# CITIZENS LEAGUE REPORT No. 189 **Needed Improvements in Voting Procedures** March 1966

Citizens League 545 Mobil Oil Building Minneapolis, Minnesota 55402 APPROVED: Citizens League Board of Directors March 2, 1966

## Report on Voting Procedures

Why do a smaller percentage of voters cast votes on constitutional amendments and other special questions in localities where voting machines are used than in localities which use paper ballots?

Why are some candidates' names located in such positions on voting machines that some voters appear to fail to notice the names?

Why are names of candidates for non-partisan office sometimes located on voting machines in such a position that they seem to be aligned with a certain political party, when, in fact, they actually may belong to another party?

Are voters given proper instructions regarding the operation of voting machines and the make-up of the voting machine ballot?

These are the types of questions which the Citizens League Voting Procedures Committee has attempted to answer in this report.

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#### SUMMARY OF MAJOR RECOMMENDATIONS

1. Election laws and procedures need changing to improve the instruction which is given to voters regarding voting machines.

2. Sample ballots should be exact facsimiles of official ballots on voting machines.

3. Arrangement of candidates' names on voting machines needs considerable improvement so that voter confusion can be minimized.

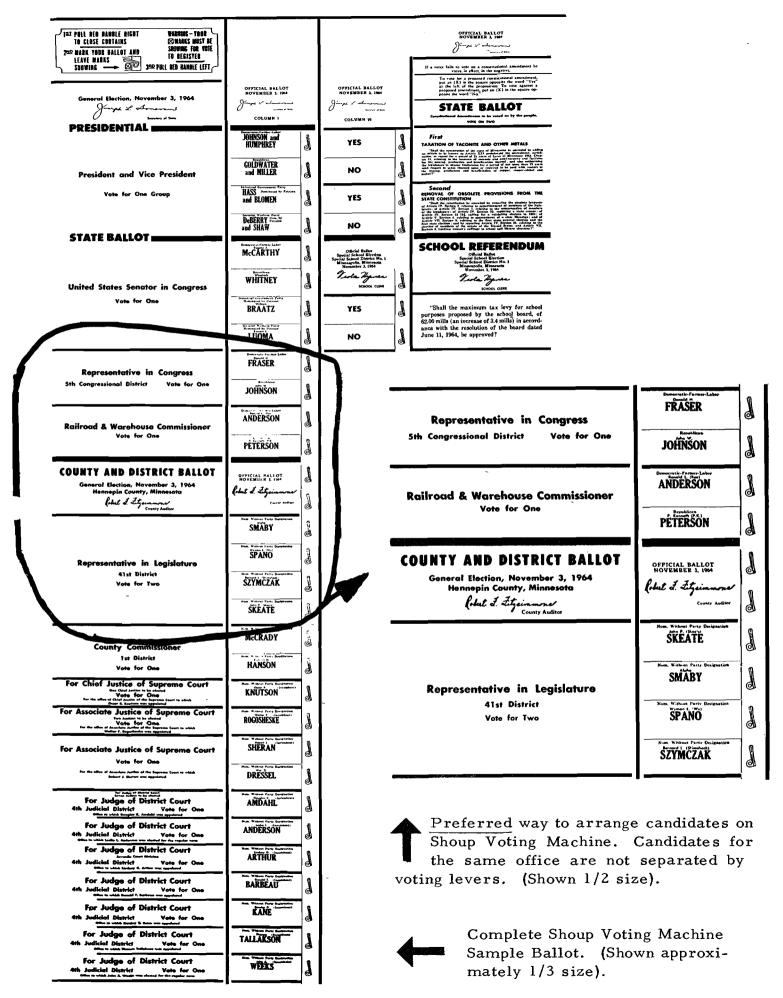
4. The presentation of constitutional amendments and other special questions on voting machines needs improvement. This includes legalizing reminders on the voting machine and providing for attachments which enlarge the size available for such special questions.

5. A technical study of the various types of electronic voting systems on the market today in comparison with the traditional voting machines should be undertaken so that localities can know the advantages and disadvantages of each.

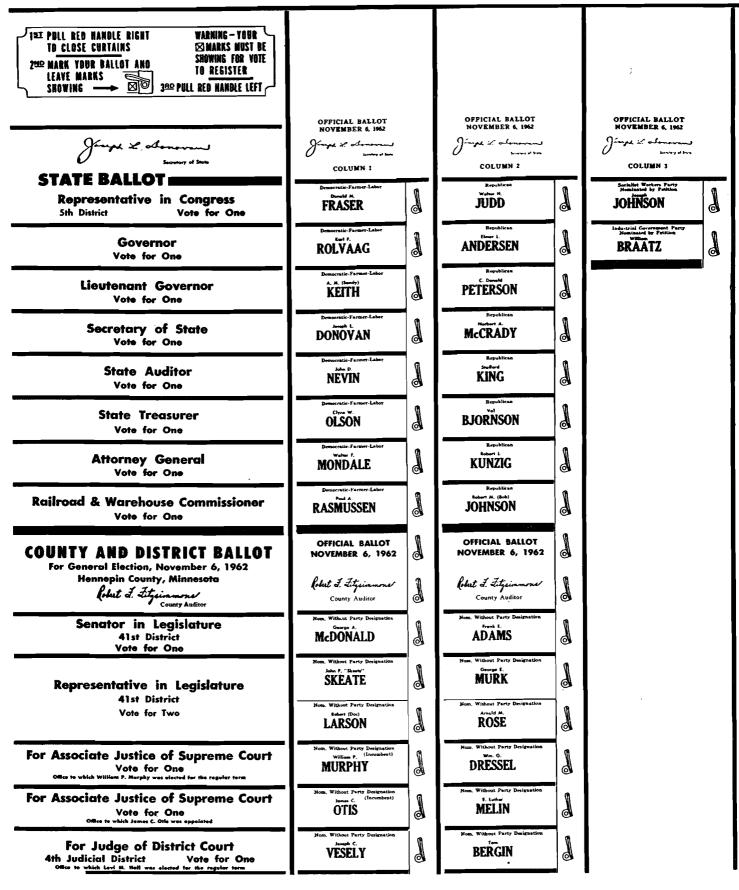
6. Localities now using paper ballots should consider the Votomatic-first electronic voting system introduced in Minnesota--together with the traditional voting machines in deciding what kind of a voting device to use, if the Votomatic is approved for general use following the 1966 general election.

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The reader should become familiar with the exhibits on the following pages which are an integral part of this report and which are referred to in the body of the report.



# EXHIBIT A



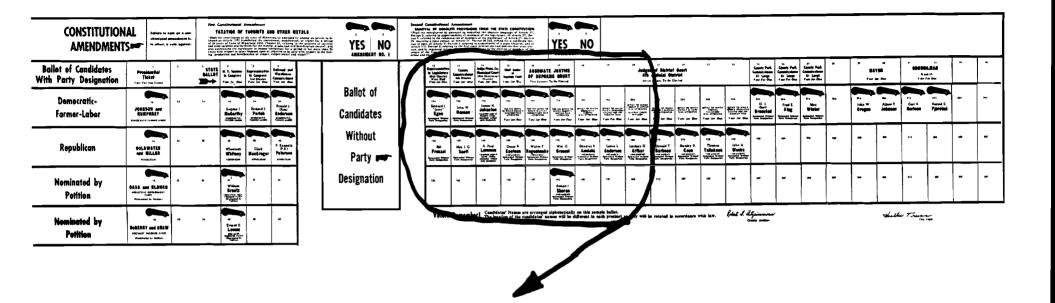
<u>Undesirable</u> way to arrange candidates on the Shoup Voting Machine. Candidates for the same office are separated by voting levers. Non-partisan candidates on County and District Ballot appear to be running on same ticket as the partisan candidates on State Ballot above them when they appear in same column. (Shown approximately 1/2 size)

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Complete Automatic Voting Machine Sample Ballot with <u>undesirable</u> <u>small</u> attachment for special questions such as constitutional amendments. (Shown approximately 1/4 size)

Portion of Automatic Voting Machine Sample Ballot with arrangement of candidates. Names for a given office are separated by voting levers. (Shown 2/3 size)

CITIZENS LEAGUE --- Voting Procedures Study, 1966

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6. Discussion

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Citizens League 545 Mobil Oil Building Minneapolis, Minnesota 55402

TO: Citizens League Board of Directors

FROM: Voting Procedures Committee, James L. Weaver, chairman

SUBJECT: Needed improvements in voting laws and procedures as they relate to voting machines, ballots, instructions to voters, training of judges and voter registration.

## RECOMMENDATIONS, FINDINGS AND CONCLUSIONS

#### I. Voting Machines and Voter Instruction

## A. Sample Ballots

Recommendation:

We recommend that state law be revised to require that sample ballots used to instruct voters in a voting machine precinct be exact facsimiles of the official ballots in voting machines in that precinct.

This recommendation is not being followed today and our review indicates that sample ballots often confuse voters more than inform them.

Our recommendation means as follows:

--Sample ballots should be the same size as the official ballots which appear on the voting machines, with candidates and questions (such as constitutional amendments) located in exactly the same place as on the machine.

--Sample ballots should show all the unused space which is present on the voting machine ballot.

--The various colors used in the make-up of the voting machine ballot should be reproduced exactly on the sample ballots.

--Voting levers should be reproduced on sample ballots to resemble the actual voting levers in a voting machine.

--Write-in slots should be reproduced on the sample ballots in the same location as they appear on the official voting machine ballots.

We regard this recommendation as extremely crucial and one which can go a long way toward ending the confusion which many persons encounter when they enter the voting machine.

<u>Findings and Conclusions</u>: We have reviewed in detail the provisions of state law dealing with the sample ballot. We have compared sample ballots with official ballots and we have discussed the problem with city and county election officials. The sample ballot is intended to provide instruction to voters at a polling place before they enter the voting booth. We have found a number of shortcomings in the make-up of the sample ballot today which tend to impede the instruction process. Specifically, we make the following findings: --Names of candidates for non-partisan office in a voting machine precinct in all likelihood will appear in different positions on the official ballot than on the sample ballot. Consequently, a person who looks at the sample ballot and notices that the name of a candidate he favors for a given office is in a certain position probably will not find that candidate's name in the same position on the official ballot. This represents an intolerable situation which must be changed by the 1967 Legislature. The reason for the present situation is a requirement in state law that non-partisan candidates on all sample ballots in all precincts must be arranged in alphabetical order. State law also requires that on the official ballot the position of the names of non-partisan candidates must be substantially rotated from precinct-to-precinct so that no candidate. for example, receives the benefit of appearing first in all cases. But since state law does not permit the rotation of names accordingly on sample ballots, the position of names on a sample ballot in a certain precinct will be different from that of the official ballot unless the rotation schedule happens to be alphabetical for that precinct.

