POLICY FORUM ARMENIA

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Armenian Elections:
Taking Stock and Looking Forward

How Analytical Statistical Methods
Help Expose Election Fraud

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PFA Reports

- **Armenia's 2012 Parliamentary Election**, Dec 2012;
- **Armenia: Averting an Economic Catastrophe**, Feb 2012;
- **The State of Armenia's Environment**, Dec 2010;
- **Armenia-Diaspora Relations: 20 Years Since Independence**, Feb 2010;
- **Yerevan's 2009 Mayoral Election: Statistical Analysis**, Sept 2009;
- **Implications of the World Financial Crisis for Armenia's Economy**, Dec 2008;
- **Armenia's 2008 Presidential Election: Select Issues and Analysis**, July 2008.

OSCE Presidential Election Report Summary

EXECUTIVE SUMMARY

"was generally well-administered and was characterized by a respect for fundamental freedoms. Contestants were able to campaign freely. Media fulfilled their legal obligation to provide balanced coverage, and all contestants made use of their free airtime. At the same time, a lack of impartiality of the public administration, misuse of administrative resources, and cases of pressure on voters were of concern. While election day was calm and orderly, it was marked by undue interference in the process, mainly by proxies representing the incumbent, and some serious violations were observed."

"An OSCE/ODIHR EOM analysis of official results shows a correlation between very high turnout and the number of votes for the incumbent. This raises concerns regarding the confidence over the integrity of the electoral process."

"A limited number of complaints were filed with the election administration on election day, and over 80 after the election. Almost all were rejected. The police and the Prosecutor General investigated over 300 possible offenses and initiated criminal proceedings in some 10 of them."

Past OSCE Armenian Election Reports

|	1996 Presidential	2003 Presidential	2008 Presidential	2012 Parliamentary	2013 Presidential
Legal Framework	Improvement over previous framework – but implementation a question	Improved, complies with international standards	Improved, good basis for democratic elections	Improved generally solid	--
Campaign	--	Non issue-based, intimidation observed	Freedom of assembly issues, vandalism of campaign offices	Competitive, vibrant, peaceful	--
Electoral Administration	No regulations for access to media, campaign accounts, military campaigning …	Failed to execute/ enforce procedures correctly	Appeared well-organized, overall transparent	Professional, efficient, generally trusted	--
Voter registration/list	Needed to be updated and improved for accuracy	Accuracy a concern, discrepancies evident	Not fully transparent	Additional efforts required	--
Media Coverage	Substantially biased	Heavily biased, public resources used for incumbent	Public opinion not adequately informed, lack of media diversity	Bias towards certain parties noticed	--
Election Day	Serious/substantial breaches observed	Serious irregularities, fell short of democratic election	Overcrowding, group voting, controlled and proxy voting	9% negative rating of polling stations	--

Forensic Fraud Detection
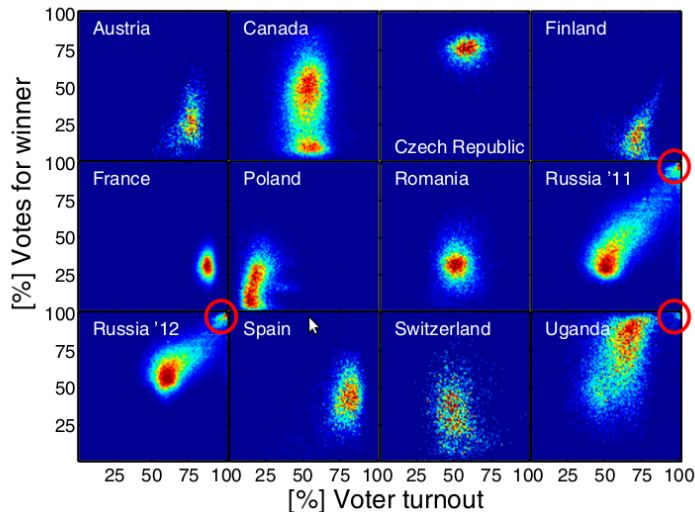
Fig. 1. Election fingerprints. Two-dimensional histograms of the number of units for a given voter turnout (*x* axis) and the percentage of votes (*y* axis) for the winning party (or candidate) in recent elections from different countries (Austria, Canada, Czech Republic, Finland, France, Poland, Romania, Russia 2011, Russia 2012, Spain, Switzerland, and Uganda) are shown. Color represents the number of units with corresponding vote and turnout numbers. The units usually cluster around a given turnout and vote percentage level. In Uganda and Russia, these clusters are smeared out to the upper right region of the plots, reaching a second peak at a 100% turnout and 100% of votes (red circles). In Canada, there are clusters around two different vote values, corresponding to the Québécois and English Canada (*SI Text*). In Finland, the main cluster is smeared out into two directions (indicative of voter mobilization because of controversies surrounding the True Finns).

Figure 1. Last Digit Distribution in Select Post-Soviet Cases
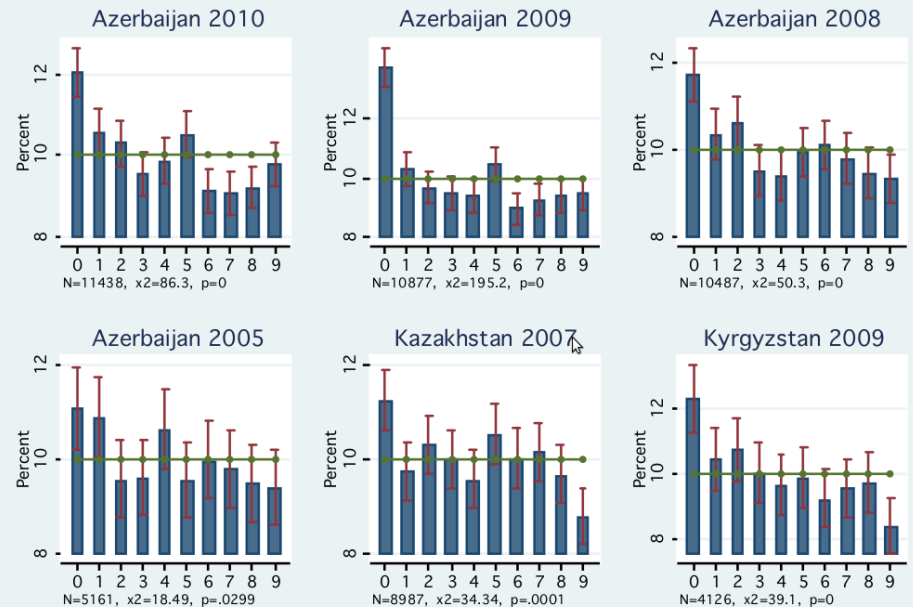
*Note: Three digit vote-counts (>99), excluding Voter list entry (data: Full)

