

County Council Comments

Collin Lynch

June 6, 2006

My name is Collin Lynch. I reside at 2301 Tilbury Avenue in Squirrel Hill. I am a Ph.D. Candidate in Intelligent Systems at the University of Pittsburgh. I hold a B.A. in Computer Science and have worked as a professional Software developer in the Public Sector, Private Sector and for the U.S. Navy.

The security of our electronic elections rests on two basic premisses. The first is that state inspectors will certify systems catching all security holes in the process. The second is that we as a county will run only those systems that have been certified in their pure form. If either one of these is violated then not only does the security model break down, we face potential violations of elections law and the attendant lawsuits.

During the May 16th election each precinct was equipped with at least two different types of iVotronic systems. One model the "ADA-Model" was equipped with a set of buttons at the bottom while the other is not. Only the ADA-Model was viewed and certified by the Secretary of the Commonwealth. The other system which behaves differently according to poll workers, was not.

On Wednesday May 17th I obtained final result tapes for Pittsburgh ward 14 districts 35, 38, 39, and 40. Extracts from two of these are included in the VotePA election report that has been given to you by Dr. David Eckhardt. As you will see District 40 was using a PEB with firmware version 1.05. This is uncertified and therefore illegal software. According to communications that I have received from Dr. Michael Shamos the only versions certified for use in PA are 1.07c and 1.08.

On Friday June 2nd I spent the day at the Allegheny County Division of Elections' warehouse at 901 Pennsylvania Avenue. There I witnessed the haphazard process that my colleague Mr. Doherty will describe. At the time I viewed a Master PEB that was used in Pittsburgh's 13th ward District 5 race. This PEB was labeled with version 1.07.

Additionally I was able to determine that PEBs labeled version 1.07c (the certified version) still print version 1.07 on the result tapes. Either they are printing the incorrect version number, or they are running a different version of the software. In either case this raises serious doubts about the security and legality of these PEBs.

Subsequent examination of Zero prints at the Division of Elections' records office revealed persistent and worrisome problems with the zero print process. Not only were many zero print tapes produced late many of them were missing, lacking proper signatures, or worse did not cover the machines used. In one case we located a zero tape that faithfully reported zero vote totals for zero machines. This entirely nonsensical result raises questions both about the software used on the iVotronic involved and about the validity of the zero tape facility.

If we are found to be in violation of elections law then our precious twelve million dollars may be forfeit. In addition we as a county may face sanctions both from the state and from lawsuits. Most importantly of all we face more voters tuning away from the polls rightly convinced that their votes are not being protected and may, ultimately, count for nothing.

It is imperative that you commence an open independent investigation into these problems. We must determine whether or not illegal hardware and software was passed to us by ES&S and if so, give serious thought to revoking our contract with them.

More important, than arming ourselves for potential liabilities we must ensure that the integrity of the election is assured. While many see this primary as a "dry run" it is not. This was a very real election and, to voters, a very real example of the democratic process. Any question about the security, verifiability, or legality of the election must be answered now before more voters turn away from the polls.

Sincerely,
Collin Lynch.