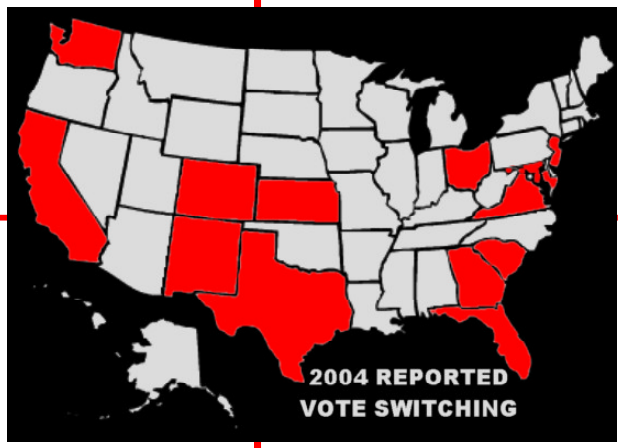
ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Election Data Analysis



Rapid Data Analysis Methodology

Draft Proposal

September 2006

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data Analysis Goals

- Identify E2006 vote count anomalies in a *timely* manner
  - Focus resources on key US Senate and House races
  - Synthesize multiple sources of information
    - Baseline data, exit polls, incident reports, posted election results…
- Provide credible analysis and objective information to counteract "reverse spin"
  - Statistical analyses are circumstantial but powerful when combined with other data
- Foster effective collaboration and communication with all stakeholders in regard to election data anomalies
  - Volunteers in the field – data gathering, videographers, observers
  - Allied EI organizations – NEDA, BlackBox…
  - Analysts
  - Candidates
  - Affiliated and general media
  - EI activist community
  - General public

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis groundwork (1)

- For each key US Senate and House race
  - Identify the best available prospective sources of E2006 data
    - Online results as available
    - In-person data gathering and reporting
    - Exit polls
    - Public opinion polls (subscription and published)
    - Incident reports – leverage existing or build EDA specific
    - Other…
  - Determine a contest-specific data gathering approach
    - Automated collection (NEDA, or volunteers with Excel)
    - In person by state, county and precinct volunteers
  - Determine contest-specific data analysis approach
    - Gather a precinct-level baseline of prior year results *if possible* (for example, MN, PA)
    - Data-mine baseline results to define a "key precinct" model
    - County baseline data is much less useful, but can be purchased

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis groundwork (2)

- Design the election analysis data model
  - Excel spreadsheet mapping
  - Generic SQL mapping
  - Decision support schema
    - NEDA proposed a multidimensional star model

- Design a federated data exchange model
  - Simplest possible interface: web service based on XML
  - Define XML schema for election data exchange
  - Provide a simple Excel code module to upload/download data in .csv format

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Election night overview

- Formulate - and answer - questions about election anomalies
- Compile election-night data
  - Online results as and if available
    - Download to Excel
    - Reformat/upload to Netroots
  - In-person data gathering and reporting
    - Phone in results – call center
    - Upload raw data to Netroots
    - Upload formatted data via Excel client
  - Exit polls
  - Pre-election public opinion polls
  - EDA and other organizations' incident reports
- Extract data and perform targeted analyses
  - Spreadsheets
  - Databases
  - Special purpose data mining tools (e.g. SQL Server Analysis Services)