Use data provided by the government's own electoral agencies to look for the "fingerprints" of fraud
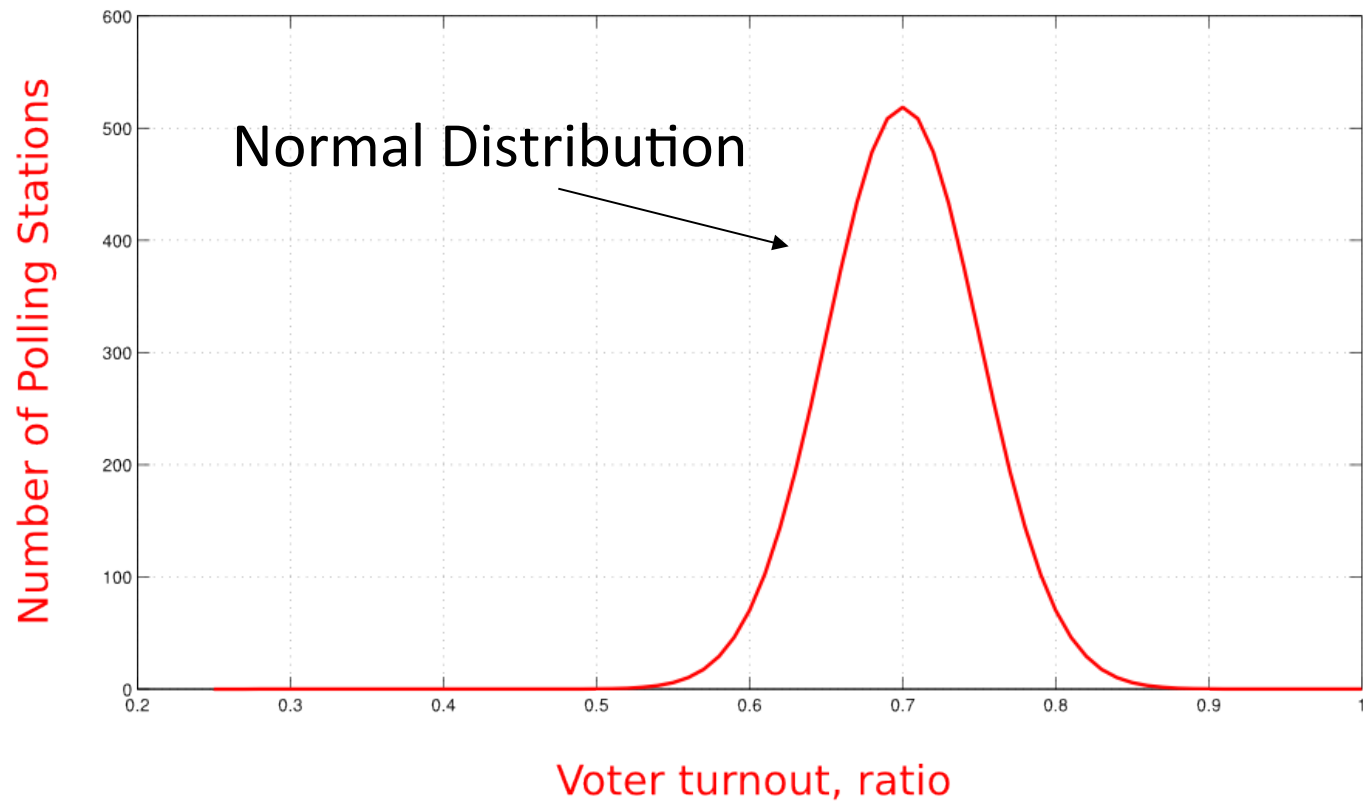
Forensic Test #1:

Voter Turnout and Number of Polling Stations

- There were about 2,000 polling stations in the election

- Each polling station had a list of registered voters

- For each polling station, we can compute the Voter Turnout Ratio

$$\text{Voter Turnout Ratio} = \frac{\text{Number of voters who voted}}{\text{Number of registered voters}}$$
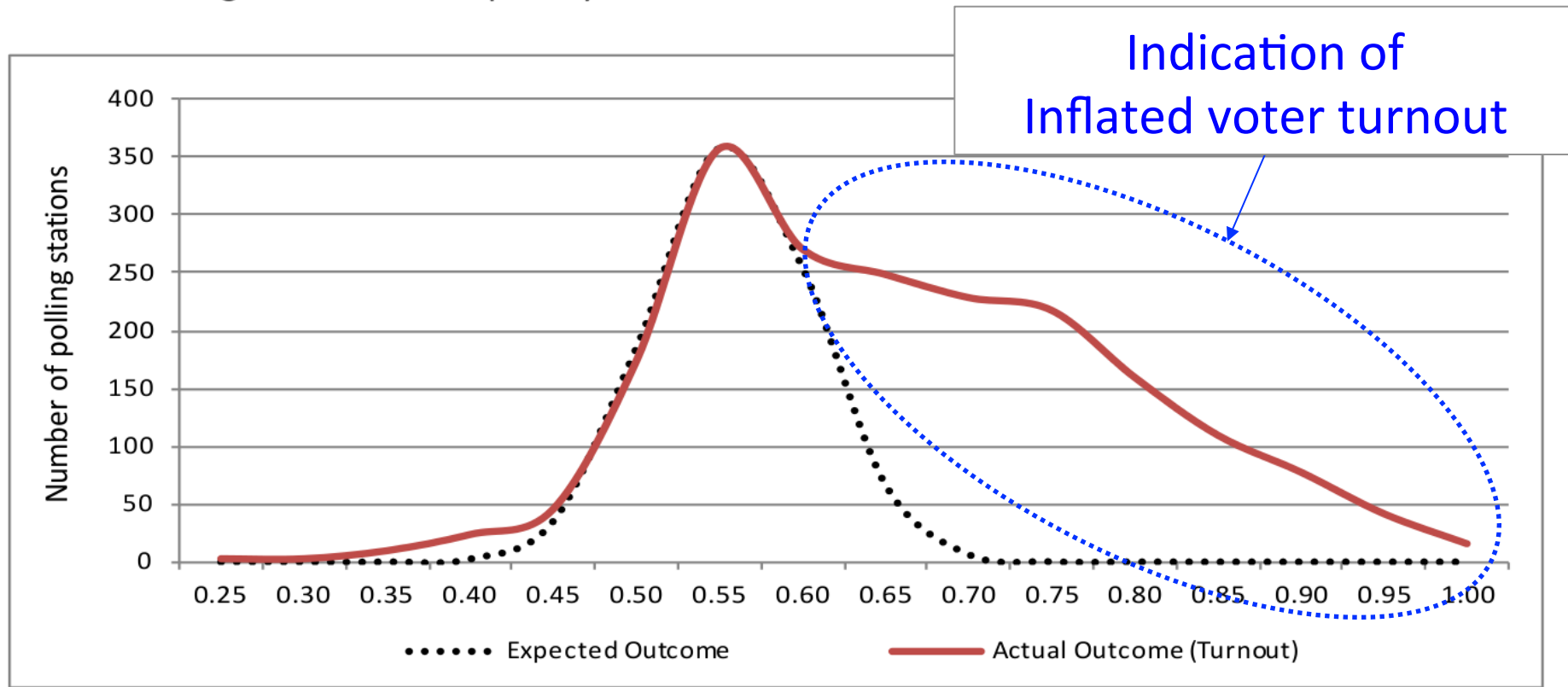
Forensic Test #1:

Voter Turnout and Number of Polling Stations

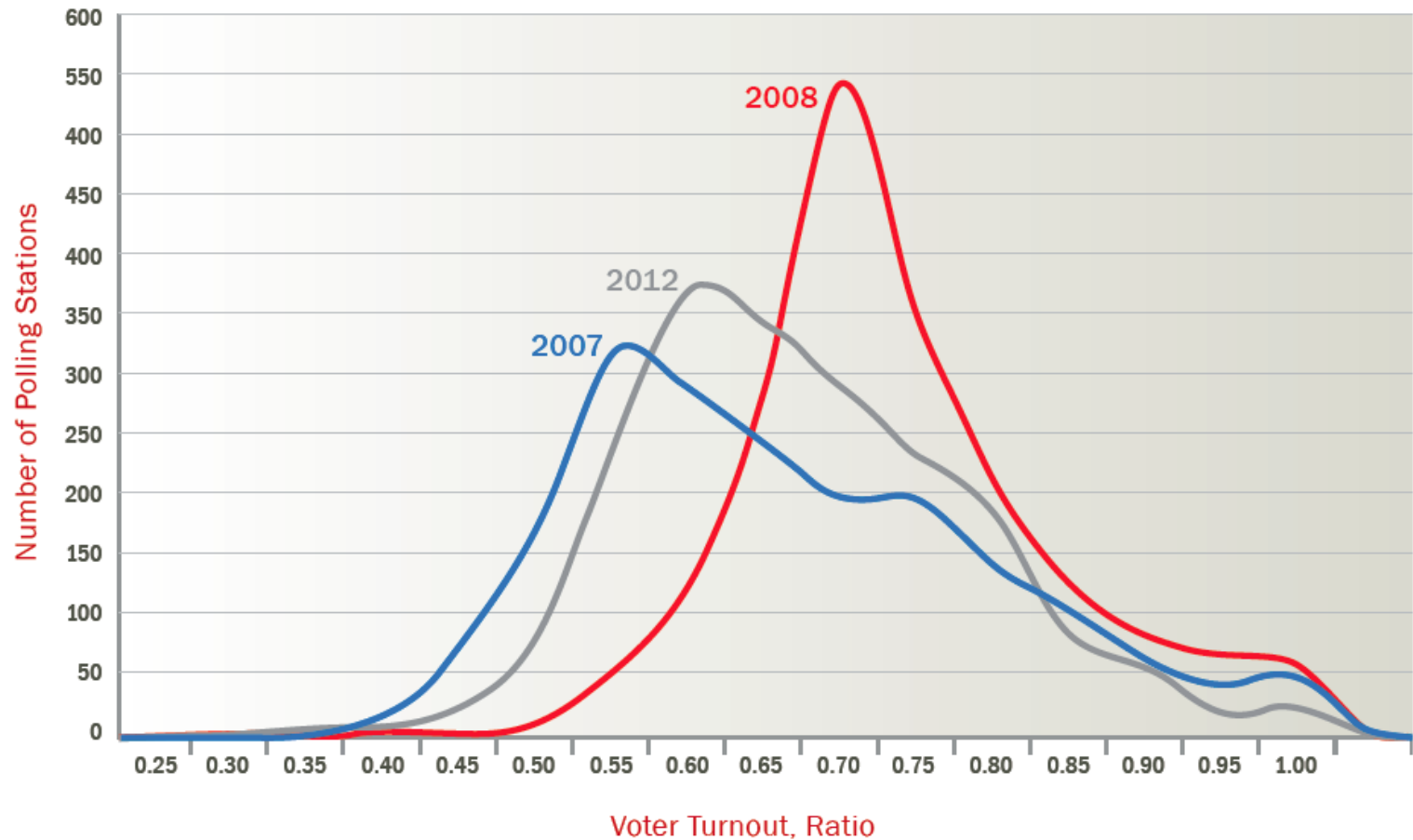# Forensic Test #1:

Voter Turnout and Number of Polling Stations

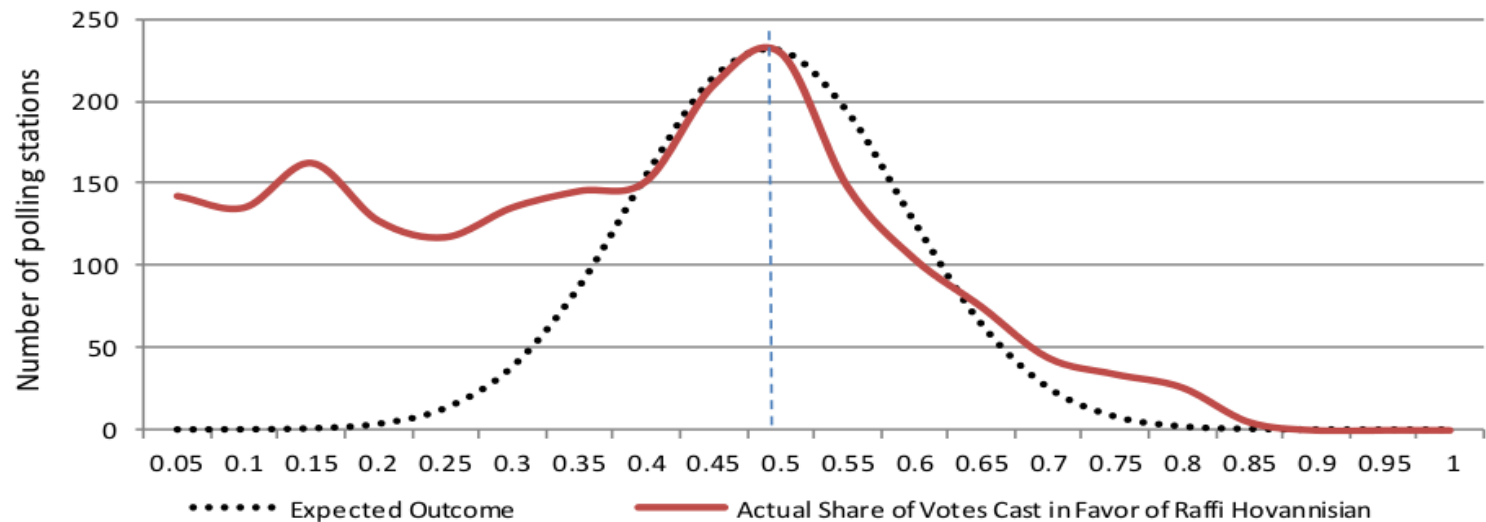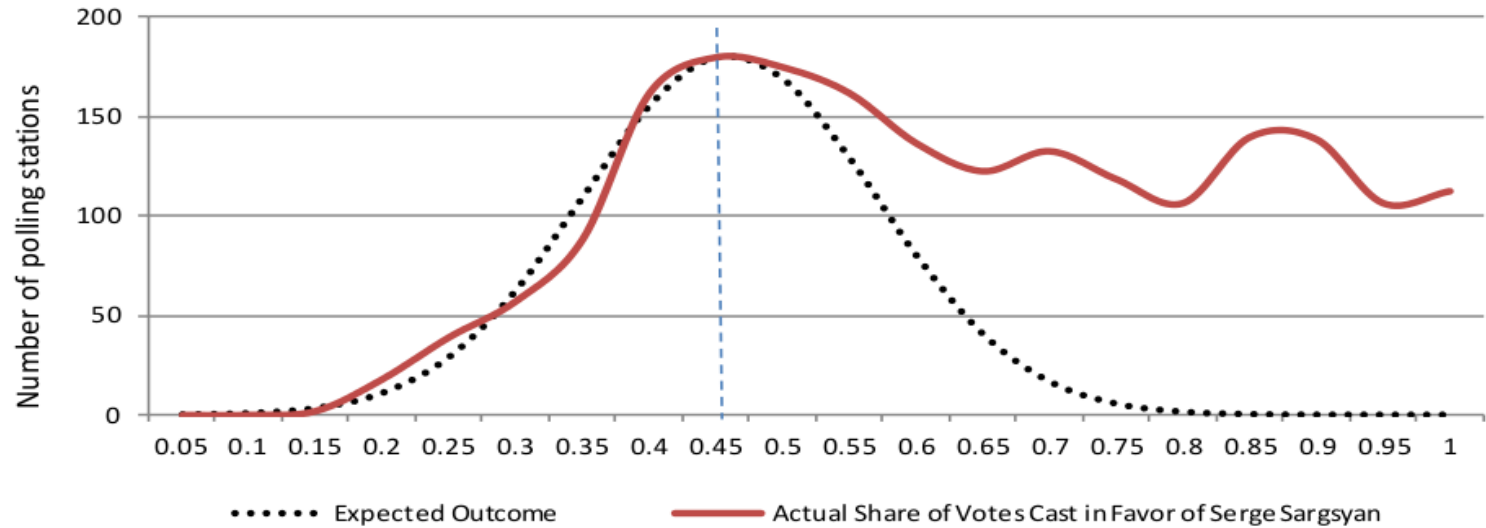Figure 1. The Frequency of Voter Turnout and of Candidates' Shares

