Page 1 BEFORE THE FRANKLIN COUNTY BOARD OF ELECTIONS IN RE: Public Hearing Proceedings before Chairman Douglas J. Preisse, Board Member William A. Anthony, Jr., Board Member Michael F. Colley, and Board Member Kimberly E. Marinello, taken at the Franklin County Board of Elections, 280 East Broad Street, Columbus, Ohio, on Thursday, August 14, 2008, at 6:40 o'clock p.m. 

```
Page 2
 1
     APPEARANCES:
         Franklin County Prosecuting Attorney
 2
         373 South High Street
         13th Floor
 3
         Columbus, Ohio 43215
         By Mr. Anthony E. Palmer, Jr.,
 4
         Assistant County Prosecutor
 5
             and
         Mr. Nick A. Soulas,
         First Assistant,
 6
 7
             On behalf of the Board of Elections.
 8
     ALSO PRESENT:
 9
         Mr. Michael Stinziano, Director
         Mr. Matthew Damschroder, Deputy Director
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
```

Page 3 1 2 PROCEEDINGS 3 4 CHAIRMAN PREISSE: We are in session, 5 and thank you all for coming. Thank you for attending Franklin County Board of Elections' 6 public hearing regarding the preliminary voting 7 8 machine allocation report issued by Sagata Limited. 9 10 The Board is taking under consideration both the report and the comments 11 12 received for our final determination of 13 allocation of voting machines throughout Franklin County on election day. 14 15 Pursuant to Revised Code 3501:11(i), 16 this Board will vote in public session on the final voting machine allocation for the November 17 18 4th general election, 2008. We will hold this vote no earlier than 19 20 our regular meeting of -- regular meeting of the Board on September 8 so that this Board and our 21 22 staff and consultants have adequate time to 23 review the record from tonight and make final 24 recommendations prior to our vote.

- 1 I'd like to briefly describe the
- 2 format of tonight's proceedings. We'll begin
- 3 with a brief presentation from Dr. Ted Allen and
- 4 his team from Sagata Limited.
- 5 Once they have finished, we will then
- 6 hear comments and questions from those
- 7 individuals who have submitted speaker slips to
- 8 the Board staff.
- 9 Each individual will have five minutes
- 10 for comment. Our staff will raise a sign when
- 11 there's one minute remaining for the speakers.
- 12 Depending on the time remaining this evening,
- we'll then open the meeting for additional
- 14 questions and comments.
- We did ask you to fill out a speaker
- 16 slip so that the staff can adequately reach you
- 17 for any additional follow up that may be desired.
- 18 Thank you for attending tonight's
- 19 meeting. Let us begin with Dr. Ted Allen of
- 20 Sagata and the presentation. I think I unplugged
- 21 the machine accidentally over here, and you've
- 22 got it back in order.
- MR. ALLEN: I'd also like to thank you
- 24 all for coming today. My name is Ted Allen I'm

- 1 almost 40; I'm not that young. I'm an associate
- 2 professor. I'd like to thank the Board for
- 3 commissioning our study. It's been a pleasure.
- 4 This has been a really exciting thing
- 5 for me to work on. I think it's an opportunity
- 6 for moving the election community in a positive
- 7 direction and Franklin County can hopefully be a
- 8 catalyst for that and you also can participate.
- 9 I'm here representing my partner, Mike
- 10 Bernshteyn or Bernshteyn and Chris Rockwell of
- 11 Lextant. They ran the mock election, which is
- 12 roughly equal partnering with us that did
- 13 the -- we did the analysis.
- 14 I'm here representing a consulting
- 15 company that I'm partly involved in. I'm also
- 16 representing Lextant that Chris is president of,
- and then I'm also representing the Ohio State
- 18 University where I'm an associate professor in
- 19 industrial engineering.
- 20 So at Ohio State, I actually teach
- 21 waiting line analysis sometimes. I teach
- 22 simulation, the kinds of things that this project
- 23 is related. So I'm fully capable of putting you
- 24 all to sleep. And so don't make any growls at

- 1 me. No, I wanted to -- and so what I'm here to
- 2 present is one slide for each of these topics.
- The first topic is the summary, and
- 4 I'll just give you the summary. The summary is,
- 5 there is a serious likelihood, we believe, that
- 6 there will be lines again, despite all the
- 7 several positive steps that the Board has taken
- 8 in the past, including increasing the number of
- 9 machines, sharing the voting machines across
- 10 locations, stimulating early voting.
- 11 Despite these positive transits and
- 12 others that we'll mention, the reason why there
- will be possibly long lines to deal with, the
- 14 increase in time it takes to vote once you are at
- 15 the machine. And so we'll talk about that.
- So if you think about the process of
- 17 waiting, if you'd take a class from me in Ohio
- 18 State on waiting line analysis or a simulation,
- 19 this is the picture of the fundamental queuing
- 20 situation that is general to waiting in lines at
- 21 elections, waiting at cashiers in McDonalds,
- 22 waiting in the hospital for your nurse, waiting
- 23 for many different kinds of situations.
- It's fundamentally similar to this.

- 1 There's an arrival. There's some queuing, or
- 2 waiting, and then there's service. And so this
- 3 shows the machines here, and these are three
- 4 people being served. This person is arriving and
- 5 in line. This person is about to leave, and this
- 6 person will replace them.
- 7 So this shows the fundamental waiting
- 8 system. So to address our methods for how we
- 9 simulate this, you have to address how do you
- 10 simulate the arrival at the queue? You have to
- 11 simulate how they are served, how the machine
- 12 serves them.
- 13 And so we'll talk about the arrival,
- 14 the service rates, other things -- negative
- 15 events can also arrive such as machine
- 16 breakdowns. So we'll talk about what we do for
- 17 breakdowns.
- 18 And then the last thing I will talk
- 19 about as you're thinking about how to simulate
- 20 the system is the multiplicity.
- 21 This Board is in charge of not just
- 22 one precinct, but over 800 precincts in over 530
- 23 locations. So they will be judged, sadly, by not
- 24 their best precincts; they'll be judged by their

- 1 worst precincts out of all these many possible
- 2 opportunities for problems.
- 3 So another aspect of the simulation is
- 4 the multiplicity issue. So we'll talk briefly
- 5 about these things and then finish up with, okay,
- 6 you understand the basic ideas of queuing and
- 7 election systems, how do we apply it, what are
- 8 some properties to take home. All of these
- 9 points are described in your report.
- 10 So turnout. This is probably the
- 11 biggest source of uncertainty among you; yet, on
- 12 the other hand, the ability to predict how many
- 13 people are going to vote in the last two
- 14 elections was remarkable by the Board and by the
- 15 officials here.
- 16 They told me in advance how many
- 17 people would vote, and they were very accurate
- 18 within 2 percent, which was surprising to me at
- 19 the time.
- 20 In 2004, 530,000 people voted in
- 21 Franklin County. The population is slightly
- 22 larger but not that different. But yet the sign-
- 23 in level could theoretically be higher, so, maybe
- 24 more.

- 1 Now, that's the total number who
- 2 vote. But our scope in this project is smaller
- 3 than that. It's only how many people are going
- 4 to vote on election day.
- 5 So 100,000 people voted early in the
- 6 last two elections, major elections, the primary
- 7 in 2006, and that's about 24 percent of the total
- 8 that voted.
- 9 So we expect that that should go up.
- 10 There are reasons to suspect that it will go up.
- 11 For one, this Board has commissioned a mailing
- 12 inviting every single registered voter to vote
- 13 early.
- 14 Also, there's a large advertising
- 15 budget to stimulate early voting. Both of the
- 16 candidate elections have made promises to try and
- 17 stimulate early voting. Other precincts around
- 18 the country have had increases as they introduced
- 19 early voting options, so -- over time.
- 20 Although, I would say, in the last two
- 21 elections, it was constant at around 100. So we
- 22 don't know how many people are going to be coming
- 23 early against how many people are coming on
- 24 election day.

- 1 Now, another issue is, any given
- 2 precinct, there's considerable variability in the
- 3 turnout fraction for those precincts. There are
- 4 patterns of precincts that continually vote at a
- 5 higher turnout but yet it's -- you're wondering
- 6 how to make assumptions about that.
- 7 So what we've adopted is probably our
- 8 most conservative assumption, is we say that in
- 9 our simulation work -- not in our allocation,
- 10 we'll describe as a little different here. In
- 11 our simulation, we randomly select this precinct
- 12 will have a higher turnout or a lower turnout
- 13 than the overall turnout fraction.
- So we first can assume -- take 50
- 15 percent overall turnout; and then for some
- 16 precincts, there's some probability they're going
- 17 to have 50 times 1.4, which is -- it's
- 18 around -- in the 80 to 80-something percent.
- 19 So some will get that, some will get
- 20 lower. And so that's our simulation. Now, you
- 21 say, such a high rate on the highest turnout may
- 22 be a conservative element in this particular
- 23 simulation, and we actually are currently
- 24 investigating on our own this issue because we're

- 1 concerned about it.
- But, anyway, then there's a question
- 3 of when will people arrive? These are the actual
- 4 times from over 4,000 machines that we studied in
- 5 2006, real time, recorded from the machine, of
- 6 when the people voted.
- 7 And since there weren't particularly
- 8 very long lines in those precincts that we
- 9 studied, we can say, well, that's when they
- 10 arrived. So this is the -- in our simulations,
- 11 this is the arrival distribution. It shows a
- 12 peak, a slight peak -- a pretty big peak at the
- 13 beginning of the day, and then some came around
- 14 lunch or early lunch and then in the afternoon.
- 15 So this is what we used to simulate
- 16 when people would be arriving. So these are how
- 17 many people are going to arrive at each place,
- 18 this is when they were most likely to arrive.
- 19 So then the biggest thing that we do
- 20 know, which is the negative trend counteracting
- 21 all the positive things, is how much longer it's
- 22 taking to vote.
- We did a historical analysis before
- 24 for a publication of what happened in 2004. And

- 1 despite the long lines that we all are aware of,
- 2 the actual time it took to vote, we're
- 3 estimating, was quite fast, by our current
- 4 standards. Most people took less than five
- 5 minutes to vote, once they got to the machine.
- Now, in 2006, we have the real times
- 7 from the machines because now the new technology
- 8 records how long when we start, when we stop.
- 9 And so now we know real time how long it took to
- 10 vote.
- 11 And then we did the mock election, the
- 12 simulated longer ballots that we are predicting
- in the current election, in the November
- 14 election. And so we actually -- this was a large
- 15 element of our costs for the project.
- We had 60 carefully-selected voters
- 17 doing what's called statistical stratification on
- 18 ballots on three issues so that we would get some
- 19 minority voters and some other voters, some
- 20 experienced voters and some other voters, and we
- 21 would get educated voters and other voters.
- 22 So we stratified from those three
- 23 variables to create a representative sample, and
- 24 then we timed people on different ballots, and we

1 also asked them about their election experience.