--Present state law does not require that the sample ballot show the candidates and questions in the same relative position as on the official ballot. For example, in Minneapolis, Richfield and Robbinsdale, which use the vertical-type Shoup Voting Machines, the sample ballot usually will show the questions located in the next row beside the candidates. However, in the actual official ballot in the machine, the candidates are located on the far left side of the machine and the questions on the far right side. After we began our inquiry into this problem, we were told by the Hennepin County Auditor that he intends to arrange sample ballots from now on so that the candidates and questions will be located in the same relative position. We commend him for his action, but believe that it should be required in state law.

--Generally sample ballots today include a rough sketch of the voting levers next to each candidate or question. However, these levers often look much different on the machine than they do on the sample ballot. State law should require that sample ballots have exact reproductions of the voting levers.

--The color of the sample ballot is not the same as the official ballot. The sample ballot is blue, whereas the official ballot usually will be three, or even four different colors. State law should require that the same colors used on the official ballot be also used on the sample ballot.

--Sketches of the write-in slots have not always appeared on sample ballots. We have seen sample ballots from St. Paul and Duluth which show the write-in slots, but they have been absent on sample ballots in Hennepin County. When informed of this, the Hennepin County Auditor told us it has been an oversight on his part and that the write-in slots will be shown in the future. We commend him for this but believe that the requirement should be placed in state law.

All of the above findings and conclusions lead to one clear point: the sample ballot should look exactly like the actual voting machine ballot. The function of the sample ballot is to assist the voter before he enters the voting booth. We have received no information which would justify the sample ballot not being an exact facsimile of the official ballot in the voting machine.

# B. Instructing Voters with the Sample Ballot

#### Recommendations:

1. We recommend that the two sample ballots required by state law for each polling place be located in the following manner: one just inside the entrance to the polling place where a voter may look over the sample ballot at his leisure and the other located in such a position that the voter will be required to pass by and notice it before he enters the voting booth.

2. We recommend that an election judge be required to be stationed at all times next to the second sample ballot referred to above. He should be required to point out the sample ballot to every voter and advise the voter that it represents an exact reproduction of the ballot as it appears in the voting machine. The judge must be prohibited from pointing out specific parts of the sample ballot unless requested to do so by a voter.

<u>Findings and Conclusions</u>: We have reviewed in detail the provisions of state law dealing with instructions to voters and have discussed with local election officials the practices of election judges.

In Hennepin County, at least, election judges have been given very explicit instructions as to what they can tell voters by using the sample ballot. These explicit instructions are based on a County Attorney's opinion issued in October 1962 to the County Auditor.

That opinion provides that an election judge may not point out that the candidates are located in a certain place on the voting machine and that the questions are located in another place. The County Attorney stated that the election judge must draw each voter's attention to the voting machine and suggested the following language: "Under the law, I am required to call your attention to this diagram so that you can become familiar with the location of the questions, names of candidates, referendums, and constitutional amendments." At least in Minneapolis, election judges are told to use this language.

It was the County Attorney's opinion that under existing state law there is no legal way by which the voter's attention can be drawn to the various parts of the voting machine ballot other than in the general language he suggested. The opinion was issued in response to a question as to whether any reminder can be printed on the voting machine as to the location of the constitutional amendments. The County Attorney stated that no authority exists for such special reminders.

We believe it is a good idea to limit what an election judge may tell a voter voluntarily. The risk always exists that a judge either deliberately or inadvertantly will exercise influence on a voter one way or another if the judge goes into any detail in explaining the sample ballot. But the judge definitely should draw every voter's attention to the sample ballot, and--in line with our first recommendation that the sample ballot be an exact facsimile of the official ballot on the voting machine--state that the sample ballot is an exact facsimile. It is very important for the judge to tell this to the voter, especially since the sample ballot has been different so far. Some voters may have ignored the sample ballot because it has not looked like the official ballot.

Some persons have suggested that election judges voluntarily should point out to voters, in a general way, that contests are located in a certain place on the voting machine and that questions, such as constitutional amendments, are located in another place. We believe that even this type of direction carries with it the risk that a judge could influence a voter on how he votes. Furthermore, we believe that with the sample ballot being an exact facsimile of the official ballot, voters will be more inclined to look over the sample ballot and notice the location of the contests and questions.

## C. Instructing Voters in the Mechanical Operation of the Voting Machine

#### Recommendations:

1. We recommend that state law require clerks of voter registration in localities where voting machines are used to ask every voter when he registers whether he would desire instruction in how the voting machine works. Instruction then should be given at that time.

If registration takes place at the headquarters of voter registration, the City Hall, instruction should be required on an actual voting machine. On certain occasions, especially just before an election, several centers of voter registration are set up throughout a locality. In such instances it should be permissible to use a small model of a portion of the voting machine (the mechanical model). Such models can be transported easily. Not only is it difficult to transport voting machines from place to place, but shortly before an election, election officials usually are busy preparing voting machines for the election and they cannot be used for other purposes.

> 2. We recommend that the existing requirement in state law that every voter be instructed at the polls in the operation of the voting machine by use of the small mechanical model of the machine be eliminated. However, the mechanical model still should remain at the polls in case any voter asks for assistance.

Not only is the existing requirement largely ignored, it also fails to do an adequate job.

<u>Findings and Conclusions</u>: We have reviewed state law relating to this point and have discussed it with local election officials. We make the following specific findings:

--The present method of instructing voters in how to operate the machine is inadequate at best and sometimes misleading and confusing.

State law requires that a mechanical model which is a mechanical reproduction of a portion of the face of the voting machine be located at each polling place in such a location that each voter must pass by before he reaches the voting booth. Further, state law requires that each voter must be instructed in the operation of the machine by use of this model.

The mechanical model, less than 18 inches square, does not resemble the voting machine at all. Its only effective role is to indicate how a voting lever can be moved and that a voting lever must remain down in order for a vote to count.

--It does not seem necessary to require that all voters, at every precinct, be instructed in how a voting machine works. After all, probably the majority of them have voted on machines before.

--The requirement in state law is not even followed today. In fact, election judges in Minneapolis are specifically instructed <u>not</u> to provide instructions with the mechanical model unless requested by a voter. From our own experiences and from comments by others apparently many voters are not even aware that the mechanical model is at the polling place.

We agree with election officials who say that many voters are very independent and do not want to be bothered with instructions, especially when they already know how to operate the machine. But we also know that there are a large number of first-time voters or voters who have transferred from non-voting machine localities or localities with other types of voting machines. For the benefit of these voters some instruction in the operation of the machine is necessary.

It seems to us that the best time such instruction can be given is at the time of voter registration. At that time, of course, there is no rush or interference because of an election. The official who conducts voter registration can ask each person who registers whether he wishes to be instructed. This instruction can be provided best in connection with an actual voting machine. Therefore, in a permanent place of voter registration, such as the City Hall, a voting machine should be required for such instruction. In temporary voter registration locations, frequently set up just before an election, the small mechanical models can be permitted.

We see no need to ban the mechanical models from the polling place altogether. They can be retained for those cases where a voter would ask an election judge to explain how to operate a voting machine.

## C. Clarification of State Law

## Recommendation:

We recommend that terminology in state law and all references to voting machines, mechanical models and sample ballots be clarified so that the distinctions between them is absolutely clear.

<u>Findings and Conclusions</u>: Our review of state law relating to voting machines, mechanical models and sample ballots indicated that there seem to be certain ambiguities in Minnesota Statutes 206.20, which deals with instructions to voters. The language which gave us the most problems reads as follows: "The voter's attention shall also be called to the diagram on the face of the machine so that the voter becomes familiar with the location of the questions and the names of the offices and candidates."

The County Attorney's opinion of 1962 referred to earlier indicates that the words "diagram on the face of the machine" refer to the sample ballot. This seems consistent with other provisions in state law which state that the sample ballot "shall be arranged in the form of a diagram showing such part of the face of the voting machine as shall be in use in that election..." (206.09). However, at least one lawyer on our committee stated that "diagram on the face of the machine" could be taken to mean the actual voting machine, and that, in effect, the election judge should use the voting machine itself in instructing voters. And, further, one person who works regularly with election procedures in Minnesota, thinks that "diagram on the face of the machine" means the small mechanical model.

## II. Voting Machines and the Make-up of the Official Ballot

A. Questions (such as Constitutional Amendments and Referendums)

#### Recommendations:

So that all voters will notice questions (such as constitutional amendments and referendums) on voting machines and so that practices in this regard are uniform from locality to locality and county to county we make the following specific recommendations:

--Special attachments (costing \$4 for each machine) such as were used in Duluth in the 1964 general election to enlarge the space available for questions on the Automatic Voting Machine should be used throughout the state wherever Automatic Voting Machines are located. If necessary, state law should be clarified so that these attachments are absolutely legal. Without the attachments a space only 1 5/8 inches high is available for questions with the Automatic Voting Machines. The attachments add another 4 inches. All localities with these machines should be required to have the attachments, because a lack of uniformity could change the pattern of voting and even affect the outcome of an election.

--State law should be changed to specifically instruct County Auditors to place a conspicuous reminder on the official voting machine ballot to remind voters that there are questions (such as constitutional amendments and referendums) to be voted upon. Such a reminder may be illegal now. This reminder is to be in addition to another statement, already provided for, stating that failure to vote on constitutional amendments constitutes in effect a "no" vote. Some County Auditors have placed this statement in such a position on the voting machine that it also has had the effect of reminding voters that there are constitutional amendments to be voted upon. The Hennepin County Auditor has chosen to place this statement next to the amendments themselves. If the first reminder mentioned in this paragraph is legalized, we would urge that all auditors follow the example of the Hennepin County Auditor. But if such a reminder is not legalized, we believe the Hennepin County Auditor should consider placing the statement which already is legal in a location where it could have the effect of reminding voters that there are constitutional amendments to be voted upon.

--The Minnesota Secretary of State, the state's chief election official, should prescribe the exact tint of color to be used on constitutional amendments and other sections of the ballot. State law now requires pink for constitutional amendments. One county especially interested in the passage of a constitutional amendment in 1964 used a very intense color bordering on fire engine red as the "pink" color with good results.

<u>Findings and Conclusions</u>: We have reviewed state law relating to the positioning of questions on the ballot and have discussed this problem with election officials in Hennepin, Ramsey and St. Louis Counties. In addition, we have compared election returns on questions in voting machine localities and paper ballot localities. We make the following specific findings:

1. Voters consistently cast fewer votes on special issues and questions (such as constitutional amendments) in elections when they use voting machines than when they use paper ballots. For example, in 1964, more than 99 per cent of the persons who went to the polls in Hopkins, with paper ballots, voted on the taconite amendment. But next door in Edina, which has voting machines, only 77 per cent of the persons voted on the taconite amendment.

2. Several election officials have suggested that the lower vote on such issues in voting machine precincts is due to the fact that the voting machine provides the voter with an easy method of not voting at all because he is uninformed. If given a paper ballot he may feel compelled to fill it out.

