

# PS4

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## Question 1

Table 1: All-time Leader in Hits for Each Birth Country

Player	Country of Birth	Debut	Hits
Ichiro Suzuki	Japan	2001-04-02	262
George Sisler	USA	1915-06-28	257
Rod Carew	Panama	1967-04-11	239
Matty Alou	D.R.	1960-09-26	231
Tip O'Neill	CAN	1883-05-05	225
Jose Altuve	Venezuela	2011-07-20	225
Tony Oliva	Cuba	1962-09-09	217
Roberto Clemente	P.R.	1955-04-17	211
Vinny Castilla	Mexico	1991-09-01	206

## Question 2

a)

Table 2: Results for q2 (a)

rho	sigma	metric	method	est	se
-0.75	1	fwer	holm	0.0464000	0.0021035
-0.75	1	fwer	bonferroni	0.0453000	0.0020796
-0.75	1	fwer	BH	0.2535000	0.0043501
-0.75	1	fwer	BY	0.0363000	0.0018704
-0.75	1	fdr	holm	0.0121950	0.0006089
-0.75	1	fdr	bonferroni	0.0120279	0.0006076
-0.75	1	fdr	BH	0.0460991	0.0008756
-0.75	1	fdr	BY	0.0085378	0.0004963
-0.75	1	sens	holm	0.3256700	0.0015607
-0.75	1	sens	bonferroni	0.3226900	0.0015413
-0.75	1	sens	BH	0.5164400	0.0020634
-0.75	1	sens	BY	0.2860200	0.0018901
-0.75	1	spec	holm	0.9994656	0.0000246
-0.75	1	spec	bonferroni	0.9994800	0.0000242
-0.75	1	spec	BH	0.9964133	0.0000703
-0.75	1	spec	BY	0.9995767	0.0000224
-0.50	1	fwer	holm	0.0464000	0.0021035
-0.50	1	fwer	bonferroni	0.0450000	0.0020730
-0.50	1	fwer	BH	0.2504000	0.0043324
-0.50	1	fwer	BY	0.0365000	0.0018753
-0.50	1	fdr	holm	0.0126865	0.0006331
-0.50	1	fdr	bonferroni	0.0124253	0.0006286

rho	sigma	metric	method	est	se
-0.50	1	fdr	BH	0.0463997	0.0008860
-0.50	1	fdr	BY	0.0092066	0.0005376
-0.50	1	sens	holm	0.3118100	0.0015207
-0.50	1	sens	bonferroni	0.3089400	0.0015037
-0.50	1	sens	BH	0.5011000	0.0020387
-0.50	1	sens	BY	0.2699400	0.0018308
-0.50	1	spec	holm	0.9994756	0.0000240
-0.50	1	spec	bonferroni	0.9994922	0.0000236
-0.50	1	spec	BH	0.9965333	0.0000676
-0.50	1	spec	BY	0.9995844	0.0000216
-0.25	1	fwer	holm	0.0434000	0.0020376
-0.25	1	fwer	bonferroni	0.0417000	0.0019990
-0.25	1	fwer	BH	0.2437000	0.0042931
-0.25	1	fwer	BY	0.0351000	0.0018403
-0.25	1	fdr	holm	0.0115706	0.0006216
-0.25	1	fdr	bonferroni	0.0112427	0.0006169
-0.25	1	fdr	BH	0.0445423	0.0008751
-0.25	1	fdr	BY	0.0080842	0.0004835
-0.25	1	sens	holm	0.3317400	0.0015470
-0.25	1	sens	bonferroni	0.3284800	0.0015273
-0.25	1	sens	BH	0.5238800	0.0020262
-0.25	1	sens	BY	0.2927200	0.0018790
-0.25	1	spec	holm	0.9994956	0.0000242
-0.25	1	spec	bonferroni	0.9995167	0.0000236
-0.25	1	spec	BH	0.9965378	0.0000690
-0.25	1	spec	BY	0.9995844	0.0000224
0.00	1	fwer	holm	0.0443000	0.0020576
0.00	1	fwer	bonferroni	0.0432000	0.0020331
0.00	1	fwer	BH	0.2373000	0.0042543
0.00	1	fwer	BY	0.0329000	0.0017837
0.00	1	fdr	holm	0.0124785	0.0006702
0.00	1	fdr	bonferroni	0.0122868	0.0006682
0.00	1	fdr	BH	0.0445396	0.0008934
0.00	1	fdr	BY	0.0078910	0.0004827
0.00	1	sens	holm	0.3171200	0.0015045
0.00	1	sens	bonferroni	0.3144000	0.0014891
0.00	1	sens	BH	0.5037100	0.0019942
0.00	1	sens	BY	0.2760100	0.0018070
0.00	1	spec	holm	0.9994922	0.0000239
0.00	1	spec	bonferroni	0.9995067	0.0000235
0.00	1	spec	BH	0.9966278	0.0000685
0.00	1	spec	BY	0.9996200	0.0000210
0.25	1	fwer	holm	0.0435000	0.0020398
0.25	1	fwer	bonferroni	0.0420000	0.0020059
0.25	1	fwer	BH	0.2432000	0.0042901
0.25	1	fwer	BY	0.0359000	0.0018604
0.25	1	fdr	holm	0.0120285	0.0006373
0.25	1	fdr	bonferroni	0.0117713	0.0006342
0.25	1	fdr	BH	0.0436336	0.0008565
0.25	1	fdr	BY	0.0086195	0.0005096
0.25	1	sens	holm	0.3351200	0.0015004
0.25	1	sens	bonferroni	0.3321300	0.0014825