- 2 From these, we were able to piece
- 3 together this distribution. You may not be
- 4 familiar looking at these kinds of histograms.
- 5 What it's basically saying is most people took
- 6 three to four minutes way back when to vote. In
- 7 the current election in the city, people are
- 8 going to take around nine to 10 minutes or
- 9 longer, and some will take 20 minutes.
- 10 Some dutiful people, even with the
- 11 people waiting, may come to the machine, try to
- 12 read everything carefully, and take 20 minutes.
- So that -- and, you know, so you could
- 14 say, stop, but, you know -- anyway, so they
- 15 probably won't. They really will take that
- 16 time. And so if they do, that is going to cause
- 17 some issues with lines.
- Now, so there's this trend
- 19 counteracting all these positive trends. So in
- 20 the simulation, we drew samples from this
- 21 distribution, and that's how we filled it in.
- Now, there's another issue with these
- 23 direct reporting equipment devices that has to do
- 24 with machine breakdowns.

- 1 We've done two different studies both
- 2 here in Cleveland for Cuyahoga County where we
- 3 have studied what causes the machines to break
- 4 down, and I think everyone here knows it has to
- 5 do with -- generally, it has to do with the
- 6 different printing machines, paper jams, paper
- 7 issues related to the printing function.
- 8 And those breakdowns sometimes put
- 9 everything on hold, but sometimes we need that
- 10 interventionalist. And so the distribution of
- 11 the arrival of breakdowns and the distribution of
- 12 how long the machine is down for may also factor
- in, based on some historical data we have.
- 14 So then the last thing is, we also
- 15 took into account this multiplicity issue. So
- 16 when we first -- we didn't realize how important
- 17 this is.
- 18 As we -- as I mentioned earlier, this
- 19 system will be judged not by its best precincts,
- 20 it will be judged by its worst precincts. And
- 21 when you have a lot of precincts, that is not
- 22 -- some precincts will have a really bad day;
- that means, people will come in bunches, people
- 24 will take a long time to vote, and the machine

- 1 will break down. And so you have to take that
- 2 into account, in line.
- I mean, since the headlines are going
- 4 to be not by the best precincts, they're going to
- 5 be by the worst precincts.
- 6 So we simulated 534 precincts. So
- 7 that's how we did our simulation to study how
- 8 long the lines were going to be.
- 9 Now -- so if you think about, what
- 10 does this all mean? What are some things to
- 11 remember, and what can Franklin County help the
- 12 country do to be better -- I mean, maybe not our
- 13 community in operations research, which, to me,
- 14 this is -- most of them, this is pretty
- 15 elementary stuff.
- In other systems, people are aware of
- 17 this. But the election committee -- I'm just
- 18 saying that the election committee, this is
- 19 important messages that I think need to be heard.
- 20 And so service times matter. It's not
- 21 the number of machine -- number of people per
- 22 machine, it has to do with the utilization of the
- 23 machine.
- 24 So if the machine -- so if people come

- 1 arriving at the machine, if the machine is
- 2 serving them fast enough, no big deal. But if
- 3 the machine is serving them slow and people
- 4 arrive, that machine becomes overutilized. Boom,
- 5 really long lines.
- 6 So it has to do with the combination
- 7 of the arrival and the service and how long the
- 8 ballots are. That's the key point.
- 9 And so our earlier study pretty
- 10 conclusively demonstrated that what happened in
- 11 2004, the apparent discrimination was likely
- 12 caused by the longer ballots in the city.
- In other words, they didn't have
- 14 enough machines there to do the jobs they were
- 15 trying to do, and so, as a result, lines -- and
- this problem with discrimination will be solved
- 17 simply by using this method, which I'll describe
- 18 in a second.
- 19 All right. And then one other finding
- 20 of the study is that if your goal is equal access
- 21 to equipment for all precincts, the fact that you
- 22 have add a machine, the problems are gone, no
- 23 lines. One machine less, you're going to get
- 24 considerably long lines.

- 1 So what happens, then, is you're going
- 2 to get -- even in 2004, quite a few precincts had
- 3 minimal lines, but some had really long lines.
- 4 So the only way to guarantee equal
- 5 access consistently is to essentially eliminate
- 6 all lines by just having one machine at every
- 7 place. And it's not impossible to do. You might
- 8 think it is, but it isn't. It's just having it
- 9 sort of slight overmatching it -- overmatching at
- 10 every location, you can essentially drive the
- 11 lines to zero.
- 12 So then the last thing is, this
- 13 allocation. I've already mentioned that it's
- 14 based on this thing -- you can't really read it,
- 15 but it's based on this idea of equal utilization.
- So you time how long it's going to
- 17 take the people, in general, to vote and then you
- 18 say, okay, I'm going to allocate the machines to
- 19 try and equalize the utilization, not the ratio
- 20 of people per machine.
- 21 So it's people per machine, per time.
- 22 It's almost the same as people per machine, just
- 23 like this one there in the PowerPoint.
- 24 So if you do that, then you're doing

- 1 what ATH, what the papers are written about, what
- 2 people are using for Taco Bell and what people
- 3 are using for nurses and now are using for this.
- 4 And so if you do that, it has this
- 5 pleasing property. This is how the allocation
- 6 happens. People all around the country with this
- 7 spreadsheet can reproduce the allocation.
- 8 They can take the same data, they can
- 9 apply the spreadsheet approach, and, bingo,
- 10 that's where the allocation comes from.
- 11 And so this is not perfect
- 12 allocation. Does this guarantee there will be no
- 13 problems? In fact, no, partly because the total
- 14 amount of machines that we have is not
- 15 sufficient.
- But using this approach, we will very
- 17 likely address or solve this problem that at
- 18 certain times, people waited considerably longer
- 19 in 2004. That won't happen. There will be some
- 20 people waiting longer than others, but the
- 21 likelihood that they share demographic -- share
- 22 demographics will be considerably reduced. So
- 23 it's transparent and it's designed to address
- 24 this issue that we incurred in 2000.

1 With that, I will conclude and thank

- 2 the Court. And thank you for listening. I
- 3 appreciate it.
- 4 CHAIRMAN PREISSE: Thank you,
- 5 Dr. Allen, for reviewing that most informative
- 6 overview.
- 7 Our agenda calls us to go right to
- 8 speakers who have submitted speaker forms, though
- 9 I believe you are remaining to address potential
- 10 questions. We appreciate your attendance and
- 11 remaining.
- 12 The staff have handed me a half a
- dozen or so -- five, I think, speaker slips which
- 14 have been numbered, I assume in order of,
- 15 perhaps, submission. And so first we would ask
- 16 Leah -- help me out. Rival, Rival?
- MS. RIVAL: Rival.
- 18 CHAIRMAN PREISSE: Rival, Esq., of the
- 19 Ohio Democratic Party Voter Protection Section or
- 20 Division. Leah, if you would please state your
- 21 name. What other information do we wish to have
- 22 for the record?
- MR. DAMSCHRODER: Organization and
- 24 address.

- 1 CHAIRMAN PREISSE: Organization and
- 2 address for the record, we'd appreciate it. And
- 3 then please proceed and welcome.
- 4 MS. RIVAL: Thank you. I'm Leah
- 5 Rival, and I'm regional co-counsel for the Ohio
- 6 Democratic Party Voter Protection. We're now
- 7 calling it Promote the Vote.
- I have a couple of questions from
- 9 Dr. Allen. I'm looking at your bid table, column
- 10 3, which I assume is -- is this what you're
- 11 projecting the distribution of machines to be, or
- 12 is this your suggestion or -- I just was a little
- 13 unclear.
- 14 SPEAKER: What page is that on?
- MS. RIVAL: Page 16. Sorry. On page
- 16 16.
- 17 MR. ALLEN: Okay. So which one is it?
- MS. RIVAL: Column 3, that shows the
- 19 4,565 voting machines. That's the number of
- voting machines we currently have; is that
- 21 correct?
- MR. DAMSCHRODER: Page 45, 65 on this.
- 23 MR. ALLEN: Right. 45, 65. Yes.
- MS. RIVAL: So is this your suggestion

- 1 of the best way to allocate the machines?
- 2 MR. ALLEN: That's right.
- 3 MS. RIVAL: Okay. Then I guess I'm
- 4 just looking at -- there appear to be large
- 5 discrepancies in average wait times, even with
- 6 the suggested allocations, so I was wondering if
- 7 you could speak to that.
- 8 It looks like there are many precincts
- 9 where the average wait time is up around 50 or 60
- 10 minutes. There are some that have 20-minute wait
- 11 times, and there are some -- there's a couple
- 12 that have five-minute or nine-minute wait times.
- So I was just wondering if you could
- 14 speak to that.
- MR. ALLEN: Sure. Well, so what goes
- 16 into the wait is mainly two things. One thing is
- 17 the number of people there. So we don't know
- 18 what fraction of people there will show up.
- 19 That's the clear one.
- 20 So you might look at a case where it
- 21 had roughly the same number of people there and
- 22 the same number of machines and that the waits
- 23 are different.
- 24 What that is is that -- in this

- 1 particular election, there's only two factors
- 2 about the ballot. One is that the Columbus
- 3 districts will have considerably longer ballots.
- 4 But it's not that much longer. I think it's
- 5 about 40 percent longer because of the five extra
- 6 issues that they will have. But, anyway, they
- 7 will have five extra -- six extra bond issues.
- 8 So that will take them longer to
- 9 vote. So you have to take into account the
- 10 vote. Because you're trying to predict the
- 11 wait. You need to take into account both the
- 12 number of people there and how long it -- if it's
- 13 Columbus or not Columbus.
- 14 Because somebody e-mailed us -- I
- 15 think it was you -- some questions, and we were
- 16 able to verify that the questions that you were
- 17 asking were -- it was just some were in Columbus
- 18 and some were not in Columbus and so --
- MS. RIVAL: It wasn't actually me,
- 20 but, okay.
- MR. ALLEN: Well, someone from your
- 22 organization. And I appreciate the questions. I
- 23 mean, we looked at it carefully, and the answer
- 24 was, there was no mistake.

