

# Supplemental Appendix for “Does Experience Teach? Professionals and Minimax Play in the Lab”

John Wooders

June 6, 2008

## **Abstract**

This appendix contains tables showing the first and second half play of professional soccer players and students in the Penalty Kick game of Palacios-Huertas and Volij (2008). Figures show the first and second half choice frequencies of *Right* for professionals and students, and show the empirical *cdf*'s of *p*-values for the KS tests reported on Table 13.

**Table A: PH-V: Professionals Playing Penalty Kick**

Pair	Player	First Half				Second Half				Overall			
		L	R	t	p-value	L	R	t	p-value	L	R	t	p-value
1	R	24	51	0.214	0.427	24	51	0.192	0.384	48	102	0.148	0.295
	C	32	43	0.322	0.643	36	39	0.708	0.584	68	82	0.486	0.972
2	R	27	48	0.477	0.953	27	48	0.474	0.949	54	96	0.482	0.964
	C	32	43	0.300	0.599	25	50	0.014	0.029 **	57	93	0.036	0.072 *
3	R	20	55	0.048	0.096 *	26	49	0.410	0.819	46	104	0.076	0.152
	C	30	45	0.151	0.302	34	41	0.488	0.975	64	86	0.244	0.487
4	R	20	55	0.045	0.089 *	29	46	0.679	0.642	49	101	0.158	0.317
	C	33	42	0.370	0.740	36	39	0.647	0.707	69	81	0.568	0.863
5	R	24	51	0.237	0.473	25	50	0.301	0.601	49	101	0.155	0.309
	C	39	36	0.885	0.230	35	40	0.614	0.771	74	76	0.849	0.302
6	R	23	52	0.146	0.293	28	47	0.548	0.904	51	99	0.278	0.557
	C	38	37	0.816	0.368	34	41	0.509	0.981	72	78	0.753	0.493
7	R	18	57	0.014	0.028 **	25	50	0.318	0.636	43	107	0.026	0.051 *
	C	33	42	0.387	0.774	31	44	0.220	0.440	64	86	0.254	0.509
8	R	25	50	0.269	0.537	23	52	0.164	0.327	48	102	0.146	0.291
	C	34	41	0.458	0.915	35	40	0.582	0.836	69	81	0.576	0.849
9	R	28	47	0.562	0.876	18	57	0.009	0.018 **	46	104	0.071	0.142
	C	43	32	0.983	0.034 **	27	48	0.040	0.080 *	70	80	0.638	0.724
10	R	24	51	0.238	0.476	23	52	0.164	0.327	47	103	0.094	0.188
	C	37	38	0.726	0.548	35	40	0.590	0.820	72	78	0.711	0.578
11	R	25	50	0.289	0.579	28	47	0.547	0.906	53	97	0.410	0.820
	C	34	41	0.527	0.945	38	37	0.826	0.348	72	78	0.733	0.533
12	R	35	40	0.971	0.058 *	29	46	0.685	0.630	64	86	0.948	0.103
	C	43	32	0.981	0.038 **	29	46	0.126	0.253	72	78	0.751	0.499
13	R	23	52	0.179	0.358	32	43	0.884	0.233	55	95	0.555	0.890
	C	38	37	0.845	0.310	33	42	0.361	0.721	71	79	0.666	0.667
14	R	20	55	0.040	0.081 *	29	46	0.626	0.748	49	101	0.159	0.317
	C	31	44	0.260	0.521	36	39	0.660	0.680	67	83	0.397	0.795
15	R	22	53	0.090	0.180	29	46	0.654	0.693	51	99	0.279	0.557
	C	39	36	0.856	0.287	44	31	0.992	0.017 **	83	67	0.993	0.014 **
16	R	26	49	0.392	0.784	22	53	0.122	0.243	48	102	0.136	0.271
	C	32	43	0.339	0.678	39	36	0.849	0.302	71	79	0.673	0.654
17	R	26	49	0.380	0.759	26	49	0.363	0.725	52	98	0.331	0.661
	C	42	33	0.966	0.068 *	28	47	0.066	0.132	70	80	0.639	0.722
18	R	26	49	0.406	0.812	23	52	0.181	0.362	49	101	0.165	0.330
	C	26	49	0.025	0.051 *	40	35	0.905	0.190	66	84	0.365	0.730
19	R	26	49	0.368	0.736	23	52	0.146	0.292	49	101	0.193	0.386
	C	30	45	0.194	0.388	36	39	0.675	0.651	66	84	0.349	0.698
20	R	22	53	0.125	0.250	27	48	0.511	0.979	49	101	0.184	0.369
	C	35	40	0.554	0.892	34	41	0.465	0.930	69	81	0.537	0.926
	R	484	1016	0.000	0.001 **	516	984	0.055	0.110	1000	2000	0.000	0.001 **
	C	701	799	0.836	0.328	685	815	0.556	0.889	1386	1614	0.798	0.403

Notes: \*\* and \* denote rejection of minimax binomial model for a given card at the 5% and 10% level, respectively.

