: _____

BALLOT NUMBER: _____ INITIALS OF ISSUING JUDGE: _____



000483

PRIMARY ELECTION MAR. 03, 1992

IF YOU DO NOT VOTE RETURN THIS CARD TO JUDGES

Computerized VAC, Howard County MD. Bar coded.

Cards are color-coded for primary election. Continuous form printed by a vendor. Hole at end of card is for placing it on a spindle. Voter data is printed on the forms in the county computer facility, including the ID number which appears both as bar code and numerals in the lower left corner. Changes to voter data are not made on the card, but on separate forms provided for that purpose. Stock: 90 lb. index card stock.

Barbara Feaga, Election Administrator
301-313-2727

Appendix 3A

VAC System Description Montgomery County MD

**Carol Evans,
Elections Administrator
301-217-6450**

VOTER AUTHORITY CARD - MONTGOMERY COUNTY

VOTER AUTHORITY CARD PROCESSING

IN THE LATE 1960'S, THE VOTER AUTHORITY CARD PROCESS WAS AUTOMATED ALONG WITH THE AUTOMATION OF THE VOTER REGISTRATION INFORMATION. THE CARD WAS DESIGNED TO SERVE MULTIPLE PURPOSES. THESE ARE 1) AUTHORIZING THE VOTER TO VOTE AT THE POLLING PLACE, 2) UPDATING THE VOTING HISTORY RECORD OF THE VOTER, AND 3) COLLECTING CERTAIN CHANGES OR CORRECTIONS IN VOTER NAME AND ADDRESS.

THE VOTER AUTHORITY CARD IS PURCHASED FROM THE FORMS VENDOR AS A CONTINUOUS FORM IBM 80-COLUMN CARD WITH A CONSECUTIVE SERIAL NUMBER PRE-PUNCHED IN EACH CARD. THE CARDS ARE GREEN IN COLOR TO ENABLE THEM TO BE DISTINGUISHED FROM ANY BALLOTS. THE IDENTIFYING VOTER INFORMATION - NAME, ADDRESS, SEX, BIRTHDATE, PARTY, AND VOTING DISTRICT AND PRECINCT - IS PRINTED ON THE CARD BY THE CENTRAL DATA PROCESSING FACILITY. THE CARDS ARE PRODUCED IN ALPHABETICAL WITHIN VOTING DISTRICT AND PRECINCT SEQUENCE. FOR A PRIMARY ELECTION, A MESSAGE IS PRINTED ON THE CARD TELLING THE JUDGES AT THE POLLS WHICH PARTY BALLOT IS TO BE ISSUED TO EACH VOTER. DURING THE PRINTING PROCESS A SUSPENSE FILE IS CREATED WHICH LINKS THE SERIAL NUMBER OF THE VOTER AUTHORITY CARD WITH THE VOTER IDENTIFICATION NUMBER. VOTER AUTHORITY CARDS ARE NOT PRINTED FOR ANY PERSONS WHO HAVE BEEN SENT ABSENTEE BALLOTS PRIOR TO THE PRINTING OF THE CARDS.

AFTER BEING PRINTED THE VOTER AUTHORITY CARDS ARE BURST AT THE CENTRAL COMPUTER FACILITY AND DELIVERED TO THE ELECTIONS OFFICE. AT THE ELECTIONS OFFICE THE CARDS ARE DIVIDED INTO VARIOUS ALPHABETICAL GROUPINGS DEPENDING ON THE NUMBER OF CHECK IN STATIONS NEEDED IN EACH PRECINCT. PRIOR TO BEING BOXED AND PACKED FOR EACH PRECINCT THE ELECTIONS OFFICE PERSONNEL REMOVE THE VOTER AUTHORITY CARDS FOR ANY VOTERS WHO HAVE BEEN SENT ABSENTEE BALLOTS SINCE THE CARDS WERE ORIGINALLY PRINTED.

AT THE POLLING PLACE, THE APPROPRIATE BOX OF VOTER AUTHORITY CARDS ARE DISTRIBUTED TO THE EACH CHECK IN STATION TABLE. AS EACH VOTER ARRIVES AT THE POLLING PLACE, THE CHECK IN JUDGE MARKS THE PRECINCT REGISTER AND LOCATES THE VOTER AUTHORITY CARD. THE JUDGE ASKS THE VOTER IF ALL THE INFORMATION PRINTED ON THE CARD IS CORRECT. IF THERE ARE ANY CORRECTIONS OR CHANGES TO THE VOTER'S INFORMATION THESE ARE RECORDED IN THE SPACE PROVIDED ON THE CARD. HOWEVER THE VOTER MAY NOT CHANGE PARTY AFFILIATION AT THE POLLS. AFTER VERIFYING THE INFORMATION, THE VOTER SIGNS THE VOTER AUTHORITY CARD. THE JUDGE THAN RECORDS ON THE CARD THE SEQUENCE NUMBER OF THE BALLOT WHICH IS ISSUED TO THAT VOTER AND INITIALS THE CARD IN THE APPROPRIATE PLACE.

AFTER VOTING THE BALLOT, THE VOTER HANDS THE BALLOT IN THE SECURITY JACKET AND THE AUTHORITY CARD TO THE BALLOT BOX JUDGE. THE BALLOT BOX JUDGE VERIFIES THAT THE SEQUENCE NUMBER ON ALL BALLOT CARDS IN THE SECURITY JACKET MATCHES THE NUMBER RECORDED ON THE VOTER AUTHORITY CARD BEFORE ASKING THE VOTER TO DEPOSIT THE BALLOT IN THE BALLOT BOX. THE JUDGE THAN PLACES THE VOTER AUTHORITY CARD ON A SPINDLE AT THE BALLOT BOX STATION. WHEN THE POLLS CLOSE, THE AUTHORITY CARDS ARE REMOVED FROM THE SPINDLE ARE WRAPPED FOR RETURN TO THE ELECTIONS OFFICE. THE ISSUED VOTER AUTHORITY CARDS ARE WRAPPED AND KEPT SEPARATE FROM THE CARDS WHICH WERE NOT ISSUED.