- 1 Some were in Columbus, some were not
- 2 in Columbus. So those ones in Columbus
- 3 had -- even if they had the same number of
- 4 machines, they had more to vote on. So that
- 5 means, when the person got there, they
- 6 monopolized it longer. And so the queue grew,
- 7 the line grew.
- 8 MS. RIVAL: So would your suggestion
- 9 be, then, to allocate more machines to precincts
- 10 within the city of Columbus?
- 11 MR. ALLEN: Yeah. Well, we generally
- 12 did that. We generally did that. But there's
- 13 this limit on the total number of machines.
- 14 I mean, my suggestion would be, in a
- 15 way, I would stimulate early voting to the extent
- 16 that the turnout on election day goes down and
- 17 the number of machines is sufficient and everyone
- 18 waits nothing. Or increase the number of
- 19 machines until all lines are zero.
- 20 But the trick in this is, it's very
- 21 hard to equalize the number of machines except
- 22 equalizing them down to zero. There's really
- 23 no -- because once you add a machine -- if you
- 24 took this precinct, one of these ones with long

- 1 waits and add a machine there, that wait will go
- 2 further way down.
- And so it's -- that's how it works.
- 4 MS. RIVAL: So you think the
- 5 difference is basically based on the fact that
- 6 some of the precincts are within the city of
- 7 Columbus and have longer ballots?
- 8 MR. ALLEN: That's all there is.
- 9 Yeah.
- 10 MS. RIVAL: Okay. I want to thank the
- 11 Board for giving us this opportunity to speak to
- 12 the report. And it is very interesting and very
- 13 helpful.
- I just want to say a couple more
- 15 things. A couple of things struck me about the
- 16 report. Even with the increased number of
- 17 machines that we have, on page 3 and page 4,
- 18 there's a sentence that says, based on 50 percent
- 19 turnout, and we don't know what the turnout's
- 20 going to be -- and I guess it could be higher.
- MR. ALLEN: On election day.
- MS. RIVAL: On election day. Our
- 23 simulations predict 37 locations will likely
- 24 experience average waits of longer than three

- 1 hours.
- 2 And then also on page 4, with these
- 3 assumptions, we predict numerous locations where
- 4 the average voter will wait longer than 60
- 5 minutes. The number of these locations out of
- 6 543 locations range between 137 and 229
- 7 precincts.
- 8 So that is a little concerning, and
- 9 obviously, we would just, you know, encourage the
- 10 Board to get any extra machines that you can.
- 11 And I know that there's always been a lot of
- 12 discussion about voter education, and we would
- 13 just like to encourage that early voting.
- 14 Thank you very much.
- MR. ALLEN: Thank you.
- BOARD MEMBER MARINELLO: Thank you.
- 17 CHAIRMAN PREISSE: Thank you.
- 18 Our second slip is from Bill Buckle.
- 19 Welcome, Mr. Buckle. If you would similarly
- 20 state your name and bio for the record.
- 21 MR. BUCKLE: My name is unchanged
- 22 since you introduced me. Bill Buckle. I'm 1641
- 23 Hess Boulevard, Columbus, Ohio.
- 24 And my background is, I'm a poll

- 1 worker with a bad memory, so I'm one of those
- 2 guys that tend to forget things. But I watched
- 3 as several elections go by, so, therefore, I've
- 4 come to make some comments.
- 5 On the prepared statement I have here,
- 6 I have listed five comment areas. Starting at
- 7 the bottom, while the focus here is on the
- 8 machines, if you do have a single precinct stand-
- 9 alone someplace and you've got the machines lined
- 10 up real good, don't -- and it's a fairly large
- 11 precinct, be careful because the bottleneck may
- 12 be at the sign-in table.
- 13 And both whether it's at the machines
- or the sign-in table, there are ways to make it
- 15 move a little faster. And I'll be -- in the
- 16 printed comments, I'm suggesting that the manual
- 17 that you give poll workers like me have a piece
- 18 of paper that says, these are things you can do
- 19 to make this bottleneck go down and put the ideas
- 20 that's already there, we all know about them, you
- 21 know, in the manual.
- 22 And I was told by one of the manual
- 23 people, I can do it, but I've got to be told to
- 24 do it. I don't run this place. Remember? And I

- 1 guess we've got a new director. And where's the
- 2 new director? That's you. Okay.
- 3 And then the fourth one on the list
- 4 was voter turnout estimates. And that seemed to
- 5 be -- I just seemed to -- I just seemed
- 6 to -- using the stuff I read in the paper and
- 7 what seemed to be the -- you're right in there,
- 8 you're making good estimates, so I'll give you an
- 9 A on that one.
- 10 How long it takes to vote? Now I'm
- 11 thinking like a voter. You're thinking like
- 12 planners. But just remember there's people out
- there who do vote, and they'd like to know how
- 14 long it takes. And that's really not in the
- 15 study. Maybe they'd like to know that. So
- 16 that's number 3 as a suggestion.
- 17 Number 2 on the list was -- well,
- 18 let's go to number 1 because number 2 was the
- 19 key. Number 1 is that the data, the analysis,
- 20 seemed to be based on time the voter controls the
- 21 machine.
- 22 But the machines -- what shall I say
- 23 -- time to exist -- what the machine does, it,
- 24 first of all, stands idle because the other voter

- 1 just left. Secondly, somebody's introducing the
- 2 voter to how to use this machine, and the voter
- 3 isn't doing anything yet except listening and
- 4 watching.
- 5 Finally, the voter takes over, which
- 6 is where your study focuses. So beware of the
- 7 fact that there's some dead time there that's got
- 8 to be considered in the analysis they're using.
- 9 Then number 2, which is the more
- 10 interesting one is machine service time is
- 11 adjustable. And I've lived through some of this.
- So if you let people come up there to
- 13 the equipment and say, now -- and this is
- 14 2004 -- I'm sorry, in the year 2000, we
- 15 asked -- we put the face plate of the
- 16 machine -- that was the older style.
- 17 And as people waited in line, we said,
- 18 we've got long lines; be sure and study this. We
- 19 happened to have two precincts in the same
- 20 building. And the one where they studied the
- 21 face plate, the line just began to move down, and
- 22 the other line where they were a little more
- 23 obstinate and not so voter sensitive -- their
- 24 presiding judge wasn't of the same mind set. The

- 1 line was still outside the room at closing time.
- 2 So personal experience, but I can't
- 3 quantify this. I just know it has to work, and
- 4 it's common sense, too. So on number -- staying
- 5 with number 2, the analysis assumes that for some
- 6 reason we've got to live with this distribution,
- 7 but there are ways by putting a study table
- 8 either at the beginning or between the sign-in
- 9 desk and the machine so that we all -- everybody
- 10 entering that machine or the vast majority
- 11 entering the machine will be experienced not just
- 12 how to use it but experienced on the ballot.
- 13 A friend of mine did a little study
- 14 after he got confused and spent some time in
- 15 Upper Arlington and, low and behold, he was able
- 16 to cut his machine time down by 50 percent.
- 17 This is just -- you know, a family got
- 18 frustrated, took a public record, which is the
- 19 face plate of the machine in 2004, says, now, how
- 20 come it took this so long? Well, once they
- 21 studied this and saw the -- what confused them
- 22 and, therefore, went in the machine knowing full
- 23 well what to do, stop and think, hitting
- 24 a -- hitting an X isn't that time-consuming. Or

- 1 flipping a page and then hitting an X isn't that
- 2 time-consuming, if you know what you're doing
- 3 before you get there.
- 4 So talking about nine minutes in a
- 5 machine and all you do is flip a page and hit an
- 6 X, flip a page and hit an X because you know what
- 7 you're going to do, you're not talking nine
- 8 minutes, you're talking more like three or four.
- 9 So that's my main point.
- 10 And thank you for your patience. If
- 11 you have any questions, ask Bill.
- 12 CHAIRMAN PREISSE: Thank you,
- 13 Mr. Buckle. There were comments and mixed with
- 14 possible questions or observations that may merit
- 15 response. I don't know if Dr. Allen or the staff
- 16 want to comment at this point. But you may wish
- 17 to.
- 18 MR. ALLEN: I think that your primary
- 19 issue of trying to reduce the times by preparing
- 20 the voters is really important --
- MR. BUCKLE: At the polls. At the
- 22 polls, yeah.
- MR. ALLEN: And let me tell you one
- 24 good thing that they already have done, this team