**Table B: PH-V: Students Playing Penalty Kick**

Pair	Player	First Half				Second Half				Overall			
		L	R	t	p-value	L	R	t	p-value	L	R	t	p-value
1	R	28	47	0.612	0.775	26	49	0.412	0.825	54	96	0.458	0.915
	C	32	43	0.356	0.713	26	49	0.025	0.050 *	58	92	0.046	0.091 *
2	R	37	38	0.987	0.026 **	27	48	0.486	0.971	64	86	0.948	0.103
	C	28	47	0.091	0.182	30	45	0.181	0.363	58	92	0.044	0.088 *
3	R	39	36	0.998	0.004 **	25	50	0.286	0.572	64	86	0.945	0.110
	C	33	42	0.389	0.778	25	50	0.018	0.035 **	58	92	0.047	0.095 *
4	R	32	43	0.889	0.221	32	43	0.854	0.293	64	86	0.950	0.100
	C	31	44	0.223	0.446	34	41	0.525	0.951	65	85	0.303	0.605
5	R	37	38	0.992	0.017 **	25	50	0.320	0.641	62	88	0.889	0.222
	C	31	44	0.219	0.438	27	48	0.059	0.118	58	92	0.050	0.099 *
6	R	32	43	0.853	0.294	30	45	0.759	0.481	62	88	0.885	0.230
	C	29	46	0.120	0.240	29	46	0.133	0.266	58	92	0.042	0.084 *
7	R	32	43	0.868	0.264	32	43	0.874	0.252	64	86	0.942	0.117
	C	36	39	0.652	0.697	25	50	0.018	0.036 **	61	89	0.125	0.250
8	R	36	39	0.981	0.037 **	25	50	0.308	0.615	61	89	0.846	0.309
	C	30	45	0.187	0.374	28	47	0.087	0.174	58	92	0.041	0.082 *
9	R	34	41	0.954	0.091 *	30	45	0.754	0.492	64	86	0.951	0.099 *
	C	26	49	0.037	0.074 *	33	42	0.370	0.741	59	91	0.062	0.124
10	R	29	46	0.698	0.604	28	47	0.569	0.863	57	93	0.651	0.699
	C	26	49	0.022	0.045 **	29	46	0.128	0.257	55	95	0.014	0.027 **
11	R	32	43	0.852	0.296	32	43	0.888	0.225	64	86	0.945	0.109
	C	35	40	0.580	0.840	37	38	0.754	0.493	72	78	0.757	0.486
12	R	32	43	0.869	0.263	31	44	0.822	0.356	63	87	0.911	0.178
	C	32	43	0.276	0.553	28	47	0.081	0.163	60	90	0.095	0.189
13	R	38	37	0.996	0.008 **	26	49	0.388	0.777	64	86	0.935	0.130
	C	33	42	0.365	0.730	26	49	0.025	0.051 *	59	91	0.076	0.152
14	R	25	50	0.258	0.516	18	57	0.008	0.016 **	43	107	0.021	0.043 **
	C	41	34	0.932	0.136	28	47	0.072	0.143	69	81	0.523	0.953
15	R	18	57	0.009	0.018 **	15	60	0.001	0.002 **	33	117	0.000	0.000 **
	C	36	39	0.682	0.636	30	45	0.170	0.340	66	84	0.386	0.773
16	R	33	42	0.925	0.151	36	39	0.976	0.049 **	69	81	0.992	0.016 **
	C	24	51	0.011	0.022 **	21	54	0.001	0.002 **	45	105	0.000	0.000 **
17	R	29	46	0.633	0.734	35	40	0.974	0.053 *	64	86	0.952	0.096 *
	C	26	49	0.022	0.045 **	29	46	0.125	0.250	55	95	0.017	0.034 **
18	R	31	44	0.829	0.342	30	45	0.744	0.511	61	89	0.880	0.239
	C	27	48	0.050	0.099 *	31	44	0.214	0.427	58	92	0.040	0.081 *
19	R	35	40	0.965	0.070 *	29	46	0.655	0.690	64	86	0.949	0.102
	C	27	48	0.059	0.119	32	43	0.307	0.614	59	91	0.066	0.133
20	R	33	42	0.906	0.189	30	45	0.755	0.490	63	87	0.931	0.138
	C	29	46	0.140	0.279	30	45	0.160	0.319	59	91	0.075	0.150
	R	642	858	1.000	0.000 **	562	938	0.812	0.376	1204	1796	1.000	0.000 **
	C	612	888	0.000	0.000 **	578	922	0.000	0.000 **	1190	1810	0.000	0.000 **

Notes: \*\* and \* denote rejection of minimax binomial model for a given card at the 5% and 10% level, respectively.

