

Appendix

2024-08-15

Figure 1 - Normalized RMSE of Successive Imputations: MICE vs missForest

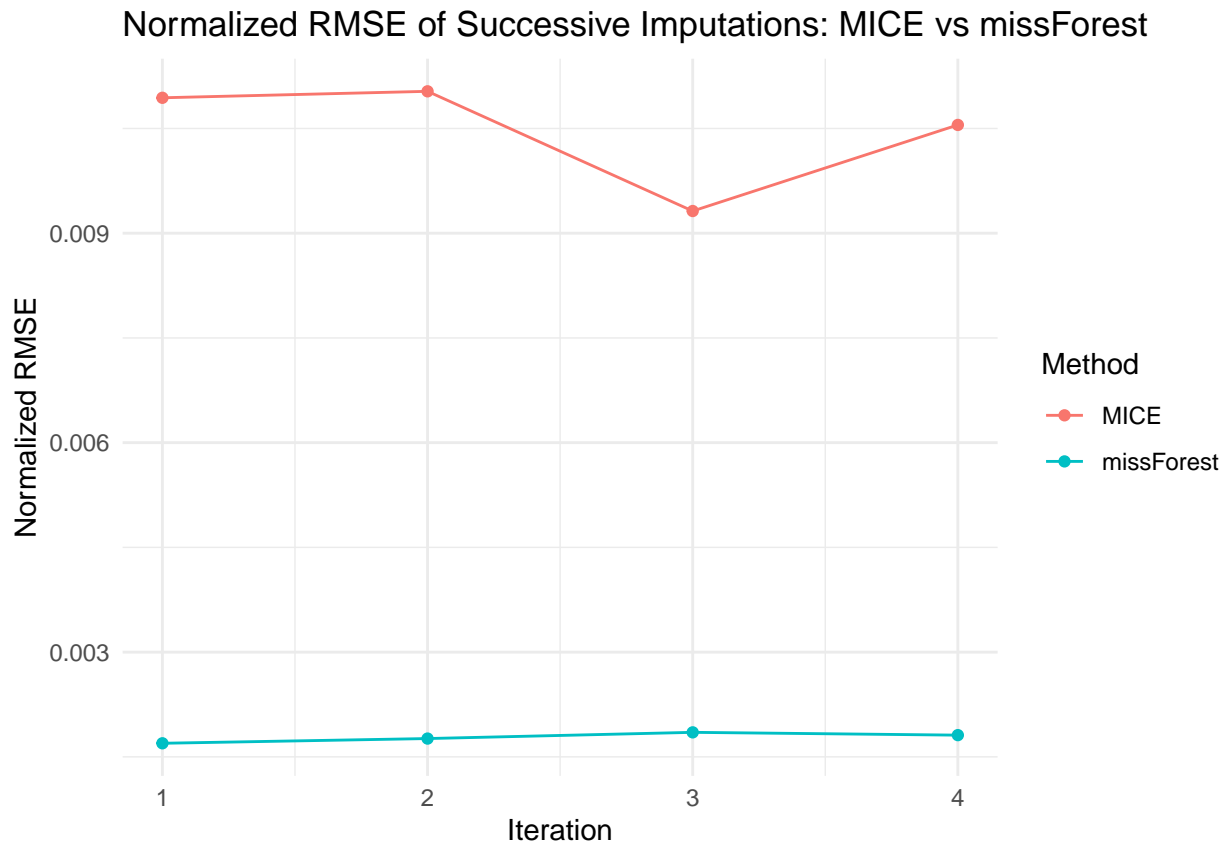


Figure 2 - Peaceful Analysis: Comparison of Means for Removed vs. Not Removed Rows