- 1 right here. They have convinced the people to
- 2 shorten the ballot lengths, and they're working
- 3 towards convincing them to shorten the amount
- 4 of words they use.
- 5 MR. BUCKLE: Easier to read.
- 6 MR. ALLEN: And that's the setting.
- 7 And I do think that -- you know, I've never run
- 8 an election. I don't know what these people are
- 9 facing. You participated in it, but it is true
- 10 that maybe the best medicine if the machine
- 11 breaks down is not so much to send a tech but to
- 12 send somebody so the people in line can read
- 13 before they get to the thing, just what you're
- 14 saying.
- MR. BUCKLE: Make them experience
- 16 voting before they go in.
- 17 MR. ALLEN: So I just wanted to echo,
- 18 I agree with you, and I think that message has
- 19 been heard by this Board. And the logistics of
- 20 making it happen, you know, are up to them. And
- 21 they've definitely heard that message, and I
- 22 think your comments are right on.
- MR. STINZIANO: Also, to let you know,
- in our 60-day mailing that we're sending out to

- 1 all the Franklin County registered voters, we
- 2 point the registered voters to go to our website
- 3 and to pull up a sample ballot that they would
- 4 see on election day.
- 5 MR. BUCKLE: Very good.
- 6 MR. STINZIANO: So there is
- 7 availability to go to the internet to pull up the
- 8 sample ballot as you would see it on election
- 9 day.
- MR. BUCKLE: Well, perhaps, a further
- 11 word of explaining what a study table is. If the
- 12 voter comes in, all keyed up, he looked at the
- 13 website, go over -- you know, you walk by the
- 14 study table with questions. Are you -- do you
- 15 know what you're doing? Do you know how to use
- 16 the machine?
- Don't ask them, Do you know what
- 18 you're doing, because everybody's going to say
- 19 yes. But do you feel comfortable with the
- 20 machine? Have you had a chance to read the
- 21 issues?
- 22 And the person you're talking about
- 23 yes, oh, yes, on they go. And the other person
- 24 says, well, I didn't quite get to it. Well, sit

- 1 down and study these. But you're not going to
- lose your place in line because as soon as you
- 3 finish, get up with your right to vote slip and
- 4 we'll take it.
- 5 Those kind of psychological hurdles
- 6 that you might run into if you just went into it
- 7 like a bull in a China shop, then, you know, be
- 8 careful to sensitivities, I think you'll get
- 9 people willing to sit down and study.
- 10 CHAIRMAN PREISSE: Thank you,
- 11 Mr. Buckle.
- Our third slip indicates that Mr. Ed
- 13 Sweeny -- is it Sweeny?
- MR. SWEENY: Yeah.
- 15 CHAIRMAN PREISSE: Is here. Hello,
- 16 Mr. Sweeny and welcome. If you would similarly
- 17 state your name and address for the record.
- 18 MR. SWEENY: Thank you. My name is Ed
- 19 Sweeny. I live at 3801 Norberk Drive in
- 20 Columbus. Thank you for giving me the
- 21 opportunity to speak.
- I have three points I'd like to ask
- 23 questions about. It would -- and I observed the
- 24 2004 election as an observer, a volunteer. And

- 1 it would seem to me that newly-registered voters
- 2 would vote at a higher rate than people that have
- 3 been registered for their whole lives, and I
- 4 didn't see where that was taken into account in
- 5 the allocation of the machines.
- 6 Could you address that?
- 7 MR. ALLEN: Well, we have looked at
- 8 this issue of what makes precincts have an
- 9 affinity for a higher turnout or a lower turnout,
- 10 and the answer is, there is -- there is a way to
- 11 predict turnout.
- 12 We've actually -- in this study here
- 13 that was not the current but what we did earlier,
- 14 we created -- we studied different issues. Was
- 15 it early voters? Was it -- what is it that's
- 16 driving the turnout?
- 17 And we did, in this paper, here, grade
- 18 forecasting models and options for trying to
- 19 predict turnout. But in this particular case, so
- 20 far, we have decided to keep it simple. And part
- of that is because we're worried about simplicity
- 22 and the potential for a huge shift, partly
- 23 because of Obama and for other reasons.
- 24 And if we assume that people didn't

- 1 vote before and that they're not going to vote
- 2 again, that might be the issue. But I hear you.
- 3 Your point is right. There are ways to predict
- 4 the turnout, and we have studied that, and I'd be
- 5 happy to share this paper with you.
- 6 MR. SWEENY: Well, you know, you've
- 7 studied them. What is the percentage of newly-
- 8 registered voters voting compared to, you know,
- 9 the -- you know, you say 41 to 55 percent will
- 10 vote.
- 11 What percentage of newly-registered
- 12 voters vote? That's my question? And can that
- 13 be taken into account in allocation of the
- 14 machines?
- MR. ALLEN: Yes, it could. You
- 16 could. And the fact that this thing which we
- 17 have recommended at that time during this -- but
- 18 we have changed that because the ability of these
- 19 explanatory variables to predict the turnout is
- 20 significant, but it's not huge.
- 21 It's statistically significant, but
- 22 it's not huge. And to keep it simple, we did not
- 23 do that in this particular --
- MR. SWEENY: Can you answer the

- 1 question I'm --
- 2 CHAIRMAN PREISSE: Mr. Sweeny, I'm
- 3 going to ask the staff if they want to chime in
- 4 on that because I think they may have a little
- 5 more on-point experience over the years in direct
- 6 voter registration and turnout expectancy.
- 7 MR. DAMSCHRODER: Yes. If I recall
- 8 from 2004, we had about 125,000 individuals who
- 9 registered for the first time in Franklin
- 10 County. And if you shoot me an e-mail, I could
- 11 look up the numbers and give it to you, exact
- 12 numbers.
- 13 And I think it was about 70 percent of
- 14 those actually cast a ballot on election day.
- 15 And I think what we do have the capability to do,
- 16 Ted, and we're going to do, find a way to factor
- 17 this is, is to look at the precincts that have
- 18 newly-registered voters and try to -- and we can
- 19 probably go back and get this for '06, too -- and
- 20 try to project, based on history. You know, if
- 21 it's 70 or 75 percent of new registered voters,
- 22 have a history of voting, to then apply that to
- 23 the formula on a per-precinct basis.
- MR. SWEENY: I think that would be

- 1 awesome, yeah. I mean, if it's that much
- 2 difference. I mean, 70 percent of new voters
- 3 compared to, maybe, 40 percent of the average
- 4 voters, that would be a big factor.
- 5 And I think I was at one of the
- 6 precincts where there was a lot of newly-
- 7 registered voters, and the lines were
- 8 horrendous. So I think that's very important,
- 9 especially now that I know the percentage. So
- 10 that would be considered, possibly. Excellent.
- 11 MR. ALLEN: Well, the 70 percent is
- 12 for sure. The lower percent of the other ones
- weren't quite as low as what you're saying at 50
- 14 percent, right? I mean, you said -- you quoted
- 15 70 -- I mean, you didn't quote the other
- 16 percentage, right, of the non-registered voters
- 17 reported -- it's not --
- MR. SWEENY: Well, whatever it is,
- 19 yeah.
- MR. DAMSCHRODER: It's knowable.
- 21 MR. SWEENY: But it's going to be
- 22 probably, what -- you don't know.
- MR. ALLEN: Well, the overall
- 24 percentage was 67 percent. So if it's 70, then

- 1 the other ones are going on 64, something like
- 2 that. So it's not -- it's different. Your point
- 3 is well taken. And they may have a different
- 4 time --
- 5 MR. SWEENY: And where they are could
- 6 be different. Maybe not just be spread
- 7 throughout on the average through all the
- 8 precincts.
- 9 MR. ALLEN: In our mock election, we
- 10 looked into, does it take longer if you're new to
- 11 vote?
- MR. SWEENY: Well, that's a different
- 13 issue, yeah.
- MR. ALLEN: And the answer is, it
- 15 wasn't that big a difference.
- MR. SWEENY: Yeah. That's not my
- 17 point, though.
- 18 MR. ALLEN: Oh, I know. I just wanted
- 19 to mention that.
- MR. SWEENY: Anyway, my second
- 21 question is, also, if there was a place where
- 22 there was multiple precincts at one location, is
- 23 that going to be reduced or eliminated in this
- 24 next election?

- 1 For example, I talked to people that
- 2 they would wait in line for an hour, two hours,
- 3 and be in the wrong line for the wrong precinct
- 4 and then they'd have to get in line again. And
- 5 sometimes they didn't have time to wait in
- 6 line --
- 7 CHAIRMAN PREISSE: There have been
- 8 excellent observation from your experience, and
- 9 there has been remedial action already planned
- 10 and taken, so I'll ask --
- 11 MR. DAMSCHRODER: What we've done is
- 12 to combine -- and we rolled this out county-wide
- in the primary this year -- is for locations that
- 14 have more than one precinct, we call them
- multiple-precinct locations, we've combined the
- 16 poll books and then divided them.
- 17 Instead of by precinct name, divided
- 18 them by the alphabet. So for a precinct -- for a
- 19 location that has two precincts, there will
- 20 actually be four lines with tall signs that
- 21 essentially say, you know, queue here for A
- 22 through G and so on.
- 23 After the voter -- so then we -- you
- 24 eliminate the problem of standing in line to get

- 1 to the poll book when it might happen you stood
- 2 in the wrong precinct.
- 3 MR. SWEENY: That should help, yeah.
- 4 Because a lot of people don't know their precinct
- 5 number, but they know their name.
- 6 MR. DAMSCHRODER: Exactly. Exactly.
- 7 And then in -- in the past, with the full-faced
- 8 machines we had in 2004, you couldn't -- a voter
- 9 could only use the machine that was assigned to
- 10 their precinct because of the pre-printed face of
- 11 the ballot.
- 12 With the flexibility of the technology
- 13 for the new machines, we can program them so that
- 14 they are capable of pulling up a ballot for any
- 15 precinct in that location.
- So after the voter has hopefully moved
- in a more quick -- in a faster manner through the
- 18 poll books, the poll worker is going to take them
- 19 to any machine in that location instead of just
- 20 the machine that's assigned to them.
- 21 So no longer will we have a situation
- 22 where two precincts in the same location, one's
- 23 the city of Columbus, one's a township. No line
- 24 for the township machines, but a line for the

- 1 Columbus machines.
- 2 MR. SWEENY: Okay. Excellent. I
- 3 think that will be a big help.
- 4 And my third question is, I have lived
- 5 and voted in other states where they -- I
- 6 received a sample ballot in the mail, and it was
- 7 a tremendous advantage. I could sit down at my
- 8 leisure, read the issues and study them and mark
- 9 how I was going to vote way before I got to the
- 10 polling place.
- 11 So when I got to the polling place,
- 12 bang, bang, bang. I knew where I was going to
- 13 vote, and I voted. Has that been considered? Is
- 14 that a possibility?
- BOARD MEMBER ANTHONY: Well, I'll make
- 16 sure we send you one.
- 17 MR. SWEENY: Sorry?
- 18 BOARD MEMBER ANTHONY: I'll make sure
- 19 you get one.
- 20 CHAIRMAN PREISSE: I'll make sure you
- 21 get one, too.
- MR. SWEENY: Well, no, I mean, it's
- 23 not just me. I vote absentee. So I get it in
- 24 the mail, and I can do that.