3. We believe there is another equally important factor to consider. That is the assumption that many voters fail to notice the amendments and special issues because of their location on the ballot. As supporting evidence we point to the result in Duluth in the general election of 1964 which used a special attachment on the voting machine to draw attention of the voters to the taconite amendment. This attachment enlarged the size of the space available for questions several times. The result was a 94 per cent vote on the taconite amendment.

We also have been informed that many people have walked out of voting booths and then realized that they forgot to vote on the special issues. The list of these people includes knowledgable individuals on public affairs.

4. Minnesotans, of course, should be more concerned than other states about the failure of voters to see special issues. In this state, failure to vote on a constitutional amendment to the State Constitution constitutes, in effect, a "no" vote. This means, of course, that we are producing "no" votes by placement of issues on the ballot. The results of a constitutional amendment could be affected.

5. There is a lack of consistency from county to county in the method of drawing the attention of the voter to special questions and amendments. In Ramsey County, a notation "See Questions on Row Above" is placed on the ballot. No such slogans appear on the Hennepin County ballot because of a 1962 opinion by the County Attorney that this would be illegal.

6. There is a lack of consistency from county to county on the shade of pink color used as background for the amendments. Pink color is required by state law. In 1964, Duluth used a very intense pink, which some persons claim more resembles fire engine red than pink. We favor the use of an intense pink color, but we are struck by the difference in colors from county to county and the fact that a County Auditor has the discretion to decide whether or not to use such intense colors. Conceivably, a County Auditor could attempt to affect the outcome of an election by consciously using a certain shade of pink to draw attention of voters or to try to keep them from noticing the amendments. By the same token, the size of the space to be used by the Amendments and other special issues should be uniform. The special attachment used in Duluth in the fall of 1964 may be all right, but it should not be left to the discretion of the Auditor as to whether or not such an attachment should be used.

7. Another area where Auditors differ from county to county is in the placement of the reminder to voters--required by State Law--that failure to vote on a constitutional amendment has the effect of a negative vote. Smaller type is used in Hennepin County for this reminder than in Ramsey and St. Louis Counties. The placement of this reminder seems better in Ramsey County than in Hennepin County. In Ramsey County, the reminder is placed on a row next to the titles of the various offices up for election. The reminder in this position can serve the function of reminding voters also that there are amendments to be voted upon. In Hennepin County, the reminder is located with the amendments. Thus, a person will not notice the reminder unless he already notices the amendments.

## B. <u>Candidates and Contests</u>

#### Recommendations:

To insure that the provisions of state law are carried out relating to a guarantee that a voter will have freedom of choice and that he will easily

notice all candidates for a given contest, we recommend as follows:

1. County Auditors, local election officials and the Secretary of State, in cooperation, if necessary, with voting machine companies should proceed immediately to find an orderly solution which would eliminate the necessity to crowd candidates for various offices together to one side of the voting machine.

This crowding, which occurs at general elections in which there are many candidates and contests, has had the effect of confusing voters as to whether certain non-partisan candidates are running as partisan candidates and also has had the effect of making certain candidates' names less recognizable because of their position on the ballot.

Although there are spaces for some 300 to 360 candidates' names on a voting machine, only a small number of these spaces--about one-fourth or fewer in many elections--are usable in a general election. The make-up of voting machines used in the Twin Cities metropolitan area, at least, has required that candidates be crowded to one side of the machine.

This crowding is necessary because of the difficulty with which voting machine companies have had in meeting the requirement in state law that there shall be provision for a write-in vote for every contest. The limited number of writein spaces has dictated the crowded arrangement of candidates.

It is much easier to describe the problems in the make-up of the ballot and our recommendations by referring to the exhibits at the front of this report.

> EXHIBIT A shows the Shoup Voting Machine sample ballot with candidates' arranged the way which we believe they should be arranged in every election.

> EXHIBIT B shows a portion of the Shoup Voting Machine sample ballot with candidates' names arranged in an undesirable manner.

EXHIBIT C shows the Automatic Voting Machine sample ballot with candidates' names arranged the way we believe election officials should arrange them in every election.

EXHIBIT D shows the Automatic Voting Machine sample ballot with candidates' names arranged in an undesirable manner.

2. Pending any better workable solution in connection with the above recommendation, municipalities should consider purchase of special attachments on their older types of voting machines which would alleviate considerably the problems of inflexibility. These attachments would cost between \$50 and \$225 per machine, depending upon the type of voting machine in use and depending upon the extent of the modification desired.

<u>Findings and Conclusions</u>: We have reviewed in considerable detail the problems which now exist in voting machine localities in the arrangement of candidates and races on the ballot. Specifically, we make the following findings:

1. In elections with many races and candidates it is difficult to produce a clear separation between the partisan races (where candidates run according to party designation) and the non-partisan races (where candidates run without party designation). The information we have received indicates that because of the arrangement of candidates on the voting machine in these elections, certain non-partisan candidates may appear in many cases to be running on the same party ticket as certain partisan candidates.

State law requires that candidates for the State Legislature head the list of non-partisan offices. State law also requires that non-partisan candidates for various offices be rotated from precinct to precinct. Rotation is prohibited for the partisan offices. The result of this situation is that non-partisan candidates for a given office will appear in the same row as partisan Democratic candidates in some precincts and in the same row as partisan Republican candidates in other precincts. There were several allegations following the 1962 general elections in the metropolitan area that certain legislative candidates either gained or lost votes because of this situation.

An example of this situation is the precinct-by-precinct tally of votes for the office of State Senator from the 41st District in Minneapolis in the 1962 general election. The candidates were Frank Adams, with DFL backing, and George McDonald, with Republican backing. Both candidates, of course, as required by law, appeared on the ballot as non-partisan candidates. In the precincts of the 1st Ward, each candidate won the precinct in which he appeared in the column where the DFL partisan candidates were listed.

It should be noted here that the Hennepin County Auditor already is in the process of planning the ballot for the 1966 general elections, which will be crowded with state and county races. To eliminate the team effect between the partisan and non-partisan races he is proposing to move the partisan races to some different rows. This seems to be an acceptable interim solution.

> 2. Not only is it difficult to produce a separation between the partisan and non-partisan races, it also is difficult to produce a clear separation between the various races within each category.

The result is that candidates for different offices may appear to run as a team. This is no problem with the various partisan offices because candidates there actually are running as a team. However, in the case of non-partisan offices, a strong candidate for an office may benefit a weak candidate for another office or vice-versa. As was noted above, candidates for non-partisan offices are rotated from precinct to precinct. Under present rotation procedures, certain candidates for different non-partisan races may appear together in every precinct running, in effect, as a team.

> 3. Another problem we have discovered in the arrangement of candidates on voting machines is that in a crowded election a candidate's name may be placed in such a position that a large number of voters may be unaware that the candidate is on the ballot.

This occurred in the 1964 general election in nine municipalities in suburban Hennepin County where two candidates for the position of Associate Justice of the Minnesota Supreme Court, Robert J. Sheran and William G. Dressel, each won every other precinct. The losing candidate in a precinct always was the one whose name was located all alone on the third row of the voting machine. Election officials had no idea beforehand that this would be the result. The reason for the placement on the third row was that there was a large amount of wording necessary in connection with this contest.

If it were possible to arrange all voting machine ballots according to

exhibits A and C (at the front of this report), we would not have the problems which exist above. It will be noted that with exhibits A and C candidates for a given office are not separated by a row of voting levers. Consequently, it is much easier to identify the candidates for a given office. Further, the problems of certain non-partisan candidates being "teamed" with certain partisan candidates, as well as the problems of non-partisan candidates for different offices being "teamed" are eliminated.

The above problems exist now when there are an unusually large number of candidates or races on the ballot, usually the general elections in which county and state officials are on the ballot.

The root of the problems is the requirement that in a general election, a voter must be allowed to cast a write-in vote for any race he wishes. On older models of the Shoup Voting Machine, which are in use in Minneapolis, Robbinsdale and Richfield, and on the Automatic Voting Machine, the provision for a write-in has the effect of locking out a large portion of the machine and making it unusable.

Write-in spaces are located in out-of-the-way positions on voting machines without any notation for the voter that they are write-in spaces. Because of their construction (a slot has to be pushed back to reveal the paper upon which a writein vote is cast) write-in spaces easily could appear to be something else, such as part of the counting mechanism. It is doubtful that many persons know they have the right to cast a write-in vote in a voting machine, and if they do know they have the right, they have no idea how to cast such a vote. We were told by the Hennepin County Auditor's office that municipalities in the county are urged not to include pencils in the voting machine booth for fear that people might be confused or feel that the pencils are supposed to be used. A person who wants to cast a write-in vote has to ask an election judge for a pencil if he doesn't bring one of his own. In the 1964 general election, only 200 write-in votes out of a total of 400,000 votes in Hennepin County were cast. The last statewide election in which the writein was used extensively was the 1952 Eisenhower presidential preference primary. The State Legislature has since abolished the presidential preference primary.

Newer models of the Shoup Voting Machine, used in Kasson and Winona, Minnesota, but not in the metropolitan area yet, have been designed to eliminate the problems listed above. Both the Shoup and the Automatic Voting Machine Companies have provided special attachments for the older type machines which have the effect of solving the problems we have mentioned here. The special attachments preserve the write-in vote while at the same time freeing the entire machine for use. Candidates than no longer have to be crowded together.

Our committee discussed several alternatives by which the ballot could be made more flexible. We rejected all alternatives except the one by which localities could purchase special attachments. These attachments sell for between \$50 and \$225 per machine. Based on preliminary information we have received, it appears that the \$50 attachments may be adequate for freeing up enough of both the Shoup and Automatic Voting Machines to solve problems in the Twin Cities area. Minneapolis has been spending about \$150,000 annually for debt retirement of its voting machines and \_\_\_\_\_\_in 1967 the machines will be entirely paid for. Thus another expenditure of \$50 per machine does not seem unreasonable.

Following are the alternatives we rejected:

Abolish the write-in. (Our committee was not assigned to review this question. It is outside the scope of our assignment and needs to be debated on its

own merits, not in connection with voting machines).

Provide that persons who cast write-in votes also write in the office of the candidate. (This was regarded as unworkable because overvoting could not be prevented).

Give voters the option of voting by machine or paper ballot, with the provision that write-ins would be possible only by paper ballot. (It was felt this would be an unwise return to dependence upon the paper ballot and could produce serious administrative problems at a polling place if people started demanding paper ballots.)

Permit voters who wish to cast write-in votes to vote absentee. (This would destroy the concept of the absentee vote).

Provide for party designation of all candidates, thereby making the team effect desirable rather than something to be avoided. (This was regarded as outside the scope of our activity).

Eliminate some of the elective offices, thereby making a shorter ballot. (This was regarded outside the scope of our activity).

Provide that elections for some offices would be held on different days. (This was regarded as outside the scope of our activity).

Even the alternative we accepted, that of special attachments for voting machines, was not regarded as the best solution by our committee, because communities which already have paid about \$1,700 each for machines would have to pay more.

