

Political Science 389-001: Election Forensics

Fall 2011

Tuesday, Thursday 4–5:30 (1300 CHEM)

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Office hours: Wed 2–4 or other times by appointment.

Course web page: in CTools; syllabus also at <http://www.umich.edu/~wmebane/ps389.html>

Assignment Due Dates

due date	description	weight
Oct 13	midterm exam	25%
Nov 22	proposal for final paper	10%
Dec 14	final paper (see file <code>fpaper.pdf</code>)	30%
Dec 22, 8–10 a.m.	final exam	35%

Reading Availability

Much of the course will refer to journal articles and papers posted on the CTools course site. Other articles are easily found in JStor. I've requested that several books with recommended reading be placed on reserve in the library. In the following listing, required reading is preceded by a bullet. Other items are recommended.

Class meeting and reading schedule

1. introduction (Sep 6)

- Lehoucq, Fabrice. 2003. "Electoral Fraud: Causes, Types, and Consequences," *Annual Review of Political Science* 6 (June): 233–256.
(in file `lehoucq.annurev.polisci.6.121901.pdf`)
- Matt Bishop, Sean Peisert, Candice Hoke, Mark Graff and David Jefferson. 2009. "E-Voting and Forensics: Prying Open the Black Box." 2009 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, Montreal, August 10–11. (in file `bishop.pdf` and at http://www.usenix.org/event/evtwote09/tech/full_papers/bishop.pdf)

2. the US in 2000 (Sep 8–22)

- Mebane. 2004. "The Wrong Man is President! Overvotes in the 2000 Presidential Election in Florida." *Perspectives on Politics* 2 (September): 525–535.
<http://www.umich.edu/~wmebane/mebane.pop2004.pdf>
- Hasen, Richard L. 2004. "A Critical Guide to Bush v. Gore Scholarship," *Annual Review of Political Science* 7: 297–313.
<http://ssrn.com/abstract=491326>
- Jonathan N. Wand, Kenneth Shotts, Jasjeet S. Sekhon, Walter R. Mebane, Jr., Michael Herron and Henry E. Brady. 2001. "The Butterfly Did It: The Aberrant Vote for Buchanan in Palm Beach County, Florida." *American Political Science Review* 95 (December): 793–810.

- Henry E. Brady, Michael Herron, Walter R. Mebane, Jr., Jasjeet S. Sekhon, Kenneth Shotts and Jonathan Wand. 2001. “Law and Data: The Butterfly Ballot Episode.” *PS: Political Science and Politics* 34: 59–69.

Toobin, Jeffrey. 2001. *Too Close to Call*. New York: Random House.

Kirk Wolter, Diana Jergovic, Whitney Moore, Joe Murphy, Colm O’Muircheartaigh. 2003. “Reliability of the uncertified ballots in the 2000 presidential election in Florida.” *The American Statistician* 57 (1): 1-14.

Walter R. Mebane, Jr., and Jasjeet S. Sekhon. 2004. “Robust Estimation and Outlier Detection for Overdispersed Multinomial Models of Count Data.” *American Journal of Political Science* 48 (April): 392–411.

3. the US in 2004 (Sep 27–29)

- Diane Feldman and Cornell Belcher. 2005. “DNC Voting Experience Survey.” Section III of *Democracy at Risk: The 2004 Election in Ohio*. Democratic National Committee, Voting Rights Institute, June 22, 2005.
<http://www.umich.edu/~wmebane/Ohio2004/OhioReportCover2Cover.pdf>
- Diane Feldman and Cornell Belcher. 2005. “DNC Provisional Ballot Survey.” Section IV of *Democracy at Risk: The 2004 Election in Ohio*. Democratic National Committee, Voting Rights Institute, June 22, 2005.
<http://www.umich.edu/~wmebane/Ohio2004/OhioReportCover2Cover.pdf>
- Tanner, John. 2005. Letter to Nick A. Soulas, Jr., Assistant Prosecuting Attorney, Franklin County, Ohio. June 29, 2005. (in file `franklin_oh.pdf`)
- Mebane. 2005. “Voting Machine Allocation in Franklin County, Ohio, 2004: Response to U.S. Department of Justice Letter of June 29, 2005.”
<http://www.umich.edu/~wmebane/franklin2.pdf>
- William A. Edelstein and Arthur D. Edelstein. 2010. “Queuing and Elections: Long Lines, DREs and Paper Ballots.” 2010 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, Washington, August 9–10. (in file `Edelstein.pdf` and at http://www.usenix.org/event/evtwtote10/tech/full_papers/Edelstein.pdf)