- 1 CHAIRMAN PREISSE: I think he was --
- 2 the partisan ballot.
- BOARD MEMBER ANTHONY: Yeah, the
- 4 partisan are the ones that you always get your
- 5 sample ballot from. The Board doesn't send out a
- 6 sample ballot.
- 7 MR. SWEENY: In this state.
- BOARD MEMBER ANTHONY: No, not this
- 9 state.
- 10 BOARD MEMBER MARINELLO: But didn't
- 11 you say, Matt, it's on the website?
- MR. DAMSCHRODER: Yes.
- BOARD MEMBER ANTHONY: It's on the
- 14 website.
- 15 MR. DAMSCHRODER: It's not a
- 16 requirement in this state, and you are correct,
- 17 it is a requirement --
- 18 MR. SWEENY: Well, I heard the
- 19 website, but I probably wouldn't go to the
- 20 website and look at it.
- BOARD MEMBER MARINELLO: A lot won't;
- 22 I know.
- MR. SWEENY: And most of them
- 24 wouldn't, probably.

1 BOARD MEMBER MARINELLO: I know my

- 2 in-laws wouldn't.
- 3 MR. DAMSCHRODER: I think it's
- 4 something the staff can review and present to the
- 5 commissioners for possible funding if it's
- 6 something that the Board wants to decide to do as
- 7 a policy, to send a full sample ballot to every
- 8 voter before the election ends. It is possible
- 9 because they do it in other states.
- 10 MR. SWEENY: Yeah. Oh, yeah. But, I
- 11 mean, if you vote absentee, you get it in the
- 12 mail, obviously. So, I mean, there might be a
- 13 way to send it to the people that did request the
- 14 absentee, just sent it to those, the other 75
- 15 percent, whatever it was.
- MR. ALLEN: Yeah. And I just want to
- 17 echo that the Board has considered doing this
- 18 instead of some equipment purchases,
- 19 so -- because I think it's basically worth
- 20 money. It's money versus money.
- 21 And I don't know if these guys knows
- 22 whether it costs more to buy more machines or to
- 23 send this out to everybody. And so I don't know
- 24 the details.

- 1 MR. SWEENY: Do you know the details?
- 2 MR. DAMSCHRODER: We can look at it.
- 3 MR. SWEENY: All right. So, I mean,
- 4 could somebody get back to me on this? You have
- 5 my e-mail address.
- 6 CHAIRMAN PREISSE: We have it here.
- 7 Thank you. Yes.
- BOARD MEMBER ANTHONY: Well, for sure,
- 9 Ed, if we can't send you one with every name on
- 10 it, we'll send you a Democratic one.
- 11 MR. SWEENY: Are you a Democrat, by
- 12 chance?
- BOARD MEMBER ANTHONY: I am a
- 14 Democrat. I certainly wouldn't send you a
- 15 Republican one.
- 16 MR. SWEENY: I really appreciate your
- 17 listening to me, and I thank you for your
- 18 consideration.
- 19 CHAIRMAN PREISSE: Thank you,
- 20 Mr. Sweeny --
- 21 BOARD MEMBER MARINELLO: Thank you.
- 22 BOARD MEMBER ANTHONY: Thanks.
- 23 CHAIRMAN PREISSE: -- for your
- 24 observations and questions.

- 1 Our fourth slip would indicate a
- 2 Mr. Bob Brandon of the Fair Elections Legal
- 3 Network. Mr. Brandon, are you the gentleman we
- 4 heard tell of that may have flown in?
- 5 MR. BRANDON: Well, I did, but not
- 6 just for this.
- 7 CHAIRMAN PREISSE: Oh, well, now we
- 8 feel less special.
- 9 MR. BRANDON: Well, let's put it this
- 10 way, I organize other meetings around the fact
- 11 that this one is taking place.
- 12 CHAIRMAN PREISSE: Well, you're still
- 13 getting the prize for the farthest trip made.
- MR. BRANDON: Well, thank you.
- 15 CHAIRMAN PREISSE: And please state
- 16 your name and the rest of the information for the
- 17 record, and welcome.
- 18 MR. BRANDON: Thank you. My name is
- 19 Bob Brandon. I'm the president of the Fair
- 20 Elections Legal Network.
- 21 We're a network -- nonpartisan network
- 22 of election lawyers around the country working
- 23 with state, local, and national organizations
- 24 that work on voter mobilization efforts.

- 1 And we're focused on trying to make
- 2 sure that every eligible person is able to vote
- 3 and have their vote counted. And we really
- 4 appreciate the opportunity to speak tonight.
- We've been very active on the issue of
- 6 allocation of resources, including voting
- 7 machines, paper ballots, and other equipment.
- 8 And as you do know, we've, in fact, sent earlier
- 9 this summer a letter to Franklin County and five
- 10 other counties in Ohio, as well as other election
- 11 boards around the country, asking about plans to
- 12 accommodate what we know is going to be a
- 13 historic turnout election this year.
- 14 We've asked election officials to take
- 15 the issue of allocation very seriously, and we're
- 16 really here to applaud this Board for having done
- 17 so. As was mentioned earlier, I think this is a
- 18 very unique effort that other boards should try
- 19 to follow, and I hope that you'll share the study
- 20 and the work that you did, not only with counties
- in Ohio but perhaps through the association with
- 22 other county boards around the country.
- 23 As the report recognizes, there's no
- 24 precise way to do an allocation, and I think it's

- 1 important that you've rejected sort of the
- 2 traditional formulas of just X machines per
- 3 precinct.
- 4 And that correctly concludes that
- 5 there's far more refined techniques that are
- 6 necessary and required to do any serious analysis
- 7 of this.
- 8 As the Board is aware, whenever there
- 9 are long lines on election day, you get -- you
- 10 hear about it. You know, whether it's charges
- 11 that there will be long lines at certain places
- 12 were not accidental or, as a practical matter,
- 13 many people wind up not voting out of
- 14 frustration.
- 15 So this public hearing, I think, is an
- 16 important step to dispel some of the unwarranted
- 17 criticism. And the next step, obviously, would
- 18 be to make sure that the -- what you finally
- 19 decide is out there in the public so people are
- 20 quite aware of the allocation of the nearly 500
- 21 machines that you're going to have available, and
- 22 perhaps more if you have the funds.
- 23 And I think -- and that will also help
- 24 recognize that some precincts will complain that

- 1 they have fewer machines than others, but I think
- 2 you have -- will be able to back up why you've
- 3 made that decision.
- 4 So I think the focus on the precinct
- 5 level is very important and plainly correct and
- 6 the decision to take into the account the often
- 7 overlooked issues around ballot length and
- 8 complexity is a good one.
- 9 I was -- one question. It was unclear
- 10 to us whether you're taking into account the time
- 11 of day fluctuations. I know you have that there,
- 12 but I'm wondering if, again, the precincts, the
- 13 allocation formula, assumes an average across the
- 14 day, number, or whether you're sort of looking at
- 15 what might happen because of the variation and
- 16 bottlenecks that might occur. So that's one
- 17 question.
- 18 And the other is, in terms of the
- 19 assumptions you're making on pre-election-day
- 20 voting, early voting, or absentee voting.
- 21 Again -- and I think it was alluded to earlier by
- 22 one of the speakers -- while there hasn't been a
- 23 lot of experience with the early voting yet,
- 24 doing something that's across the board may be a

- 1 problem because we should be able to figure out
- 2 precinct by precinct some variations that might
- 3 lead the Board to conclude that there will be
- 4 hard numbers of early voting and not just across
- 5 the board, 33 percent, or whatever the number you
- 6 finally come up with.
- 7 And then, of course, I'm assuming that
- 8 the Board will try to update this as best they
- 9 can toward -- as far down the road as they can
- 10 and still be able to make the decisions, given an
- 11 opportunity to look at what I think is going to
- 12 be a very large surge in voter registration in
- 13 the next month or two, particularly in Franklin
- 14 County in the area as students come back to
- 15 school.
- So the other thing I wanted to mention
- 17 because, again, it wasn't touched on earlier, one
- 18 of the things that we would suggest is not just
- 19 making sample ballots available to the voters by
- 20 mailing them to them where I think they have much
- 21 more opportunity to actually look at them, but
- 22 having a sufficient number of sample ballots at
- 23 the precinct so people are waiting in line and
- 24 try to make them available well in advance.

- 1 And, along those lines, we've
- 2 suggested -- and you may have this now, trying to
- 3 get some of the poll workers or get additional
- 4 volunteers -- I know there are many people who
- 5 want to volunteer to help -- as almost poll
- 6 greeters to sort of be at the back of the line
- 7 trying to direct people, answer their questions,
- 8 give them sample ballots if it looks like there's
- 9 going to be a long wait.
- We have other ideas, too, that would
- 11 reduce the wait times and minimize election-day
- 12 confusion. Not only would they require money,
- 13 but I know that's something you need to worry
- 14 about.
- The one other thing I want to mention
- 16 is obviously a very important piece of this is
- 17 the voter education that you're clearly prepared
- 18 to do, pushing at least the awareness that people
- 19 can vote early, which would be a very big help.
- I also wondered whether you're giving
- 21 any thought to the option when people do stand in
- 22 line, if you've got paper ballots and they could
- 23 actually use those, the scan machines. So that's
- 24 the other question I would ask.

