Simulation Comparing Factor Analysis, Mice, Average, and Truth
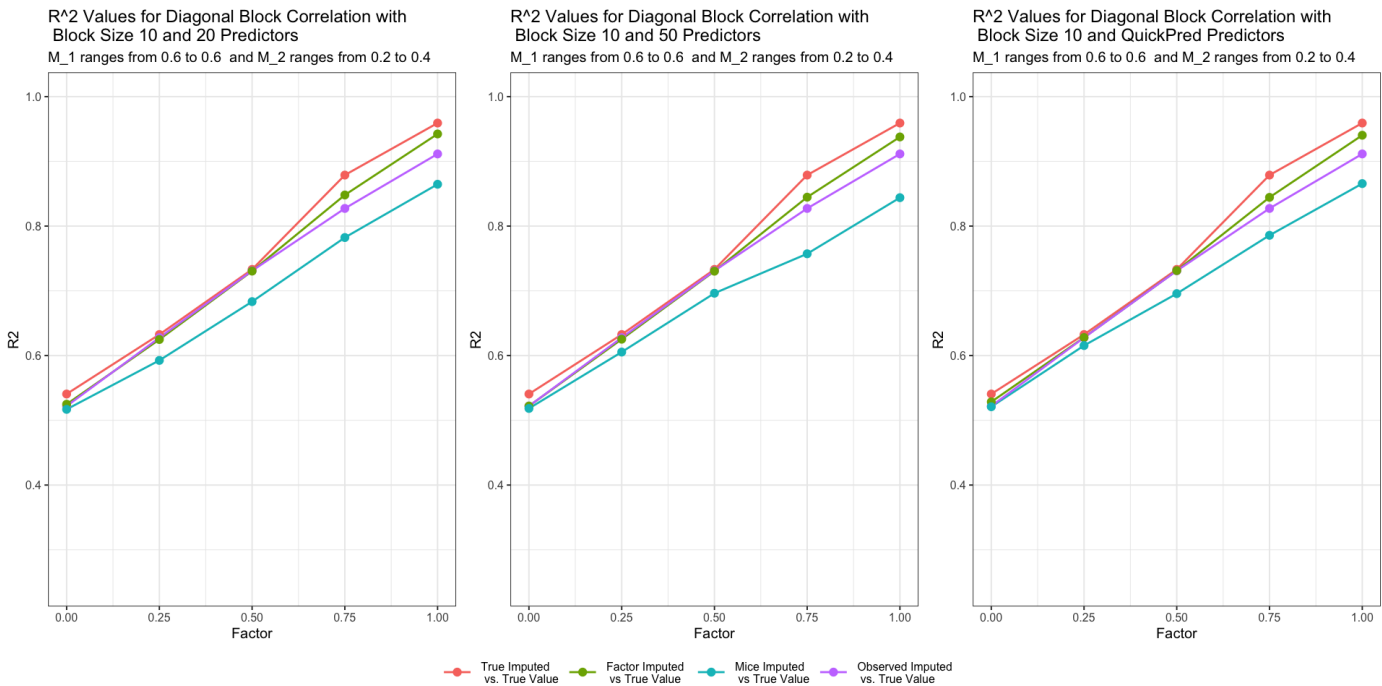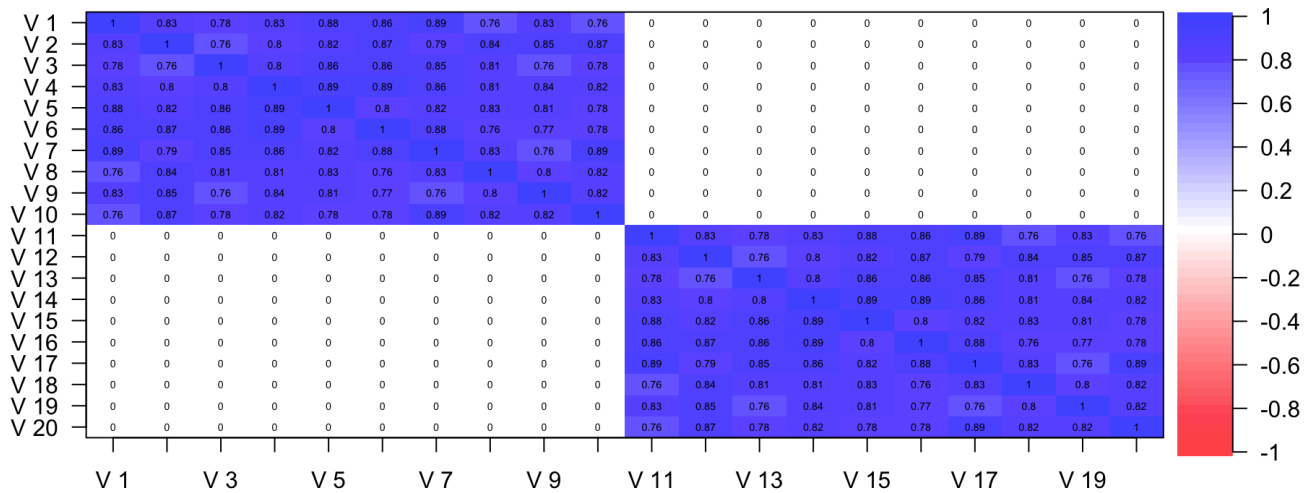
R^2 Values for Diagonal Block Correlation with Block Size 10 and 20 Predictors
M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0.2 to 0.4

