Election Reform In Iowa

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by
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Slides

- Title
- Background -- Voting Systems in Iowa
- Background -- Regulatory Environment
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- Technological Constraints
- Reforms Proposed
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Election Reform in Iowa

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  -- member since 1994
  -- chair since 1999
- Member, Iowa’s Election Reform Task Force
- http://www.cs.uiowa.edu/~jones/voting/
Background

- **11 Voting Systems Used in Iowa**
  -- 2000 General Election, by county
  -- 99 counties, 2222 precincts

  - Precinct-count Optical mark-sense (17)
    -- Optech (10)
    -- Global (6)
    -- AIS (1)

  - Central-count Optical mark-sense (60)
    -- AIS (55)
    -- Global (3)
    -- Optech (2)

  - Direct Recording Electronic (14)
    -- Microvote (10)
    -- EV 2000 (3)
    -- AVC (1)

  - Lever machines (7)
    -- AVM (7)

  - Hand Counted Paper (1)

- **That Web Address Again**

  http://www.cs.uiowa.edu/~jones/voting/
Background

- Regulatory Environment
  - Federal Law
    - Civil rights law
    - Federal election commission voluntary guidelines
  - State Law
    - Permits 5 voting methods listed above
    - Sets law and rules for election administration
    - Requires conformance with 1990 FEC guidelines
    - Oversees canvassing in multi-county races
  - Board of Examiners for Voting Machines and Electronic Voting Systems
    - Approves 10 vendors listed above
  - Counties
    - Pay for and purchase machines
    - Administer elections

- That Web Address Again

http://www.cs.uiowa.edu/~jones/voting/civic/
Pressure for Reform

- **Shortcomings of the 1990 FEC Standards**
  -- Very apparent by mid 1990's
  -- No reference to trusted computer system standards
  -- Poor regulation of 3rd party components
  -- No coverage of key human factors issues

- **Proposed new FEC Standards**
  [http://www.cs.uiowa.edu/~jones/voting/fec.html](http://www.cs.uiowa.edu/~jones/voting/fec.html)

- **2000 General Election**
  -- Florida
  -- Iowa margin of 4,144 of 1,315,563 votes (0.3%)

- **Bush vs. Gore in Supreme Court**
  -- A serious civil rights issue!

- **Federal Legislation**
  -- 54 bills, 15 hearings!
  -- HR 1165, Election Voting Systems Act of 2001
  -- HR 2275, Voting Technology Standards Act of 2001
  -- upcoming Help America Vote Act
Technological Constraints
(nothing is perfect!)

- **Hand Counted Paper Ballots**
  -- Unwieldy for general elections
  -- Subjective counting was widespread by 1880

- **Lever Machines**
  -- Widely used for a century, no longer made
  -- No independent record of count
  -- Technicians can tinker
  -- If it breaks, it’ll break at 99 votes

- **Punched Cards**
  -- Widely used for decades
  -- Major chad problems recognized in 1970’s

- **Central Count Optical Scan**
  -- Widely used for decades
  -- Machines cannot interpret nonstandard marks
  -- Machines cannot apply a uniform standard
  -- Subjective counting problem re-emerges

- **Precinct Count Optical Scan**
  -- Available for 2 decades
  -- Machines can give voters second chance
  -- Subjective hand recounts still a problem

- **Direct Recording Electronic**
  -- Available for over a decade
  -- No independent record of count
  -- We’re at the programmer’s mercy
Reforms Proposed

- **Mark-Sense Scanner Regulation**
  -- Vendors must document "what is a vote"

- **Conduct of Elections**
  -- Give voters chance to correct overvotes
  -- Hand inspect all overvotes not corrected
  -- Routinely hand count 1 race in 1 precinct
  -- Canvass includes overvotes and undervote
  -- Canvass includes spoiled and challenged ballots

- **Hand Counting Rules**
  -- Do not rely on machine model
  -- Distinguish between required and acceptable marks
  -- Use other marks on same ballot to determine intent

- **Recounts**
  -- Allow recount if 1% margin
  -- Allow recount if 1% spoiled or challenged ballots
  -- Recount on a different machine from first count
  -- Hand count all overvotes and undervotes in race
  -- Hand count all ballots if 1% spoiled or challenged

- [http://www.cs.uiowa.edu/~jones/cards/optical.html](http://www.cs.uiowa.edu/~jones/cards/optical.html)
Reforms Opposed

- **Remote Internet Voting**

  Nothing that requires a web browser should be allowed until we can prove that the voting system cannot be subverted by the vendor of the web browser!

- **A Single Standard Voting System**

  Put all your eggs in one basket, and when the flaw in that basket is found, you have nothing to fall back on.

- **Reliance on High Tech for Handicapped Access**

  There are remarkably inexpensive low-tech methods for addressing the vast majority of handicaps.

- **Electronic Vote Transmission**

  Until we have an open standard with a documented level of security, we are stuck with proprietary protocols.

- **Massive Spending on New Systems**

  Technological fixes for human problems are not durable. First we should fix the laws governing what we have!