Mark Lindeman. 2006. “Beyond Exit Poll Fundamentalism: Surveying the 2004 Election Debate.” Paper prepared for presentation at the 61st Annual Conference of the American Association for Public Opinion Research, Montreal, Canada, May 18-21, 2006.
<http://marklindeman.org/beyond-epf.pdf>

Mark Lindeman and Rick Brady. 2006. “Behind the Controversy: A Primer on U.S. Presidential Exit Polls.”
http://www.publicopinionpros.norc.org/from_field/2006/jan/lindeman_1.asp

Edison Media Research and Mitofsky International. 2005. “Evaluation of Edison/Mitofsky Election System 2004.” (in file `EvaluationJan192005.pdf`)

House Judiciary Committee Democratic Staff. 2005. *Preserving Democracy: What Went Wrong in Ohio*. (in file `final_status_report.pdf`).

Mebane. 2005. “Inferences from the DNC Provisional Ballot Voter Survey.” Section V of *Democracy at Risk: The 2004 Election in Ohio*. Democratic National Committee, Voting Rights Institute, June 22, 2005.

Walter R. Mebane, Jr., and Michael C. Herron. 2005. “Ohio 2004 Election: Turnout, Residual Votes and Votes in Precincts and Wards” and “Ohio 2004 Election: New Registrants, Provisional Ballots, Voting Machines, Turnout and Polls Open Elapsed Times in Franklin County Precincts.” Section VI of *Democracy at Risk: The 2004 Election in Ohio*. Democratic National Committee, Voting Rights Institute, June 22, 2005.
<http://www.umich.edu/~wmebane/Ohio2004/OhioReportCover2Cover.pdf>

Bob Fittrakis, Steve Rosenfeld and Harvey Wasserman. 2006. *What Happened in Ohio: A Documentary Record of Theft and Fraud in the 2004 Election*.

Mark Crispin Miller. 2008. *Loser Take All: Election Fraud and The Subversion of Democracy, 2000 - 2008*.

4. voting technology (Oct 4)

- Ariel J. Feldman, J. Alex Halderman and Edward W. Felten. 2007. “Security Analysis of the Diebold AccuVote-TS Voting Machine.” 2007 USENIX/ACCURATE Electronic Voting Technology Workshop, Boston, August 6. (in file [feldman.pdf](#) and at http://www.usenix.org/event/evt07/tech/full_papers/feldman/feldman.pdf)
- J. Alex Halderman, Eric Rescorla, Hovav Shacham and David Wagner. 2008. “You Go to Elections with the Voting System You Have: Stop-Gap Mitigations for Deployed Voting Systems.” 2008 USENIX/ACCURATE Electronic Voting Technology Workshop, San Jose, July 28–29. (in file [halderman.pdf](#) and at http://www.usenix.org/event/evt08/tech/full_papers/halderman/halderman.pdf)
- Eric L. Lazarus, David L. Dill, Jeremy Epstein and Joseph Lorenzo Hall. 2011. “Applying a Reusable Election Threat Model at the County Level.” 2011 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, San Francisco, August 8–9. (in file [Lazarus.pdf](#) and at http://www.usenix.org/event/evtwote11/tech/final_files/Lazarus.pdf)
- Brennan Center Task Force on Voting System Security. 2006. *The Machinery of Democracy: Protecting Elections in an Electronic World*.
http://brennan.3cdn.net/52dbde32526fdc06db_4sm6b3kip.pdf

Paul S. Herrnson, Richard G. Niemi, Michael J. Hanmer, Benjamin B. Bederson, Frederick G. Conrad and Michael W. Traugott. 2008. *Voting Technology: The Not-So-Simple Act of Casting a Ballot*. Washington: Brookings.

