The Mock Election with PCOS Accuracy Rating of 97.21519%: Its Implication on the 2010 Senatorial Contest

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On May 10, 2010, the national election for the Philippine senators was held. Out of the 61 candidates for the senatorial race, 12 were to be proclaimed as winners. On May 15, 2010 nine senatorial candidates who were leading the race were proclaimed as winners. Three days after on May 18, 2010, the last three remaining senatorial slots were filled up with the proclamation of the last three winning candidates.

The total number of votes counted by the PCOS Machines in the senatorial race was **297,036,114** votes. However, the actual number of voters who voted for the senatorial race was **38,149,371**. Hence, on the average each voter voted for about 8 out of the 12 available slots for the senatorial race.

Since a voter is required to vote for **12 or less unique candidates**, it follows that a senatorial candidate received **one or no vote** from each voter.

The margin of error of the PCOS COUNT is based on the number of voters who actually voted for the senatorial race. Hence, based on the results of the mock elections of July 24-25, 2012 the PCOS Machines miscounted the votes of **2.78481%** of **38,149,371** or a total miscount of **1,062,388 votes**.

We consider in **Table 1** the 11^{th} to 14^{th} Positions of the Result of the PCOS COUNT ON THE 2010 SENATORIAL CONTEST.

Table 1. May 2010 Senatorial Contest: 11 th -14 th Positions as Counted by the PCOS Machines			
Position	Senatorial Candidate	PCOS COUNT	
11	LitoLapid	11,025,805	
12	TeofistoGuingona III	10,277,352	
13	RisaHontiveros-Baraquel	9,106,112	
14	RuffyBiazon	8,626,514	

The PCOS Machines counted **11,025,805 votes** for the **11thranking senatorial candidate**. If the **PCOS MISCOUNT** of **1,062,388** votes will be **subtracted** or **added** from the **PCOS COUNT**, the **TRUE COUNT** for **the 11th ranking candidate** ranges from as low as **9,963,417** or as high as **12,088,193**.

Applying the same procedure on the 12th, 13th and 14th Positions we have Table 2.

Table 2.	Table 2. Subtracting or Adding the PCOS MISCOUNT of 979,603 Votes to the PCOS COUNT				
Docition	Senatorial Candidate	PCOS COUNT	TRUE COUNT		
Position			LOW	HIGH	
11	LitoLapid	11,025,805	9,963,417	12,088,193	
12	TeofistoGuingona III	10,277,352	9,214,964	11,339,740	
13	RisaHontiveros-Baraquel	9,106,112	8,043,724	10,168,500	
14	RuffyBiazon	8,626,514	7,564,126	9,688,902	

Hence, we counted **5** possibilities for the **11**th and **12**th**places** after considering the **PCOS MISCOUNT** OF **1,062,388** votes. See **Table 3**.

Table 3. Possible Winning Combination				
No.	lo. 11th PLACE 12th PLACE			
1	LitoLapid	TeofistoGuingona III		
2	LitoLapid	RisaHontiveros-Baraquel		
3	LitoLapid	RuffyBiazon		
4	TeofistoGuingona III	LitoLapid		
5	TeofistoGuingona III	RisaHontiveros-Baraquel		

For example, we can have a LitoLapidfor the 11th place and RisaHontiveros-Baraquel for the 12th place, if LitoLapid'sTRUE COUNT is the PCOS COUNT of 11,025,805 and RisaHontiveros-Baraquel had a HIGH TRUE COUNT of 10,168,500 while TeofistoGuingona III had a LOW TRUE COUNT of 9,214,964.

Hence, the PCOS MISCOUNT of **2.78481%** of the total number of actual voters of **38,149,371** produces uncertainty for the **11**th and **12**th Places in the May 2010 Senatorial Race.

Therefore, a 100% Manual Recount must be conducted to determine the real winners for the 11th and 12th places of the May 2010 senatorial election.