rho	sigma	metric	method	est	se
0.25	1	sens	BH	0.5299000	0.0019483
0.25	1	sens	BY	0.2967400	0.0018457
0.25	1	spec	holm	0.9995033	0.0000236
0.25	1	spec	bonferroni	0.9995211	0.0000232
0.25	1	spec	BH	0.9965900	0.0000675
0.25	1	spec	BY	0.9995900	0.0000215
0.50	1	fwer	holm	0.0453000	0.0020796
0.50	1	fwer	bonferroni	0.0436000	0.0020420
0.50	1	fwer	BH	0.2490000	0.0043243
0.50	1	fwer	BY	0.0377000	0.0019047
0.50	1	fdr	holm	0.0117495	0.0005989
0.50	1	fdr	bonferroni	0.0114934	0.0005961
0.50	1	fdr	BH	0.0446321	0.0008618
0.50	1	fdr	BY	0.0088071	0.0005019
0.50	1	sens	holm	0.3326600	0.0014996
0.50	1	sens	bonferroni	0.3295900	0.0014838
0.50	1	sens	BH	0.5258400	0.0019435
0.50	1	sens	BY	0.2947900	0.0018302
0.50	1	spec	holm	0.9994844	0.0000240
0.50	1	spec	bonferroni	0.9995033	0.0000236
0.50	1	spec	BH	0.9965289	0.0000680
0.50	1	spec	BY	0.9995656	0.0000224
0.75	1	fwer	holm	0.0442000	0.0020554
0.75	1	fwer	bonferroni	0.0424000	0.0020150
0.75	1	fwer	BH	0.2473000	0.0043144
0.75	1	fwer	BY	0.0356000	0.0018529
0.75	1	fdr	holm	0.0117292	0.0006000
0.75	1	fdr	bonferroni	0.0113969	0.0005952
0.75	1	fdr	BH	0.0452254	0.0008753
0.75	1	fdr	BY	0.0087321	0.0005188
0.75	1	sens	holm	0.3251100	0.0014894
0.75	1	sens	bonferroni	0.3222000	0.0014727
0.75	1	sens	BH	0.5165100	0.0019562
0.75	1	sens	BY	0.2849100	0.0018129
0.75	1	spec	holm	0.9994933	0.0000239
0.75	1	spec	bonferroni	0.9995178	0.0000232
0.75	1	spec	BH	0.9965344	0.0000679
0.75	1	spec	BY	0.9995867	0.0000220

**b) c) Results are in the corresponding files.**

Since I didn't get my flux account in time, Prof. Henderson excused me from the flux portions of the assignment and asked me to do something else. Here is the requirement:

"You should still do Q2 parts b and c but:

for 2b, you can simply run your script on mario or luigi (scs.dsc.umich.edu)

for 2c, you should still right a script that runs in batch mode but you don't need to use a job array to run it.

Instead of using a job array for 2c, run your script as `Rscript ps4_q2c.R sigma mc_rep n_cores` (manually) for each of the different values of sigma."

Thus, the files I submitted are: `ps4_q2_funcs.R`, `ps4_q2a.R`, `ps4_q2b.R`, `ps4_q2c.R`, `ps4_q2b.Rout`, `results_q4b.RData`, `ps4_q2c-X.Rout` ( $X = 1, 2, 4$ ), and “cmd for Rout files.txt” (a txt file including my cmd lines).