- 1 So, in conclusion, I just want to say
- 2 that, you know what, we wanted to congratulate
- 3 the Board for, I think, its careful and
- 4 thoughtful and nuance approach to this vital
- 5 issue of proper allocation of voting machines,
- 6 and I think it bodes well for the experience that
- 7 hopefully voters will have here in Franklin
- 8 County.
- 9 Thank you.
- 10 BOARD MEMBER MARINELLO: Thank you.
- 11 CHAIRMAN PREISSE: Thank you,
- 12 Mr. Brandon.
- MR. STINZIANO: Mr. Brandon, I just
- 14 wanted to let you know -- I'm not sure if you're
- 15 aware being out of state, but the Secretary of
- 16 State also issued a directive today or yesterday
- 17 requiring all the boards to post the allocation
- 18 so there will be opportunity for the public to
- 19 see the allocation 15 days before the general
- 20 election.
- 21 MR. BRANDON: Good. Great. What
- 22 about -- I'm just curious, have you thought more
- 23 about what availability there might be for the
- 24 paper ballots if somebody really doesn't want to

- 1 wait in line and --
- 2 MR. STINZIANO: The Secretary of State
- 3 also issued a directive --
- 4 MR. BRANDON: Right. I'm aware of
- 5 that.
- 6 MR. STINZIANO: -- regarding precinct
- 7 setup. Our office is studying that, trying to
- 8 figure out the number of precincts we have,
- 9 specifically multiple precincts, location, how
- 10 best to meet what the secretary recommends and
- 11 what's going to be the most functional for the
- 12 staff-wide plan.
- MR. BRANDON: Great.
- 14 CHAIRMAN PREISSE: I think I heard two
- or three questions. I don't know if Dr. Allen
- 16 -- one related to the factoring in of time of
- 17 voting. One of my notes reflect that your
- 18 comments accurately -- early voting in an
- 19 analysis by precinct as it might relate across
- 20 the board as opposed to a general percentage
- 21 assumption, and then updating our analysis,
- 22 moving it as late as possible in the procedure.
- I don't know if, Ted, you want to --
- 24 MR. ALLEN: Yeah. Your first

- 1 question, yes, I agree. There were three
- 2 questions.
- 3 MR. BRANDON: Well, one of them was,
- 4 you've done a good analysis of time of day.
- 5 MR. ALLEN: Right. Okay. I have it
- 6 is. Yes.
- 7 MR. BRANDON: And the question was,
- 8 did you average that to the precinct, or do you
- 9 try to figure out if there's a way to --
- 10 MR. ALLEN: So let me clarify the two
- 11 issues that are coming up here. One of them has
- 12 to do with the time of day, and the other one has
- 13 to do with what was mentioned earlier in terms of
- 14 earlier voters and what are we doing to try and
- 15 predict the turnout in individual places.
- So that was the big issue for me and
- 17 for this discussion that we had. How do we try
- 18 and predict and determine?
- 19 Now, let me just first answer the
- 20 first question first. The allocation right here
- 21 will be implemented on a spreadsheet. We'd be
- 22 happy to show anyone how to do it and, you know,
- 23 provide our example.
- 24 This allocation does not use all the

- 1 simulation that we talked about. It's not
- 2 nuance. It doesn't take into account the arrival
- 3 rates during the day or any of that stuff, it's
- 4 just utilization, a machine. How many people are
- 5 going to come.
- I don't know if you guys can read
- 7 this, but it's kind of small. But it's -- the
- 8 average time it takes to vote in that location,
- 9 the number registered, people in that location,
- 10 and then just a bunch of numbers.
- 11 But, basically, it's just out of -- if
- 12 you round the average voting time times the
- 13 number of registered. Now, the question is,
- 14 should we replace this by some -- instead of
- 15 number of registered, we can replace it by some
- 16 factor that says, these people are more likely in
- 17 this place to vote.
- 18 And so I'd be interested in feedback
- 19 about that. We feel that we can keep it simple
- 20 and not make any assumption that these people are
- 21 more likely to be in this group. And it is also
- 22 true that people who tend to vote precincts where
- 23 they tend to vote more also tend to vote more
- 24 early, too. So there are patterns.

- 1 And there is a new voter pattern, and
- 2 there are other patterns that we were able to
- 3 detect, statistically. So we could replace this
- 4 with some of those. But then, to me, that opens
- 5 up a whole big can of worms because there's all
- 6 sorts of opportunities to discriminate and to
- 7 game the system.
- 8 And so I feel that without doing that,
- 9 we could probably address with the simple
- 10 approach, what happened in 2004. So we kept it
- 11 simple. So there are two things that we did:
- 12 this allocation formula, which is just this times
- 13 this times the number rounded. So very simple.
- 14 That simple. Spreadsheet. No big deal. It may
- 15 look a little complicated if you're not familiar
- 16 with this way of writing, but it's not that
- 17 complicated.
- 18 Then the simulation to try and -- the
- 19 simulation's function is mainly that, hey,
- there's going to be a problem or, you know, there
- 21 isn't going to be a problem. So the simulation
- 22 was more detail, all that kind of stuff. But the
- 23 allocation was simply --
- MR. BRANDON: Yeah. But it's the same

- 1 issue that the simulation is not -- you're not
- 2 determining these other factors in terms of, will
- 3 there be a higher performing -- new --
- 4 MR. ALLEN: That's true. This
- 5 simulation -- the only thing we did in the
- 6 simulation was we had a random turnout, some
- 7 places considerably higher than the rest.
- 8 MR. BRANDON: Right. So the only
- 9 other thing I would say is, do you know at what
- 10 point, date-wise, you're going to make -- you're
- 11 going to look at the new registrants? That will
- 12 at least be a constant factor that I assume would
- 13 plug in, right?
- 14 MR. ALLEN: You mean the total overall
- 15 average turnout?
- MR. BRANDON: Yeah. Well, in other
- 17 words, where is the cutoff in terms of when you
- 18 have to make the decision on the allocation? Is
- 19 it after the final registration period is over,
- 20 or are you going to have to make a decision
- 21 before that?
- 22 And I assume you're going to factor in
- 23 as best you can the new registrants --
- MR. DAMSCHRODER: We'll have to make

- 1 it before --
- 2 MR. BRANDON: Before. That's what I
- 3 thought.
- 4 MR. DAMSCHRODER: -- for programming
- 5 purposes. But under the Secretary of State
- 6 directive that was issued late last night, if I
- 7 recall correctly, the director says we have to
- 8 revisit any decisions that were made before the
- 9 cutoff election, the cutoff registration.
- 10 And we have to revisit that after the
- 11 cutoff registration just to see if there are any
- 12 significant swings in the original decision.
- MR. BRANDON: Just to make your life
- 14 easier.
- MR. DAMSCHRODER: Right.
- MR. BRANDON: Okay. Thank you.
- 17 CHAIRMAN PREISSE: Thank you,
- 18 Mr. Brandon.
- 19 Next we have Deborah Barksdale.
- 20 Welcome, Deborah. I think you've heard the drill
- 21 four times previous, but if you'd kindly state
- 22 your name and organization and address for the
- 23 record, and then please proceed.
- MS. BARKSDALE: I am Deborah Barksdale

- 1 with the Advancement Project. I'm The Ohio Local
- 2 Voter Protection coordinator, and I live at 4724
- 3 Julian Drive, Columbus, Ohio, 43227. And thank
- 4 you for giving me some time today. I just have
- 5 just a few questions. About 20 -- no.
- 6 (Laughing.)
- Okay. My questions are on machine
- 8 allocation. My first question is, will
- 9 additional machines or will machines be allocated
- in areas with the highest wait time if you're
- 11 unable to obtain all the machines on your wish
- 12 list?
- 13 MR. ALLEN: Yeah. That's right. I
- 14 mean, that's what this does. It basically
- 15 takes -- oh, no, that's the wait time. The
- 16 highest time it takes to vote times the number of
- 17 people and some numbers, a bunch of just
- 18 constants and then rounded.
- 19 So if you're in a place like the city
- 20 where you have five, six -- six extra things to
- 21 vote on, it's going to take you longer. We've
- 22 timed it. We know how much longer it's going to
- 23 take. That's the step 4, that we feel is step 4.
- MS. BARKSDALE: Okay. Now, will

- 1 Franklin County rent more machines to populate
- 2 areas where waiting times are the greatest?
- 3 MR. ALLEN: Yeah. I would say they
- 4 would have been the greatest except they won't be
- 5 the greatest anymore because we're doing this.
- 6 MR. DAMSCHRODER: Michael, do you want
- 7 to --
- 8 MR. STINZIANO: Well, we're making
- 9 efforts to get appropriate funding from the
- 10 County Commissioners to secure more machines.
- 11 Right now, we're waiting on that funding before
- 12 we go ahead and either buy or lease additional
- 13 machines.
- 14 There is an effort from the Board of
- 15 Elections standpoint to get more machines to
- 16 reduce waiting times.
- 17 CHAIRMAN PREISSE: And the number of
- 18 machines have gone up since '04.
- 19 MR. DAMSCHRODER: Yes. That's
- 20 correct. In 2004, we had -- it was about 2800,
- 21 2900 voting machines. I don't recall the exact
- 22 number. And this, as of right now, we have 4565,
- 23 4565 machines.
- 24 There is also -- one of the challenges

- 1 that we have is we -- as we pursue funding, is
- 2 that the number of machines that are available
- 3 from the vendor is that that supply is being
- 4 depleted by other counties by cash on the barrel.
- 5 And so we're trying to move as quickly
- 6 as possible to see both how much money can be
- 7 appropriated, what that will buy, if any,
- 8 depending on the inventory of the vendor.
- 9 MS. BARKSDALE: Okay. Thank you.
- 10 Do you all have any suggestions on
- 11 anything that advocacy groups can do to educate
- 12 voters about wait time?
- 13 MR. STINZIANO: I think our overall
- 14 suggestion is to go to absentee. You'll never
- 15 have a line if you go by mail. And we also have
- 16 the 35-day voting period down at Vets Memorial.
- 17 BOARD MEMBER MARINELLO: And the
- 18 sample ballot online.
- 19 MR. STINZIANO: Check the sample
- 20 ballot. There's instructions and a 60-day
- 21 mailing. All that should help either eliminate a
- 22 line all together, if you vote by mail, or at
- least reduce the time that you'll be voting as
- 24 you get informed or go early.