VOTER AUTHORITY CARD - MONTGOMERY COUNTY

AFTER BEING RETURNED TO THE ELECTIONS OFFICE THE ISSUED VOTER AUTHORITY CARDS ARE READ TO TAPE USING THE CARD READERS WHICH HAD BEEN USED FOR READING THE BALLOTS. THE TAPE IS THEN SENT TO THE CENTRAL COMPUTER FACILITY, SORTED BY THE CARD SEQUENCE NUMBER, AND MATCHED TO THE SUSPENSE FILE CREATED WHEN THE CARDS WERE PRINTED IN ORDER TO OBTAIN THE IDENTIFICATION NUMBER OF THE VOTER. THE VOTER'S RECORD IS THEN UPDATED WITH THE APPROPRIATE INFORMATION IDENTIFYING THE ELECTION TYPE AND THAT THE VOTER VOTED IN PERSON AT THE POLLS. (IF THE VOTER VOTED BY ABSENTEE, THIS FACT IS UPDATED ON-LINE THROUGH THE TERMINALS WHEN THE ABSENTEE BALLOT IS RETURNED.)

AFTER THE VOTER AUTHORITY CARDS ARE READ TO TAPE AND THE TAPE IS SENT TO THE COMPUTER ROOM, THE CARDS ARE SORTED BY SEQUENCE NUMBER USING THE TAB CARD SORTER IN THE ELECTIONS OFFICE TO GET THEM IN ALPHABETICAL ORDER WITHIN PRECINCT. THE CARDS ARE THEN REVIEWED BY ELECTIONS OFFICE PERSONNEL TO LOCATE ANY CORRECTIONS OR CHANGES TO THE VOTER'S INFORMATION WHICH MAY HAVE BEEN COMPLETED AT THE POLLS.

CHANGES TO THE SYSTEM:

SINCE THE SYSTEM WAS ORIGINALLY IMPLEMENTED IN THE EARLY 70'S, THERE HAVE BEEN TWO MAJOR CHANGES TO THE PROCESSING OF THE VOTER AUTHORITY CARDS.

CHANGE 1. VOTER AUTHORITY CARDS FOR ABSENTEE VOTERS

WHEN ORIGINALLY IMPLEMENTED VOTER AUTHORITY CARDS WERE PRODUCED FOR ALL REGISTERED VOTERS. PRIOR TO PACKING FOR THE POLLING PLACE THE CARDS FOR VOTERS SENT ABSENTEE BALLOTS WERE MANUALLY PULLED BY ELECTIONS OFFICE STAFF. WITH THE DEVELOPMENT OF THE ON-LINE ABSENTEE PROCESS IT BECAME FEASIBLE TO NOT PRINT VOTER AUTHORITY CARDS FOR THOSE PERSONS WHO HAD BEEN ISSUED ABSENTEE BALLOTS UP TO THE TIME OF PRINTING. THIS CHANGE HAS SIGNIFICANTLY REDUCED THE NUMBER OF CARDS PRINTED AND MANUALLY PULLED, PARTICULARLY IN A PRESIDENTIAL GENERAL ELECTION WHEN WE CAN HAVE UP TO 25,000 ABSENTEE BALLOT REQUESTS.

CHANGE 2: COLOR AND SEQUENCE OF CARDS.

WHEN ORIGINALLY IMPLEMENTED VOTER AUTHORITY CARDS FOR A PRIMARY ELECTION WERE PRINTED ON EITHER PINK, WHITE OR YELLOW STOCK ACCORDING TO PARTY AFFILIATION. EACH POLLING PLACE THEN RECEIVED 3 DIFFERENT SETS. WHILE THIS WAS THOUGHT TO BE OF ASSISTANCE IN IDENTIFYING THE PROPER BALLOT THE VOTER WAS TO RECEIVE, IT WAS IN FACT A MATTER OF SOME CONFUSION FOR THE ELECTION JUDGES. VOTERS OFTEN THINK THEY HAVE REGISTERED WITH A DIFFERENT PARTY AND JUDGES DIDN'T ALWAYS LOOK THROUGH ALL THREE SETS TO LOCATE THE VOTER'S CARD. WE HAVE CHANGED THE PRIMARY PROCESS TO CORRESPOND TO THE GENERAL PROCESS AND PRODUCE ONE STRAIGHT ALPHABETIC SET OF CARDS PER PRECINCT. WE ALSO CHANGED THE COLOR OF ALL VOTER AUTHORITY CARDS TO GREEN SO THEY COULD BE EASILY DISTINGUISHED FROM ANY BALLOT SHOULD THE CARD END UP IN THE BALLOT BOX BY ERROR.

VOTER AUTHORITY CARD - MONTGOMERY COUNTY

TECHNICAL PROBLEMS:

THERE ARE TWO BASIC TECHNICAL PROBLEMS ASSOCIATED WITH MONTGOMERY COUNTY'S VOTER AUTHORITY CARD SYSTEM. THE FIRST PROBLEM HAS BEEN A PART OF THE PROCESS SINCE IT WAS ORIGINALLY IMPLEMENTED; THE SECOND PROBLEM IS CAUSED BY THE CHANGES IN DATA PROCESSING OVER THE PAST TWENTY YEARS.