Figure A: *Right* Frequencies By Half

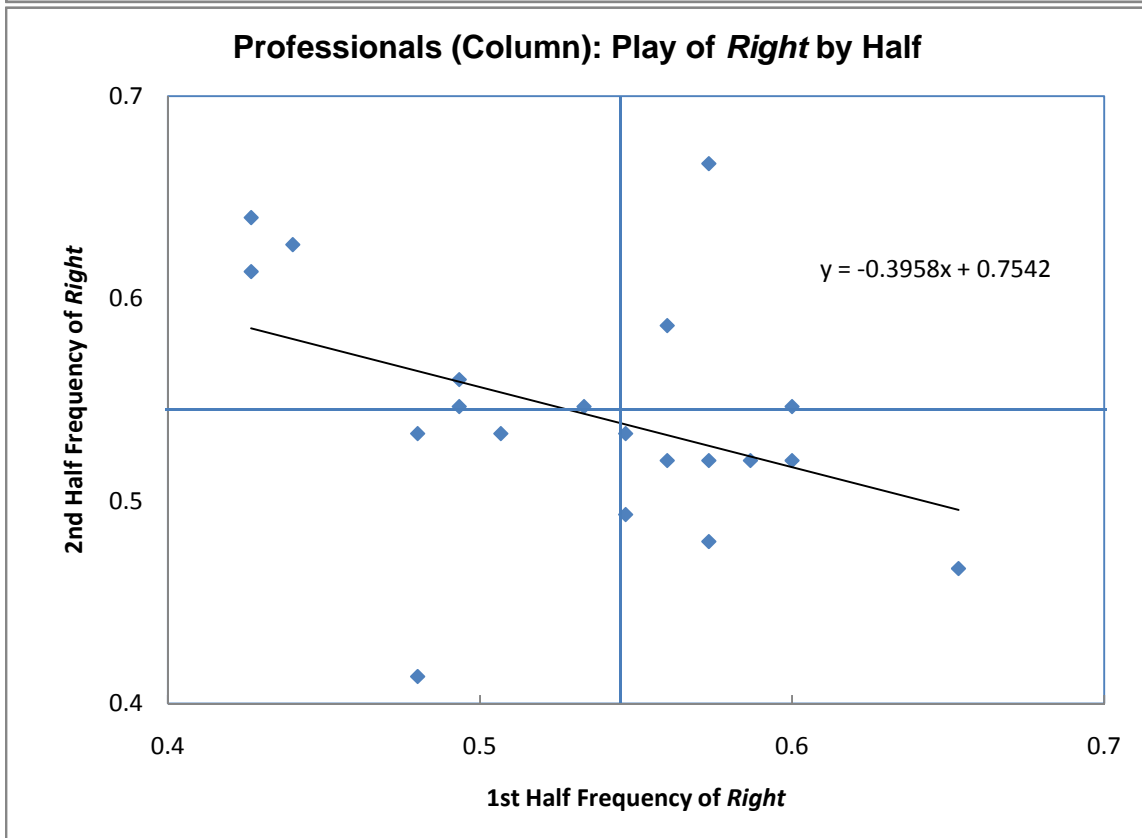
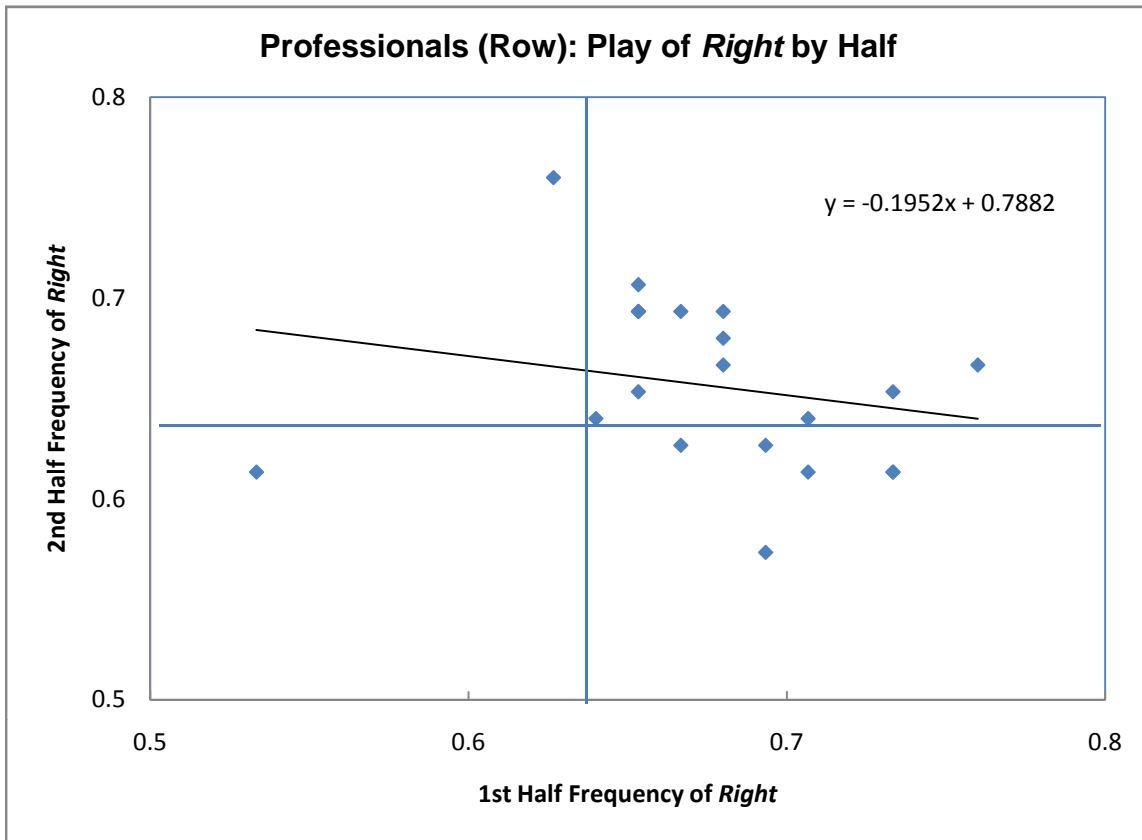


