

# Election Administration during Natural Disasters and Emergencies: Hurricane Sandy and the 2012 Election

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# *Research Questions*

- What steps can and do local election officials take to prepare for and respond to natural disasters and emergencies that impede and disrupt the operation of scheduled elections?
- How efficacious are these actions and practices, and to what extent, if any, can these practices be generalized to the 3,000+ jurisdictions charged with conducting elections?

# *Hurricane Sandy*

- Hurricane Sandy made U.S. landfall on October 29, 2012 affecting 24 states along eastern seaboard.
- FEMA issued disaster declarations in 225 U.S. counties in ten states.
- I use this FEMA's disaster designation as means of identifying those counties most adversely affected by Hurricane Sandy and likely to have experienced the greatest disruption to the conduct of the 2012 election.

# *The potential effect of emergencies on the conduct and administration of elections*

- Depressed voter turnout (i.e., the proportion of eligible voters who cast a ballot).
- An increase in the proportion of voters who ballot by mail or in-person early.
- An increase in the proportion of voters who cast a provisional ballot.

# *Election administration practices that mitigate the effects of natural disasters on election performance*

- Convenience voting
  - In-person early voting
  - No-excuse mail-in absentee voting
  - Election Day vote centers
- Relaxed provisional voting
- Polling place operations i.e., number, staffing and location

# *Polling place operations*

- Openness

Allows voters to vote at any location throughout the county rather than be restricted to voting at only one.

- Centralization

A small number of larger voting places define a centralized voting system.

# *Research design:*

- 2008 and 2012 Presidential Election
  - EAC *Election Administration and Voting Survey* of 3,000+ U.S. counties
- Indicators of electoral performance for counties affected and unaffected by Sandy
  - Turnout (% of registered vote who voted)
  - % Vote cast absentee
  - % Vote cast in-person early
  - % Vote cast provisionally
  - Voting places per vote cast
  - Poll workers per voting place

**Table 1. Mean and *Standard Deviation* values for county level measures of voter turnout, absentee and early voting in 2008 and 2012 by Hurricane Sandy disaster declaration coverage**

	2008		2012		Change '08-'12	
	~ Disaster	Disaster	~ Disaster	Disaster	~ Disaster	Disaster
Turnout (%)	.668	.676	.662	.661	-.008	-.028
	.112	.110	.100	.104	.100	.050
Number of observations	2781	223	2781	223	2781	223

Source: EAC, 2008, 2012 Election Administration and Voting Survey

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<b>Absentee votes (%)</b>	.189	.0530	.187	.0530	-.002	.0003
	<i>.195</i>	<i>.041</i>	<i>.207</i>	<i>.032</i>	<i>.070</i>	<i>.024</i>
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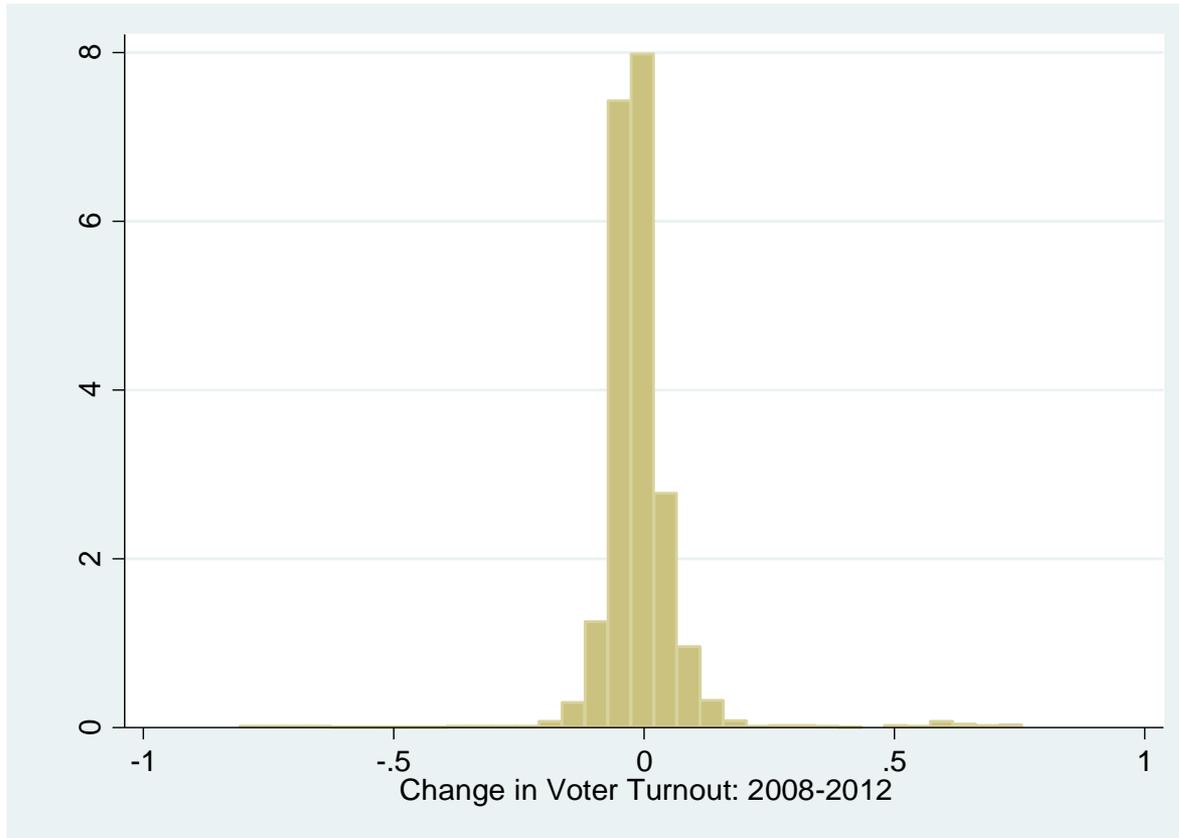
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<b>Early votes (%)</b>	.142	.055	.161	.072	.019	.017
	.213	.099	.162	.106	.190	.052
<b>Number of observations</b>	2781	223	2781	223	2781	223