Indication of Inflated voter turnout

Forensic Test #1: Results from Past Elections

Frequency of Voter Turnout in Recent National Elections (2007, 2008, and 2012)

Forensic Test #1: Voter Turnout for Each Candidate

Forensic Test #2: Digit Test

🟡 At the end of the election, each polling station must report the number of votes – the Vote Count.
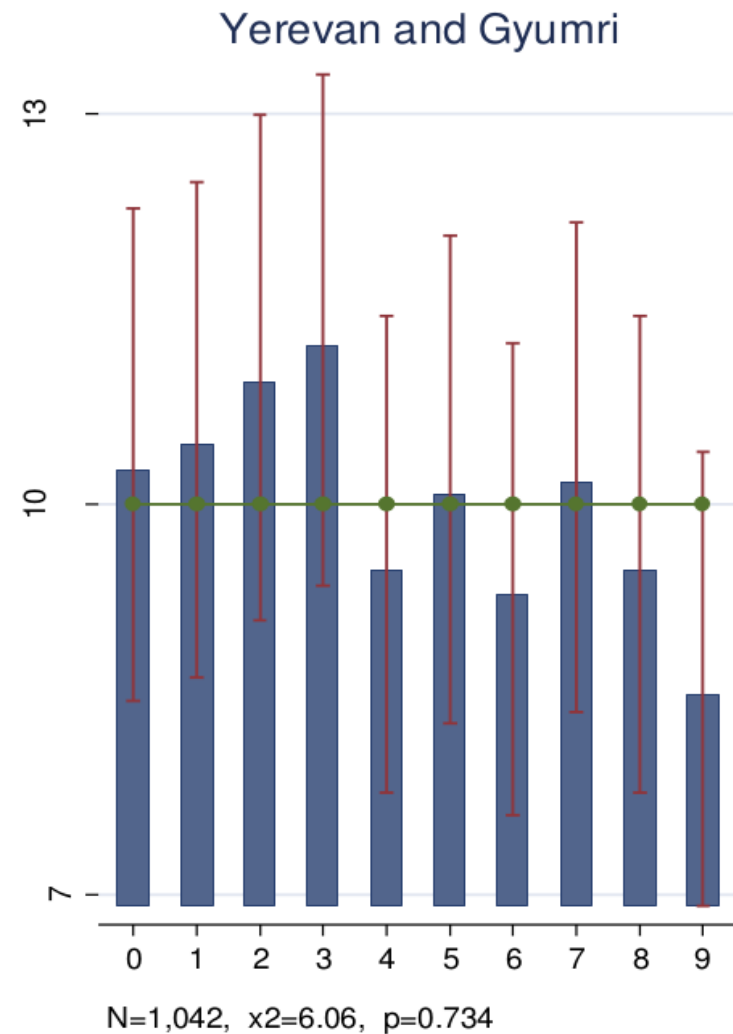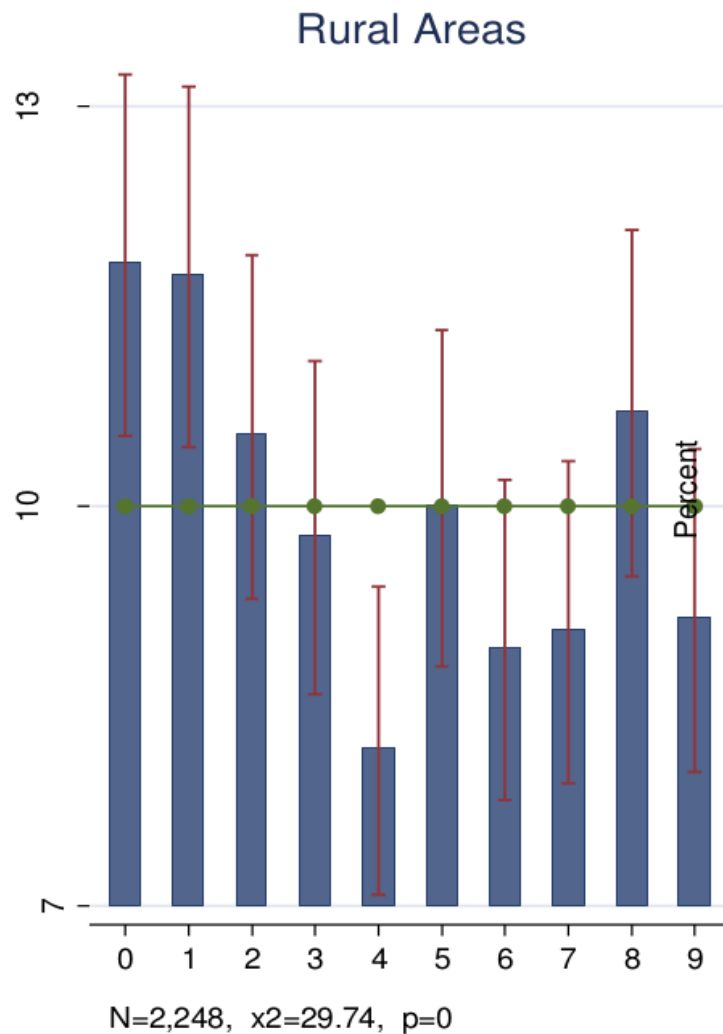
   e.g., 3,342   569   19,230   8,348   239 etc.