R^2 Values for Diagonal Block Correlation with Block Size 10 and 50 Predictors
M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0.2 to 0.4
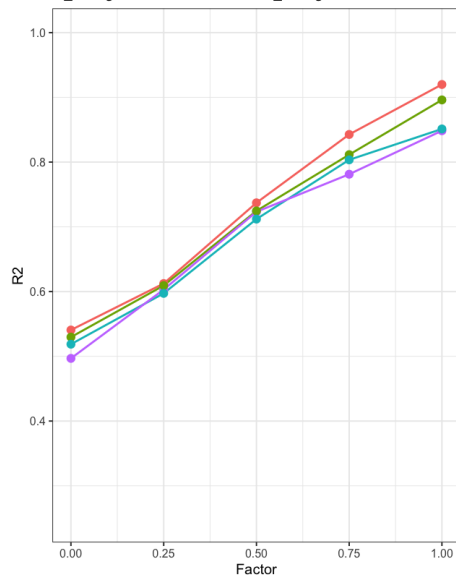
R^2 Values for Diagonal Block Correlation with Block Size 10 and QuickPred Predictors
M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0.2 to 0.4

Legend:
- True Imputed vs. True Value
- Factor Imputed vs True Value
- Mice Imputed vs True Value
- Observed Imputed vs. True Value