Source: EAC, 2008, 2012 Election Administration and Voting Survey

**Figure 1. Change in voter turnout between 2008-2012  
among counties that  
received a disaster declaration in 2012**



**Table 2: Laws regulating absentee and early voting among states with one or more counties that received a disaster declaration in 2012**

State	No-excuse absentee mail-in	In-person early voting
Conn.	No	No
Del.	No	No
MD	<b>Yes</b>	<b>Yes</b>
NH	No	No
NJ	<b>Yes</b>	No
NY	No	No
PA	No	No
RI	No	No
VA	No	No
WV	<b>Yes</b>	No

**Table 3. Mean and *Standard Deviation* values for county level measures of provisional voting in 2008 and 2012 by Hurricane Sandy disaster declaration coverage**

	2008		2012		Change '08-'12	
	~ Disaster	Disaster	~ Disaster	Disaster	~ Disaster	Disaster
<b>Provisional votes cast (%)</b>	0.004	0.005	0.006	0.008	0.002	0.002
	<i>0.009</i>	<i>0.007</i>	<i>0.013</i>	<i>0.01</i>	<i>0.011</i>	<i>0.007</i>
<b>Number of observations</b>	2783	223	2783	223	2783	223

**Table 3. Mean and *Standard Deviation* values or county level measures of provisional voting in 2008 and 2012 by Hurricane Sandy disaster declaration coverage**

	2008		2012		Change '08-'12	
	~Disaster	Disaster	~ Disaster	Disaster	~ Disaster	Disaster
Provisional votes counted (%) <sup>1</sup>	0.329	0.550	0.288	0.551	-0.041	0.001
	0.014	0.036	0.015	0.040	0.010	0.036
Number of observations	543	64	543	64	543	64

<sup>1</sup> Only counties in which a provisional ballot was cast are included in the proportion of provisional ballots counted.

**Table 4. Mean and *Standard Deviation* values for county level measures of polling place operations in 2008 and 2012 by Hurricane Sandy disaster declaration coverage**

	2008		2012		Change '08-'12	
	~ Disaster	Disaster	~ Disaster	Disaster	~ Disaster	Disaster
<b>Poll places (per 1K voters)</b>	1.1	1.1	1.1	1.0	0	-.1
	0	0	0	0	0	0
<b>Poll workers per place</b>	7.1	4.0	7.5	4.6	.42	.60
	.21	.37	.25	.49	.20	.34
<b>Number of observations</b>	2760	220	2760	220	2760	220

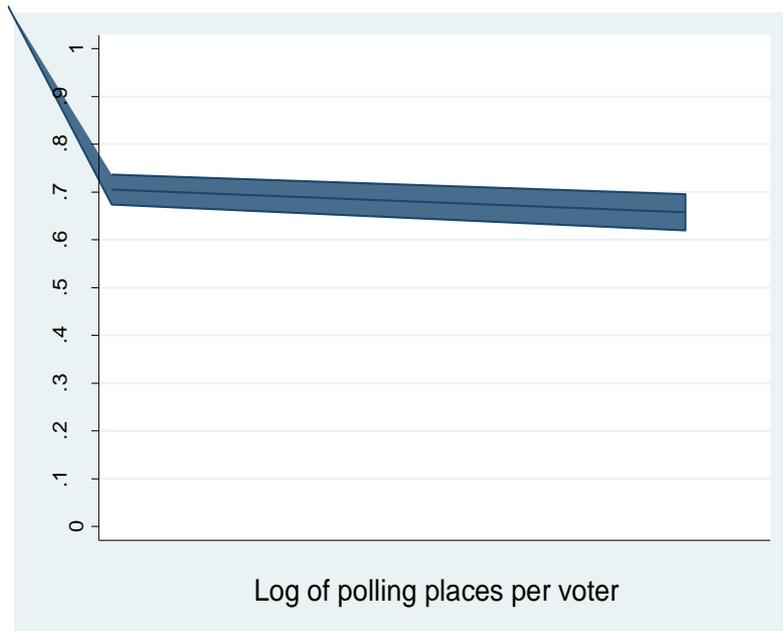
Table 5. Regression estimates for 2012 voter turnout (%)<sup>1</sup>