PROBLEM 1: BECAUSE OF THE PARTICULAR MODEL OF CARD PUNCH OWNED BY THE COUNTY IT WAS NECESSARY TO DESIGN THE PROCESS AROUND FORMS WHICH CONTAINED PREPUNCHED SERIAL NUMBERS AND PRINTED ON THE LINE PRINTER. BECAUSE OF THIS THE SUSPENSE FILE BECAME NECESSARY TO LINK THE SERIAL NUMBER ON THE VOTER AUTHORITY CARD AND THE VOTER IDENTIFICATION NUMBER NEEDED TO UPDATE THE VOTER'S RECORD AFTER THE ELECTION. IF A PRINTING CARD PUNCH HAD BEEN AVAILABLE THE VOTER IDENTIFICATION NUMBER COULD HAVE BEEN PUNCHED IN THE CARD AS THE VOTER INFORMATION WAS PRINTED ON THE CARD.

PROBLEM 2: AS OF THIS TIME, PUNCHED CARD PROCESSING IS A TECHNIQUE WHICH HAS BECOME TOTALLY OBSOLETE. VENDORS ARE NO LONGER BUILDING OR MAINTAINING THE EQUIPMENT NECESSARY TO PROCESS PUNCHED CARDS. MONTGOMERY COUNTY IS ABLE TO CONTINUE WITH THE CURRENT PROCESS ONLY BECAUSE WE HAVE THE CARD READERS AVAILABLE TO US WHICH READ THE BALLOTS AND WE HAVE COLLECTED OLD TAB EQUIPMENT FROM OTHER COUNTY AGENCIES. IN THE NOT TOO DISTANT FUTURE THERE WILL BE NO SKILLS AVAILABLE TO REPAIR THE EQUIPMENT WE HAVE AND ALTERNATIVE PROCESSES WILL HAVE TO BE IMPLEMENTED.

EQUIPMENT:

THE FOLLOWING LIST OF EQUIPMENT IS CURRENTLY UTILIZED TO PROCESS THE VOTER AUTHORITY CARDS.

1. IBM MAINFRAME WITH TAPE AND DISK DRIVES - MAINTAIN THE VOTER REGISTRY ON DISK AND PROCESS APPROPRIATE ADDS, CHANGES, AND DELETIONS
2. IBM IMPACT LINE PRINTER - PRINT VOTER INFORMATION ON CARDS
3. CONTINUOUS FORMS BURSTER - SEPARATE THE CARDS AFTER PRINTING
4. DOCUMENTATION CARD READERS - READ TO TAPE THE CARDS OF THOSE WHO VOTED IN THE ELECTION
5. IBM TAB CARD SORTER - ALPHABETIZE CARDS OF THOSE WHO VOTED FOR MANUAL REVIEW

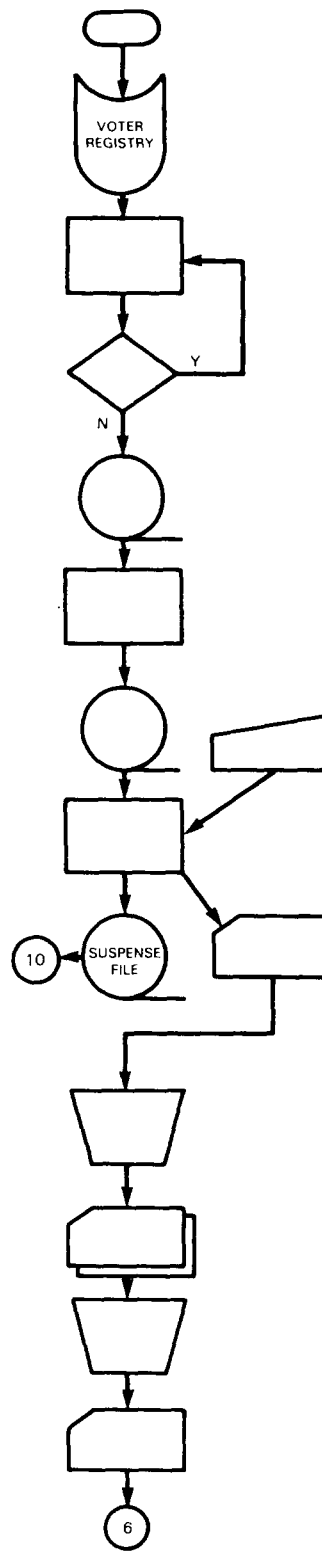
1. READ THE VOTER REGISTRY
IF ABSENTEE BALLOT NOT
REQUESTED PUT RECORD TO
TAPE

2. SORT VOTER RECORD BY NAME
WITHIN ELECTION DISTRICT
AND PRECINCT

3. COMPUTER OPERATOR ENTERS
BEGINNING VOTER AUTHORITY
CARD SEQUENCE NUMBER
PRINT CARD FOR EACH VOTER
WRITE TO TAPE THE CARD
SEQUENCE NUMBER AND THE
MATCHING VOTER ID NUMBER