Mice Median Correlation V3-V6 Removed. True Factor = 1

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
V1	1.01	0.8	0.76	0.81	0.86	0.84	0.88	0.74	0.82	0.75	0	0	0	0	0	0	0	0	0	0
V2	0.8	1.01	0.66	0.61	0.67	0.75	0.77	0.83	0.84	0.86	0	0	0	0	0	0	0	0	0	0
V3	0.76	0.66	1.01	0.72	0.69	0.67	0.73	0.77	0.71	0.68	0	0	0	0	0	0	0	0	0	0
V4	0.81	0.61	0.72	1.01	0.71	0.74	0.85	0.78	0.75	0.75	0	0	0	0	0	0	0	0	0	0
V5	0.86	0.67	0.69	0.71	1.01	0.8	0.79	0.78	0.75	0.74	0	0	0	0	0	0	0	0	0	0
V6	0.84	0.75	0.67	0.74	0.8	1.01	0.67	0.74	0.73	0.72	0	0	0	0	0	0	0	0	0	0
V7	0.88	0.77	0.73	0.85	0.79	0.67	1.01	0.81	0.74	0.87	0	0	0	0	0	0	0	0	0	0
V8	0.74	0.83	0.77	0.78	0.78	0.74	0.81	1.01	0.78	0.82	0	0	0	0	0	0	0	0	0	0
V9	0.82	0.84	0.71	0.75	0.75	0.73	0.74	0.78	1.01	0.81	0	0	0	0	0	0	0	0	0	0
V10	0.75	0.86	0.68	0.75	0.74	0.72	0.87	0.82	0.81	1.01	0	0	0	0	0	0	0	0	0	0
V11	0	0	0	0	0	0	0	0	0	0	1.01	0.83	0.79	0.82	0.87	0.85	0.89	0.77	0.84	0.77
V12	0	0	0	0	0	0	0	0	0	0	0.83	1.01	0.77	0.8	0.82	0.87	0.79	0.84	0.86	0.88
V13	0	0	0	0	0	0	0	0	0	0	0.79	0.77	1.01	0.81	0.86	0.85	0.86	0.8	0.77	0.8
V14	0	0	0	0	0	0	0	0	0	0	0.82	0.8	0.81	1.01	0.89	0.89	0.86	0.81	0.84	0.82
V15	0	0	0	0	0	0	0	0	0	0	0.87	0.82	0.86	0.89	1.01	0.79	0.82	0.83	0.82	0.8
V16	0	0	0	0	0	0	0	0	0	0	0.85	0.87	0.85	0.89	0.79	1.01	0.87	0.75	0.79	0.79
V17	0	0	0	0	0	0	0	0	0	0	0.89	0.79	0.86	0.86	0.82	0.87	1.01	0.78	0.89	
V18	0	0	0	0	0	0	0	0	0	0	0.77	0.84	0.8	0.81	0.83	0.75	0.83	1.01	0.82	0.83
V19	0	0	0	0	0	0	0	0	0	0	0.84	0.86	0.77	0.84	0.82	0.79	0.78	0.82	1.01	0.83
V20	0	0	0	0	0	0	0	0	0	0	0.77	0.88	0.8	0.82	0.8	0.79	0.89	0.83	0.83	1.01

Color scale: 1.01, 0.809, 0.608, 0.407, 0.206, 0.004, -0.190, -0.397, -0.598, -0.799, -1

Factor Analysis Correlation V3-V6 Removed. True Factor = 1

	V 1	V 3	V 5	V 7	V 9	V 11	V 13	V 15	V 17	V 19
V 1	1.01 0.82 0.77 0.82 0.85 0.84	0.84 0.74 0.8 0.76				0 0 0 0 0 0 0 0 0 0				
V 2	0.82 1.01 0.74 0.78 0.78 0.83	0.78 0.82 0.83 0.82				0 0 0 0 0 0 0 0 0 0				
V 3	0.77 0.74 1.01 0.78 0.82 0.83	0.81 0.77 0.72 0.74				0 0 0 0 0 0 0 0 0 0				
V 4	0.82 0.78 0.78 1.01 0.85 0.86	0.83 0.76 0.79 0.79				0 0 0 0 0 0 0 0 0 0				
V 5	0.85 0.78 0.82 0.85 1.01 0.79	0.79 0.79 0.78 0.74				0 0 0 0 0 0 0 0 0 0				
V 6	0.84 0.83 0.83 0.86 0.79 1.01	0.83 0.74 0.74 0.76				0 0 0 0 0 0 0 0 0 0				
V 7	0.84 0.78 0.81 0.83 0.79 0.83	1.01 0.78 0.74 0.87				0 0 0 0 0 0 0 0 0 0				
V 8	0.74 0.82 0.77 0.76 0.79 0.74	0.78 1.01 0.77 0.8				0 0 0 0 0 0 0 0 0 0				
V 9	0.8 0.83 0.72 0.79 0.78 0.74	0.74 0.77 1.01 0.78				0 0 0 0 0 0 0 0 0 0				
V 10	0.76 0.82 0.74 0.79 0.74 0.76	0.87 0.8 0.78 1.01				0 0 0 0 0 0 0 0 0 0				
V 11	0 0 0 0 0 0 0 0 0 0					1.01 0.81 0.78 0.83 0.85 0.82 0.85 0.74 0.81 0.75				
V 12	0 0 0 0 0 0 0 0 0 0					0.81 1.01 0.74 0.78 0.79 0.83 0.77 0.8 0.83 0.84				
V 13	0 0 0 0 0 0 0 0 0 0					0.78 0.74 1.01 0.8 0.82 0.82 0.83 0.8 0.73 0.76				
V 14	0 0 0 0 0 0 0 0 0 0					0.83 0.78 0.8 1.01 0.84 0.84 0.85 0.76 0.81 0.79				
V 15	0 0 0 0 0 0 0 0 0 0					0.85 0.79 0.82 0.84 1.01 0.8 0.82 0.81 0.8 0.76				
V 16	0 0 0 0 0 0 0 0 0 0					0.82 0.83 0.82 0.84 0.8 1.01 0.86 0.76 0.76 0.78				
V 17	0 0 0 0 0 0 0 0 0 0					0.85 0.77 0.83 0.85 0.82 0.86 1.01 0.8 0.75 0.87				
V 18	0 0 0 0 0 0 0 0 0 0					0.74 0.8 0.8 0.76 0.81 0.76 0.81 1.01 0.78 0.82				
V 19	0 0 0 0 0 0 0 0 0 0					0.81 0.83 0.73 0.81 0.8 0.76 0.75 0.78 1.01 0.8				
V 20	0 0 0 0 0 0 0 0 0 0					0.75 0.84 0.76 0.79 0.76 0.78 0.87 0.82 0.8 1.01				