Figure B: *Right* Frequencies By Half

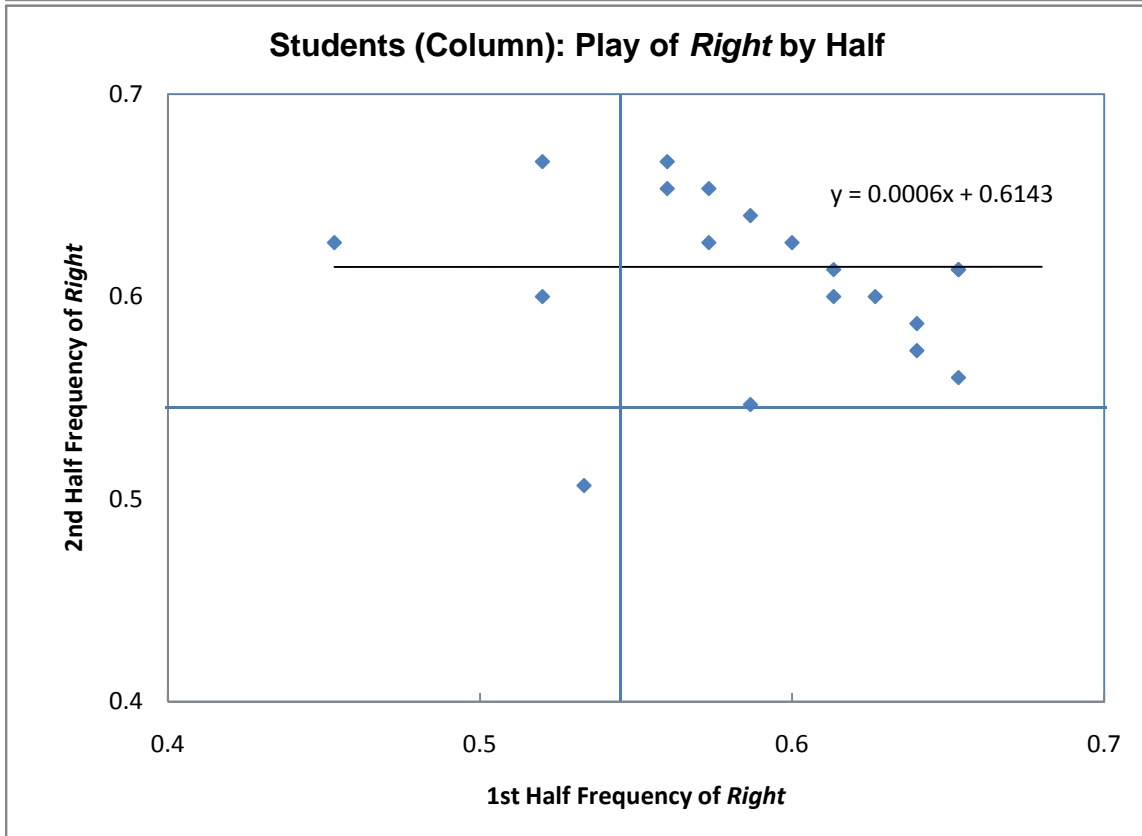
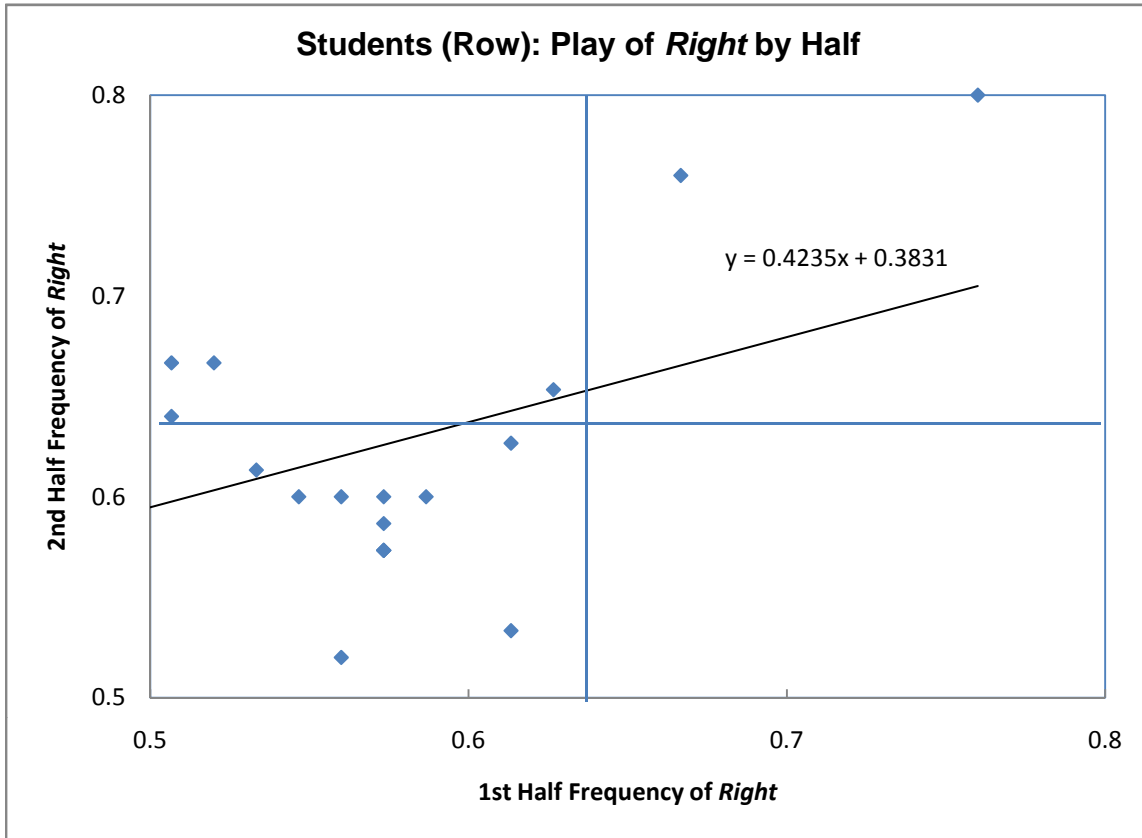