4. BURST THE PRINTED VOTER
AUTHORITY CARDS IN THE DATA
PROCESSING DEPARTMENT

5. ELECTIONS OFFICE PACK
CARDS FOR EACH PRECINCT



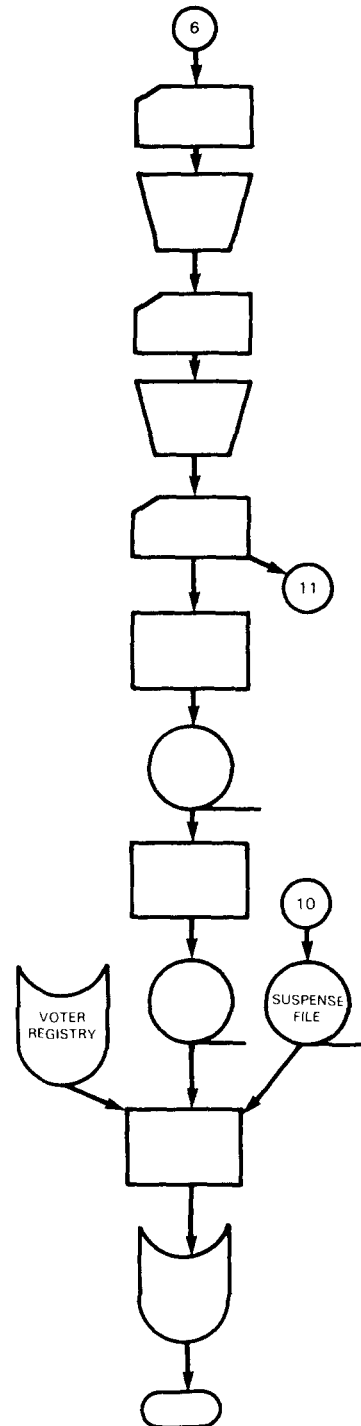
6. POLLING PLACE USES
AUTHORITY CARD AND
RETURNS THEM TO ELECTIONS
OFFICE

7. ELECTIONS OFFICES PLACES
USED VOTER AUTHORITY CARDS
IN BOXES BY PRECINCT

8. USED VOTER AUTHORITY CARDS
READ TO TAPE BY ELECTIONS
OFFICE

9. SORT TAPE BY CARD SEQUENCE
NUMBER

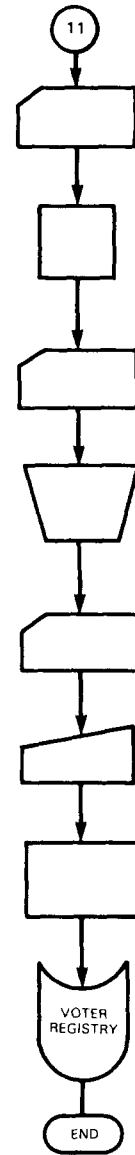
10. MATCH SORTED TAPE AGAINST
SUSPENSE FILE CREATED IN
STEP 1 TO FIND VOTER ID
NUMBER
UPDATE VOTER RECORD WITH
CODE FOR VOTING IN ELECTION



11. PHYSICALLY SORT THE VOTER
AUTHORITY CARDS BY CARD
SEQUENCE NUMBER

12. REVIEW CARDS AND EXTRACT
THOSE WITH CHANGES TO THE
VOTER INFORMATION

13. UPDATE THE VOTER RECORD
WITH THE NEW INFORMATION
BY ENTERING DATA THROUGH
THE TERMINAL.



Appendix 3B

VAC System Description Carroll County MD

**Rosemary McCloskey,
Elections Administrator
301-857-2080**

POLLING PLACE PROCEDURES FOR
THE VOTING AUTHORITY CARD
in
Carroll County, Maryland

In 1984 a change from lever machines to a computerized system utilizing a punched ballot card was made. This change necessitated changes to the Voting Authority Card (VAC) procedures at the polling place.

Each precinct receives its voting authority cards in a sealed carton. Under the direction of a Chief Judge, the cards are distributed to the appropriate check-in tables.

After locating the voter's name in the electronically reproduced precinct register, the Book Judge pulls the proper voting authority card, initials it and requests the voter to verify it, making any changes and/or corrections, and sign the card.

The voter then gives the signed card to the second Book Judge who places the poll book number and ballot stub number on the card in the appropriate areas.

The VAC together with the ballot is then given to the voter.

After the voter has punched his ballot, he proceeds to the ballot box. The Ballot Box Judge checks the stub number on the VAC against the ballot stub number of the ballot being presented; being satisfied that the ballot presented is the same one as was issued, the Judge allows the voter to remove the ballot stub from the ballot and deposit the ballot in the ballot box. The VAC is retained at the ballot box station and placed in the carton in which all VACs were originally shipped.

When the polls close, all signed (voted) VACs are banded and sealed together; all unsigned (not voted) VACs are also banded and sealed together. Both "packs" are then sealed in the original carton and returned to the election office with the other supplies.

THE CARROLL COUNTY VOTING AUTHORITY CARD

BACKGROUND

The use of voting authority cards is mandated by Article 33, Section 15-4 of the Annotated Code of Maryland. Prior to 1982, a voting authority card was a 3"x5" card up[on which the name of the voter was hand written by an election judge and given to the voter for his signature. This card was then presented to the machine judge, and the voter was allowed to vote. Statistical information was difficult to gather.

In 1982, a change to a pre-printed key punch card was made. The procedures for issuance remained the same except the Book Judge no longer entered the voter's name. By reading the punched cards, statistical information concerning voter turnout could now be electronically compiled. By 1986, it was becoming increasingly difficult to find facilities to punch and pre-print the cards, particularly the "chip" area which required special equipment. Carroll County was also phasing out key punching of data.

SEARCH FOR NEW CARD

A search for a new voting authority card system was begun. Under the guidance of Thomas Van de Bussche, Bureau Chief, Management Information Services, bar coding was investigated. Mr. Van de Bussche arranged for a visit to a commercial company using bar coding for record purposes. Criteria in considering a new system were cost, accuracy, reliability, compatibility with existing equipment, and possible utilization of equipment by other county agencies. By the fall of 1987, it was decided to use a bar coding system for the following reasons:

1. Could be used by other county agencies.
2. Pre-printed paper stock would not be affected by humidity, making for easier storage; paper stock less costly than card stock
3. Proved accuracy and reliability
4. Lighter weight paper stock makes transporting to polls easier
5. Cards can be prepared "in-house" making a more accurate and efficient process.

Since the county was getting a new high speed dot matrix printer with bar coding capabilities, printer problems would be solved.