Legend: 1.01, 0.809, 0.608, 0.407, 0.206, 0.004, -0.19, -0.397, -0.598, -0.799, -1

True Correlation V3-V6 Removed. True Factor = 1

	V 1	V 3	V 5	V 7	V 9	V 11	V 13	V 15	V 17	V 19
V 1	1 0.83 0.78 0.83 0.88 0.86	0.89 0.76 0.83 0.76				0 0 0 0 0 0 0 0 0 0				
V 2	0.83 1 0.76 0.8 0.82 0.87	0.79 0.84 0.85 0.87				0 0 0 0 0 0 0 0 0 0				
V 3	0.78 0.76 1 0.8 0.86 0.86	0.85 0.81 0.76 0.78				0 0 0 0 0 0 0 0 0 0				
V 4	0.83 0.8 0.8 1 0.89 0.89	0.86 0.81 0.84 0.82				0 0 0 0 0 0 0 0 0 0				
V 5	0.88 0.82 0.86 0.89 1 0.8	0.82 0.83 0.81 0.78				0 0 0 0 0 0 0 0 0 0				
V 6	0.86 0.87 0.86 0.89 0.8 1	0.88 0.76 0.77 0.78				0 0 0 0 0 0 0 0 0 0				
V 7	0.89 0.79 0.85 0.86 0.82 0.88	1 0.83 0.76 0.89				0 0 0 0 0 0 0 0 0 0				
V 8	0.76 0.84 0.81 0.81 0.83 0.76	0.83 1 0.8 0.82				0 0 0 0 0 0 0 0 0 0				
V 9	0.83 0.85 0.76 0.84 0.81 0.77	0.76 0.8 1 0.82				0 0 0 0 0 0 0 0 0 0				
V 10	0.76 0.87 0.78 0.82 0.78 0.78	0.89 0.82 0.82 1				0 0 0 0 0 0 0 0 0 0				
V 11	0 0 0 0 0 0 0 0 0 0					1 0.83 0.78 0.83 0.88 0.86 0.89 0.76 0.83 0.76				
V 12	0 0 0 0 0 0 0 0 0 0					0.83 1 0.76 0.8 0.82 0.87 0.79 0.84 0.85 0.87				
V 13	0 0 0 0 0 0 0 0 0 0					0.78 0.76 1 0.8 0.86 0.86 0.85 0.81 0.76 0.78				
V 14	0 0 0 0 0 0 0 0 0 0					0.83 0.8 0.8 1 0.89 0.89 0.86 0.81 0.84 0.82				
V 15	0 0 0 0 0 0 0 0 0 0					0.88 0.82 0.86 0.89 1 0.8 0.82 0.83 0.81 0.78				
V 16	0 0 0 0 0 0 0 0 0 0					0.86 0.87 0.86 0.89 0.8 1 0.88 0.76 0.77 0.78				
V 17	0 0 0 0 0 0 0 0 0 0					0.89 0.79 0.85 0.86 0.82 0.88 1 0.83 0.76 0.89				
V 18	0 0 0 0 0 0 0 0 0 0					0.76 0.84 0.81 0.81 0.83 0.76 0.83 1 0.8 0.82				
V 19	0 0 0 0 0 0 0 0 0 0					0.83 0.85 0.76 0.84 0.81 0.77 0.76 0.8 1 0.82				
V 20	0 0 0 0 0 0 0 0 0 0					0.76 0.87 0.78 0.82 0.78 0.78 0.89 0.82 0.82 1				