The Brennan Center for Justice Voting Technology Assessment Project. 2006. *The Machinery of Democracy: Voting System Security, Accessibility, Usability, and Cost*.
http://brennan.3cdn.net/cb325689a9bbe2930e_0am6b09p4.pdf

Saltman, Roy G. 1988. “Accuracy, Integrity, and Security in Computerized Vote-Tallying.” NBS Special Publication 500-158.
<http://www.itl.nist.gov/lab/specpubs/500-158.htm>

Michael C. Herron, Walter R. Mebane, Jr., and Jonathan N. Wand. 2008 “Voting Technology and the 2008 New Hampshire Primary.” *William & Mary Bill of Rights Journal*, 17 (December): 351–374.
<http://www.umich.edu/~wmebane/NH2008HMW.pdf>

5. Sarasota 2006: electronic voting machines (Oct 6–11)

- Arlene Ash and John Lamperti. 2008. “Florida 2006: Can Statistics Tell Us Who Won Congressional District-13?” (with discussion by Hall and Mebane). *Chance* 21 (2): 18–27. (in file `ash.lamperti.chance2008.pdf`).
- Lawrence Norden, David Kimball, Whitney Quesenbery, and Margaret Chen. 2008. *Better Ballots*. Brennan Center for Justice.
http://brennan.3cdn.net/d6bd3c56be0d0cc861_hlm6i92v1.pdf
- Frisina, Laurin, Michael C. Herron, James Honaker and Jeffrey B. Lewis. 2008. “Ballot Formats, Touchscreens, and Undervotes: A Study of the 2006 Midterm Elections in Florida.” *Election Law Journal* 7(1):25–47. (in file `frisina.etal.elj2008.pdf`).
- Mebane. 2008. “Machine Errors and Undervotes in Florida 2006 Revisited.” *William & Mary Bill of Rights Journal*, 17 (December): 375–396.
<http://www.umich.edu/~wmebane/howpaper2.pdf>

Adam Aviv, Pavol Cerný, Sandy Clark, Eric Cronin, Gaurav Shah, Micah Sherr and Matt Blaze. 2008. “Security Evaluation of ES&S Voting Machines and Election Management System.” 2008 USENIX/ACCURATE Electronic Voting Technology Workshop, San Jose, July 28–29. (in file `aviv.pdf` and at
http://www.usenix.org/event/evt08/tech/full_papers/aviv/aviv.pdf

Niemi, Richard G., and Paul S. Herrnson. 2003. “Beyond the Butterfly: The Complexity of U.S. Ballots.” *Perspectives on Politics*, 1 (2 Jun.): 317–326.

R. Michael Alvarez and Thad E. Hall. 2008. *Electronic Elections: The Perils and Promises of Digital Democracy*.

Marcia Lausen. 2007. *Design for Democracy: Ballot and Election Design*.

Mebane, Walter R., Jr., and David L. Dill. 2007. “Factors Associated with the Excessive CD-13 Undervote in the 2006 General Election in Sarasota County, Florida.” MS.
<http://www.umich.edu/~wmebane/smachines1.pdf>

GAO. 2007. “ELECTIONS: Further Testing Could Provide Increased but Not Absolute Assurance That Voting Systems Did Not Cause Undervotes in Florida’s 13th Congressional District,” Statement before the Task Force on Florida-13, Committee on House Administration, House of Representatives. (in file `d0897t.pdf`).

Yasinsac, Alec, David Wagner, Matt Bishop, Ted Baker, Breno de Medeiros, Gary Tyson, Michael Shamos and Mike Burmester. 2007. “Software Review and Security Analysis of the ES&S iVotronic 8.0.1.2 Voting Machine Firmware.” Report. Security and Assurance in Information Technology Laboratory, Florida State University, Tallahassee, Florida, February 23, 2007. (in file `FinalAudRepSAIT.pdf`)

GAO. 2008. “ELECTIONS: Results of GAO’s Testing of Voting Systems Used in Sarasota County in Florida’s 13th Congressional District,” Statement before the Task Force on Florida-13, Committee on House Administration, House of Representatives. (in file `d08425t.pdf`).

D. A. Buell, E. Hare, F. Heindel, C. Moore and B. Zia. “Auditing a DRE-Based Election in South Carolina.” 2011 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, San Francisco, August 8–9. (in file `Buell.pdf` and at
http://www.usenix.org/event/evtwote11/tech/final_files/Buell.pdf

6. MIDTERM EXAM (Oct 13)

7. post-election audits (Oct 20)

- Joseph Lorenzo Hall, Philip B. Stark, Luke W. Miratrix, Melvin Briones, Elaine Ginnold, Freddie Oakley, Martin Peaden, Gail Pellerin, Tom Stanionis and Tricia Webber. 2009. “Implementing Risk-Limiting Post-Election Audits in California.” 2009 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, Montreal, August 10–11. (in file `hall.pdf` and at http://www.usenix.org/event/evtwote09/tech/full_papers/hall.pdf)