THE SYSTEM

The equipment consists of a pod and wand. The pod plugs in between the standard keyboard and the terminal display. The cost was approximately \$500 per set. Two sets were purchased.

A new voting authority card was designed. More information was included on the new card. The card is very easy to read and, if damaged, does not have to be reproduced to be read. The voter identification number may be manually keyed into the system.

HOW IT WORKS

Appropriate commands are entered to "log on" to the system. Reading may then begin. Random updating is used whereby the appropriate record is located on the disc file and updated.

As a card is read, a beep is sounded indicating the bar code was correctly decoded; a second beep follows indicating the information was correctly sent and the record has been updated. Simultaneously, the voter identification number, name, district, precinct, party affiliation, and any error or warning message appears on the screen. After each precinct is read, a report is generated showing the aforementioned information and statistical data. After all precincts have been read and any corrections made, a full listing of all voting authority cards read is printed. This listing is produced in two formats: "straight" alphabetical and by district and precinct. Over the years, the terminal screen and the reports have undergone modifications and enhancements. The system is now easy to use and produces accurate results.

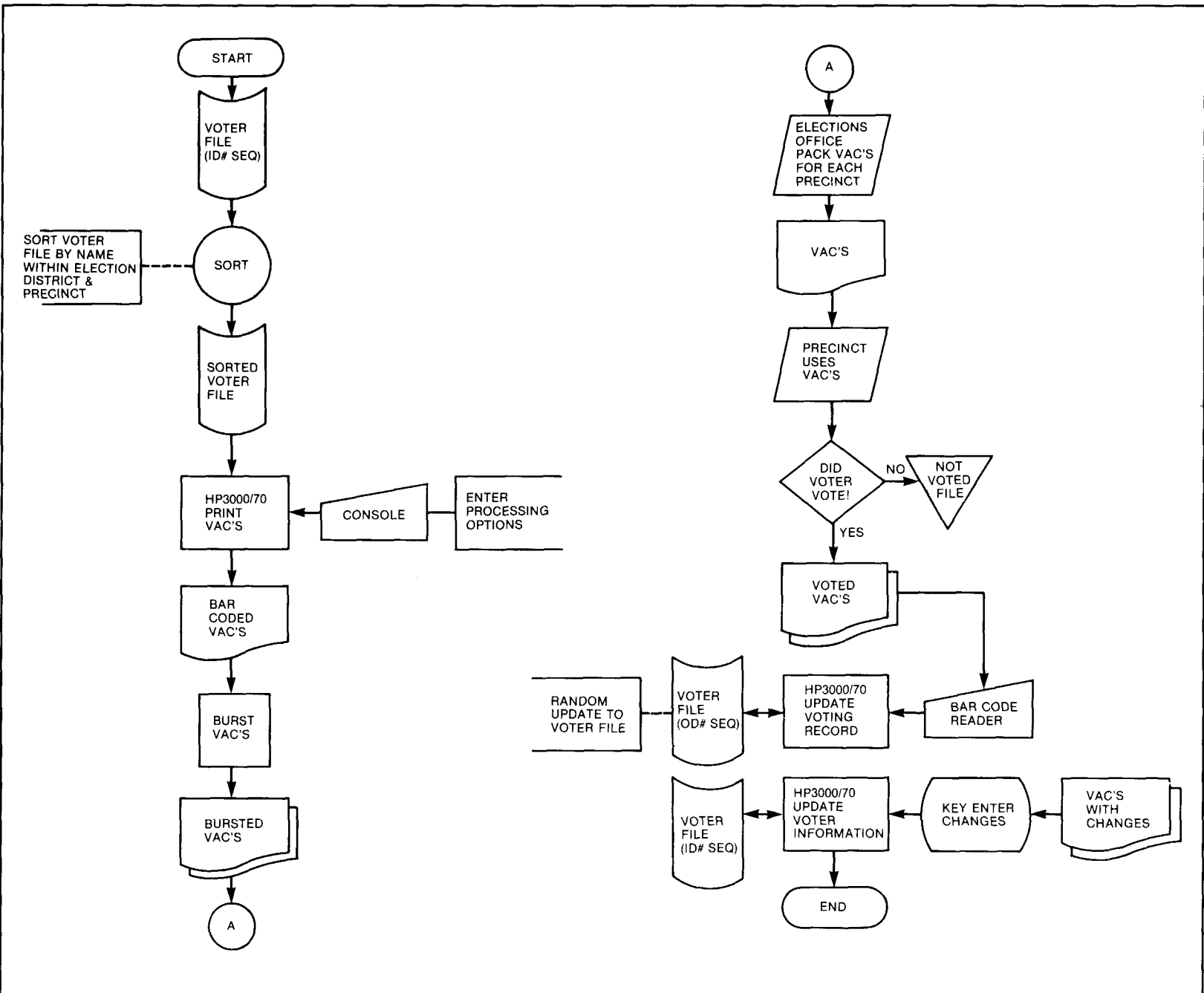
COST

The cost for key punched cards in 1986 was \$12.20 per 1,000 plus \$799.50 for set-up, plate charge, and delivery. Since key punching of the cards was not done in-house, the charge for punching was approximately \$500 per election.

The current VAC forms cost (in 1991) \$8.99 per 1,000 on an order of 136,000. The printing of voter information and bar coding is done in-house and not charged out to our budget.

DISADVANTAGES

The actual printing of the bar code is time consuming for the Data Department. Even with the high speed printer, it takes between 12-16 hours to code slightly over 56,500 cards. For large jurisdictions, bar coding may not be feasible; however, for small to medium areas, bar coding is a viable option.