Legend: 1, 0.8, 0.6, 0.4, 0.2, 0, -0.2, -0.4, -0.6, -0.8, -1

R^2 Values for Diagonal Block Correlation with Block Size 10 and 20 Predictors
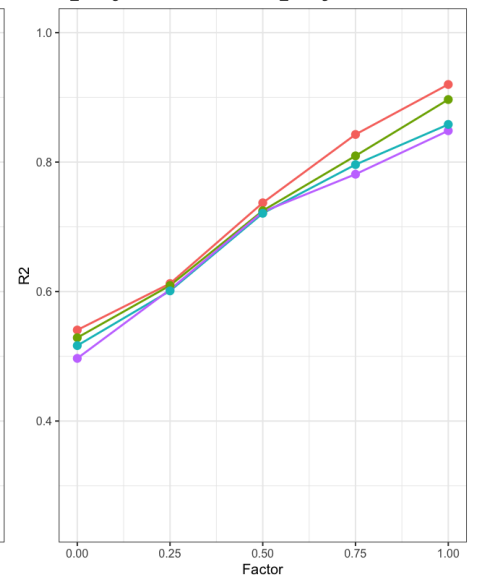M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0 to 0.4

R^2 Values for Diagonal Block Correlation with Block Size 10 and 50 Predictors
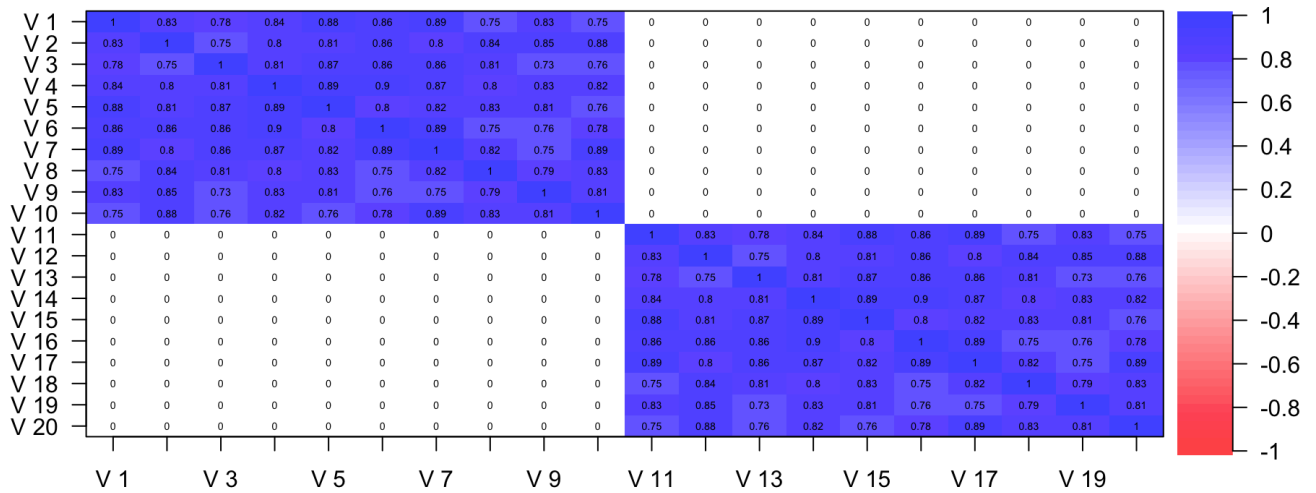M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0 to 0.4