## C. Rotation Schedule of Non-Partisan Candidates' Names

## Recommendation:

We recommend that the Hennepin County Auditor modify his procedures for rotating the names of candidates for non-partisan office from precinctto-precinct to take into consideration the difference in sizes of precincts to give greater assurance that each candidate will appear first for a given office approximately an equal number of times.

Findings and Conclusions: The Hennepin County Auditor has adopted different procedures from the auditors in St. Louis and Ramsey Counties in rotating the names of candidates for a given non-partisan office from precinct to precinct.

State law requires that the order of names of candidates for a given office be rotated in the various voting machine precincts "so that each name shall appear upon the several machines used in a given municipality substantially an equal number of times at the top, at the bottom, and in each intermediate place, of any of the list or group in which they belong; provided, however, that the arrangement of the names shall be the same on each voting machine used in the same precinct." (206.07 Sub. 2)

To fulfill the requirements of the law the Hennepin County Auditor rotates names automatically from precinct-to-precinct, without regard to the size of the precinct or the number of machines in the precinct. The Auditor maintains that this method of rotation is not subject to any value judgement on his part and therefore he cannot be charged with seeking to give any benefit to a certain candidate. However, since the size of precinct does vary, and therfore the number of machines varies from precinct-to-precinct, a certain candidate could receive an advantage if he is fortunate enough to appear first in the most number of larger precincts.

Auditors in St. Louis and Ramsey Counties have taken the difference in size of precinct into consideration in their rotation schedule by making sure that each candidate's name appears first on an equal number of voting machines. Thus a candidate's name may appear first on two successive precincts, if this is necessary to guarantee that his name will appear first on an equal number of voting machines with his opponent.

This seems to us to be a desirable way of rotating candidates to eliminate any advantage a given candidate might receive by appearing first more than another candidate. Whereas the method in St. Louis and Ramsey Counties does provide for some discretion on the part of the Auditor, we believe the Auditor can adopt consistent procedures so that he could not be accused of trying to benefit one candidate over another.

## III. <u>Electronic Voting Systems</u>

A. <u>Request for Technical Study</u>

## Recommendation:

We recommend that the appropriate governmental authorities, such as the State Voting Machine Commission, undertake a technical study of the various types of new electronic voting systems on the market today, outlining the advantages and disadvantages of each.

Such a study would be of tremendous assistance to municipalities which are considering changing from paper ballot voting to some other system or which are leasing voting machines and considering whether to purchase them.

<u>Findings and Conclusions</u>: Only one of these new electronic voting systems, the Votomatic, marketed by International Business Machines Corp., has been introduced in Minnesota, though other systems are permissible under state law. On page 32 are listed some of the new types of electronic voting systems manufactured in the United Stated today. All of them, including the Votomatic, still are regarded largely as experimental in many areas. A municipality which is considering abolishing paper ballot voting should have the most detailed and up-to-date information possible on the various types of voting machines and voting systems. A municipality will be making an investment which could last between 40 and 50 years and which will be extremely important for its citizens.

Our committee was not assigned, nor is it able, to gather detailed information on all the voting systems and then to evaluate the new electronic systems. This seems to be the function of the State Voting Machine Commission, which is charged by law with approving voting machines and electronic voting systems for use in Minnesota.

> B. <u>Comparison between Paper Ballots</u>, Voting Machines and Electronic Voting Systems

## Recommendation:

We recommend that municipalities now using paper ballots consider some

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improved type of voting method. If, following the 1966 general election, the State Voting Machine Commission should authorize electronic voting systems on a permanent basis (e.g. the Votomatic now is being used experimentally in Bloomington and Coon Rapids), we would recommend that municipalities consider electronic voting systems together with the voting machines (such as Shoup and Automatic Voting Machines) as superior to paper ballots. We would not recommend at this time, based on the limited experience we have had with electronic voting systems in Minnesota, that municipalities which now have voting machines switch to an electronic voting system. But we commend Bloomington and Coon Rapids for their action in pioneering with a new system in this state.

Findings and Conclusions: We have reviewed the 1965 state law which permits the use of electronic voting systems in Minnesota on an experimental basis through the fall elections of 1966. In addition, we have seen a demonstration of the IBM Votomatic system which was approved by the Minnesota Voting Machine Commission for experimental use in Bloomington and Coon Rapids last November. The Votomatic is the only electronic voting system which has been tried in this state. It is too early for us to make a complete evaluation of the Votomatic. Bloomington and Coon Rapids used the Votomatic in their municipal elections, which involved only a few candidates. The Votomatic will receive a more substantial test in the 1966 primary and general elections. Nevertheless, a number of advantages and disadvantages of the Votomatic have been brought to our attention which can provide a basis for some preliminary judgements. Therefore, we have made the following findings:

> (a) The Votomatic represents a comparatively inexpensive method of eliminating the tedious counting of paper ballots by tired election officials. The counting is done by computer.

> (b) The Votomatic is small and lightweight and therefore is much cheaper and easier to store and transport than the piano-sized Shoup and Automatic Voting Machines.

(c) The original cost of the Votomatic, \$185, is substantially less than the cost of the Shoup or Automatic Voting Machine (about \$1,700).

(d) The problems encountered in the Shoup and Automatic Voting Machines with a fall-off in voting on special questions such as constitutional amendments may be lessened with the Votomatic, because the ballot is so constructed that if a voter follows the instructions he cannot help but notice all questions to be voted on.

(e) The problems encountered in the Shoup and Automatic Voting Machines in the arrangement of candidates on the ballot because of the write-in requirement (discussed elsewhere in this report) would not seem to exist in the Votomatic.

(f) The Votomatic does not eliminate the following shortcomings of the paper ballot (all of which are eliminated by the Shoup and Automatic Voting Machines):

--A voter can vote for more candidates for a given office then he is • entitled to, with the result that his vote or votes for that office are invalidated.

--A voter can cast a regular vote for a given office and also cast a

write-in for that office, and his vote for that office is invalidated.

--Ballots can be marked or mutilated either intentionally or unintentionally by election judges, with the result that an entire ballot or portion of the ballot can be invalidated.

(g) The Votomatic also poses some problems of its own, which do not exist for the paper ballots or the Shoup or Automatic Voting Machines:

--This is the only system in use in Minnesota today in which certain ballots may be re-voted after the polls close--legally. This can be done by election officials in two instances: (1) if a ballot is damaged or defective so it cannot be counted by automatic tabulating equipment. (2) if a voter has cast a write-in vote and election officials determine that he also has cast a regular vote for the same office. If either of these cases occur, the election officials repunch a Votomatic ballot. In the first instance, they punch out a new ballot to correspond with the way the voter voted. In the second instance, they punch out a new ballot to correspond with the way the voter voted with the exception that they leave the race blank where he overvoted. It should be pointed out, though, that the law requires two judges, not of the same political party, to repunch the cards.

--Ballots are counted at a central computing location, and not at the individual precincts. The result is that uncounted ballots are transported from precinct locations to the central location. Several precautions are taken to protect the ballots, including the provision that two judges, not of the same political party shall transport the ballots, but the possibility exists, however slight, that ballots could be destroyed or stolen before they are counted.

--Possibility of fraud in the counting of or tampering with ballots is centralized in one location, rather than being dispersed in many precincts. Thus, the chances of fraud are reduced but the consequences are much greater. Some persons claim, though, that the advantages of centralized counting outweigh the disadvantages.

---Votomatic ballots have no marks indicating their precinct. The computer, though, must take into account differences in the ballots from precinct-to-precinct. Thus, if for some reason you could not identify a stack of ballots as to precinct, complications would arise in counting the ballots. We therefore recommend that state law require that Votomatic ballots carry an identifying precinct mark.

# IV. Recruitment, Selection and Training of Election Judges

## Recommendations:

1. <u>Age</u>. We recommend that election judges be allowed to serve until they reach the age of 70. However, an election judge should not receive his initial appointment unless he is under 65 years old.

This is the procedure currently followed by the St. Paul Civil Service Commission. In Minneapolis, the Civil Service Commission disqualifies all persons when they reach 65. As far as we can determine, there are no age limits in suburbs.

> 2. <u>Party Affiliation</u>. We recommend that persons who classify themselves as Independents be permitted to apply for the position of election judge but that Independents be allowed to serve only in precincts where there are an odd number of election judges.

In those cases one person could be an Independent. In precincts with an even number of election judges, one-half would be Republican and one-half would be Democratic. This provides a bi-partisan check on election procedures at the polling place.

3. <u>Notice of Vacancies for Election Judge</u>. We recommend that election officials in various localities who are charged with recruitment of judges publicize as broadly as possible within the organized political parties vacancies which may exist.

Specifically, the county chairman of each political party should be informed of all vacancies in his area so that the appropriate ward or precinct chairman can also be notified. We have been informed that since our committee began its deliberations, cooperation between the political parties and election officials in Hennepin County has improved considerably.

> 4. <u>Examinations</u>. We recommend that the Minnesota Secretary of State be required to make available on an optional basis a suggested examination which could be used by election officials in localities to determine qualifications of applicants for the position of election judge. Such an examination also might be used by local election officials to determine the continued eligibility of election judges.

Minneapolis and St. Paul, which under state law are required to use their local Civil Service Commissions in hiring election judges, currently provide examinations for applicants. So far as we could determine suburbs do not have such examinations.

5. <u>Community Service</u>. We recommend that election officials charged with recruitment of election judges publicize the fact that the position of election judge constitutes an important service to the community and that the appropriate media be requested to publicize this public service function.

6. <u>Area of Recruitment</u>. We recommend that the Minneapolis Civil Service Commission, particularly, and officials in other localities, if applicable, accept applicants for election judge from throughout the city, not just from the ward or precinct where a vacancy exists.

However, in advertising vacancies, the Commission definitely should list the specific areas where the vacancies exist. Applicants from these areas should be given preference in hiring.

> 7. <u>Participation of Political Parties</u>. We recommend that the appropriate governmental officials provide a list of all qualified election judges, by assignment to precinct and by political party, to the county chairmen of the political parties when such a list is prepared, which according to law should be 25 days before an election.

A political party could verify the party affiliation of judges who have identified themselves as an adherent to their party.

<u>Findings and Conclusions</u>: We have reviewed procedures by which Minneapolis St. Paul and the suburbs obtain their election judges and we have discussed these with local election officials and the director of the Minneapolis Civil Service Commission. We make the following specific findings: 1. Entirely different procedures are used in the recruitment and selection of election judges between the central cities and the suburbs. The differences are summarized below.

MINNEAPOLIS--State law requires that in cities of the first-class (Minneapolis, St. Paul and Duluth) election judges are to be chosen by the City Clerk from a list certified by the Civil Service Commission in each city. The Commission is empowered to establish whatever inquiries or examinations are necessary to determine the qualifications of each applicant. The City Clerk is to receive the certified list, with a breakdown of qualified individuals in precinct and political party, at least 30 days before the first election in a given year. The law requires that at least 25 days before the election the City Clerk is to make the appointments. If the City Clerk finds that not enough persons from each political party are available to fill the needed positions in each precinct, he has the power either to appoint judges from other precincts or to appoint any qualified voter in the precinct where the vacancy or vacancies occur, even if they have not been certified by the Civil Service Commission. (This procedure, of course, is true also for St. Paul, a city of the first-class).