Appendix 4A

**Specimens of
Statistical Reports:
Voter turnout by party,
age, and sex by precinct
and countywide**

Anne Arundel County MD

**Nancy Crawford,
Administrator
301-222-6600**

ANNE ARUNDEL COUNTY, MARYLAND
 BOARD OF SUPERVISOR OF ELECTIONS
 NOVEMBER 1990 GENERAL ELECTION VOTING RESULTS

DISTRICT	PRECINCT	P A R T Y A F F I L I A T I O N						
		DEMOCRATS UNDER 21	REPUBLICAN UNDER 21	DECLINES UNDER 21	AMERICAN UNDER 21	OTHERS UNDER 21		
05	011							
TOTAL REGISTERED		826	36	655	50	151	10	2
TOTAL VOTING IN PERSON		592	10	405	10	86	1	
TOTAL VOTING ABSENTEE		17	4	22	4	2		
TOTAL VOTED		609	14	427	14	88	1	
PERCENTAGE VOTING		.73	.38	.65	.28	.58	.10	
		T O T A L			A G E			
		REGISTERED	UNDER 21 **	18 - 20	21 - 35	36 - 50	51 - 65	66 - OVER
TOTAL REGISTERED		1,634	96	96	410	639	353	136
TOTAL VOTING IN PERSON		1,083	21	21	213	474	275	100
TOTAL VOTING ABSENTEE		41	8	8	7	8	14	4
TOTAL VOTED		1,124	29	29	220	482	289	104
PERCENTAGE VOTING		.68	.30	.30	.53	.75	.81	.76
		S E X						
		MALES	UNDER 21	FEMALES	UNDER 21			
TOTAL REGISTERED		794	46	840	50			
TOTAL VOTING IN PERSON		530	9	553	12			
TOTAL VOTING ABSENTEE		22	4	19	4			
TOTAL VOTED		552	13	572	16			
PERCENTAGE VOTING		.69	.28	.68	.32			

* * UNDER 21 TOTALS ARE INCLUDED IN TOTALS TO THE LEFT * *

OFFICIAL TABULATION BY
THE BOARD OF SUPERVISORS OF ELECTIONS FOR
ANNE ARUNDEL COUNTY, MARYLAND

GENERAL ELECTION NOVEMBER 06 1990

TOTAL REGISTERED IN ANNE ARUNDEL COUNTY OCTOBER 09, 1990 180,478
 REGISTRATION BY ABSENTEE BALLOTT 14
 TOTAL 180,492

TOTAL VOTED IN ANNE ARUNDEL COUNTY NOVEMBER 06, 1990 117,786

- - REGISTERED - -				- - VOTED - -			
	TOTAL	ABSENTEE	TOTAL UNDER 21	ABSENTEE UNDER 21		TOTAL	UNDER 21
DEMOCRATS	99,385	1,632	3,006	126	DEMOCRATS	68,388	976
REPUBLICANS	66,103	1,354	4,796	154	REPUBLICANS	41,391	1,310
DECLINES	14,823	143	1,009	13	DECLINES	7,934	196
OTHERS	181	1	18		OTHERS	73	4
TOTAL	180,492	3,130	8,829	293	TOTAL	117,786	2,486
MALES	85,532	1,462	4,258	122	MALES	57,039	1,211
FEMALES	94,960	1,668	4,571	171	FEMALES	60,747	1,275
TOTAL	180,492	3,130	8,829	293	TOTAL	117,786	2,486

Appendix 4B

**Selections from
Voter Turnout Reports:
Listing of all turnout reports
issued; Turnout by party,
precinct and Congressional
district; Turnout by age, party,
gender for all voters and
absentee voters.**

Montgomery County MD

**Carol Evans,
Elections Administrator
301-217-6450**

V O T E R T U R N O U T

General Election, November 6, 1990
Montgomery County, Maryland

- Part I** In numerical order by precinct within Election District.
Pages 512 - 517 All registered voters by party, precinct and election district.
- Part II** In numerical order by precinct within Congressional District.
Pages 518 - 526 All registered voters by party, precinct and Congressional District.
- Part III** In numerical order by precinct within Legislative District.
Pages 527 - 535 All registered voters by party, precinct and Legislative District.
- Part IV** In numerical order by precinct within Councilmanic District.
Pages 536 - 544 All registered voters by party, precinct and Councilmanic District.
- Part V** In numerical order by precinct within School Board District.
Pages 545 - 553 All registered voters by party, precinct and School Board District.
- Part VI** Countywide
- Page 554 All registered voters by age group and party.
- Page 555 Female registered voters by age group and party.
- Page 556 Male registered voters by age group and party.
- Page 557 Absentee ballots by age group and party

VOTERS AND VOTES CAST BY PRECINCT WITHIN CONGRESSIONAL DISTRICT - GENERAL ELECTION
 PREPARED BY SUPERVISORS OF ELECTIONS, MONTGOMERY CO., MD.