Figure C: KS test on First Half for Penalty Kick

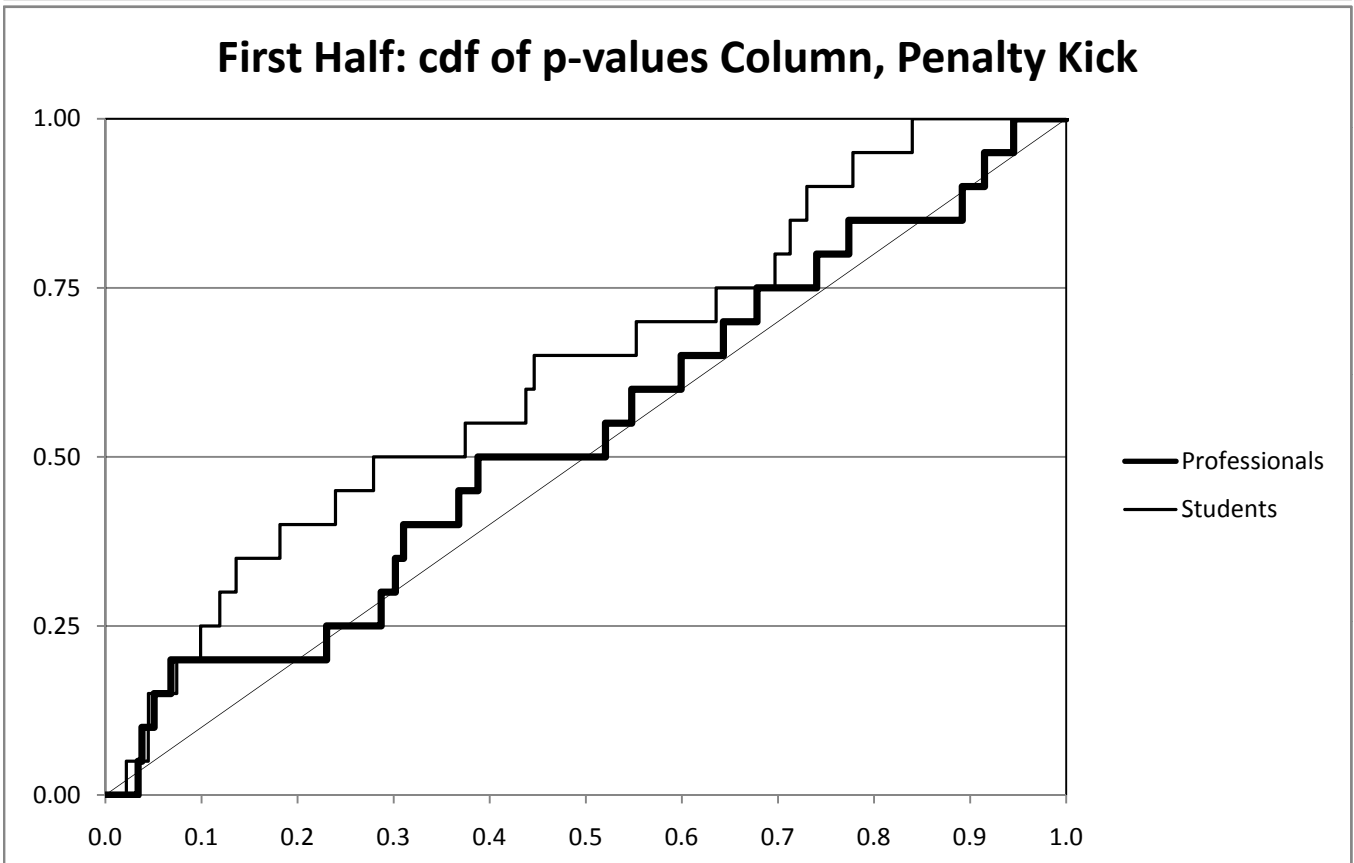
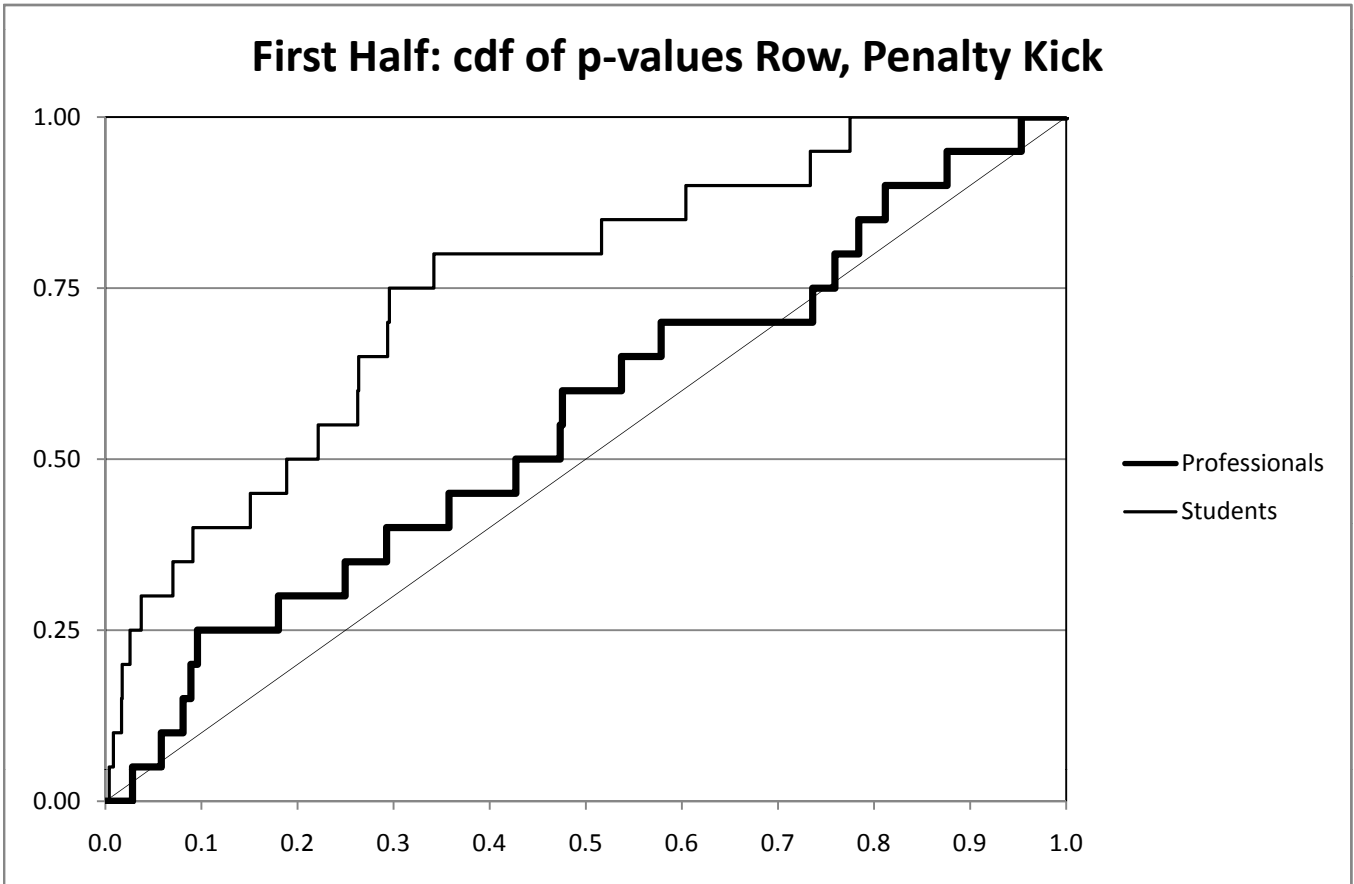