Table 4. Summary of the May 10, 2010 Philippine Senate election results				
Rank	Candidate	Party	Votes	Percent Share
1	Bong Revilla	Lakas-Kampi	19,513,521	51.15%

2	Jinggoy Estrada	РМР	18,925,925	49.61%
3	Miriam Defensor Santiago	PRP	17,344,742	45.47%
4	Franklin Drilon	Liberal	15,871,117	41.60%
5	Juan Ponce Enrile	PMP	15,665,618	41.06%
6	PiaCayetano	Nacionalista	13,679,511	35.86%
7	Ferdinand Marcos, Jr.	Nacionalista	13,169,634	34.52%
8	Ralph Recto	Liberal	12,436,960	32.60%
9	Tito Sotto	NPC	11,891,711	31.17%
10	Sergio Osmeña III	Independent	11,656,668	30.56%
11	LitoLapid	Lakas-Kampi	11,025,805	28.90%
12	TeofistoGuingona III	Liberal	10,277,352	26.94%
13	RisaHontiveros-Baraquel	Liberal	9,106,112	23.87%
14	RuffyBiazon	Liberal	8,626,514	22.61%
15	Joey de Venecia	PMP	8,375,043	21.95%
16	Gilbert Remulla	Nacionalista	7,454,557	19.54%
17	Danilo Lim	Independent	7,302,784	19.14%
18	Sonia Roco	Liberal	6,774,010	17.76%
19	Ariel Querubin	Nacionalista	6,547,925	17.16%
20	Gwendolyn Pimentel	PDP-Laban	6,394,347	16.76%
21	Nereus Acosta	Liberal	5,921,111	15.52%
22	Alexander Lacson	Liberal	5,242,594	13.74%
23	Adel Tamano	Nacionalista	4,059,748	10.64%
24	Emilio Mario Osmeña	PROMDI	3,980,370	10.43%
25	Liza Maza	Independent	3,855,800	10.11%
26	SaturOcampo	Bayan Muna	3,539,345	9.28%
27	Francisco Tatad	GAD	3,331,083	8.73%
28	Ramon Mitra III	Nacionalista	2,744,090	7.19%
29	ApolinarioLozada	PMP	2,730,279	7.16%
30	Rey Langit	Lakas-Kampi	2,694,213	7.06%
31	Silvestre Bello III	Lakas-Kampi	2,468,276	6.47%
32	Yasmin Lao	Liberal	2,081,895	5.46%
33	Imelda Papin	BangonPilipinas	1,972,667	5.17%
34	Susan Ople	Nacionalista	1,930,038	5.06%
35	Martin Bautista	Liberal	1,890,152	4.95%
36	Rodolfo Plaza	NPC	1,517,905	3.98%
37	JV Larion Bautista	PMP	1,415,117	3.71%
38	Ramon Guico	Lakas-Kampi	1,264,982	3.32%
39	Raul Lambino	Lakas-Kampi	1,156,294	3.03%
40	Hector Villanueva	KBL	979,708	2.57%
41	RamoncitoOcampo	BangonPilipinas	944,725	2.48%
42	Kata Inocencio	BangonPilipinas	888,771	2.33%
43	JovitoPalparan, Jr.	Independent	825,208	2.16%
44	Alex Tinsay	BangonPilipinas	728,339	1.91%

45	ZafrullahAlonto	BangonPilipinas	712,628	1.87%
46	Reginald Tamayo	AngKapatiran	680,211	1.78%
47	Nanette Espinosa	KBL	607,569	1.59%
48	RegaladoMaambong	KBL	545,967	1.43%
49	Shariff Ibrahim Albani	KBL	508,558	1.33%
50	Rizalito David	AngKapatiran	504,259	1.32%
51	Israel Virgines	BangonPilipinas	455,332	1.19%
52	ZosimoParedes	BangonPilipinas	437,439	1.15%
53	Adrian Sison	AngKapatiran	418,055	1.10%
54	Reynaldo Princesa	Independent	364,245	0.95%
55	Jo Aurealmbong	AngKapatiran	362,457	0.95%
56	Adz Nikabulin	BangonPilipinas	346,848	0.91%
57	Henry Caunan	PDP-Laban	240,676	0.63%
58	Manuel Valdehuesa, Jr.	AngKapatiran	201,118	0.53%
59	Hector Tarrazona	AngKapatiran	168,386	0.44%
60	Ma. GraciaRiñoza-Plazo	AngKapatiran	151,755	0.40%
61	Alma Lood	KBL	128,045	0.34%
Total turnout			38,149,371	100.00%
Total votes			297,036,114	N/A
Regist	Registered voters			74.34%

Source: http://en.wikipedia.org/wiki/Philippine_Senate_election,_2010