🟡 Take all the last digits from the Vote Counts

   e.g.,   ----2   --9   ----0   ----8   --9 etc.

🟡 Compare how often each of the 10 digits appear among all the polling stations

🟡 Ideally, each digit will appear equally often (i.e., 10% of the time)

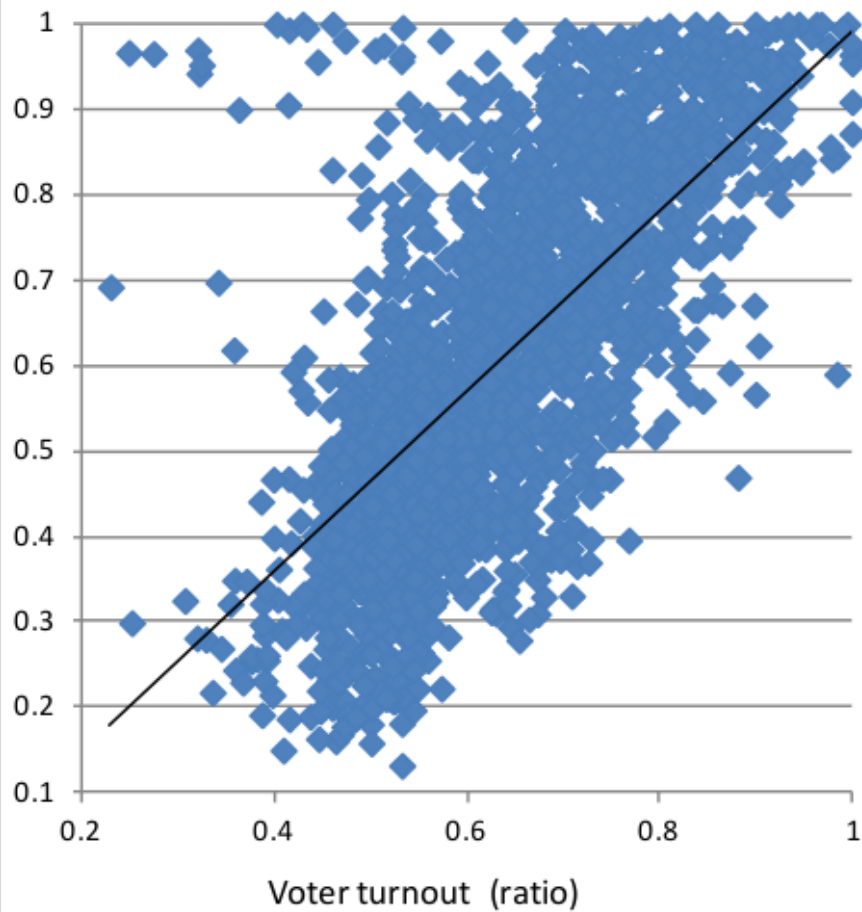🟡 IF NOT – implies human tampering

Forensic Test #2: Digit Test
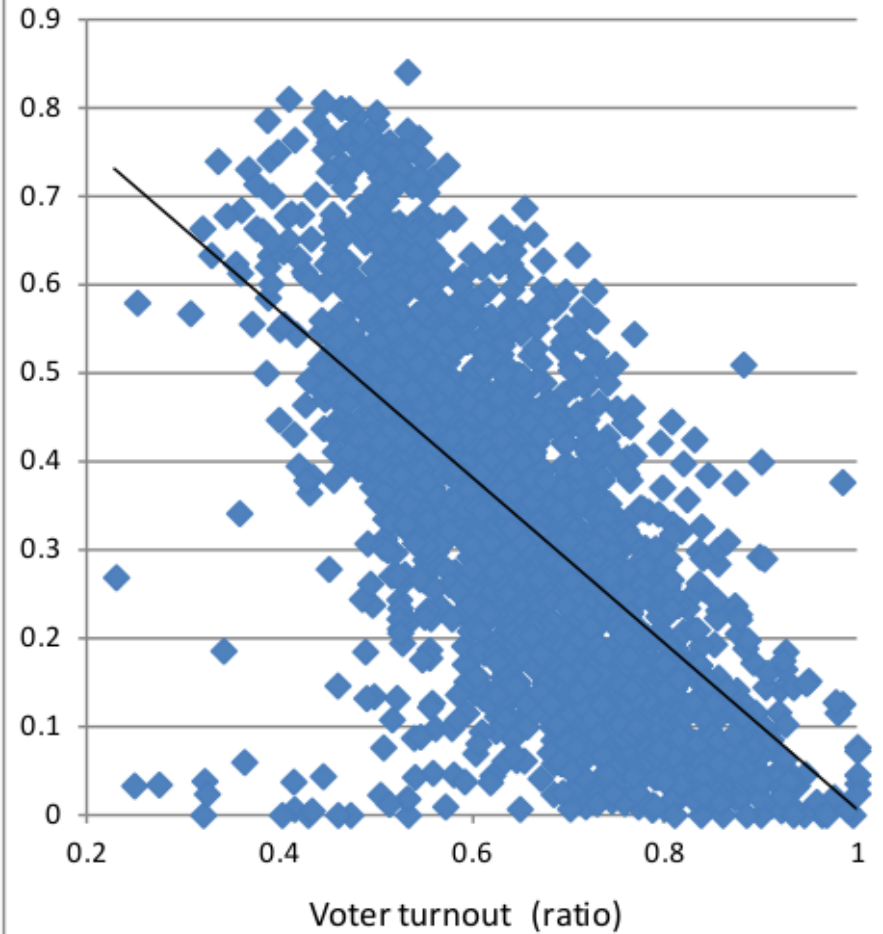

Figure 3. Voter Count Fraud

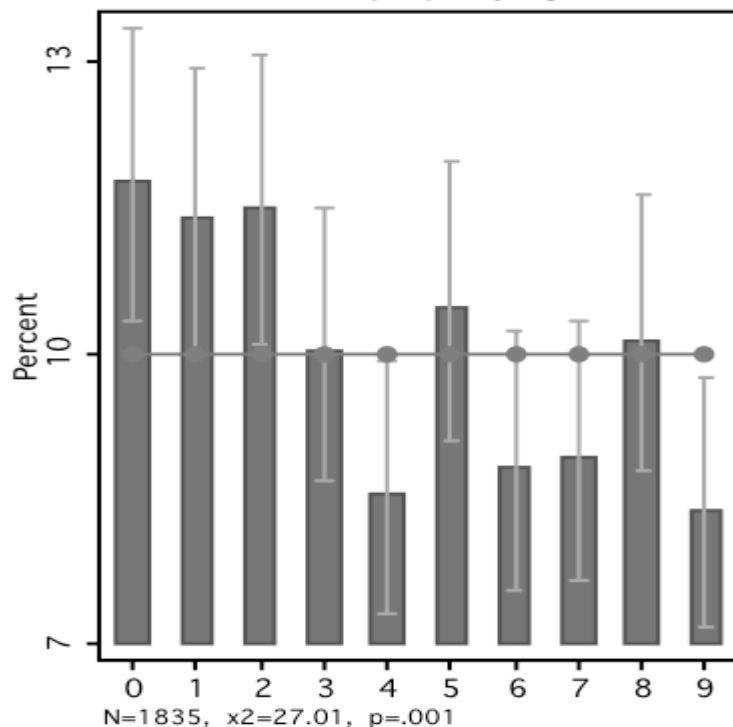# Forensic Test #3: Candidates share of votes vs % Turnout

Non-PFA Independent Analyses of CEC Data

The Protesters Are Right: Evidence Suggests More Election Fraud in Last Week's Elections in Armenia (Fredrik M Sjoberg, a Postdoctoral Scholar at Columbia University – The Harriman Institute)

Vote Count Fraud - Ruling Party Votes

Armenia 2013
N=1835, x2=27.01, p=.001

Armenia 2012
N=1738, x2=2.48, p=.981
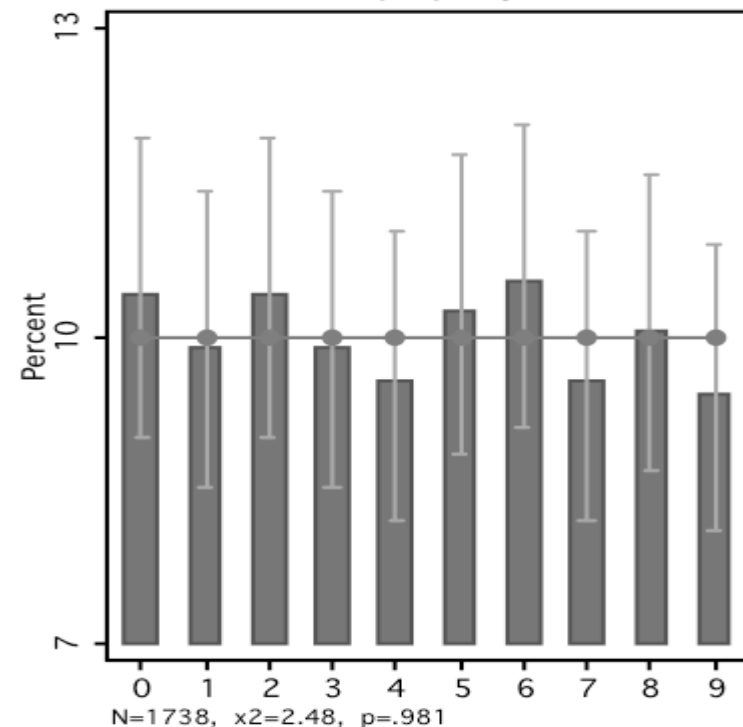
Note: The distribution of the last digit for all three digit (<99) vote counts for the ruling party. CEC polling station level data (21-Feb).
Copyright: Dr. Fredrik M Sjoberg - Columbia University.