Figure D: KS test on Second Half for Penalty Kick

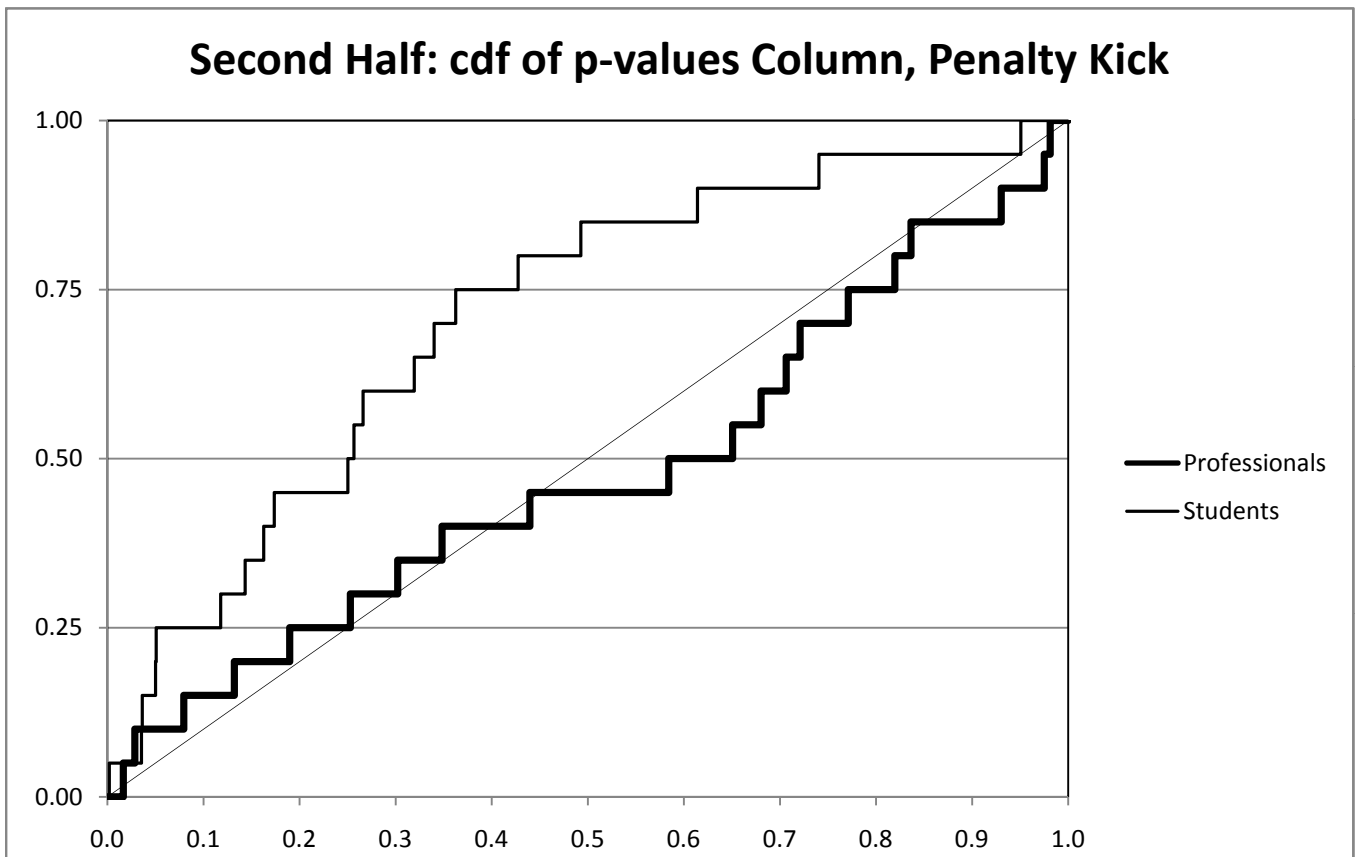