- 1 The earlier in the 35-day period, the
- 2 better, I think, would be our suggestion. I
- 3 think we've seen in the last two weeks, there's
- 4 always a significant number in uptake. And so if
- 5 people voted earlier than the 35-day period, it
- 6 wouldn't be as large.
- 7 MS. BARKSDALE: Do you all have any
- 8 way to alert or educate voters about potentially
- 9 long lines?
- 10 MR. STINZIANO: I think the posting
- 11 per the Secretary of State's directive well
- 12 identifies some areas where there could be
- 13 lines. But also, based on the quantitative
- 14 analyses of Dr. Allen, we have a measurement
- 15 where we can somewhat predict that some cases
- 16 it's going to be inevitable because of the ballot
- 17 length. But we're doing our best to address it.
- 18 And so I think the word will get out,
- 19 and I imagine there will be some media coverage
- 20 on how the allocation is this time around.
- MS. BARKSDALE: Have there been any
- 22 times identified as slow periods that voters
- 23 should be encouraged to take advantage of?
- For example, like, after the main rush

- 1 when the post first opens, say, from 7:30 to
- 2 9:30, there's a lull. Maybe there was something
- 3 that you all could put out to say that, these
- 4 might be the times that you want to go vote?
- 5 CHAIRMAN PREISSE: Well, I was sort of
- 6 surprised looking at the -- I thought I'd see a
- 7 spike at lunchtime.
- 8 And, Dr. Allen, you mentioned early
- 9 lunch. The only thing I can tell from that is
- 10 people say they're going to vote at lunch, but
- 11 they're voting just before lunch and they're
- 12 taking a long lunch and they're going back and
- trying to explain to their boss that they'd done
- 14 that. But do you have any observations on that
- 15 chart you --
- MR. ALLEN: Yeah. This is only 4,200-
- 17 something voters. This is not a huge sample.
- 18 But it was in Reynoldsburg, and it was also in, I
- 19 think, Columbus, too. So it's half in
- 20 Reynoldsburg, half Columbus put together. So
- 21 this is some indication.
- But it's far from, you know, the
- 23 studied poll places. You know, there may be
- 24 different times, different places. But if you

- 1 look at this, what it is saying is that,
- 2 surprisingly, there is a lull in the early
- 3 afternoon.
- 4 So if you want to go with that, that
- 5 seems to be the -- so, like, in this period here
- 6 between 12 and 3, or maybe even 11:30 and 3, you
- 7 know, it's kind of a lull.
- 8 MR. BUCKLE: Mr. Chairman, may I add a
- 9 point to that?
- 10 CHAIRMAN PREISSE: Why don't we let --
- 11 MR. BUCKLE: May I add a point to that
- 12 one topic?
- 13 CHAIRMAN PREISSE: All right.
- MR. BUCKLE: If you're working on the
- 15 poll and you go to lunch, the manpower goes
- 16 down. And you see how it dropped off around noon
- 17 but it peaked after they came back from lunch?
- 18 Then it dropped back to -- so if you
- 19 move some of those people in the three
- 20 o'clock -- or the after-lunch period into the
- 21 lunch period, you've got a pretty smooth curve
- 22 there. I think you're seeing a manpower problem
- 23 at the polls rather than just an arrival time.
- 24 Because this is just based on machine

- 1 times, not somebody clocking when people are
- 2 coming in.
- 3 MR. ALLEN: Oh, I see what you're
- 4 saying. You perceive the lines at lunch but
- 5 that's because of manpower.
- 6 MR. BUCKLE: Well, we can't process
- 7 people as fast.
- 8 MR. ALLEN: Yeah, I see what you're
- 9 saying. I see what you're saying.
- 10 CHAIRMAN PREISSE: We need you to pack
- 11 your lunch. Thank you, Mr. Buckle.
- MS. BARKSDALE: And then my final
- 13 question. What amount of time disenfranchises a
- 14 voter? For example, a voter is unable to stay in
- 15 a line because of other obligations and they
- 16 cannot return later?
- 17 MR. ALLEN: We did a study about that
- 18 exact issue and we -- in this paper here that we
- 19 published in the America Sysco Society Magazine
- 20 (ph.) called Chance, we predict exactly how long.
- 21 And I don't know exactly. I mean,
- 22 just a rule of thumb. But in 2004, the lines,
- 23 you know, were in some cases over five hours and
- 24 six hours. And so -- and the average voters were

- 1 spending at certain precincts a long time.
- 2 So, in other words, people are pretty
- 3 tough. I mean, even when those precincts
- 4 were -- they were waiting a long time, it was a
- 5 relatively small fraction of people -- we only
- 6 estimated it to be 20 to 30,000 people who were
- 7 deterred in 2004 despite the lines.
- 8 So that's a small percentage of the
- 9 530,000 voters. So people are tough. It makes a
- 10 difference, but it didn't make a huge
- 11 difference. So it probably cost the Democrats
- 12 less than 7,000, something like that,
- 13 guesstimating.
- MS. BARKSDALE: Okay. So you didn't
- 15 come up with a number for an amount of time?
- MR. ALLEN: I mean, a rule, yeah. We
- 17 could. I could get it, but I don't have one.
- MS. BARKSDALE: Okay. Well, thank
- 19 you.
- 20 CHAIRMAN PREISSE: Thank you, Deborah.
- BOARD MEMBER ANTHONY: You know, sir,
- 22 again, I would just -- you know, all of the
- 23 groups out there that's working to make sure we
- 24 have a good election, I think it's imperative

- 1 that we all say the same message, that if you
- 2 vote either absentee or if you vote at our early
- 3 voting location at the Vets, we would highly
- 4 suggest that you do that, then you don't have the
- 5 issues of work and day care and a whole bunch of
- 6 other stuff.
- 7 So we really -- I mean, as you reach
- 8 out to your constituents, say that. I mean,
- 9 we're going to say it; but I think if everybody
- 10 says that, I think we could make it happen and we
- 11 won't see the long lines. Because it doesn't
- 12 help none of us to have folks get upset because
- 13 they've got to wait.
- 14 CHAIRMAN PREISSE: Thank you for
- 15 that. Any other comments from the Board? We
- 16 appreciate all of the speakers and guests here
- 17 tonight. Anything else for the good of the order
- 18 from anyone in the audience who hadn't filled out
- 19 a slip or wished to?
- 20 (Show of hand.)
- 21 CHAIRMAN PREISSE: Yes, ma'am.
- MS. STEINHOFF: My name is Dorri
- 23 Steinhoff. I was wondering if poll workers, if
- they see that there's long lines at certain

- 1 precincts, if they will offer the people standing
- 2 in line the option of using a paper ballot as
- 3 opposed to the people having to know they're
- 4 available.
- 5 MR. STINZIANO: I think currently
- 6 we're not offering. They're available equally.
- 7 CHAIRMAN PREISSE: I mean, that's
- 8 posted, isn't it?
- 9 MR. STINZIANO: Yes. And there will
- 10 be signage identifying that that's an option.
- 11 Again, we do have a new directive from the
- 12 Secretary of State that our staff is studying
- about the best way, and the directive suggests
- that there should be a line for paper and a line
- 15 for people that wanted to use the voting
- 16 machines.
- 17 And so depending on how the staff
- 18 recommended on our staff recommendation, that
- 19 would make a difference on whether or not people
- 20 see a line for machines and maybe, hey, we'll
- 21 head towards the paper line because it's shorter.
- But we're still looking into that.
- 23 We're not sure what the outcome is, based on the
- 24 concern with the multiple precincts. In theory,

- 1 that could create up to 8 or 10 lines rather than
- 2 just two, as suggested in the directive.
- 3 CHAIRMAN PREISSE: Yes, sir.
- 4 MR. BRITTON: I'm Scott Britton from
- 5 Worthington. I'm also a volunteer for the Legal
- 6 Network of Voters in Metro Columbus. And I was
- 7 an English major and not a math major, so forgive
- 8 me.
- 9 But I'm wondering, on the average wait
- 10 times, if there -- if there is a way,
- 11 mathematically, to drive these times closer to
- 12 each other?
- 13 Is it because of the round-up that
- 14 there is that variance because you do take some
- 15 of that wait time into consideration?
- 16 MR. ALLEN: Yeah, it's true. It's
- 17 because of the round-up. It's quite
- 18 significant. I mean, if all the precincts were
- 19 really large so that they all had 50 and you're
- 20 adding one machine, it wouldn't matter. Then you
- 21 would be equalized. That's another way to
- 22 equalize it, have a smaller number at a very
- 23 large precinct. Then you could equalize things
- 24 pretty well.

1 It is this integrality of add one more

- 2 machine, smoosh the problem. Don't have more
- 3 machine, long line. That makes it hard to really
- 4 guarantee the line status. But, you know, one of
- 5 the things that I think has come out of this that
- 6 I think is very exciting is how important in some
- 7 of the options -- if you run out of machines, we
- 8 can do more voter preparation either with this
- 9 idea that you had at this polling place or the
- 10 study table or better signage or by mailing, the
- 11 issues to the people in advance.
- But it's all ways to drive down the
- 13 time. That's another way to smoosh the problem.
- 14 Because if you drive down the average time it
- 15 takes to vote, it's like having more machines.
- 16 CHAIRMAN PREISSE: Yes, Mr. Buckle.
- 17 MR. BUCKLE: Bill Buckle. I spoke
- 18 earlier. One of the things I didn't say was when
- 19 you're standing there watching this thing develop
- 20 in front of you, if you -- I think the Secretary
- of State says, don't encourage paper ballots.
- 22 Well, just offer the folks --
- 23 BOARD MEMBER MARINELLO: She never
- 24 said that.