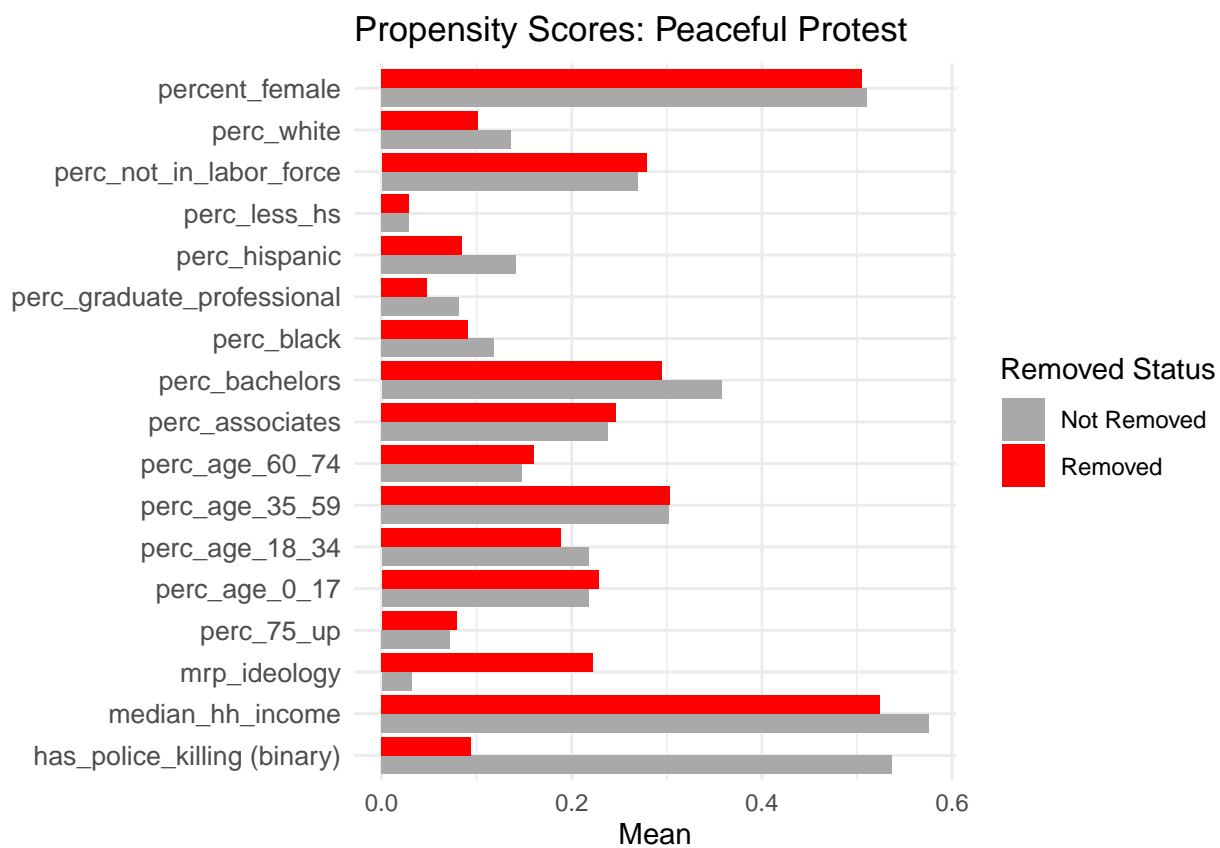


Figure 3 - Violent Analysis: Comparison of Means for Removed vs. Not Removed Rows

