It is a day that will go down in electoral infamy – November 7, 2000 – the election in which the American public discovered that every vote was not being counted fairly and accurately by the mishmash of voting systems being utilized in jurisdictions throughout the country. Emanating from the State of Florida, and spreading throughout the entire nation, questions were being raised about “butterfly ballots,” hanging and “pregnant” chads, voter confusion, and a myriad of other problems that caused voters to be disenfranchised, thus eroding public confidence in the entire electoral system.

Because it was the most widely used voting process, the punchcard voting system particularly received a black eye in that historic Presidential election, an injury from which punchcard voting has never recovered.

Obviously, punchcard voting is not the wave of the future, but perhaps it is not the devil it has been portrayed. At least, that is the conclusion we have reached in Chicago after four elections utilizing an improved version of a punchcard system that alerts voters to possible errors and gives them a “second chance” to correct mistakes.

Chicago was hard hit by controversy over the November 7, 2000 election. In that election, more than 70 percent or 1,027,627 of Chicago’s registered voters went to the polls to cast ballots. Once all of the ballots were tabulated, the total vote for all presidential candidates numbered only 955,261, a “falloff” of 72,366 votes or 7.04 percent of the ballots cast. It was an abnormally high falloff, and because of the national focus on voter problems in this razor-close election, Chicago’s vote loss made national news.

Every election and every jurisdiction produces what election authorities describe as voter falloff. This represents the difference between the number of persons who go to the polls and the total number of votes recorded for the highest profile contest in that election. As a general rule, the further down in the ballot order the contest, the larger the fallout. In fact, it is not unusual for the discrepancy between the ballots cast and the total vote for some offices to run as high as 30 to 40 percent or more. This in itself is not considered alarming, since voters often skip over low profile offices in which they do not know the candidates or issues.

What does concern election officials is when voters become confused and make errors in casting their ballot. This can be caused by poor ballot layout, faulty voting equipment, poor voter education, or just carelessness on the part of the voters. Although such
mishaps occur in almost every election throughout the country, the year 2000 Presidential election, the closest in history, focused unprecedented attention on the issue of voter sophistication and ballot ease in casting a ballot.

Following this election, the Chicago Board of Election Commissioners undertook an immediate study to determine why so many voters failed to punch a selection for president. Board personnel hand examined almost 100,000 ballots. As part of this comprehensive ballot examination, the Board contracted with the Illinois Institute of Technology, a nationally renowned engineering university, to conduct an analysis of the punchcard voting equipment on which voters make their selections. As a result of this study, IIT engineers found that one of the molds used to manufacture the templates for the vote recorders was not engineered according to original specifications, thus causing a misalignment of some of the punch holes. These templates are used to guide the punch device into the proper ballot selection. The study found that under certain circumstances, such as using the punch stylus at at an extreme angle, could cause a hanging chad or an incomplete vote.

The Board ordered the remanufacture of all the templates, which was completed by the manufacturer at no cost to the City. IIT retested the new templates to ensure that they met the exacting specifications, and tens of thousand of punches were performed to ensure accuracy. These templates have been utilized successfully during the past four elections and have dramatically reduced the number of incomplete ballot punches.

Equally significant is the fact that commencing with the March 19, 2002, Primary Election, Chicago introduced voters to a new procedure, whereby their ballots were screened for possible errors. Instead of handing their completed ballots to election judges and walking out of the polling place, voters themselves inserted ballot cards into a precinct ballot counter (PBC-2100), which simultaneously screened for overvotes (voting for too many candidates for the same office), undervotes (failure to cast a ballot for any candidate), or a lack of judge of election initials, as required by law. If any or all of the above occurred, the ballot was returned to the voter and a digital readout and a printed message explained the omission and the possible options.

In instances in which the voter overvoted, he or she was given the option of receiving a new ballot and correcting the error or leaving it as is. In this instance, the office where the overvote occurred would not receive any votes, but the remainder of the ballot would be counted. In the case of an undervote, the voter again was given the option of returning to the voting booth with the same ballot to make a selection for that blank office. Or, again, the voter could leave the ballot “as is.” The judge of election stationed at the ballot counter would then press an override button, which allowed the PBC to accept the ballot. Ballots that were not initialed by a judge of election were rejected, and this deficiency could not be overridden since state law requires that only initialed ballots be counted. Thus, uninitialed ballots had to be returned to the judges of elections for the proper initials in order to be processed.
Ironically, when Chicago and suburban Cook County purchased the PBC-2100 in 1999, it was with the intention of fully utilizing the built-in technology that provided for the screening of ballots for proper errors. In fact, the ballot screening enhancements should have been fully operational for the 2000 Presidential election, but the Illinois state legislature failed to act on several legislative attempts to modify the election code so that ballots could be screened through the PBC-2100. Following the 2000 election fiasco, the City and the County joined in the lawsuit that resulted in a Circuit Court Order allowing for the use of the voter protection features. These ballot screening procedures have been in place since, and have significantly improved voter accuracy and voter confidence. Although many voters choose to leave their ballot “as is,” rather than make corrections, they are at the minimum alerted to the over or undervote factor.