Non-PFA Independent Analyses of CEC Data

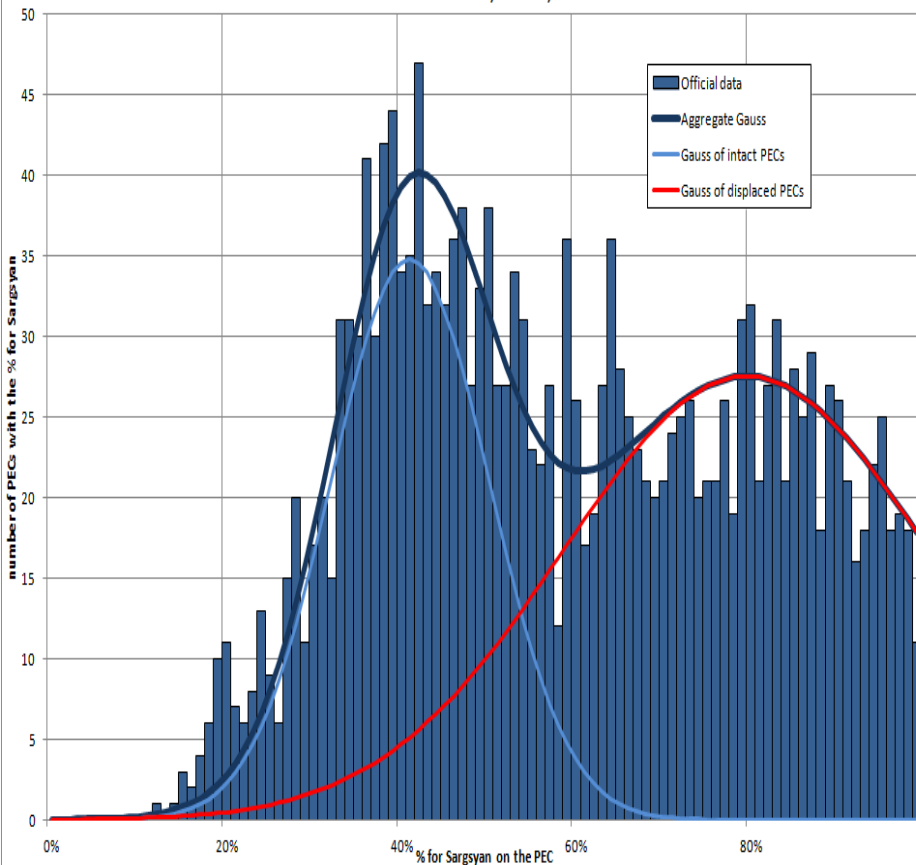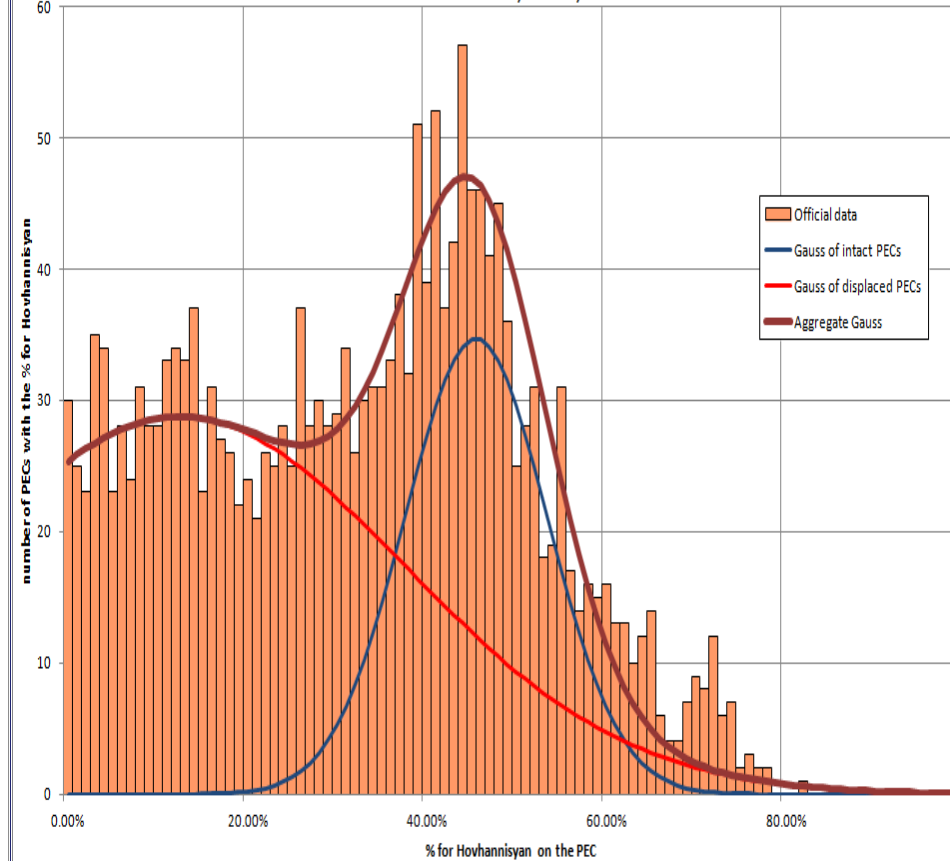PECs distribution by % vote for Sargsyan
Presidential Elections, Armenia, 2013
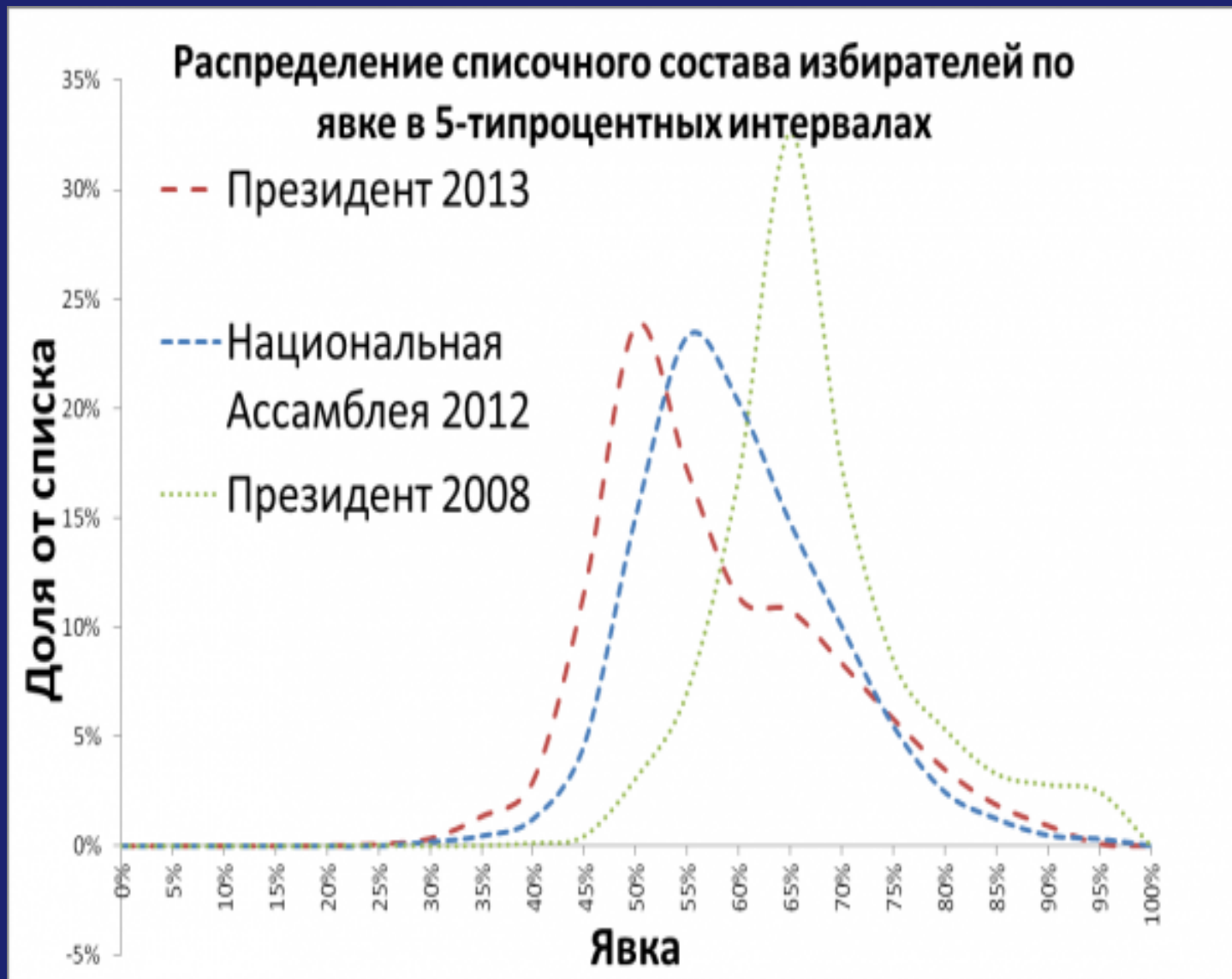
PECs distribution by % vote for Hovhannisyan
Presidential Elections, Armenia, 2013

Non-PFA Independent Analyses of CEC Data

Распределение списочного состава избирателей по явке в 5-типроцентных интервалах

- - - Президент 2013
- - - Национальная Ассамблея 2012
...... Президент 2008

Доля от списка

Явка

Vote 2013: 2.5 million eligible voters – 200,000 increase over 2008

Photo: www.police.am

The RA Police building

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According to figures released today by ROA Police, 2,507,004 citizens are eligible to vote in the February 18 Presidential Election.

The numbers are disputed by members of Armenia's opposition parties, who say that the figure is exaggerated and does not correspond to the much-publicized trend of migration that the country has experienced for nearly two decades.

Critics of the ruling authorities charge that the total is part of a scheme to rig the vote in favor of incumbent President Serzh Sargsyan.

By comparison, in 2008, a total of 2,312,945 voters were declared eligible.

Summary

"Elections, usually taken to be a hallmark of democracy, can also become a tool of authoritarian power holders seeking to legitimize their rule." [Schedler (2002)]

➡ Fraud is still a significant factor, despite generally better evaluations from Observers

➡ The main mechanism of fraud has evolved from ballot stuffing to multiple and fictitious voting.