R^2 Values for Diagonal Block Correlation with Block Size 10 and QuickPred Predictors
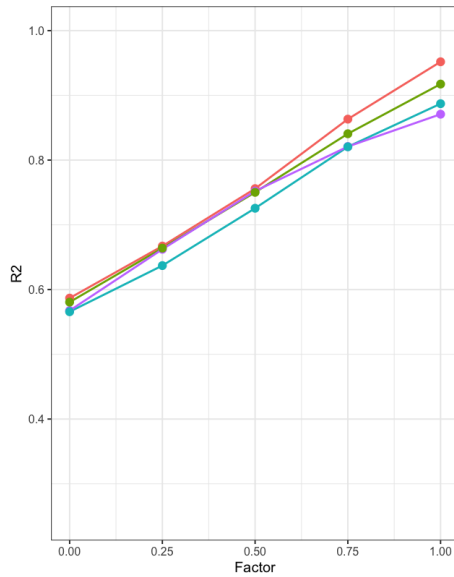M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0 to 0.4

(y-axis: R2; x-axis: Factor)

Legend: True Imputed vs. True Value | Factor Imputed vs True Value | Mice Imputed vs. True Value | Observed Imputed vs. True Value

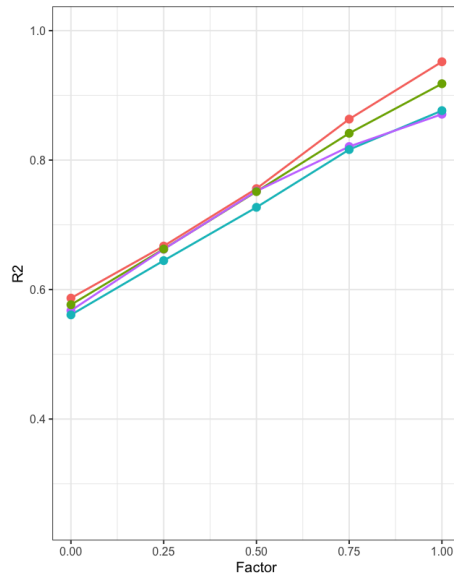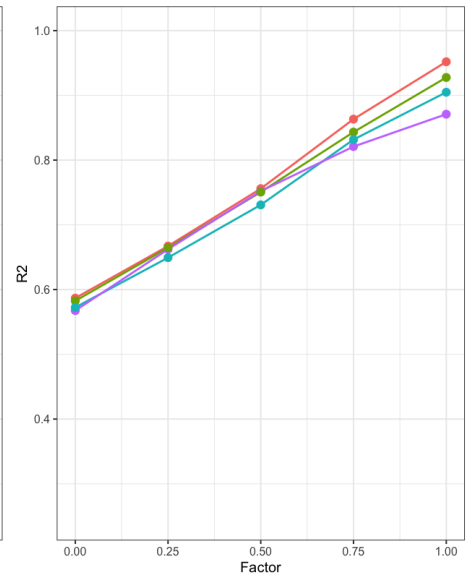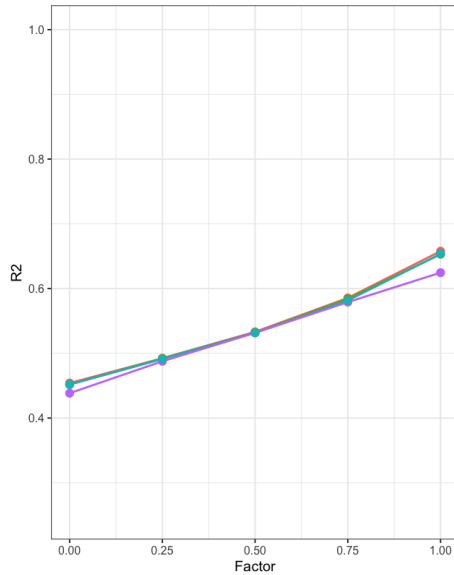R^2 Values for Diagonal Block Correlation with Block Size 10 and 20 Predictors
M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.3 to 0.3

