

Report of Dail election count at Portmarnock Sports & Leisure Centre
for constituency of Dublin North
Friday 25 May 2007

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Introduction

This is a report describing my observation of the 2007 Dail election count at Dublin North. The purpose is to describe the procedures and comment on their integrity/trustworthiness, and also to make a comparison with computerised electronic counting. It is not a description of STV. Neither does it get into most of the numerical details of the counts, but concentrates on the procedures, from an explanatory and comparison point of view.

Summary

In summary, the count seemed to go quite smoothly and efficiently, though it took two full days to complete. One area of concern was the ballot boxes, which did not look particularly secure, and some of which could have been already open before arriving at the initial tally tables. All of the counting was done openly and transparently. The party tallies seemed to be accurate from an early stage, predicting the result from half way through the first day. One recount was performed, resulting in the reversal of the relevant elimination, but not affecting the overall result. The recount procedures are very effective at validating the sets of ballots being checked. But the procedures are time-consuming, and because only two candidates are being checked, they are unable to pick up errors in other candidates ballot sets, which could affect the outcome of the recount. In this case, the recount resulted in a difference of only 2 votes between the two candidates. An independently verifiable electronic voting and counting system could potentially solve some of these problems. Different ballot boxes would solve the problem with the ones used here.

The count centre

Fig.1 shows an outline drawing of the count centre. The centre is divided into two areas by a long steel crowd-control barrier. Fig. 2 also shows a view of it.

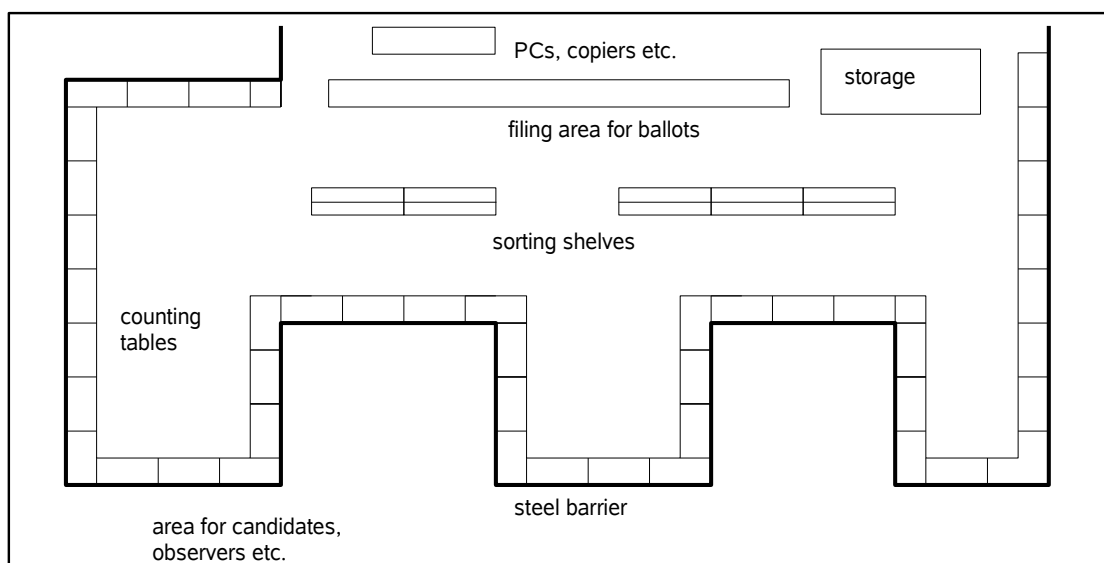


Fig 1 Outline of count centre



Fig. 2 View of counting tables and sorting shelves

On the inside, is the area where the returning officer and his staff perform the count. Outside, is where the candidates, their agents, party volunteers and other observers remain. All counting is done at tables located just inside the barriers and therefore in a position that is easily observed by anyone interested to do so. Access to the count centre was by ticket only. Each candidate apparently was allocated a minimum of ten tickets, but it was clear that some candidates had many more than this.

Immediately behind the counting tables were the sorting shelves. There were ten separate shelf groups used in this count. Each group contained one pigeon-hole/shelf for each candidate, and the counting staff used these to sort the ballots by candidate. The sorting shelves also had an important function for the mixing of ballots. See fig. 3.

Behind the sorting shelves was a filing area for the ballots. Each candidate's complete set of ballots was filed here after each count. Transfers due to surplus and eliminations were all taken from here. Behind this area was some office equipment including computers and a photo-copier. Lastly, a storage area containing all of the polling station material: sealed ballot boxes, and the remainder of the material from the polling stations stored in blue transparent sealed bags. None of the sealed bags were opened in public view, and it is not clear to me what was to happen to them.