11-06-90

PAGE # 518

DISTRICT & PRECINCT	DEMOCRATS			REPUBLICANS			DECLINES			OTHERS			TOTAL		
	REG.	VOTED	PERCENT	REG.	VOTED	PERCENT	REG.	VOTED	PERCENT	REG.	VOTED	PERCENT	REG.	VOTED	PERCENT
01-01	845	535	63.3	862	508	58.9	260	125	48.1	0	0	0.0	1,967	1,168	59.4
01-02	1,660	938	56.5	1,798	918	51.1	571	240	42.0	0	0	0.0	4,029	2,096	52.0
02-01	843	536	63.6	749	403	53.8	186	93	50.0	1	0	0.0	1,779	1,032	58.0
02-02	1,277	675	52.9	1,132	517	45.7	448	180	40.2	1	0	0.0	2,858	1,372	48.0
02-03	1,229	631	51.3	1,326	565	42.6	546	222	40.7	2	1	50.0	3,103	1,419	45.7
03-00	995	652	65.5	976	576	59.0	351	168	47.9	0	0	0.0	2,322	1,396	60.1
06-01	659	415	63.0	881	513	58.2	258	119	46.1	0	0	0.0	1,798	1,047	58.2
06-02	570	343	60.2	778	417	53.6	206	90	43.7	0	0	0.0	1,554	850	54.7
06-03	1,494	805	53.9	1,394	662	47.5	485	191	39.4	0	0	0.0	3,373	1,658	49.2
06-04	1,271	787	61.9	969	504	52.0	463	225	48.6	1	0	0.0	2,704	1,516	56.1
06-05	845	575	68.0	975	549	56.3	329	161	48.9	1	1	100.0	2,150	1,286	59.8
06-06	1,449	946	65.3	984	521	52.9	518	275	53.1	1	0	0.0	2,952	1,742	59.0
10-01	404	267	66.1	496	288	58.1	143	61	42.7	0	0	0.0	1,043	616	59.1
10-02	652	430	66.0	838	471	56.2	249	124	49.8	1	1	100.0	1,740	1,026	59.0
10-03	612	408	66.7	544	316	58.1	177	101	57.1	0	0	0.0	1,333	825	61.9
10-07	695	461	66.3	509	297	58.3	215	115	53.5	0	0	0.0	1,419	873	61.5
10-09	790	505	63.9	902	519	57.5	292	146	50.0	0	0	0.0	1,984	1,170	59.0
10-10	747	444	59.4	865	457	52.8	345	154	44.6	0	0	0.0	1,957	1,055	53.9
11-00	519	363	69.9	391	236	60.4	112	56	50.0	0	0	0.0	1,022	655	64.1
12-01	1,266	715	56.5	1,328	639	48.1	395	142	35.9	2	0	0.0	2,991	1,496	50.0
12-02	726	450	62.0	758	434	57.3	205	100	48.8	0	0	0.0	1,689	984	58.3
12-03	1,281	817	63.8	1,255	631	50.3	375	166	44.3	1	0	0.0	2,912	1,614	55.4
DISTRICT TOT DIST 6	20,829	12,698	61.0	20,710	10,941	52.8	7,129	3,254	45.6	11	3	27.3	48,679	26,896	55.3
04-01	1,129	632	56.0	514	249	48.4	252	105	41.7	0	0	0.0	1,895	986	52.0
04-02	844	588	69.7	467	263	56.3	218	116	53.2	0	0	0.0	1,529	967	63.2

VIP196
DATE-RUN:11/20/90

MONTGOMERY COUNTY MARYLAND
REGISTERED VOTERS AND VOTES CAST BY AGE GROUP AND PARTY - GENERAL ELECTION 11/06/90

PAGE # 554

D E M O C R A T S					R E P U B L I C A N S				
AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED	AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED
UNDER 21	5,423	2.75	1,334	24.59	UNDER 21	4,836	4.02	988	20.43
21 - 24	9,555	4.85	2,533	26.50	21 - 24	9,146	7.61	2,152	23.52
25 - 34	36,243	18.39	16,619	45.85	25 - 34	28,717	23.89	11,679	40.66
35 - 44	48,033	24.37	31,284	65.13	35 - 44	22,551	18.76	13,134	58.24
45 - 54	35,465	18.00	25,475	71.83	45 - 54	19,346	16.10	12,640	65.33
55 - 64	26,538	13.47	19,890	74.94	55 - 64	15,856	13.19	11,340	71.51
OVER 64	35,815	18.17	25,921	72.37	OVER 64	19,745	16.43	13,567	68.71
ALL VOTERS	197,072	100.00	123,056	62.44	ALL VOTERS	120,197	100.00	65,500	54.49

O T H E R S					T O T A L S				
AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED	AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED
UNDER 21	2,237	4.59	354	15.82	UNDER 21	12,496	3.41	2,676	21.41
21 - 24	4,236	8.70	718	16.94	21 - 24	22,937	6.27	5,403	23.55
25 - 34	11,818	24.27	4,091	34.61	25 - 34	76,778	20.98	32,389	42.18
35 - 44	13,717	28.17	7,190	52.41	35 - 44	84,301	23.04	51,608	61.21
45 - 54	7,725	15.87	4,584	59.33	45 - 54	62,536	17.09	42,699	68.27
55 - 64	4,421	9.08	2,819	63.76	55 - 64	46,815	12.79	34,049	72.73
OVER 64	4,534	9.31	2,885	63.63	OVER 64	60,094	16.42	42,373	70.51
ALL VOTERS	48,688	100.00	22,641	46.50	ALL VOTERS	365,957	100.00	211,197	57.71

D E M O C R A T S					R E P U B L I C A N S				
AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED	AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED
UNDER 21	3,120	2.76	752	24.10	UNDER 21	2,190	3.64	439	20.04
21 - 24	5,689	5.03	1,519	26.70	21 - 24	4,388	7.29	1,000	22.78
25 - 34	21,356	18.89	9,454	44.26	25 - 34	13,838	23.00	5,485	39.63
35 - 44	27,820	24.61	17,847	64.15	35 - 44	11,080	18.41	6,361	57.40
45 - 54	20,002	17.70	14,166	70.82	45 - 54	9,547	15.87	6,163	64.55
55 - 64	14,312	12.66	10,541	73.65	55 - 64	7,897	13.12	5,532	70.05
OVER 64	20,728	18.34	14,372	69.33	OVER 64	11,229	18.66	7,307	65.07
ALL VOTERS	113,027	100.00	68,651	60.73	ALL VOTERS	60,169	100.00	32,287	53.66
*****					*****				
O T H E R S					T O T A L S				
AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED	AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	VOTED NUMBER	PERCENT OF REGISTERED
UNDER 21	1,150	4.87	182	15.82	UNDER 21	6,460	3.28	1,373	21.25
21 - 24	2,210	9.36	360	16.28	21 - 24	12,287	6.24	2,879	23.43
25 - 34	6,101	25.85	2,007	32.89	25 - 34	41,295	20.98	16,946	41.03
35 - 44	6,612	28.01	3,381	51.13	35 - 44	45,512	23.13	27,589	60.61
45 - 54	3,371	14.28	1,889	56.03	45 - 54	32,920	16.73	22,218	67.49
55 - 64	1,906	8.08	1,150	60.33	55 - 64	24,115	12.25	17,223	71.42
OVER 64	2,252	9.54	1,295	57.50	OVER 64	34,209	17.38	22,974	67.15
ALL VOTERS	23,602	100.00	10,264	43.48	ALL VOTERS	196,798	100.00	111,202	56.50