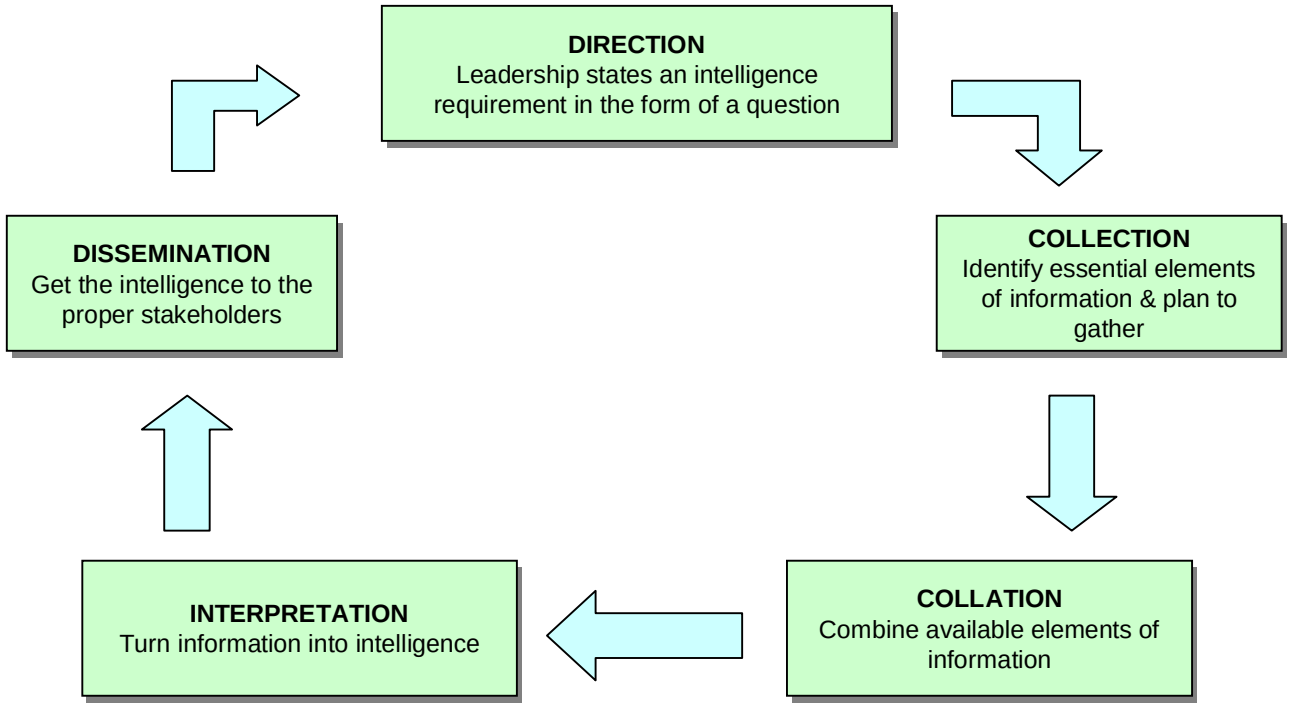
Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis lifecycle



Election data analysis process should be based on the classic "intelligence" lifecycle

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis: Direction

- On election night
  - Key rapid response people set up continuous communications and collaboration environment
    - Conference call
    - Web collaboration
    - Secure email
  - Identify and prioritize anomalies for investigation
  - Pose specific questions to be answered

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis: Collection

- For each question to be answered
  - Determine what data could be used to answer the question
  - Determine if data is already available
  - If it is, proceed to the next step: Collation
  - If it is not, gather the necessary data
    - Online election results
      - Manual monitoring, or via automated agents
    - In person data gathering
      - Key precincts
      - Key county election offices
    - Data sharing – data gathered by other organizations

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis: Collation

- For each question to be answered
  - Retrieve the applicable data
    - Election results
    - Exit poll results
    - Incident reports
    - Baseline data
  - Determine if sufficient data is available for Interpretation
    - If so, proceed to next step, otherwise…
  - Identify interesting connections between data items
    - May lead to additional targeted data gathering
      - In person data gathering
        - Key precincts
        - Key county election offices
      - Data sharing – data gathered by other organizations

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis: Dissemination

- For each key finding of the Interpretation process
  - Determine information stakeholders to notify
    - Stakeholders to be determined by nature of finding and level of certainty
      - EI activists, candidates, legal team, rapid response coordinators, general public…
    - Determine information release approval process
      - What goes public? What goes outside rapid response team?
  - Determine communications media
    - Private findings
      - Encrypted email
      - Private site
    - Public findings
      - Email distribution
      - Rapid response website – RSS, podcast…
      - Netroots – video
      - Press release – MSM (radio, TV, print)
  - Send it out... and repeat the cycle as needed

Copyright 2006 Election Defense Alliance
all rights reserved

ELECTION DEFENSE ALLIANCE

Voting Counts

...when Your Vote is Counted.

Data analysis: Tasks to be done

- Database design and development
- Data exchange service design and development
- Information exchange XML schema
- Infrastructure design
  - Election data
    - Raw data upload repository
    - Formatted data upload repository
  - Poll data
    - Exit poll data repository
    - Opinion poll data repository
  - Incident report repository
    - Incident reporting sponsored by EDA
    - Incident gathering reported to other organizations
- Development
  - Custom interpretation programs
  - Excel spreadsheet templates and add-ins
- Project planning and budgeting - TBD

Copyright 2006 Election Defense Alliance
all rights reserved