R^2 Values for Diagonal Block Correlation with Block Size 10 and 50 Predictors
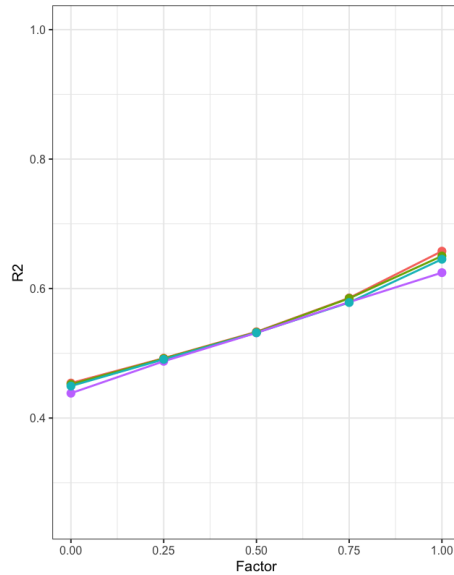M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.3 to 0.3

R^2 Values for Diagonal Block Correlation with Block Size 10 and QuickPred Predictors
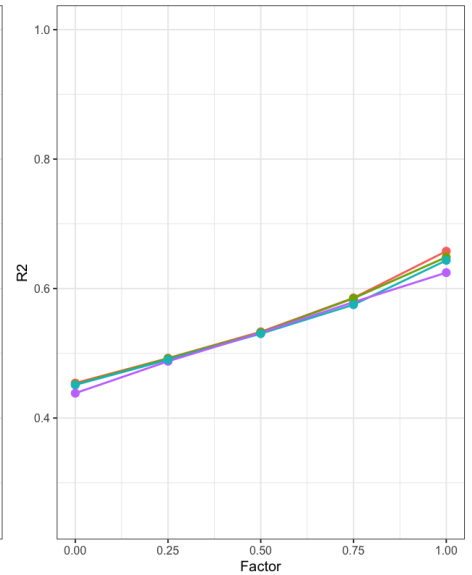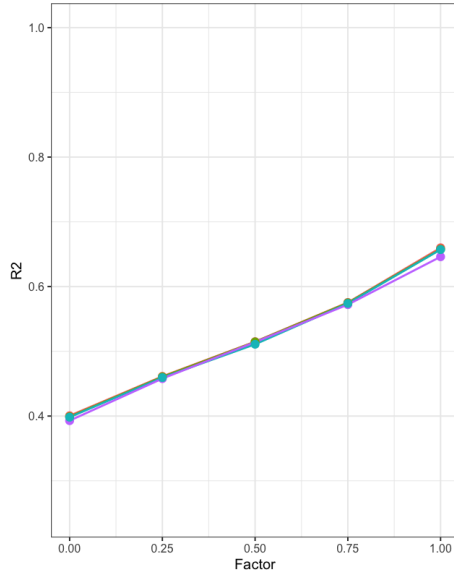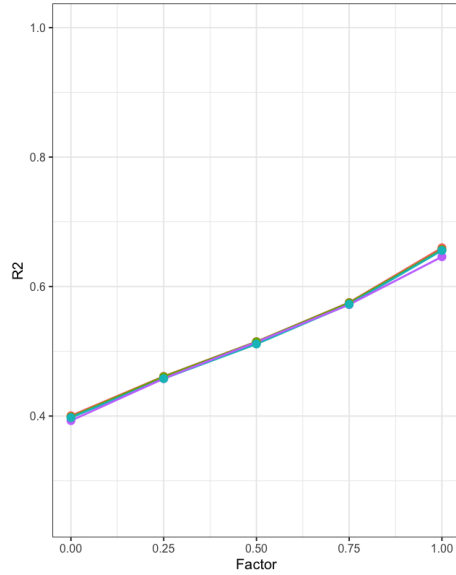M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.3 to 0.3