SUBURBS--State law allows two methods for the selection of judges, with the first method rarely used. The first method is as follows: At least 40 days before any election for a partisan political office, the county chairman of each of the two political parties shall furnish to the County Auditor a list of qualified voters for the various election percincts in municipalities in which 1,000 or more votes were cast in the last general state election to act as election judges. Then the County Auditor, at least 30 days before the election, shall furnish to each of the City Clerks in the various municipalities a list of the appropriate names for each precinct, with breakdown by party affiliation.

The second method, which is used commonly, is as follows: If the political parties fail to submit a list to the County Auditor--which generally is the case--the various City Clerks are required to appoint qualified voters to act as election judges. There is no requirement relating to Civil Service.

2. Requirements as to the eligibility of certain election judges varies between Minneapolis and the suburbs and between Minneapolis and St. Paul.

AGE OF ELECTION JUDGES--Persons 65 and over are prohibited from serving as election judges in Minneapolis, with one exception. The exception is that the City Clerk may, if no other persons are available in a given precinct and no qualified persons have been certified by the Civil Service Commission, appoint any qualified voter, regardless of age, as judge.

So far as we can determine, there is no age limit in the suburbs. Election officials in St. Louis Park and Edina indicated, though, they do not encourage persons 65 or over to serve as election judges. However, the City Clerk of Bloomington stated that some of his best election judges are persons 65 and over.

St. Paul permits election judges to continue until age 70, though new judges cannot be appointed if they are 65 or older.

Given the difficulty which Minneapolis election officials have had in obtaining qualified election judges, we believe that the age limit in Minneapolis should be modified and that St. Paul's practice seems to be a workable one.

POLITICAL AFFILIATION--State law requires that in all precincts no more than one-half of the judges in any precinct may be members of the same political

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party except where the election board consists of an odd number of judges in a precinct.

Minneapolis and St. Paul election officials have told us that persons must state whether they are Republican or Democrat to be eligible as election judges. Independents are prohibited from serving. The law relating to cities of the firstclass requires that persons who apply must state their party affiliation. The Minneapolis City Attorney has told the Civil Service Commission that the law prohibits Independents from serving as election judges.

Suburbs, on the other hand, allow Independents to serve as election judges. At least one City Attorney in the suburbs has given an oral opinion to his City Clerk that it is legal to employ Independents as election judges.

We believe that Independents should not be arbitrarily banned from serving as election judges. However, by the same token, it is desirable to maintain a balance of Republicans and Democrats on the force of election judges. Thus we conclude that when a precinct has an odd number of election judges, there could be one Independent with the rest an equal number of Republicans and Democrats.

EXAMINATION--Persons who apply for the position of election judge in Minneapolis are given a 100 question examination which they must receive a passing score of 70 in order to be eligible. No examinations are required for election judges in the suburbs.

> 3. The involvement of the political parties in the recruitment of election judges in Hennepin County municipalities has not been too extensive, although there are indications that this is changing.

When the Minneapolis Civil Service Commission has advertised that examinaticns would be conducted for the position of election judge, the political parties have not been notified far in advance so that they could encourage their members to take the examinations. However, during the past few months we have received information that this is changing and that next year the political parties will be notified well in advance.

> 4. It has been difficult for the political parties to review lists of election judges before an election and recommend to the appropriate governmental officials whether they consider the party affiliations as listed by the various election judges to be accurate. Because a proper balance between the parties is necessary for protecting the integrity of the conduct of an election, we believe that formal procedures should be established so that parties can review the lists of election judges before an election.

V. <u>Voter Registration</u>

#### Recommendations:

We recommend passage of legislation which would require the great majority of municipalities in the Twin Cities area to have permanent voter registration.

Specifically, we believe the legislation should be so written so that all municipalities in the seven-county area (Hennepin, Carver, Scott, Dakota, Anoka, Ramsey and Washington Counties) in which at least 250 votes were cast at the last general election to be required to have permanent voter registration.

<u>Findings and Conclusions</u>: We have reviewed state law dealing with voter registration and have received information on the extent of voter registration in the Twin Cities area. We make the following findings:

1. There is great need to have registration of voters in a rapidly growing metropolitan area such as ours. Certain townships or small villages which formerly experienced little or no growth from year to year suddenly are faced with the influx of hundreds of families in a given year. Without voter registration in such localities, election officials have no way of knowing when voters come to the polls or whether a given voter lives in that locality. Consequently, possibilities of fraud exist.

2. State law now requires registration of voters in every municipality over 10,000 population. Of course, population is based on the last previous census, so rapidly growing localities are not taken into consideration.

3. It has been very difficult to draft a bill in the State Legislature which would account for the rapidly growing areas of the Twin Cities metropolitan area and yet not impose a burden on stable rural communities which might not need voter registration. This difficulty is complicated by the fact that a special law for only the Twin Cities area could not become effective--under the existing "local consent" requirement--until it received the approval of all affected units of government or approval by the people in a referendum.

There are a number of other issues involving voter registration which our committee did not consider thoroughly and so cannot make informed comments upon at this time. These issues include the questions of whether present state law is adequate to encourage the maximum number of persons to register to vote, whether persons lose their voting rights for procedural reasons and whether persons should automatically be removed from the registration lists if they fail to vote once in four years.

## VI. <u>Discretion of</u> County Auditors

#### Recommendation:

To assure uniformity and fairness of election procedures from election to election, we recommend that County Auditors be required to prepare and publish guidelines they will follow in preparing voting machine ballots. Specifically, these guidelines should include the following points:

--The size of attachment to be used for constitutional amendments on the various machines, if statewide uniformity is not prescribed. (see recommendation on page 7)

--The intensity of colors to be used as background for the various parts of the ballot, if statewide uniformity is not prescribed. (see recommendation on page 7)

--Whether or not candidates' names on voting machines will be arranged so that names for a given office are not separated by voting levers. (see recommendation on page 9)

--How candidates' names will be arranged on voting machines to avoid the team effect referred to on page 10, paragraphs 1-4.

--How names of candidates for non-partisan office will be rotated from precinct-to-precinct to take into consideration different sizes of precincts. (see recommendation on page 12) --The order in which non-partisan contests will appear on the ballot. Currently, state law only prescribes that contests for State Senator shall appear first followed by contests for State Representative. The Auditor decides the order for the balance of the ballot.

<u>Findings and Conclusions</u>: We have reviewed the discretionary powers which County Auditors have in the make-up of voting machine ballots. In general, it appears as if they are doing a conscientious job, given the limitations placed upon them because of the construction of the voting machine.

We believe, though, that because of the great amount of discretion which they have that the Auditors should be required to set forth the guidelines used in preparing the ballot. This will assure consistency in practices from year to year and will serve to inform candidates, political parties and the public as to why a ballot is arranged the way it is.

Changes in guidelines should be made by Auditors only through established procedures which would guarantee prior public notice of a proposed change.

No doubt there are several ways by which an Auditor's guidelines for the make-up of a voting machine ballot could be subject to review or approval. Perhaps hearings could be held on them before final action. Or they could be submitted to the Secretary of State or the County Board. The important thing, we believe, is for these guidelines to be established and published.

Such guidelines also could serve to minimize the influence of such persons as the commercial printer who prints the ballots for an election. We have been informed of one instance in which the printer was the dominant force in arranging candidates in a certain way because of typesetting problems he had. Whereas such problems may be perfectly legitimate, it is important for the County Auditor--not some other person or group--to decide the make-up of the ballot.

## SCOPE OF THE REPORT

The Voting Procedures Committee was established by the Citizens League Board of Directors in September 1964 and assigned to review Minnesota election laws and procedures as they pertain to ballots, voting machines and voter registration.

The committee was assigned to ask such questions as" Are ballots properly designed to minimize voter confusion and assure that the voter is aware of all issues and candidates whether he uses paper ballots or voting machines? Should some of the newer types of voting machines be allowed in Minnesota? Do voter registration laws need changing?

The committee discovered early in its deliberations that the questions of instructions to voters at the polls and the recruitment, selection and training of election judges were very pertinent to the issue of avoiding voter confusion at the polls. Therefore, these subjects also are covered.

## COMMITTEE MEMBERSHIP

Twenty-three Citizens League members participated actively in the deliberations of this committee. Committee chairman was James L. Weaver, a tax attorney with General Mills, Inc.

The committee was well represented by members from both major political parties and by Independents. All issues were tackled in good faith by the committee with hardly a trace of partisanship in evidence. Thus, the findings, conclusions and recommendations in this report can be regarded as representing a consensus which both Democrats and Republicans have developed.

Active committee members besides Weaver were Mrs. Nicholas Duff, R. L. Federman, Hank Fisher, Charles J. Frisch, Arthur Goldman, Mrs. Harold Grossman, State Senator Mel Hansen, Peter Heegaard, Richard Lamberton, Ed Lamphere, Gordon Mikkelson, Victor E. Miller, Harold Mooney, Clyne Olson, James Pederson, C. Donald Peterson, Thomas Reiersgord, Mrs. Pat Richdorf, State Representative Martin Sabo, Allen I. Saeks, Arthur J. Stock and Mrs. Leo Weiss. The committee was assisted by Paul Gilje, Citizens League Research Director.

## NATURE OF COMMITTEE ACTIVITY

The committee met 20 times between September 28, 1965 and February 24, 1966. Three of these meetings were  $3\frac{1}{2}$  hour evening sessions in which the committee discussed in detail the various issues.

Committee members personally examined the Shoup Voting Machine, the Automatic Voting Machine and the Votomatic voting system in three separate meetings.

The committee was in almost weekly contact with the Hennepin County Auditor's Office and wishes to single out George B. Hickey, chief deputy county auditor for the several hours of assistance he provided to the committee. Hickey appeared before the committee three times and provided additional assistance at other times.

Others who appeared before the committee were:

Robert I. Christian, salesman, Automatic Voting Machine Division, Rockwell Manufacturing Company.

Charles Rosenquist, L. N. Sickles Company, St. Paul, distributor of Automatic Voting Machines.

Nate Simcoe, salesman, Shoup Voting Machine Company.

Gene Chenoweth, salesman, Shoup Voting Machine Company.

Leonard Johnson, City Clerk, Minneapolis.

Vern Janowiec, Deputy Commissioner of Elections, Minneapolis.

Robert Fitzsimmons, Hennepin County Auditor.

George DeLay, Robbinsdale City Manager.

Clarence Kammerer, Deputy County Auditor, Ramsey County.

Cy Stroud, Chief Deputy County Auditor, Ramsey County.

Martin E. Arden, salesman, Votomatic Voting System, International Business Machines Corp.

Milo Hall, City Clerk, Bloomington.

John Proctor, Director, Minneapolis Civil Service Commission.