- 1 CHAIRMAN PREISSE: No, that's, I
- 2 think, quite, perhaps, the opposite, Bill.
- MR. BUCKLE: We can use paper ballots
- 4 as a way to cut down the line when things get
- 5 long. Who cares, otherwise. But, I mean, that's
- 6 one tool. Poll workers will have to reduce the
- 7 wait, is to offer the sample ballot option. Now,
- 8 that will be on a piece of paper on the panel,
- 9 right?
- 10 CHAIRMAN PREISSE: Right. And we have
- 11 a question over here.
- MS. DePOALA: Carole DePoala. Do you
- 13 want my address or what? Columbus, Ohio. I have
- 14 driven people to the polls. Every -- during the
- 15 election, I do something. I've been a poll judge
- 16 and everything.
- 17 One thing I notice is the
- 18 misinformation with the training as far as sample
- 19 ballots. Are they allowed, are they not allowed?
- 20 Some people are forced to throw them away, to
- 21 hide them.
- This has to be addressed before
- 23 anything else with the residing judges because
- 24 I've -- the people I've taken have had to throw

- 1 away their sample ballots.
- 2 CHAIRMAN PREISSE: Well, let's
- 3 get -- that is a -- from time to time, a concern,
- 4 so let's get a comment.
- 5 MR. DAMSCHRODER: It is in the -- I
- 6 stand corrected if I'm wrong, but it is in the
- 7 training manual that poll workers are provided
- 8 that voters can take materials into the voting
- 9 booth with them.
- 10 CHAIRMAN PREISSE: Please don't try to
- 11 carry a yard sign in. I've experienced that,
- 12 myself, so I'm glad you're bringing it up here.
- BOARD MEMBER MARINELLO: You're just
- 14 not allowed to pass out -- you're not allowed to
- 15 pass out --
- MR. DAMSCHRODER: You can't pass out
- 17 but you can take materials in for your own use at
- 18 the polls, and the poll workers are instructed.
- 19 And we will -- we'll make a note that we need to
- 20 make sure that that's an underscore in the
- 21 training.
- 22 BOARD MEMBER MARINELLO: I don't think
- 23 you can wear buttons or anything, can you?
- 24 CHAIRMAN PREISSE: Right.

- 1 MS. DePOALA: But this has happened.
- 2 MR. DAMSCHRODER: Oh, sure. There's a
- 3 lot of things that the judges do.
- 4 MR. STINZIANO: And we are taking
- 5 additional training with our poll workers. We're
- 6 having summer session, which is the first time
- 7 we've done that. And they'll be required to also
- 8 participate in the fall training.
- 9 CHAIRMAN PREISSE: Thank you.
- Bill, do you want to wrap it up?
- 11 MR. BUCKLE: I would like to just
- 12 point out a practical matter, one guy carrying a
- 13 sample ballot in his pocket or she in her purse,
- 14 no one's going to say anything.
- But when you flash it around, waive it
- 16 around, that's when you get into this thing.
- 17 When is the sample ballot advertising and when
- 18 isn't it? That's the reason you get this
- 19 discrepancy.
- 20 CHAIRMAN PREISSE: Well, we hope that
- voters demonstrate good behavior and common
- 22 sense.
- 23 I think that if there's no other
- 24 comments from any of the staff or Board, I just

Page 73 want to again thank our speakers and for your 1 participation and Dr. Allen for his informative 3 presentation. And the Board remains individually and 4 collectively down here open to further input over 5 the next days and weeks. So thank you very 6 much. So we'll entertain a motion to adjourn. 8 BOARD MEMBER ANTHONY: Motion to adjourn. 9 10 BOARD MEMBER MARINELLO: So moved. 11 CHAIRMAN PREISSE: All in favor. 12 (Board members in favor of the motion 13 so indicated.) 14 15 Thereupon, the proceedings were 16 concluded at 7:53 o'clock p.m. 17 18 19 20 21 22 23

24

Page 74 1 CERTIFICATE 2 3 The undersigned do hereby certify that the 4 foregoing proceedings were digitally recorded, 5 electronically transmitted, and transcribed via audible playback, and that the foregoing 6 7 transcript of such proceedings is a full, true and correct transcript of the proceedings as so 8 9 recorded. 10 IN WITNESS WHEREOF, I have hereunto set my 11 hand and affixed my seal of office at Columbus, Ohio, on this \_\_\_\_\_, 2008. 12 13 14 15 ANGELA N. FRASER Certified Digital Reporter 16 Notary Public - State of Ohio. My commission expires July 10, 2013. 17 18 19 20 21 AMANDA C. BERKSTRESSER Certified Digital Transcriber 22 23 24

# COMMENTS AND SUGGESTIONS FOR THE FRANKLIN COUNTY BOARD OF ELECTION ON THE ALLOCATION OF VOTING MACHINE

At the August 14, 2008 public meeting By: Bill Buckel#

The following comments and suggestions are related to the report titled, "HELPING FRANKLIN COUNTY VOTE IN 2008: WAITING LINES", prepared by Sagatal Ltd. and Lextant Co. My prepared remarks include:

- (1) More to service rate than in-machine use time,
- (2) Machine service time is adjustable,
- (3) How long it takes to vote,
- (4) Voter turnout estimates, and
- (5) Sign-in books could become a bottleneck.
- (1) More to service rate than in-machine use time
  The "service time" concept used by the authors is
  defined as the period of time when the voter is
  "monopolizing the DRE" (direct recording equipment).
  As all poll workers will agree, the per-voter DRE-use
  time has three elements:
  - (a) <u>Dead-time</u>, the time the DRE machine sits idle after one voter completes voting while a machine judge finishes his/her current chore, takes the voter's right-to-vote slip, and leads the voter to a machine.
  - (b) <u>Introduction time</u>, the time required to reactivate the idle machine, introduce the voter to the DRE, and answer last-minute questions.
  - (c) <u>Voting time</u>, the time the voter monopolizes the DRE while casting a ballot in private.

The authors appear to have considered in their DRE allocation methodology only the time a voter monopolizes the DRE. Dead time and introduction time may add up to more than two minutes per voter. (See Comment (3) below.)

<u>Suggestion:</u> More timing data may be needed before the DRE allocation methodology is used.

### (2) Machine service time is adjustable

The allocation methodology used in the report doesn't take into consideration that voters who use "study time" before entering the DRE will need far less time to vote than those who enter the DRE cold. This subject is discussed somewhat on page 12. On page 4 of the report, the authors state, "Also, efforts to prepare voters by supplying them with information about issues in line or otherwise could drive down service times." The table on page 9 listed the experience level of each voter. But, the report did not seem to consider that there are two types of experience---machine experience and ballot experience. Logically, a voter who has both machine and ballot experience will spend fewer minutes in a DRE than someone who doesn't.

<u>Suggestion:</u> More timing data would define the time savings possible by using study tables between the sign-in table and the voting machines, wall displays, etc. Rather than just adding DRE machines to cover the expected increased demand, use creativity to help voters at the polls become "experienced" (both machine and ballot) before they enter the voting machines. Once some ideas are developed, add a separate page to the Precinct Election Officials Training Manual. This should encourage hundreds of judges to think about other ways to help voters vote smarter and faster.

## (3) How long it takes to vote. ✓

Authors of the report focused on "arrival rates" and "service rates". These factors are of high interest to Board of Elections (BoE) planners. But, to voters, an average "time to vote" estimate is more useful.

In my letter of December 14, 2007 to Karen Cotton, I reported my crude attempt to measure the times taken for voters to make the necessary steps from beginning to the end of the voting process. The time-to-vote measures assumed each voter entered the correct precinct and had zero wait in a line at the sign-in book (signature poll book). During the 2007 general election at Precinct Hillard 4-E (with two issues on the ballot), I used very small samples to clock average times for:

- \* 45 seconds (0.75 minutes) at sign-in step
- \* 38 seconds (0.63 minutes) waiting for a machine

- \* 77 seconds (1.30 minutes) machine introduction
- \* 201 seconds (3.35 minutes) voting in DRE machine \* 6.03 total minutes per voter's cycle

<u>Suggestion:</u> It is good public relations to let voters know what to expect in the way of time to vote even when there are no waiting lines.

#### (4) Voter turnout estimates

In applying the proposed machine allocation methodology, the authors used three possible levels of election-day turnout. These three scenarios for the percent of registered voters that might use a direct recording equipment (DRE) voting machine were: 41%, 45%, and 50% (page 13). (On page 4, the report said the election day turnout scenarios ranged between 41% to 55%. The 55% figure appears to be a typographical error.

<u>Suggestion:</u> Either explain the discrepancy between pages 4 and 13, or correct the error.

## (5) Sign-in books could become a bottleneck

The crude timing study mentioned above showed the average sign-in time to be about 3/4 (0.75) of a minute. There are 13 X 60 = 780 minutes in an election day at the polls. If only one line formed at the table with the two sign-in books, the capacity of a single precinct polling place would be 1040 voters. This capacity could be increased by perhaps 50% or more by using the common practice of separate waiting lines for each sign-in book. The resulting capacity would then be above 1040 X 1.5 = 1560 voters. If the 3/4 minute per voter is accurate, the theoretical upper limit for the two-book arrangement is 2080 voters.

Once the voting-machine capacity exceeds that of the sign-in books, adding more voting machines will not increase the daily voting capacity of a single-location precinct.

<u>Suggestion:</u> When using the proposed DRE allocation methodology, be alert to the daily voter capacity of both a set of DRE machines and the sign-in books.