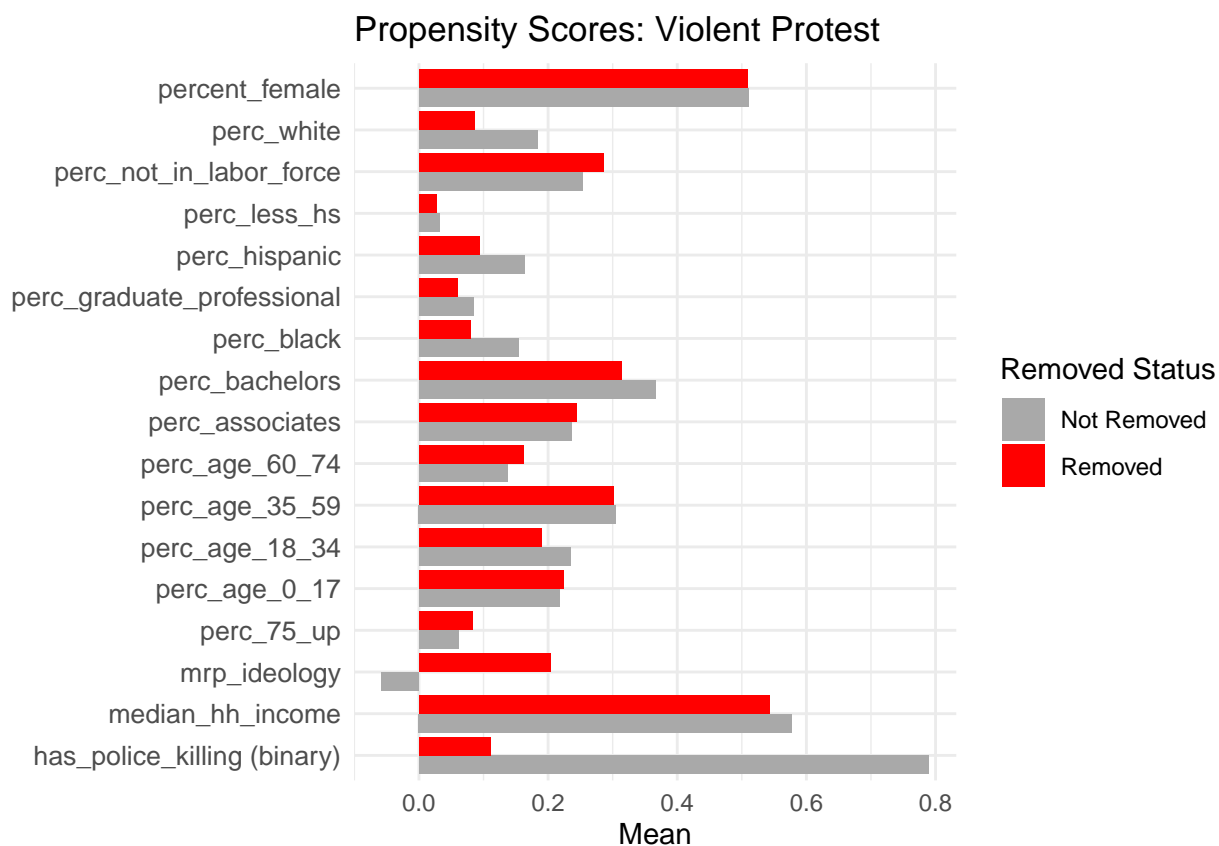


Table 1 - Summary Stats Comparing Imputed vs. Original Data

Statistic: 2019 Budget	Imputed	Original	Statistic: 2020 Budget	Imputed	Original
Min.	0	0	Min.	0	0
1st Qu..25%	812,458	780,958	1st Qu..25%	828,605	809,000
Median	3,379,262	3,500,000	Median	3,465,179	3,617,880
Mean	27,653,294	32,079,766	Mean	25,776,958	29,699,647
3rd Qu..75%	17,948,947	20,000,000	3rd Qu..75%	18,026,674	20,701,825
Max.	6,476,471,967	6,476,471,967	Max.	5,500,000,000	5,500,000,000
NA's	0	779	NA's	0	780

Statistic: 2021 Budget	Imputed	Original
Min.	0	0
1st Qu..25%	960,919	1,414,839
Median	3,252,206	6,950,699
Mean	26,039,525	36,472,230
3rd Qu..75%	16,651,818	25,817,561
Max.	5,400,000,000	5,400,000,000
NA's	0	1,141

Table 2 - Peaceful Analysis Parallel Trends

Variable	Estimate	Std_Error	t_value	P_Value
(Intercept)	24016923.66	2268347	10.5878529	0.0000000
peaceful__protest	4676973.08	3207927	1.4579425	0.1448858
factor(year)2013	-5488310.72	3207927	-1.7108590	0.0871362
factor(year)2016	-3149643.63	3207927	-0.9818315	0.3262052
factor(year)2020	-12061.39	3207927	-0.0037599	0.9970001
factor(year)2021	175864.36	3207927	0.0548218	0.9562815
peaceful__protest:factor(year)2013	-5379623.57	4536694	-1.1858026	0.2357267
peaceful__protest:factor(year)2016	-5657220.95	4536694	-1.2469920	0.2124278
peaceful__protest:factor(year)2020	-6008832.39	4536694	-1.3244959	0.1853668
peaceful__protest:factor(year)2021	-6400517.38	4536694	-1.4108330	0.1583230