The committee also received assistance via phone calls, letters and informal visits from Forrest Tabbot, assistant Secretary of State; David Lebedoff, former assistant Attorney General, Minnesota; Andrew Korda, County Auditor, St. Louis County; Mrs. Louise Kuderling, League of Minnesota Municipalities; Del Green, assistant City Manager, Bloomington and Robert Pulscher, City Manager, Coon Rapids.

All of the above persons were very cooperative with the committee, and this report would not have been possible without their assistance.

## BACKGROUND

History of Voting Machines

Voting machines were introduced in Minnesota in 1940 in Duluth and St. Paul. But the history of voting machines goes back about a century before. As early as 1836, inventors began to work on vote recording machines. Early machines all used a ball or equivalent placed in a chosen compartment for casting a vote. Later, mechanical counters replaced balls.

The first voting machine used in an election was a machine developed by Jacob Myers and used in an election in Lockport, N. Y., in 1892. About 65 of these machines were used in a Rochester, N. Y., election in 1896 and mechanized voting was operational.

Although there were a large number of machine manufacturers in early years, by the mid 1950's two voting machine companies dominated the market, the Automatic Voting Machine Company, Jamestown, N. Y., and the Shoup Voting Machine Company, Philadelphia, Pa.

As of today some 36 communities in Minnesota with 44 per cent of the state's populations, using 1960 census figures, have voting machines, with 22 of them in the Twin Cities area. Following is a list of the 36 communities, showing population, year obtained, number of machines in use and type of machine:

Municipality	<u>1960</u> Population	<u>Date</u> Acquired	Number of Machines	<u>Type of</u> <u>Machine</u>
	TWIN	CITIES AREA		
St. Paul	313,411	1940	429	Automatic
St. Louis Park	43,410	1951	62	Automatic
South St. Paul	22,032	1952	30	Automatic
Richfield	42,523	1954	57	Shoup
Roseville	23,997	1955	27	Automatic
Minneapolis	482,872	1956	900	Shoup
North St. Paul	8,520	1956	8	Automatic
Stillwater	8,310	1956	16	Automatic
White Bear Lake	12,849	1956	12	Automatic
Edina	28,501	1957	50	Automatic
New Brighton	6,448	1957	5	Automatic
Crystal	24,283	1958	28	Automatic
Golden Valley	14,559	1959	30	Automatic

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Municipality	<u>1960</u> Population	<u>Date</u> Acquired	Number of Machines	Type of Machine
Bloomington	50,498	1959	87	Automatic*
Brooklyn Center	24,356	1960	40	Automatic
St. Anthony	5,084	1960	10	Automatic
Robbinsdale	16,381	1962	56	Shoup
Minnetonka	25,037	1963	50	Automatic
West St. Paul	13,101	1964	22	Automatic
New Hope	3,552	1964	14	Automatic
Maplewood	18,519	1964	21	Automatic
Little Canada	3,512	1964	4	Automatic
	0	UTSTATE		
Duluth	106,884	1940	180	Automatic
Austin	27,908	1949	38	Automatic
Rochester	40,663	1951	42	Automatic
Owatonna	13,409	1952	31	Automatic
Albert Lea	17,108	1960	30	Automatic
Willmar	10,417	1964	22	Automatic
St. Cloud	33,815	1964	30	Automatic
Mankato	23,797	1964	30	Automatic
Moorhead	22,934	1964	35	Automatic
Kasson	1,732	1964	3	Shoup
Winona	24,895	1964	35	Shoup
Owatonna Twp.		1964	1	Automatic
Midway Twp.			2	Automatic

# Operation of the Voting Machine

Here are the steps involved in casting a ballot on a voting machine:

(1) A voter enters the voting booth, which is part of the voting machine, and pulls a large red-handled lever in front of him which closes the curtains behind him (so that no one may see how he votes) and which releases the machine for voting.

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<sup>\*</sup> Considering a switch to an electronic voting system, the Votomatic.

Thus, it is not possible for any ballot to be cast without the curtains closed.

(2) Directly in front of the voter is a large upright panel on which all names of candidates for the various offices and the special questions and issues are placed. Opposite each candidate's name is a black lever about one inch long. Opposite the special questions and issues there are two levers, one for "yes" and one for "no". The voter simply moves the levers down in the appropriate places to cast his ballot. A black "x" will appear in a square next to a candidate's name or next to "yes" or "no" to indicate the vote has been cast.

Voting machines are so constructed that a person may change his vote at any time he is in the booth simply by returning a lever to its original position and moving another lever. The machine does not permit a person to depress more than the allowed number of levers for a given office. That is, if only one person is to be elected to an office, only one lever can be depressed. If two persons are to be elected, two levers can be depressed opposite the various candidates. As a result, voting machines prevent voters from making mistakes such as voting for more candidates than they are legally entitled to. If the election happens to be a primary election, the voting machine will not allow a voter to split his ticket and vote for both Republicans and Democrats.

(3) When he has finished voting the voter pulls the large red-handled lever which returns the various voting levers to their original positions and at the same time records the vote on a counter within the voting machine. The curtain then opens, permitting the voter to leave. Although it may seem that the curtain opens immediately when he moves the red-handled lever, the curtain actually does not open until the levers are in their original positions, thus guaranteeing that no one on the outside can see a voter's vote.

## Types of Voting Machines Authorized in Minnesota

Two types of voting machines have been approved for permanent use in the state by the State Voting Machine Commission, which is responsible for the approval of all types of voting devices used in Minnesota. These types are the Automatic Voting Machine, manufactured by the Automatic Voting Machine Division, Rockwell Manufacturing Company, Jamestown, N. Y., and the Shoup Voting Machine, manufactured by the Shoup Voting Machine Company, Philadelphia, Pa.

From the standpoint of operation of the voting machine, as described above, the Automatic and Shoup machines are virtually the same.

But the two machines are entirely dissimilar in terms of the placement of candidates and issues and special questions. The Automatic machine is commonly known as the "horizontal" machine because the various races are arranged horizontally across the top of the machine. The Shoup machine is commonly known as the "vertical" machine because its races are arranged vertically along the left side of the machine.

The other principal difference between the two machines lies in the placement of questions or special issues on the ballot. On the Automatic machine, they are placed on a row located horizontally above the races. On the Shoup machine they are located on a vertical row on the far right hand side of the machine.

As far as the voter himself is concerned, these are the principal differences. Each company claims its arrangement of candidates and issues is the better. The Automatic machine people say their machine presents everything at eye level for the voter. The Shoup machine people say their machine more closely resembles the arrangement of the paper ballot.

There is another difference between the machines which is not connected with their relationship to the voter. That involves the placement of the counters with the results of the election. With the Automatic machine, the back of the machine is removed when the polls close and the results are either read manually off the various counters or they are printed out on a sheet of paper (the latter is the new Printomatic machine). With the Shoup machine the counters are placed immediately below the name of each candidate on the front of the machine. During the day when the polls are open, the counters are covered up.

Shoup and Automatic Voting Machines are priced very competitively, with each machine selling for about \$1,700. The machines weight about 700 pounds.

Both machines have elaborate locking systems to prevent tampering with the counters before, during or after an election.

## Advantages of Voting Machines over Paper Ballots

Perhaps the greatest single advantage of voting machines is the fact they reduce the possibility of errors in counting. One need only cite the 1962 gubernatorial recount in Minnesota as an example of errors which occurred in counting paper ballots.

#### There are other advantages:

--Voters cannot make errors in casting their ballots, with the result that votes do not have to be rejected. In paper ballot precincts such things are erasure marks, or improper marks on a ballot can serve to invalidate the ballot. Such errors are not possible on machines. Also on machines, voters are prevented from making mistakes such as voting for more candidates than they are legally entitled to. And they are prevented from crossing party lines in primary elections. State law in Minnesota allows a person in a primary election to vote only for candidates of one party in a primary election. Cross voting is not allowed, either in paper ballots or machine ballots. When voting machines were first installed in Minneapolis, several persons complained to election officials that they were prevented from splitting their ticket in primary elections. When told that this was illegal, they said they had been doing it for years with paper ballots. Election officials then informed them that such ballots had been thrown out as invalid.

--Results of an election are learned much faster with machines than with paper ballots. The League of Minnesota Municipalities states that a most conservative estimate would be that three-quarters of the time spent in counting paper ballots is saved by using machines.

# The Minnesota Voting Machine Commission

The Minnesota Voting Machine Commission is a three-member body, established by statute, with the chief responsibility of approving voting machines for use in Minnesota. No type of voting machine can be used in any election in this state without the approval of the Commission.

State law requires that the three members be the attorney general and two appointees who shall be master mechanics or graduates of a school of mechanical engineering. The attorney general appoints one and the governor the other.

Present members of the Commission are Attorney General Robert Mattson,

Adolph Lee, professor mechanical engineering at the University of Minnesota, and Frank Vento, St. Paul labor leader. The appointees serve four-year terms.

Any person, company or corporation owning or interested in a voting machine may apply to the Commission to examine the machine and to report on its compliance with the requirements of the law and on its accuracy, durability, efficiency and capacity to register the will of the electors.

A \$150 fee is to be charged to the applicant by the Commission for undertaking the examination of any voting machine.

The Voting Machine Commission also is empowered to approve applications for the use of electronic voting systems in Minnesota. The Commission was specifically instructed by the 1965 Legislature to give only approval for experimental use of such systems until after the 1966 general election, when the Commission is empowered to give final approval to any system based on the experience in that election.

## Voting Machines and Write-in Votes

Voting machine manufacturers have gone to great lengths to design their machines for write-in votes. Along the far left side of the Shoup Voting Machines and across the top of the Automatic Voting Machines are a series of write-in slots. Virtually all voting machines in Minnesota, including Shoup and Automatic, are designed with 40 write-in slots.

State law requires that voting machines be designed so that a person can cast a write-in for any race he desires in a general election. Write-in votes have been abolished by the State Legislature for primary elections.

State law also requires that a person who casts a write-in vote with a voting machine shall be prevented from also casting a regular vote for the same race. Consequently, voting machine manufacturers have had to connect up the mechanism of the write-in slots with the various races. Thus, when a person opens a given writein slot, that locks out some voting levers, so a person is prevented from over-voting.

## Voting Machines and the Fall-of in Voting

From the time voting machines were introduced in Minnesota there have been claims that more voters fail to vote on certain items, particularly special questions such as constitutional amendments, with voting machines than with paper ballots.

For example, the December 1940 issue of "Minnesota Municipalities", the monthly magazine of the League of Minnesota Municipalities contained an article discussing that the failure of a home rule constitutional amendment that year was due in part to the fact that there was a substantial fall-off in the vote on the amendment in St. Paul and Duluth, where voting machines had just been introduced that year. Of course, for a constitutional amendment to be approved, a majority of those voting at the election must approve, not just a majority voting on the question.