Philip B. Stark. 2010. “Super-Simple Simultaneous Single-Ballot Risk-Limiting Audits.” 2010 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, Washington, August 9–10. (in file `Stark.pdf` and at http://www.usenix.org/event/evtwote10/tech/full_papers/Stark.pdf)

Stephen Checkoway, Anand Sarwate, and Hovav Shacham. 2010. “Single-Ballot Risk-Limiting Audits Using Convex Optimization.” 2010 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, Washington, August 9–10. (in file `Checkoway.pdf` and at http://www.usenix.org/event/evtwote10/tech/full_papers/Checkoway.pdf)

8. election monitoring (Oct 25–27)

- Hyde, Susan D. 2007. “The Observer Effect in International Politics: Evidence from a Natural Experiment.” *World Politics* 60 (Oct.): 37–63.
- Emily Beaulieu and Susan D. Hyde. 2009. “In the Shadow of Democracy Promotion: Strategic Manipulation, International Observers, and Election Boycotts.” *Comparative Political Studies* 42: 392–415.
- Susan D. Hyde. 2008. “Catch Me if You Can: Why Leaders Invite International Election Monitors and Cheat in Front of Them.” (in file `Catch Me if You Can.pdf`)

Susan D. Hyde. 2011. *The Pseudo-Democrat’s Dilemma: Why Election Observation Became an International Norm*. Ithaca, NY: Cornell UP.

Susan D. Hyde and Nikolay Marinov. 2010. “Which Elections Can Be Lost?” Working paper. (in file `Hyde_Marinov_NELDA.pdf` and at http://hyde.research.yale.edu/nelda/Hyde_Marinov_NELDA.pdf)

Susan D. Hyde and Nikolay Marinov. 2011. *NELDA: National Elections Across Democracy and Autocracy*. <http://hyde.research.yale.edu/nelda/>

Bjornlund, Eric C. 2004. *Beyond Free and Fair: Monitoring Elections and Building Democracy*. Washington, DC: Woodrow Wilson Center Press.

Simpser, Alberto. 2008. “Cheating Big: On the Logic of Electoral Corruption in Developing Countries.” Working paper. (in file `CheatingBig5.18.08.pdf` and at <http://home.uchicago.edu/~asimpser/CheatingBig5.18.08.pdf>)

Simpser, Alberto. 2008. “Unintended Consequences of Election Monitoring.” In R. Michael Alvarez, Thad E. Hall and Susan D. Hyde, eds., *Election Fraud: Detecting and Deterring Electoral Manipulation*. Washington, DC: Brookings Press, 2008.

election monitoring organizations (examples).

<http://www.umich.edu/~wmebane/ps389/monitoring.html>

9. strategic voting (Nov 1–3)

- Gary W. Cox. 1994. Strategic Voting Equilibria Under the Single Nontransferable Vote. *American Political Science Review* 88 (Sep): 608–621.

Alesina, Alberto, and Howard Rosenthal. 1995. *Partisan Politics, Divided Government, and the Economy*. New York: Cambridge UP.

Alberto Alesina, John Londregan and Howard Rosenthal. 1993. A Model of the Political Economy of the United States *American Political Science Review* 87 (Mar): 12–33.

Cox, Gary. 1996. *Making Votes Count: Strategic Coordination in the World's Electoral System*. Cambridge.

Riker, William H. 1986. *The Art of Political Manipulation*. Yale UP.

Riker, William H. 1982. *Liberalism Against Populism: A Confrontation Between the Theory of Democracy and the Theory of Social Choice*. Prospect Heights, IL: Waveland.

Saari, Donald. 2001. *Decisions and elections : explaining the unexpected*. Cambridge.