Opening the ballot boxes

The count commenced at 9:05am with the opening of the ballot boxes. The boxes themselves were plastic “bins” with a blue plastic seal, which would have been placed at the polling station at the close of the poll, the previous day. Strangely, opening the boxes did not mean cutting and removing the seal. Instead, the entire top of the box could be opened in two halves, leaving the seal in place. It was not clear to me, what if any security measures could ensure that the boxes were not open already. In fact, as noted earlier some of the boxes did appear to be open, before they arrived at the counting table. Note, all of the ballot boxes were visible on the floor before the count started, and none of them looked like they were open already, but it is hard to be 100% certain of this.

The first preference tally

Two counting staff were assigned to each ballot box. When the box was emptied on the table, and then shown to be empty, the initial tally could start. Working independently, each counter unfolded ballots one by one, and displayed them face-up, so the tally-people could count the first preferences. The tally-people worked in pairs, one calling the vote, and the other recording it. It appears as if all the parties were working on a single tally co-operatively. Tally forms were collected and brought to a tally office outside the main counting area. After unfolding the ballots, they then had to be counted and arranged in bundles of 100. Each bundle was wrapped with a rubber band. The counters swap over all material, checking the counting of the other.

It was interesting to note, that at one point a tally person reached over and touched a ballot paper in order to read it better. He was immediately told off, since it is an electoral offense to do this. A little later, I noticed another tally-person being warned more than once, about leaning too far over the barriers. It was clear from these incidents that the staff take their legal obligations very seriously.

It seemed as if the experience level of the counters varied considerably. Some were a lot quicker than others, and had moved onto the next ballot box long before others. I noticed in one case, the counter was not keeping the ballots face-up all the time, but instead was counting and turning them over "book style". They are supposed to ensure that the numbers on the rear remain hidden at all times. On another occasion, a tally-person complained to me that some of the counters were not facilitating the second preference tallies, by counting too quickly.

The tally was completed around 11:45 am. The bundles of ballots were brought to the filing area. During the tally, suspected spoilt ballots were taken away for adjudication.

Ballot adjudication

The candidates/agents were invited inside the counting area to assist with adjudication of possible spoiled ballots. This seemed to be completed quite quickly.

Calculation of quota

Once the tally was complete, and the suspect ballots adjudicated, the total valid poll was calculated, and then the quota.

The count

The first count started around 1:45pm. Before the ballots can be counted, they are supposed to be mixed, in order to randomise the surplus transfer process, and therefore avoid biases resulting from boxes being opened in a particular order. The ballots were mixed by placing the bundles in a kind of random order on top of the sorting shelves, from where, the counting staff take them and sort them into the pigeon-holes for each candidate. Since there were ten separate pigeon-holes for each candidate, a certain amount of mixing occurs as a result of this. However, it wasn't clear just how randomly the bundles were distributed on the top of the sorting shelves. In some cases, it looked like very large bundles (probably the entire contents of one ballot box) were placed in one bundle. This probably resulted in all of these ballots being sorted into the same set of pigeon-holes, and therefore not very well mixed. However, to compare with electronic counting, mixing is one area where it is practically impossible to verify how well a computer does it, but much easier to make a judgement on manual mixing.



Fig. 3 Sorting of ballots

As the ballots for the more popular candidates began to accumulate, they were taken away to be counted, at the counting tables. At this time, all of the counting tables were divided among the candidates, and each table was clearly identified as such. The counters working in pairs counted the arriving first preferences, arranged them in bundles of 100, and then checked each other's work. All of this was observed by the party workers and others. As each bundle was completed, it was taken away to the filing area, where (presumably) the running totals for each candidate were maintained.

Following counts

At the end of the first count no candidate reached the quota and the two lowest candidates were eliminated, resulting in the distribution of their ballots in the second count. As with the beginning of the first count, the relevant bundles were placed on top of the sorting shelves, from which the counting staff take them and sort them into the relevant pigeon-holes. Note, that this process results in the ballots being partially mixed again, even though it is not a legal requirement at this time. This has the effect that these ballots could not be recounted because their order has been destroyed, but presumably, since the candidates have been excluded at this point, then the situation could not arise.

Interestingly, from the second count onwards, the job of the counter (and any observer) gets a little more complicated and progressively more so, with each further count. The problem is to identify the next preference to be counted. To assist with this, each table has a list of all candidates with the excluded and elected candidates crossed-out. Similarly, the names over the pigeon-holes in the sorting shelves are taken away for excluded and elected candidates.