In St. Paul that year the "yes" votes on the amendment were 16 per cent of those cast while in rural Ramsey County, the yes votes were 56 per cent of those cast. In Duluth, the yes votes were 27 per cent of those cast while in rural St. Louis County, the yes votes were 50 per cent. In Minneapolis, where voting machines were not used, the vote in Minneapolis and rural Hennepin was almost the same, 59 per cent and 57 per cent, respective, the League of Minnesota Municipalities pointed out. The League of Minnesota Municipalities conducted another study of the vote on constitutional amendments in November 1952 and reached similar conclusions.

In an article in the January 1953 issue of "Minnesota Municipalities", James G. Coke, League Research Assistant states:

"If the use of voting machines tends to increase this percentage of blank ballots, the explanation might be found in the following factors: the mechanics of voting differ between machines and paper ballots. On the machines of the horizontal type, which is used in Minnesota, the propositions are placed at the top of the machine, somewhat out of line of vision of the voter. Where paper ballots are in use, however, the voter is handed a separate piece of paper on which the issues are listed. Not wishing to throw away the paper (perhaps not knowing quite what to do with it!) he is, in a sense, "forced" to vote.

"The position of the questions on the voting machine is not, to be sure, a sufficient explanation for non-voting, as is indicated by the large write-in vote for General Eisenhower at the presidential primary. It merely offers a convenient way out for the uniformed, uninterested voter. The lack of interest or information is probably the primary factor; the structure of the voting machine only helps to confirm the conduct that might be expected from voters of that type. Election returns from the seven cities that use machines seemed to strengthen this explanation."

The Citizens League first investigated this problem after the November 1960 elections. In a comparison of voting machine and paper ballot voting in five Hennepin County suburbs on two constitutional amendments that year the League found that substantially fewer voting machine voters cast votes on constitutional amendments.

The Citizens League conducted a more extensive comparison of voting machine and paper ballot voting following the November 1964 elections and discovered for the taconite amendment, on the ballot that year, that the percentage of persons voting on the amendment with paper ballots never dipped below 97.4 per cent in Hennepin County, but among the 11 municipalities with voting machines, the percentage never got higher than 94 per cent, and went down as low as 73.6 per cent.

Following is the comparison table which the League prepared and published in a bulletin:

## COMPARISON OF TACONITE, PRESIDENTIAL VOTE (1964)

Municipality	<u>Total</u> <u>ballots</u> <u>cast</u>	<u>Paper</u> <u>ballots</u> or machines	<u>% of ballots</u> <u>cast on taconite</u> <u>amendment</u>	<u>% of ballots</u> <u>cast for</u> <u>president</u>
Orono	2,972	paper ballots	99.9	98.2
Osseo	1,110	paper ballots	99.8	97.7
Eden Prairie	1,890	paper ballots	99.6	99.5
Hopkins	5,557	paper ballots	99.4	98.4
Morningside	1,138	paper ballots	98.9	98.2
Mound	2,408	paper ballots	98.9	98.3
Wayzata	1,801	paper ballots	98.6	97.5
Deephaven	1,790	paper ballots	98.5	98.0
Plymouth	4,774	paper ballots	98.5	98.7

	<u>Total</u> ballots	Paper	<u>% of ballots</u>	% of ballots
Municipality		<u>ballots</u>	cast on taconite	cast for
Municipality	<u>cast</u>	or machines	amendment	president
Shorewood	1,617	paper ballots	98.3	97.9
Maple Grove	1,098	paper ballots	98.0	98.5
Brooklyn Park	4,994	paper ballots	97.4	99.6
Excelsior	1,000	paper ballots	97.4	98.8
		machines		
Richfield	20,381	(vertical)	94.0	99.4
Robbinsdale	8,218	(vertical)	92.2	99.8
Minneapolis	213,981	(vertical)	89.2	99.2
	-	machines		
Bloomington	24,542	(horizontal)	86.3	99.3
Golden Valley	9,483	(horizontal)	82.4	99.2
New Hope	3,780	(horizontal)	81.5	99.4
St. Louis Park	22,729	(horizontal)	80.9	98.6
Minnetonka	13,128	(horizontal)	80.3	98.5
Brooklyn Center	11,539	(horizontal)	78.4	99.6
Edina	17,475	(horizontal)	77.0	98.3
Crystal	10,981	(horizontal)	75.8	99.2
St. Anthony	3,019	(horizontal)	73.6	98.9

The Institute of Public Affairs at the University of Iowa, Iowa City, in 1964, published the results of a study which compared the use of voting machines on total votes cast for a period from 1920 to 1960. Only Automatic Voting Machines (the horizontal type) were in use in Iowa. Iowa, unlike Minnesota, does not have a requirement that a majority of all votes cast at an election is necessary for approval of a constitutional amendment. Nevertheless, the Iowa study revealed that substantially fewer votes are cast on special questions when voting machines are used than when paper ballots are used. The difference may be 20 percentage points on a lively issue and up to 50 percentage points if the issue is minor and noncontroversial, the Institutes reported. The Institute recommended that until voting machines are used throughout the state that special questions be submitted only on paper ballots.

A recent report by Congressman Joseph Karth of St. Paul indicates that the problem of fall-off in voting is not restricted to constitutional amendments and special questions. Karth released a study of voting in 1962 and 1964 which purports to indicate a far greater fall-off on voting for Congressmen and State Representatives in voting machine precincts than in paper ballot precincts. In general, he found that about 10 per cent fewer voters in voting machine precincts were voting for these offices than in paper ballot precincts.

Following is a table which shows part of the results of Karth's study:

	in Selec				
		z	x	%	%
	Voting Machines	Drop-Off	Drop-Off	Drop-Off	Drop-Off
	or	Congress	Congress	State Rep.	State Rep.
Municipality	Paper Ballots	<u>    1962    </u>	<u>    1964                                </u>	<u>    1962     </u>	1964
Arden Hills	Paper Ballots	2.1	7.4	1.0	8.5

% of Total Voters Who Did Not Vote For Any Candidate

		%	x	%	%
	Voting Machines	Drop-Off	Drop-Off	Drop-Off	Drop-Off
	or	Congress	Congress	State Rep.	State Rep.
Municipality	Paper Ballots	1962	1964	1962	1964
Falcon Heights	Paper Ballots	2.1	5.6	3.3	14.7
Lauderdale	"	2.1	1.8	5.2	13.5
Mounds View	"	1.9	2.0	2.7	13.9
Shoreview	••	1.2	4.4	1.9	12.4
			15.3	9.5	23.4
New Brighton	Voting Machines	9.3	± <b>J</b> •J		
<b>Roseville</b>	11	7.5	12.1	10.3	27.4

Following the revelations made by Karth, the Citizens League made a quick check of selected Hennepin County municipalities to compare the fall-off in vote between paper ballot and voting machine municipalities. The results were somewhat similar. They are summarized below:

Municipality	Paper ballots or machines	<u>% of votes</u> <u>for</u> President	<u>% of votes</u> <u>for</u> U. S. Senator	<u>% of votes</u> <u>for</u> Congressman
Brooklyn Center	machines	99.6	96.4	92.4
Edina	machines	98.3	96.5	92.4
Golden Valley	machines	99.2	96.7	83.1
Minnetonka	machines	98.5	96.1	90.5
Bloomington	machines	99.3	93.8	89.6
Crystal	machines	99.2	95.5	91.2
Robbinsdale	machines	99.8	98.2	97.2
St. Louis Park	machines	98.6	96.5	92.4
Minneapolis	machines	99.2	97.8	96.6
Brooklyn Park	paper ballots	99.6	100.2*	100.5*
Eden Prairie	paper ballots	99.5	99.6	99.2
Excelsior	paper ballots	98.8	98.3	98.3
Hopkins	paper ballots	98.4	98.8	97.2
Wayzata	paper ballots	97.5	98.7	98.7

\* The percentages above 100% apparently are due to an error in counting.

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This table indicates that generally there is a greater fall-off in voting in voting machine municipalities than in paper ballot municipalities in Hennepin County.

## Electronic Voting Systems--The Votomatic

Within the last four years a new concept in voting has been sweeping the nation. The concept is to see if computers can be used to count votes in an election, a method which is much speedier and more accurate than the traditional method of counting paper ballots by hand. At the same time, it would be cheaper than the large voting machines.

Several companies are marketing different types of devices with this idea in mind. The introduction into Minnesota of the Votomatic, manufactured by IBM, in two municipal elections in November 1965, represents a continuation of this trend.

The stage was set for the introduction of the Votomatic into Minnesota with the passage of enabling legislation in the 1965 Legislature permitting these devices if they meet the requirements of State Law and are approved by the State Voting Machine Commission.

Here is how the Votomatic works:

(1) An ordinary data-processing card is inserted by the voter into a cardholder, about the size of a briefcase and weighing about five pounds.

(2) When properly in place, the data-processing card will be located directly in back of a booklet in which the various races and issues in the election are listed. Opposite the name of each candidate is a small hole which exposes part of the data-processing card. Using a stylus the voter punches the data-processing card opposite the name of each candidate he votes for. On the issues, he punches either the "yes" or the "no" hole. The data-processing card has been pre-scored, so the stylus can easily make holes in the card.

(3) When he has completed his voting, the voter removes the card from the card-holding device and inserts the card in an envelope. If he wishes to cast any write-in votes, he casts them on lines provided for that purpose on the inside of the envelope.

(4) The voter then gives the envelope with the data-processing card inside to an election judge who inserts it in a ballot box.

(5) At the close of the election day, the election judges in each precinct open the ballot boxes and remove the data-processing cards from the envelopes. In cases where a write-in vote has been cast, judges examine the appropriate dataprocessing card to see if the voter has by any chance also cast a regular vote for that race. If he has cast such a vote, in effect, overvoted, the judges take the data-processing card and envelope and place it in a special place. (Later, at the central data-processing center, the election judges re-punch a new data-processing card with the race where the overvoting occurred left blank, and the new card is fed into the computer. This process is also used for data-processing cards which may be too damaged to fit the computer).

(6) Two judges (of opposite parties) take the ballots from each precinct to a central location for feeding the cards into a computer for counting. The computer is programmed to reject any cases of overvoting, that is, where a voter has voted for more candidates for a given office than he should. Or in the case of a primary, the computer will reject votes if a person has voted for both Republican and Democratic candidates. A computer can count a precinct of 500 votes and print the returns in about one minute.

The Votomatic was originally developed by Joseph P. Harris, professor emeritus of political science at the University of California. Professor Harris has sold the patent rights to IBM.

The Votomatic was used in San Joaquin and Monterey Counties, California; Lane County, Oregon and DeKalb and Fulton Counties (metropolitan Atlanta), Georgia, at the presidential election of 1964.

## Experience in Bloomington and Coon Rapids with the Votomatic

Bloomington and Coon Rapids used the Votomatic system on an experimental basis in their municipal elections in November 1965 and will use the system in the primary and general elections of 1966.

The 1965 Legislature required that any electronic voting system could be used only experimentally until after the 1966 general elections and that the experiment would have to be limited to municipalities or polling places which in the aggregate cast less than two per cent of the votes cast statewide for president in the 1964 general election.