Turnout 2008 (%)	0.274*** (0.0591)
Disaster declaration (0,1)	-0.223* (0.118)
<i>Effects in non-disaster counties</i>	
Early vote (%)	0.0298 (0.0520)
Absentee vote (%)	0.127* (0.0759)
Provisional vote (%)	-0.276 (0.534)
Log of Poll places per vote	-0.00721# (0.00531)
<i>Effects in disaster counties</i>	
Early vote * Disaster (%)	0.238** (0.0983)
Absentee vote * Disaster (%)	-1.229** (0.525)
Provisional vote * Disaster (%)	-1.879*** (0.712)
Log of Poll places per vote * Disaster	-0.0475** (0.0186)
Constant	0.413*** (0.0443)
Observations	2,670
R-squared	0.663
*** p<0.01, ** p<0.05, * p<0.1 # p<.1 (one-tailed)	

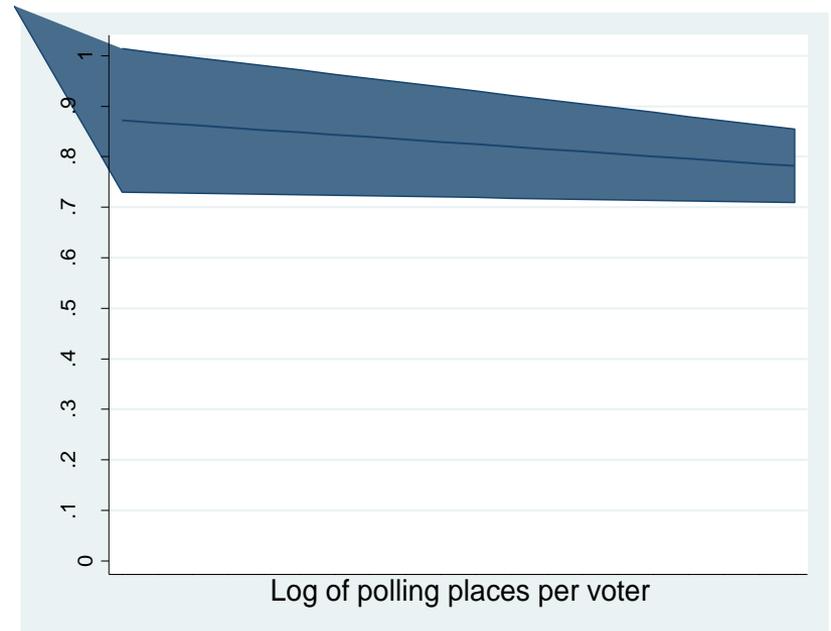
<sup>1</sup> A fixed effects model was estimated. Coefficients for state dummy variables not reported and are available from the author.

Figure 2  
Predicted 2012 Voter Turnout (%)

Non-disaster counties



Disaster counties



# Conclusions

- On average, there was a 2.8% decline in voter turnout between the 2008 and 2012 President Elections in jurisdictions most adversely affected by Hurricane Sandy. Jurisdictions unaffected by Sandy experienced less than a 1% decline in turnout.
- Those jurisdictions adversely affected by Hurricane Sandy provide their voters with limited flexibility in when, where and how they cast their ballots.
- The proportion of vote cast early in counties adversely affected by Hurricane Sandy is significantly related to a higher rate of voter participation.
- The most efficacious action to mitigate the impact of Hurricane Sandy on voter participation in the 2012 election was the consolidation and location of polling places on and before Election Day.

# *Generalizations*

- In many respects the election of 2012 in those areas hit by Hurricane Sandy was a success; the election was held and there were no obvious doubts about its outcome arising from the Hurricane.
- Hurricane Sandy hit the part of the country with the least flexibility in how people vote. Despite the fact that local officials tried to relax things, there's no evidence that large numbers of people took advantage of the new opportunities.
- Modes of voting are slow to change, even in extreme circumstances, especially if they are done at the last minute.