Many jurisdictions have equipment to screen or prevent overvote errors, but Chicago and suburban Cook County opted also to screen for undervotes so that voters would be alerted to the fact if they failed to cleanly and completely punch a ballot selection for a candidate. Why screen for undervotes? Obviously, many voters choose to intentionally skip a race, in effect, voting for “none of the above.” This is their prerogative and, as I stated earlier, is quite common especially the further down in the ballot you go to the lesser known candidates and offices. However, if a voter does attempt to vote for a candidate, and fails to make a clean punch, the screening process will alert them to the fact that there are one or more undervotes. They may not choose to go back to the revote booth to correct this, but hopefully it will cause them to take a second look at their ballot.

Since the year 2000 presidential election, and the passage of the Help America Vote Act, election jurisdictions throughout the country have been rushing to convert to new state of the art voting systems, such as the touch screen. Other punchcard jurisdictions have moved to the fairly easy to use optical scan system, which is not as high tech, but requires minimal maintenance.

Chicago and suburban Cook County have moved with caution and careful study in considering new voting equipment. Last October, we held a joint exposition at McCormick Place inviting all manufacturers of voting equipment to show their product. In addition, we have had several vendors who have given individual demonstrations on new voting equipment at our offices.

Within the next week, we anticipate issuing a joint request for proposal for new voting equipment in anticipation of a possible conversion. Obviously, we will only be looking at election equipment that satisfies the requirements of the Help America Vote Act, specifically the requirement of a system that will allow disabled voters to cast an in-precinct ballot unassisted by judges of election.

Our goal is to focus on a voting system that will be the perfect one for all voters. Although Chicago has successfully utilized the PBC-2100 with its ballot screening features successfully during the past four elections, this system has some shortcomings. But it also has some positive points. Following are some of the desired features in the
ideal voting system, and how our current PBC-2100 and other systems rank in these areas:

1. **VOTER EASE**: Voting equipment is only utilized once or twice a year. Therefore, it must be a system that even the most uneducated voter can quickly learn to operate successfully. Because punchcard voting has been present in Chicago during the past twenty years, and is a fairly elementary process, our current system meets the ease of use criteria. The optical scan system, using a paper ballot that is filled in with special marking pencil or pen, also has ease of use. With the wide advent of ATM machines, touch screen voting also should be fairly simple and familiar to many voters, although may intimidate the technologically unsophisticated, and many seniors.

2. **SIMPLICITY OF OPERATION FOR JUDGES OF ELECTION**: Here, again, judges of election are merely citizens who work a few days a year in the electoral process. Accordingly, any voting system must be easy to set up, activate, and process the vote when the polls close. Because of its longevity, the punchcard system is familiar to our judges of election, and requires no extensive technical knowledge. This also holds true for optical scan. The touch screen or electronic voting equipment is somewhat more complicated, and any perspective system must be easy for the judges to activate and use. We must avoid situations such as that which occurred in Florida where poll workers could not “boot up” their computerized voting system or in other jurisdictions where electronic screens disappeared or incorrectly registered votes.

3. **BALLOT REVIEW AND CORRECTION**: A voter who changes his or her mind during the ballot process, or who discerns an error, must be able to correct their vote. With the punchcard or optical scan systems, this entails spoiling the ballot and asking for a new one to be issued. Touch screen voting has the advantage of allowing this correction quickly and simply. A review of one’s votes can easily be conducted with the optical scan and DRE systems but is more difficult with the punchcard system whereby the voter must match the punch number with the numbers on the ballot pages.

4. **LANGUAGE CAPABILITY**: Chicago and suburban Cook County are required by federal law to provide ballots in English, Spanish, and Chinese. It is anticipated that other languages, such as Korean, will be added to this requirement in the future. In Chicago, we have been able to accommodate all three languages by either printing trilingual or bilingual ballots in select precincts that require either Spanish or Chinese translations. Electronic voting has the advantage of being able to provide voters with their choice of several languages merely by selecting their language at the beginning of the voting process.