➡ Voter lists in recent national elections have not been adjusted for Armenia's massive emigration.

➡ The official turnout exceeded any reasonable projections by at least 370,000, or 30% of total.

Summary

➔ Consistent with observer accounts, fraud outside of polling station (bribery, bullying) had increased to compensate for the reduction in unlawful activities inside the polling stations.

➔ There is a statistically significant evidence of fraudulent vote counting in electoral districts outside of Yerevan.

➔ RPA is the only beneficiary of the turnout-enhancing fraud observed during the February 2013 election.

Recommendations

To opposition parties and civil society

- Address the "missing voters" issue
- Disclose the voter lists in polling stations with >90% turnout

To foreign election observers

- Secure better coverage of polling stations outside Yerevan
- Develop new criteria for assessing election conduct and provide a more candid assessment of political will
- Undergo a more comprehensive briefing about Armenia's political-economic landscape and history of election fraud

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Thank You

Voter List as a Source of Fraud

Hypothesis # 1: *Armenia's eligible voter list is calculated without factoring in emigration.*

Hypothesis # 2: *If a reasonable level of emigration is assumed, the level of turnout in the latest nation-wide elections would be implausibly high.*

Voter List as a Source of Fraud

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Increase in Net Voter Eligibility between 2008 and 2012 Elections (in '000)

	2012	2011	2010	2009	2008
Turning 18 during the year in question (A) [1]	20.9	70.9	77.8	79.9	62.1
Died during the previous year [2]	38.8	27.9	27.5	27.4	0 (26.8)
of which died in "18 and older" age group (B) [2][3]	35.7	25.7	25.3	25.2	0 (24.7)
Net new eligible voters (C=A-B)	-14.8	45.2	52.5	54.7	62.1
Memorandum item Total number of persons eligible to vote	2,522.9	...	...	...	2,328.3

Source: National Statistical Service and PFA calculations.

Hypothesis # 2: *If a reasonable level of emigration is assumed, the level of turnout in the latest nation-wide elections would be implausibly high.*
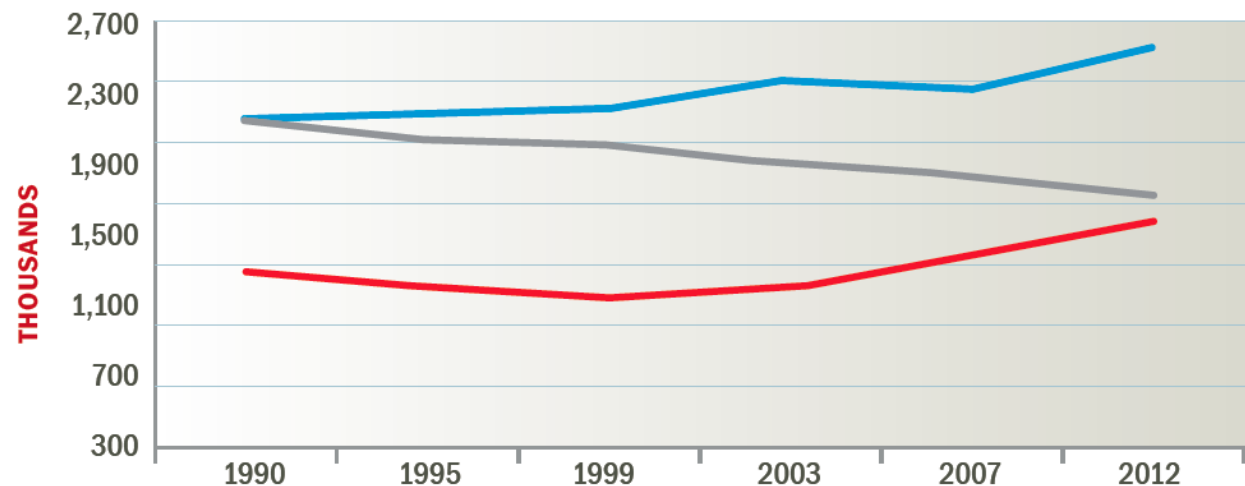
Presidential Elections (1991-2008)

— Eligible Voters (Official)
— Voter Turnout (Official)
— Eligible Voters (Augmented)
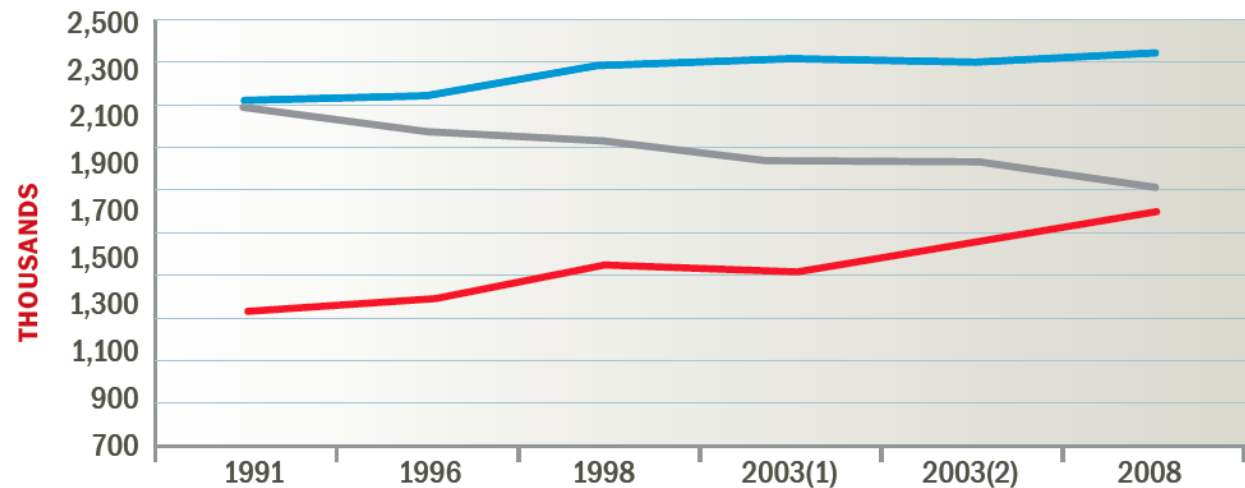
Parliamentary Elections (1990-2012)

— Eligible Voters (Official)
— Voter Turnout (Official)
— Eligible Voters (Augmented)

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Jan 17, 2013 | Press Release

An Urgent Appeal to International Election Observers

Policy Forum Armenia (PFA) has issued an urgent appeal to international observer missions in...

Dec 11, 2012 | Press Release

PFA Special Report: Armenia's 2012 Parliamentary Election

Washington/Los Angeles/Yerevan—Earlier

REPORTS

Armenian's 2012 Parliamentary Election

PFA's Special Report on "Armenian's 2012 Parliamentary Election," provides an overview of political-economic and legislative developments in the period preceding the 2012 election and summarizes the reactions of key stakeholders to the election outcome.

IN MOTION

▶

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