With this limitation, all of Coon Rapids and 13 of 14 precincts in Bloomington were granted permission to use the Votomatic.

The City of Bloomington conducted a random survey of voters who used the Votomatic in the November 1965 election. Of 712 persons mailed questionnaires, 616 were returned.

Following are the key results:

(1)	Do you feel the machines?	Votomatic was	as easy to easier to harder to	operate	than voting
	As easy	237		38.7%	
	Easier	348		56.2%	
	Harder	31		5.1%	
(2)	Was this voting	method easy to	learn and	understand	?

Yes	608	99.0%
No	6	1.0%

(3) Did you receive adequate instructions from the election judges on how to use the Votomatic?

Yes	614	99.9%
No	1	0.1%

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(4) Is there any part of the voting method that you did not like or found difficult to understand?

Yes	71	11.9%
No	524	88.1%

There were 7,209 votes cast in the Bloomington election. Of that amount, there were 63 cases of overvoting in which votes for an office had to be disallowed. The computer automatically rejects the vote for an office if a person has overvoted.

There were 1,091 votes cast in the Coon Rapids election. Coon Rapids officials said they have not determined the number of instances of overvoting.

Bloomington officials said that fewer than 10 ballots had to be repunched after the polls closed because they were damaged and could not be fed into the computer. Coon Rapids officials reported two such ballots.

Norman J. Werner, finance director for the City of Coon Rapids reported that "the reaction of our voters was favorable and, in some cases, enthusiastic. My opinion is that the system is excellent."

Del Green, assistant City Manager for Bloomington reported the Votomatic "generally fulfilled all expectations."

# Other Voting Systems

There appear to be four categories of voting systems used in the United States today: the traditional paper ballot, voting machines, punch-card systems and paper ballot fluorescent ink systems.

## VOTING MACHINES

In addition to the Shoup and Automatic Voting Machines, we are aware of one other similar voting machine, the Seiscor, manufactured by Seiscor, Division of Seismograph Service Corp., Tulsa, Oklahoma. The Seiscor has been on the market for about four years. Its price is approximately the same as that of the Shoup and Automatic. The Seiscor has been used in counties in Oklahome, Kentucky, Texas, Hawaii, Missouri and Kansas.

On the Seiscor machine, candidates and issues are arranged vertically. A voter moves selector keys to positions opposite the candidates he wishes to vote for or to the "yes" and "no" positions on the issues. Then he presses a button at the bottom of the machine which reads "VOTE". At that moment the vote is recorded by counters on the back of the machine. Facilities for write-in voting are provided as an accessory. Up to 100 write-in spaces are provided in a convenient desk height location.

## PUNCH-CARD SYSTEMS

In addition to the Votomatic, we are aware of at least two other punchcard systems, the Coyle Voting Machine and the Votemaster.

Both of these systems use a somewhat more elaborate device for punching the cards. Whereas the Votomatic card is pre-scored so the holes can be punched out with a stylus, the cards for the Coyle and Votemaster machines are not prescored. The principle of both the Coyle and Votemaster machines is the same as that of the Votomatic. Voters place the cards in the machines, make their selections, remove the cards, place them in envelopes and hand them to election judges who put them in ballot boxes. At the end of the day the ballots are taken to a central computer location where the punch-cards are counted.

## FLUORESCENT INK SYSTEMS

Minnesota state law permits such systems on the same basis as the punchcard systems, but so far as we know, there has not been any attempt to market these systems in Minnesota.

These systems are not regarded as voting machines. They provide methods by which paper ballots are marked with a special stamp with fluorescent ink and then can be automatically counted. The two such systems we are aware of are the Coleman Ballot Readers developed by Coleman Engineering Company (used in conjunction with a UNIVAC Computer System) and the Votronics Vote Counter developed by Votronics, Inc., Garden Grove, California.

#### DISCUSSION

Voting practices have been evolutionary and with this evolution have come periodical changes in election laws and procedures. This evolution, of course, is continuing today.

Years ago people voted orally. This frequently meant that candidates would come to the polls to jeer or cheer depending upon how a person voted. There was no such thing as a secret ballot, of course.

Paper ballots were introduced in the United States in Massachusetts in 1634 but were not necessarily secret ballots. Voters or party workers would present previously completed ballots at the polls.

The secret paper ballot first used in Australia in 1856 was the result of an obvious need for election reform. Without secret ballots, of course, persons could be coericed or paid to vote for certain candidates. Secret voting in national elections became federal law in the United States in 1875.

Even with secret paper ballots, all problems were not solved. It is difficult, if not impossible, to get an absolutely accurate count of paper ballots when counted manually by election officials. Not only can election officials miscount, but it may be difficult to determine the intent of a voter if an "x" is not placed properly on the ballot. Further, the counting process is slow, with returns frequently not completed until the next day.

Problems with paper ballots led to the voting machine, a device designed to produce an accurate and fast count of votes in a precinct. But voting machines also have been able to go beyond the paper ballot in protecting the integrity of the vote.

With a paper ballot you can make a mistake and vote for more candidates than you should. The result is that you invalidate your vote. With a paper ballot you can also make a mistake and split your ticket in a primary election by voting for both Republicans and Democrats, which is illegal, with the result that your vote is invalidated. These mistakes are not possible on voting machines.

Despite these advantages, problems with voting machines have arisen, and these problems have prompted our report. These problems include the following: (1) The difficulty in placement of candidates, races and special questions, such as constitutional amendments on voting machine ballots. (2) Instruction of voters at the polls. (3) Recruitment, selection and training of qualified election judges. The position of election judge naturally has assumed increasing importance with the growing complexity of our election laws and procedures.

Our assignment also involves the evaluation of a new type of voting device introduced in Minnesota for the first time in November 1965, the Votomatic, a data-processing system of IBM. There are other new types of voting devices which also might be marketed in the state.

The impetus for the new devices comes principally from the fact that voting machines are expensive, selling for about \$1,700 each and are about as bulky and heavy as an upright piano. Consequently, they are diffucult to move around and store between elections, and such moving around and storage is expensive. In contrast, the Votomatic sells for \$185, is about the size of a briefcase and weighs about five pounds. The task of the public officials responsible in each locality for deciding voting devices to use is indeed a great one. Elsewhere in this report, we have done our best to outline the advantages and disadvantages of the various types.

## <u>Placement of candidates, races and special questions on voting machine ballots</u>

We must eliminate from voting machine balloting in this state the risk that a person will fail to vote on a race or question or vote contrary to the way he otherwise would because of the placement of these items on the voting machine ballot.

Some election officials have tried to dismiss as unfounded the claim that many persons who fail to vote on special questions, such as constitutional amendments, in voting machine precincts fail to notice the special questions on the ballot because of their location. These officials say that voters find it easier not to vote on an issue in a voting machine than on a paper ballot.

We have found a consistently lower percentage vote on constitutional amendments in voting machine precincts than in paper ballot precincts. Of course, failure to vote on a constitutional amendment in Minnesota constitutes, in effect, a "no" vote. Therefore, many people are voting "no" without even knowing about it, and perhaps a "no" vote for some of them would be contrary to what they prefer.

The location of amendments and other special questions is in the far upper right-hand corner of the Shoup Voting Machine and across the top of the Automatic Voting Machine. Because of the make-up of the machines, it seems that the best approach is to seek ways to attract the attention of voters to the special questions rather than to try to move the questions elsewhere on the ballot.

We have recommended a broad attack to attract the attention of voters to the special questions: (1) A special notation should be permitted on the ballot which would state, in effect, "remember to vote on the questions". (2) A requirement that election judges inform all voters of the general location of the questions and the candidates. (3) Enlargement of the size of space available for questions, where possible.

Without a doubt the most frustrating aspect of our assignment in reviewing the make-up of the voting machine ballot was to be faced with the limiting factor of the "write-in" vote. Many of us had been unaware that state law requires provision for a write-in vote for every office in a general election. Many of us were surprised to learn that such write-in votes are permitted on voting machines but we were even more surprised to discover that the write-in requirement has severely limited the make-up of the voting machine ballot with the result that candidates and races have had to be crowded together to one side of the ballot.

This unusual arrangement must be eliminated or greatly curtailed because of the irregular election returns which have resulted. Following are a few examples:

1. In some suburban Hennepin County municipalities in the general election of 1964, two candidates for a position of Associate Justice of the Minnesota Supreme Court, were so arranged that each candidate won the precinct in which his name appeared on top. Names were rotated from precinct to precinct, so each candidate won an equal number of precincts. There was no such pattern elsewhere.

2. In the general election of 1962 in Minneapolis, several candidates for the State Legislature, running officially as non-partisan candidates, were teamed with partisan candidates with the result that voters tended to place a candidate for the State Legislature in the same party with the partisan candidates with whom he was teamed.

3. Candidates for different non-partisan offices often appear side-byside and become inadvertantly teamed. What happens then is a strong candidate for one office could aid a weak candidate for another office or vice-versa.

Solutions to these problems are not easy. Some or all of them could be present in the 1966 general election, depending upon how the ballot is constructed. The Hennepin County Auditor plans to move the partisan candidates to a different location on the machine in the 1966 election to avoid the second problem referred to above.

Some of the newest voting machines on the market today are designed to prevent such problems from occurring. And it is possible to make the older models of voting machines more flexible by purchase of special attachments which cost between \$50 and \$225 per machine. Since a voting machine can be expected to last 40 or 50 years, these attachments appear to be worth the investment. We can't guarantee, of course, that all localities would choose to buy these attachments.

We believe that County Auditors have a very important responsibility to come to the State Legislature with a recommendation for ending the problems listed above in all localities.

An obvious solution to these problems is to eliminate the write-in vote, which locks out a large section of the machine which otherwise might be used. If there were no write-ins, the ballot could be designed so that the above problems would not occur. Such a drastic recommendation clearly was outside the scope of our assignment, though many of us raised questions about the write-in. Some members thought it is not needed, while others thought the voter should not lose his traditional right to vote for whomever he pleases. But we all agreed that it does not make sense to suggest abolishing the write-in merely to make a voting machine more flexible.

## Instruction of voters at the polls

There are two aspects of this matter in connection with voting machines. They are (1) the physical properties at the polling place, the sample ballot, the mechanical model and the actual voting machine, and (2) the instructions given to voters by the election judges.

We have referred earlier in this report to the problems of the sample ballot and the mechanical model as they exist today. It is incumbent upon election officials and the State Legislature to see that these problems are ended. The sample ballot and the mechanical model are supposed to help the voter. We have discovered that currently they seem to do more harm than good, but they can be improved.

## Recruitment, Selection and Training of Election Judges

Directly related to instruction of voters is the method by which we produce quality in the election judges. Judges must be recruited from the widest possible spectrum. This means that persons should not be excluded arbitrarily because they reach 65 years of age or because they are Independents rather than Democrats or Republicans.

It also is important that political parties take a greater active interest in stimulating their own members in the various wards and precincts to apply for

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position of election judge so that City Clerks will not be faced with shortages every year.

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