VIP196
DATE-RUN: 11/20/90

MONTGOMERY COUNTY MARYLAND
REGISTERED MALE VOTERS AND VOTES CAST BY AGE GROUP AND PARTY - GENERAL ELECTION 11/06/90

PAGE # 556

D E M O C R A T S					R E P U B L I C A N S				
AGE GROUP	REGISTERED		VOTED		AGE GROUP	REGISTERED		VOTED	
	NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF REGISTERED		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF REGISTERED
UNDER 21	2,303	2.74	582	25.27	UNDER 21	2,646	4.41	549	20.74
21 - 24	3,866	4.60	1,014	26.22	21 - 24	4,758	7.93	1,152	24.21
25 - 34	14,887	17.71	7,165	48.12	25 - 34	14,879	24.79	6,194	41.62
35 - 44	20,213	24.05	13,437	66.47	35 - 44	11,471	19.11	6,773	59.04
45 - 54	15,463	18.40	11,309	73.13	45 - 54	9,799	16.32	6,477	66.09
55 - 64	12,226	14.55	9,349	76.46	55 - 64	7,959	13.26	5,808	72.97
OVER 64	15,087	17.95	11,549	76.54	OVER 64	8,516	14.19	6,260	73.50
ALL VOTERS	84,045	100.00	54,405	64.73	ALL VOTERS	60,028	100.00	33,213	55.32
.....								
O T H E R S					T O T A L S				
AGE GROUP	REGISTERED		VOTED		AGE GROUP	REGISTERED		VOTED	
	NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF REGISTERED		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF REGISTERED
UNDER 21	1,087	4.33	172	15.82	UNDER 21	6,036	3.57	1,303	21.58
21 - 24	2,026	8.08	358	17.67	21 - 24	10,650	6.30	2,524	23.69
25 - 34	5,717	22.79	2,084	36.45	25 - 34	35,483	20.96	15,443	43.52
35 - 44	7,105	28.32	3,809	53.61	35 - 44	38,789	22.93	24,019	61.92
45 - 54	4,354	17.36	2,695	61.89	45 - 54	29,616	17.51	20,481	69.15
55 - 64	2,515	10.03	1,669	66.36	55 - 64	22,700	13.42	16,826	74.12
OVER 64	2,282	9.10	1,590	69.67	OVER 64	25,885	15.30	19,399	74.94
ALL VOTERS	25,086	100.00	12,377	49.33	ALL VOTERS	169,159	100.00	99,995	59.11

D E M O C R A T S					R E P U B L I C A N S				
AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	ABSENTEES NUMBER	PERCENT OF REGISTERED	AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	ABSENTEES NUMBER	PERCENT OF REGISTERED
UNDER 21	5,423	2.75	582	10.73	UNDER 21	4,836	4.02	319	6.59
21 - 24	9,555	4.85	196	2.05	21 - 24	9,146	7.61	99	1.08
25 - 34	36,243	18.39	271	0.74	25 - 34	28,717	23.89	196	0.68
35 - 44	48,033	24.37	477	0.99	35 - 44	22,551	18.76	218	0.96
45 - 54	35,465	18.00	541	1.52	45 - 54	19,346	16.10	324	1.67
55 - 64	26,538	13.47	607	2.28	55 - 64	15,856	13.19	405	2.55
OVER 64	35,815	18.17	1,352	3.77	OVER 64	19,745	16.43	710	3.59
ALL VOTERS	197,072	100.00	4,026	2.04	ALL VOTERS	120,197	100.00	2,271	1.88
.....								
O T H E R S					T O T A L S				
AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	ABSENTEES NUMBER	PERCENT OF REGISTERED	AGE GROUP	REGISTERED NUMBER	PERCENT OF TOTAL	ABSENTEES NUMBER	PERCENT OF REGISTERED
UNDER 21	2,237	4.59	121	5.40	UNDER 21	12,496	3.41	1,022	8.17
21 - 24	4,236	8.70	27	0.63	21 - 24	22,937	6.27	322	1.40
25 - 34	11,818	24.27	41	0.34	25 - 34	76,778	20.98	508	0.66
35 - 44	13,718	28.17	95	0.69	35 - 44	84,302	23.04	790	0.93
45 - 54	7,727	15.87	88	1.13	45 - 54	62,538	17.09	953	1.52
55 - 64	4,421	9.08	70	1.58	55 - 64	46,815	12.79	1,082	2.31
OVER 64	4,534	9.31	127	2.80	OVER 64	60,094	16.42	2,189	3.64
ALL VOTERS	48,691	100.00	569	1.16	ALL VOTERS	365,960	100.00	6,866	1.87

For information about other

Innovations in Election Administration

contact

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Federal Election Commission
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Washington, D.C. 20463**

**Toll Free 800/424-9530
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