5. **A VOTING SYSTEM FOR PEOPLE WITH DISABILITIES**: HAVA requires that in all elections commencing in 2006 voters with disabilities must be provided with a means to cast a ballot without the assistance or intervention of a election judges. Under HAVA, at least one voting station in every precinct must provide this accommodation. The current punchcard system in Chicago does not meet this requirement. There are numerous voting systems on the market that are designed for those with disabilities.
6. PAPER TRAILS FOR VOTER VERIFICATION AND POSSIBLE RECOUNTS: The current punchcard system provides multiple paper trails from the actual voted ballot to the printed totals tape to the electronic data pack. Optical scan voting also provides a substantial paper trail and Illinois law states that DRE systems used here must produce a paper trail for use in a recount or redundant check.

7. LAST MINUTE BALLOT CHANGES: Experience has shown that election jurisdictions often have to make last minute additions or deletions of candidates on the ballot. With the punchcard system, this has been accomplished by reprinting the particular ballot page and replacing it in the ballot booklet, or taping over the name of the stricken candidate. For optical scan systems, these changes would necessitate reprinting the affected paper ballots. DRE systems can be fairly quickly reprogrammed with a new chip or other means of electronic correction.

8. BALLOT CAPACITY: Chicago currently uses a 456 position punchcard ballot, the maximum allowable. This was increased from the former 312 position ballot in the year 2000. Because of the large number of offices and judicial retention candidates, Chicago and suburban Cook County utilize almost all of the 456 ballot positions. An optical scan ballot system would require an oversized ballot sheet or multiple ballot pages to accommodate these large numbers. A DRE system could accommodate almost unlimited ballot positions with ease.

9. REPORTING VOTE RESULTS: Chicago currently has the fastest election night reporting system in the nation. For the February 25, 2003 Municipal General Election, only 45 minutes after the polls closed, 91 percent of the City’s precincts had reported vote results. This meant that all but 253 of the City’s 2,706 precinct polling places had reported full vote totals. The lightning speed of the system is provided by built-in cellular modems that allow election results to be transmitted directly from the precinct polling places to the Board’s central computer. Also, during election day, voters directly feed their voted ballots into a precinct ballot counter, which tabulates the totals and stores them in memory, eliminating the necessity for the judges of election to perform this function after the polls close. The fact that Chicago has such a fast vote reporting system helps instill confidence that every vote is counted fairly and accurately, and avoids any possibility of tampering with these totals. Obviously, by utilizing similar cellular modems, these same fast results could be accomplished with the optical scan or DRE systems.

10: VOTER CONFIDENCE: The most important ingredient in any voting system is public confidence that their vote is being counted fairly and accurately. One of the drawbacks of the DRE systems has been published reports and university studies questioning the integrity of the electronic voting systems and the possibility of tampering or even electronic failure.

In addition to looking to the future and a new voting system, Chicago has revisited every aspect of the voting process to make it as simple and error free as possible. Working with professional designers, we have redesigned all of our ballot pages, ballot cards, and other
instructional material to make it more easily understandable. A new typeface and layout for the ballot booklets that make the candidates’ names and the punch numbers easier to locate and read has vastly improved the voting process. We have redesigned all of the polling place signage and instructions to make them more voter friendly. More comprehensive instructions on the voting process and ballot screening have been provided to the voter including the use of video monitors and instructional tapes in every polling place.

We have established a bill of rights for voters that is prominently displayed in every polling place. In plain and forceful language, this bill of rights explains to voters that they have certain protections, such as the secrecy of their ballot, the right to a new ballot if they make a mistake, the right to request assistance in voting if needed, and the right to have their vote counted fairly and impartially.

We foresee even more improvements in the future, but we are moving with a sense of caution and careful study. Frankly, following the year 2000 Presidential Election and the subsequent passage of HAVA, many jurisdictions rushed to touch screen or electronic voting as the answer to the ills that plagued our electoral process. For some jurisdictions, it has not been an easy transition. We have already witnessed some of these problems whereby voters were disenfranchised because of equipment failures and/or judge of election errors.

Any conversion to a new voting system must be well thought out and carefully reviewed. Judges of election and the voters themselves will need comprehensive instruction and educational programs.

A year ago, it was almost a certainty that Chicago would be looking to convert to an electronic or touch screen system. In light of what has happened in other jurisdictions that converted to touch screen, we are now more cautious. Obviously, we have not eliminated a conversion to electronic voting.

But, Chicago will not rush to judgment in converting to a new voting system. We want to focus on the best available equipment that will provide our voters with the opportunity to vote in a calm, dignified, and impartial manner, confident that their vote will be counted fairly and accurately and without any danger of tampering or computer hacking. And, if that system isn’t available in the marketplace, we may even attempt to design our own. This is too important to leave to chance.