10. statistical methods to try to detect election fraud (Nov 8)

- Inès Levin, Gabe A. Cohn, Peter C. Ordeshook, and R. Michael Alvarez. 2009. “Detecting Voter Fraud in an Electronic Voting Context: An Analysis of the Unlimited Re-election Vote in Venezuela.” 2009 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections, Montreal, August 10–11. (in file `levin.pdf` and at http://www.usenix.org/event/evtwote09/tech/full_papers/levin.pdf)
- Francisco Cantu and Sebastian M. Saleigh. 2010. “A Supervised Machine Learning Procedure to Detect Electoral Fraud using Digital Analysis.” Presented at the 2010 Annual Meeting of the American Political Science Association, Washington, DC, September 4. (in file `cantu_saleigh.pdf`)

11. second-digit Benford's Law (or Benford-like) tests (Nov 10–17)

- Mebane. 2010. “Election Fraud or Strategic Voting?” Presented at the 2010 Annual Meeting of the American Political Science Association, Washington, DC, September 4. (in file `apsa10.pdf`)
- Mebane. 2007. “Election Forensics: Statistics, Recounts and Fraud,” Presented at the 2007 Annual Meeting of the Midwest Political Science Association, Chicago, IL, April 12–16.
<http://www.umich.edu/~wmebane/mw07.pdf>

European Union Election Observation Mission. “Mexico Final Report, Presidential and Parliamentary Elections, 2 July 2006.” November 23, 2006.
(in file `2006_24_11_final_report_mexico.pdf`)

Wendy K. Tam Cho and Brian J. Gaines. 2007. “Breaking the (Benford) Law: Statistical Fraud Detection in Campaign Finance.” *The American Statistician*, 61 (August): 218–223.

- Mebane. 2008. "Election Forensics: The Second-digit Benford's Law Test and Recent American Presidential Elections." In R. Michael Alvarez, Thad E. Hall and Susan D. Hyde, eds., *Election Fraud: Detecting and Deterring Electoral Manipulation*. Washington, DC: Brookings Press, 2008, pp. 162–181.
<http://www.umich.edu/~wmebane/fraud06.pdf>
- Mebane. 2006. "Election Forensics: Vote Counts and Benford's Law," Presented at at the 2006 Summer Meeting of the Political Methodology Society, UC-Davis, July 20–22.
<http://www.umich.edu/~wmebane/pm06.pdf>
- Mebane, Walter R., Jr. 2007. "Evaluating Voting Systems To Improve and Verify Accuracy." Prepared for presentation at the 2007 Annual Meeting of the American Association for the Advancement of Science, San Francisco, CA, February 16, 2007, and at the Bay Area Methods Meeting, Berkeley, March 1, 2007.
<http://www.umich.edu/~wmebane/bamm07.pdf>
- European Union. 2001. "Preliminary Statement—2 October 2001." European Union—Election Observation Mission in Bangladesh 2001.
<http://www.lcgbangladesh.org/election01/docs/eu2oct01.pdf>
- Mebane. 2007. "Election Forensics: Statistical Interventions in Election Controversies," Presented at the 2007 Annual Meeting of the American Political Science Association, Chicago, Aug 30–Sept 2.
<http://www.umich.edu/~wmebane/apsa07.pdf>
12. "Election" Manipulation in Russia (Nov 22–Dec 1)
- Kirill Kalinin and Walter R. Mebane, Jr. 2011. "Understanding Electoral Frauds through Evolution of Russian Federalism: from 'Bargaining Loyalty' to 'Signaling Loyalty.'" Prepared for presentation at the Annual Meeting of the Midwest Political Science Association, Chicago, IL, March 31–April 2, 2011. (in file [mw11_old.pdf](#))
- Peter Ordeshook, Mikhail Myagkov and Dmitry Shakin. 2009. *The Forensics of Election Fraud*.
- Walter R. Mebane, Jr., and Kirill Kalinin. 2009. "Comparative Election Fraud Detection." Prepared for presentation at the Annual Meeting of the Midwest Political Science Association, Chicago, IL, April 2–5, 2009.
<http://www.umich.edu/~wmebane/apsa09.pdf>
13. Iran 2009 (Dec 6)
- Ali Ansari, Daniel Berman and Thomas Rintoul. 2009. *Preliminary Analysis of the Voting Figures in Iran's 2009 Presidential Election*. Chatham House, London. June 21, 2009. (in file [14234_iranelection0609.pdf](#))
 - Reza Esfandiari and Yousef Bozorgmehr. 2009. "A Rejoinder to the Chatham House report on Iran's 2009 presidential election offering a new analysis on the results." (in file [Iranian_election.pdf](#))
 - Mebane. 2010. "Fraud in the 2009 Presidential Election in Iran?" *Chance* 23 (Mar.): 6–15. (in file [chance09.pdf](#)).
14. Slack and Review (Dec 8–13)