Nevertheless, this appeared to be the most likely place for sorting/counting errors to occur. In many cases, errors that resulted from the sort, were detected by the counter, and the ballot returned to the correct candidate. However, it is impossible to be certain that all such errors were detected. Clearly, this is an area where electronic counting can improve the process dramatically.

From a sorting/counting perspective, transfers due to surpluses and eliminations are handled in the same way. The only difference is that for surpluses, the returning officer takes the required number

from the last bundle to be filed against the relevant candidate. This process can't be overseen by any third party, and again this is an area that electronic counting could potentially improve the visibility of.

Recounts

There was one recount in this election. Ryan from the Labour party was about to be excluded, but the difference to the next candidate (Daly) was only 11 votes. Given such a small difference, the returning officer agreed to the request for a recount.

The basic procedure here is to recheck both affected candidates entire set of ballots, checking:

- ballot validity, i.e. not spoiled
- correct number of ballots, i.e. totals correct
- each ballot is correctly filed, i.e. if a transfer that it has been credited to correct candidate

One interesting thing about recounts is that the entire set of votes (several thousands for each candidate) are checked while maintaining the exact order that they were filed in. Each candidate's ballots are separated into bundles numbered according to the count they received in and the order of the sub-bundle in the larger one. The counters check each ballot by keeping them face up, and removing ballots from the rear of the pile, thus keeping the original order. If the counters noticed a problem with a ballot, they tagged it with a Post-it sticker.

The other interesting thing about this recount was the challenging of ballot validity by the candidates. In this case, the Labour party had a large team, checking and challenging Daly's votes. There did not appear to be anyone from Daly's team challenging Ryan's ballots. The result of this, was a large number of Daly's ballots to be adjudicated. I observed some of the adjudication, and the vast majority of the challenges were thrown-out. In most cases, they were ballots with some slightly unusual marks on them. but in nearly all cases, there were adjudicated as being valid. The majority of actually spoiled ballots turned out to be ones which were unstamped, which itself is quite an unfortunate form of disenfranchisement by the state, and often cited as a benefit of e-voting.

One last observation about the recount was that some of the counting staff were more skilled at checking the ballots than the party volunteers looking on. Considering that the volunteers were also looking at the ballots upside-down, it was quite difficult to keep up in some cases.

The result of the recount was the reversal of the elimination with Daly now being eliminated with a margin of 2 votes, though this had no bearing on the final outcome of the seats, since Ryan was eliminated in a later count.

While these recounts are impressive, and lead to an improvement in the quality of the count, they are laborious and time-consuming. They are also far from perfect, in the sense that, by only checking two candidates ballots, any mistakes in other candidates ballots (which might even have a bearing on the elimination fight at hand) remain undetected. This is an area where electronic counting can improve matters. Clearly, with electronic counting, there is no need for this kind of recount at all. The caveat here of course, that this can only be true, when there is some way to independently verify the electronic voting and counting system itself.

Opinions on electronic voting

I canvassed a few people's opinions on electronic voting. I said to one party activist that electronic voting could remove the drudgery from counting. His answer was: "What you're calling drudgery, is excitement for other people". I thought that was an interesting answer. Another experienced tally-person who complained about not being able to see the 2nd preferences properly, commented that this showed the manual count was far from perfect. Of course, this is a simple procedural issue, that

could be corrected easily. He also commented that the manual counts are great fun, but the fun “goes out of it” quite rapidly the longer it goes on. He felt that after 6:00pm, most people including the counting staff get tired, and would prefer a system that is guaranteed to be completed by then. A number of people commented on the “inhumanity” of how the 2002 (electronically counted) election results were announced.

It's clear that counts are a social occasion for many. It is an opportunity for activists from different areas in the same party to meet up, and indeed for people in opposing parties to do the same. Clearly, electronic counting would be a much smaller scale affair, and therefore fewer people would be present.

My view is that any future electronic counting system should as far as is reasonable, mimic the procedures of the manual count, but without creating unnecessary work. For example, as electronic ballot modules are loaded into the counting system, a computer display would show the running totals of first, second, third preferences etc. This would be exactly analogous to the information which the parties get from their own tallies today. Second, there needs to be time taken in between each count, in order to announce the interim results, and indeed some electronic systems (under development) actually require some input from the candidates, and publication of verification material, in between counts. This will produce a reasonable time delay, to allow people to assimilate the information.

Also, it is my belief that any future electronic voting and counting system, should be introduced in parallel with the existing system, in the sense that people should be allowed to either vote electronically or the old way, at their own choice, and the counting system must be able to facilitate this.