Table 3 - Violent Analysis Parallel Trends

Variable	Estimate	Std_Error	t_value	P_Value
(Intercept)	34337749.7	6977604	4.9211378	0.0000009
violent__protest	75469262.9	12085564	6.2445791	0.0000000
factor(year)2013	-7617799.4	9867822	-0.7719839	0.4401519
factor(year)2016	-3916444.3	9867822	-0.3968905	0.6914612
factor(year)2020	-543613.5	9867822	-0.0550895	0.9560688
factor(year)2021	-1132432.1	9867822	-0.1147601	0.9086388
violent__protest:factor(year)2013	-18716736.1	17091569	-1.0950859	0.2735194
violent__protest:factor(year)2016	-9014512.7	17091569	-0.5274245	0.5979167
violent__protest:factor(year)2020	1078821.2	17091569	0.0631201	0.9496728
violent__protest:factor(year)2021	2148159.1	17091569	0.1256853	0.8999849

Table 4 - Peaceful Analysis Pre Matching

Variable	Control Mean	Treatment Mean	Control Std Dev	Treatment Std Dev	Control Percentage	Treatment Percentage
Ideology	0.13502	0.03518	0.23210	0.19073	NA	NA
Percent Female	0.50825	0.51028	0.04427	0.02557	NA	NA
Percent Age 0-17	0.22362	0.21724	0.05782	0.04708	NA	NA
Percent Age 18-34	0.22559	0.24561	0.07184	0.07807	NA	NA
Percent Age 35-59	0.30284	0.30230	0.04996	0.04249	NA	NA
Percent Age 60-74	0.16881	0.15976	0.05698	0.04484	NA	NA
Percent Age 75+	0.07913	0.07507	0.04039	0.03098	NA	NA
Percent Black	0.12343	0.13024	0.18383	0.16112	NA	NA
Percent White	0.73330	0.68874	0.21664	0.19206	NA	NA
Percent Hispanic	0.12705	0.16404	0.16881	0.17801	NA	NA
Percent Less Than High School	0.02988	0.02948	0.02814	0.02293	NA	NA
Percent Associates	0.06204	0.05809	0.02648	0.01916	NA	NA
Percent Bachelors	0.11284	0.13323	0.06113	0.05914	NA	NA
Percent Graduate/Professional	0.06603	0.08743	0.05231	0.05808	NA	NA
Percent Not in Labor Force	0.31861	0.31026	0.08509	0.06688	NA	NA
Median Household Income	64981.44798	71287.30671	27732.37179	29230.27653	NA	NA
Has Police Killing	NA	NA	NA	NA	0.2917716	0.5393258

Table 5 - Violent Analysis Pre Matching

Variable	Control Mean	Treatment Mean	Control Std Dev	Treatment Std Dev	Control Percentage	Treatment Percentage
Ideology	0.13797	-0.12992	0.21037	0.17776	NA	NA
Percent Female	0.50870	0.51015	0.04190	0.01339	NA	NA
Percent Age 0-17	0.22288	0.21312	0.05717	0.03292	NA	NA
Percent Age 18-34	0.22491	0.27931	0.07336	0.06331	NA	NA
Percent Age 35-59	0.30254	0.30357	0.04969	0.03136	NA	NA
Percent Age 60-74	0.16920	0.14397	0.05599	0.02377	NA	NA
Percent Age 75+	0.08045	0.06004	0.03935	0.01493	NA	NA
Percent Black	0.11433	0.20300	0.17653	0.16127	NA	NA
Percent White	0.73979	0.57930	0.20930	0.15729	NA	NA
Percent Hispanic	0.13213	0.18253	0.17308	0.16222	NA	NA
Percent Less Than High School	0.02942	0.03205	0.02737	0.02076	NA	NA
Percent Associates	0.06172	0.05460	0.02568	0.01231	NA	NA
Percent Bachelors	0.11544	0.14483	0.06220	0.04681	NA	NA
Percent Graduate/Professional	0.06907	0.09746	0.05544	0.04508	NA	NA
Percent Not in Labor Force	0.32070	0.28371	0.08339	0.03689	NA	NA
Median Household Income	66533.32603	69700.01835	29002.98680	23187.94572	NA	NA
Has Police Killing	NA	NA	NA	NA	0.2936297	0.8853211

Table 6 - DID Analysis Pre-Matching Peaceful

Variable	Estimate	Std_Error	t_value	P_Value
(Intercept)	27186727.1	3308143	8.2181232	0.0000000
peaceful_protest	1507169.7	5945771	0.2534860	0.7999003
time	453579.5	4678421	0.0969514	0.9227678
peaceful_protest:time	-6678232.5	8408590	-0.7942155	0.4270973