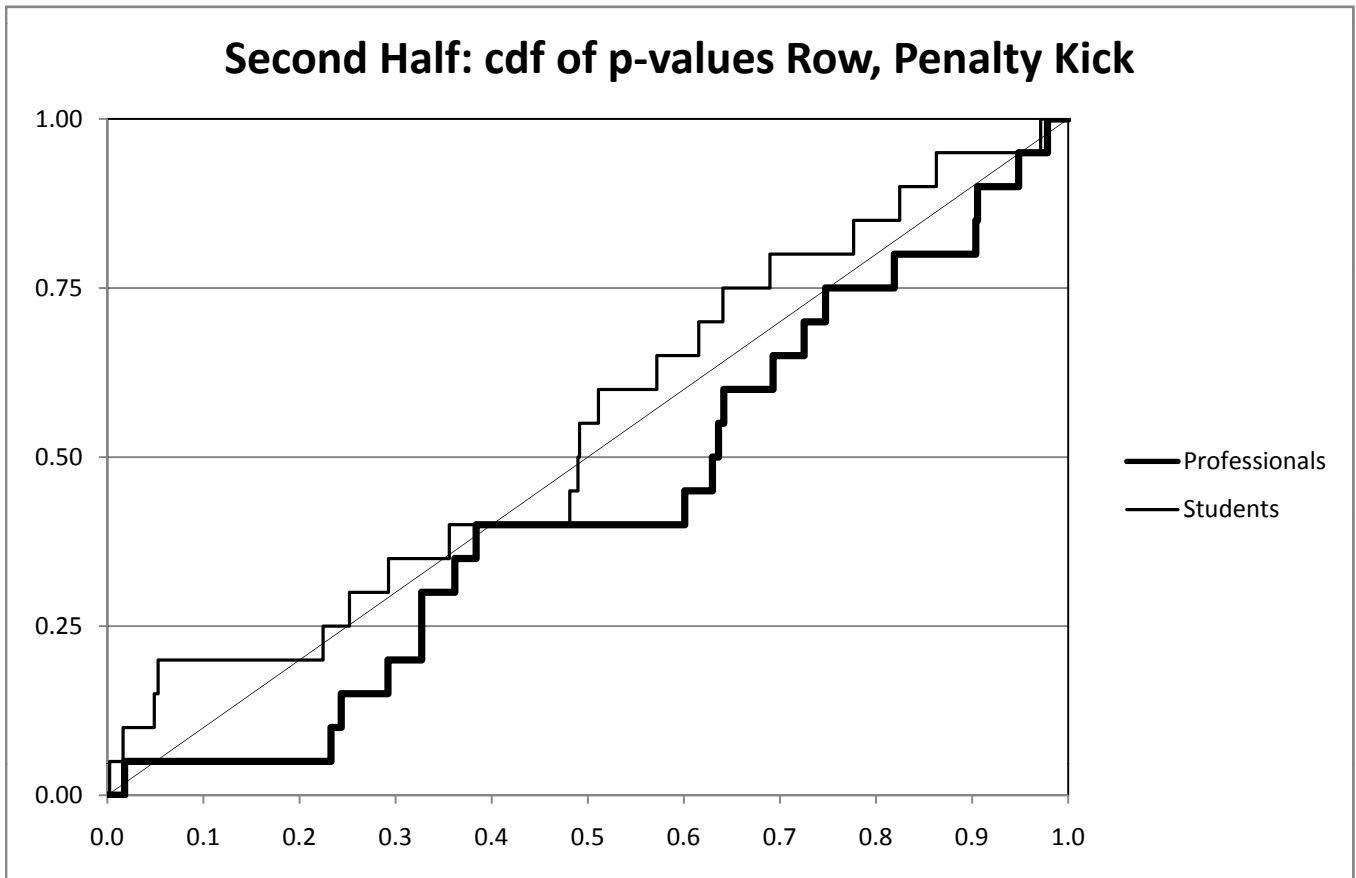


Figure E: KS test on Overall Data for Penalty Kick