Table 7 - DID Analysis Pre-Matching Violent

Variable	Estimate	Std_Error	t_value	P_Value
(Intercept)	15769080	2883642	5.468459	0.0000000
violent_protest	94037932	8111621	11.592989	0.0000000
time	-1994147	4078086	-0.488991	0.6248636
violent_protest:time	3009874	11471565	0.262377	0.7930387

Table 8 - Peaceful Analysis Post-Matching

Variable	Control Mean	Treatment Mean	Control Std Dev	Treatment Std Dev	Control Percentage	Treatment Percentage
Ideology	0.02782	0.03518	0.22418	0.19073	NA	NA
Percent Female	0.51142	0.51028	0.03641	0.02557	NA	NA
Percent Age 0-17	0.21807	0.21724	0.05215	0.04708	NA	NA
Percent Age 18-34	0.21748	0.21779	0.05752	0.05966	NA	NA
Percent Age 35-59	0.30191	0.30230	0.04604	0.04249	NA	NA
Percent Age 60-74	0.14789	0.14749	0.03985	0.03768	NA	NA
Percent Age 75+	0.07146	0.07199	0.03342	0.02807	NA	NA
Percent Black	0.12276	0.11367	0.13696	0.12779	NA	NA
Percent White	0.13892	0.13374	0.15514	0.15506	NA	NA
Percent Hispanic	0.14162	0.14182	0.14303	0.13712	NA	NA
Percent Less Than High School	0.02916	0.02881	0.02577	0.02187	NA	NA
Percent Associates	0.23814	0.23749	0.04471	0.04113	NA	NA
Percent Bachelors	0.35844	0.35649	0.08528	0.07844	NA	NA
Percent Graduate/Professional	0.08115	0.08246	0.05116	0.05132	NA	NA
Percent Not in Labor Force	0.26953	0.26897	0.05592	0.04985	NA	NA
Median Household Income	0.57435	0.57705	0.12211	0.11789	NA	NA
Has Police Killing	NA	NA	NA	NA	0.5346442	0.5393258

Table 9 - Violent Analysis Post-Matching

Variable	Control Mean	Treatment Mean	Control Std Dev	Treatment Std Dev	Control Percentage	Treatment Percentage
Ideology	-0.02185	-0.12992	0.18278	0.17776	NA	NA
Percent Female	0.50994	0.51015	0.02393	0.01339	NA	NA
Percent Age 0-17	0.22025	0.21312	0.04170	0.03292	NA	NA
Percent Age 18-34	0.22924	0.24515	0.04303	0.04808	NA	NA
Percent Age 35-59	0.30587	0.30357	0.03662	0.03136	NA	NA
Percent Age 60-74	0.13949	0.13429	0.02737	0.02067	NA	NA
Percent Age 75+	0.06273	0.05821	0.01970	0.01401	NA	NA
Percent Black	0.14215	0.17644	0.14686	0.12750	NA	NA
Percent White	0.17546	0.20167	0.17732	0.14191	NA	NA
Percent Hispanic	0.16473	0.15933	0.15220	0.12553	NA	NA
Percent Less Than High School	0.03166	0.03135	0.02499	0.01974	NA	NA
Percent Associates	0.23806	0.23217	0.03717	0.02638	NA	NA
Percent Bachelors	0.36195	0.37559	0.07623	0.06137	NA	NA
Percent Graduate/Professional	0.08083	0.09218	0.04691	0.04031	NA	NA
Percent Not in Labor Force	0.25451	0.24934	0.04158	0.02863	NA	NA
Median Household Income	0.57805	0.57699	0.11014	0.09776	NA	NA
Has Police Killing	NA	NA	NA	NA	0.7419725	0.8853211

Table 10 - DID Analysis Post-Matching Peaceful

Variable	Estimate	Std_Error	t_value	P_Value
(Intercept)	24016923.7	3313409	7.2484035	0.0000000
peaceful_protest	4676973.1	4685868	0.9981018	0.3182866
time	175864.4	4685868	0.0375308	0.9700635
peaceful_protest:time	-6400517.4	6626818	-0.9658509	0.3341735

Table 11 - DID Analysis Post-Matching Violent

Variable	Estimate	Std_Error	t_value	P_Value
(Intercept)	34337750	7517747	4.5675588	0.0000052
violent_protest	75469263	13021119	5.7959122	0.0000000
time	-1132432	10631699	-0.1065147	0.9151822
violent_protest:time	2148159	18414643	0.1166549	0.9071425