Legend: True Imputed vs. True Value — Factor Imputed vs True Value — Mice Imputed vs True Value — Observed Imputed vs. True Value

Mice Median Correlation V3-V6 Removed. True Factor = 1

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
V1	1.01	0.82	0.73	0.9	0.79	0.82	0.89	0.77	0.84	0.76	0	0	0	0	0	0	0	0	0	0
V2	0.82	1.01	0.71	0.72	0.71	0.76	0.8	0.84	0.87	0.87	0	0	0	0	0	0	0	0	0	0
V3	0.73	0.71	1.01	0.73	0.76	0.85	0.81	0.73	0.6	0.68	0	0	0	0	0	0	0	0	0	0
V4	0.9	0.72	0.73	1.01	0.89	0.85	0.84	0.81	0.78	0.74	0	0	0	0	0	0	0	0	0	0
V5	0.79	0.71	0.76	0.89	1.01	0.76	0.76	0.78	0.78	0.7	0	0	0	0	0	0	0	0	0	0
V6	0.82	0.76	0.85	0.85	0.76	1.01	0.81	0.7	0.65	0.67	0	0	0	0	0	0	0	0	0	0
V7	0.89	0.8	0.81	0.84	0.76	0.81	1.01	0.82	0.77	0.88	0	0	0	0	0	0	0	0	0	0
V8	0.77	0.84	0.73	0.81	0.78	0.7	0.82	1.01	0.81	0.83	0	0	0	0	0	0	0	0	0	0
V9	0.84	0.87	0.6	0.78	0.78	0.65	0.77	0.81	1.01	0.82	0	0	0	0	0	0	0	0	0	0
V10	0.76	0.87	0.68	0.74	0.7	0.67	0.88	0.83	0.82	1.01	0	0	0	0	0	0	0	0	0	0
V11	0	0	0	0	0	0	0	0	0	0	1.01	0.8	0.75	0.82	0.87	0.84	0.88	0.72	0.8	0.73
V12	0	0	0	0	0	0	0	0	0	0	0.8	1.01	0.72	0.79	0.79	0.85	0.78	0.83	0.84	0.87
V13	0	0	0	0	0	0	0	0	0	0	0.75	0.72	1.01	0.76	0.83	0.84	0.82	0.78	0.69	0.71
V14	0	0	0	0	0	0	0	0	0	0	0.82	0.79	0.76	1.01	0.88	0.88	0.84	0.77	0.81	0.8
V15	0	0	0	0	0	0	0	0	0	0	0.87	0.79	0.83	0.88	1.01	0.78	0.8	0.81	0.79	0.74
V16	0	0	0	0	0	0	0	0	0	0	0.84	0.85	0.84	0.88	0.78	1.01	0.87	0.73	0.72	0.76
V17	0	0	0	0	0	0	0	0	0	0	0.88	0.78	0.82	0.84	0.8	0.87	1.01	0.8	0.71	0.87
V18	0	0	0	0	0	0	0	0	0	0	0.72	0.83	0.78	0.77	0.81	0.73	0.8	1.01	0.76	0.81
V19	0	0	0	0	0	0	0	0	0	0	0.8	0.84	0.69	0.81	0.79	0.72	0.71	0.76	1.01	0.8
V20	0	0	0	0	0	0	0	0	0	0	0.73	0.87	0.71	0.8	0.74	0.76	0.87	0.81	0.8	1.01

Color scale: 1.01, 0.809, 0.608, 0.407, 0.206, 0.004, -0.190, -0.397, -0.598, -0.799, -1

Factor Analysis Correlation V3-V6 Removed. True Factor = 1

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
V1	1.01	0.82	0.75	0.83	0.87	0.84	0.87	0.72	0.81	0.72	0	0	0	0	0	0	0	0	0	0
V2	0.82	1.01	0.72	0.78	0.78	0.84	0.78	0.83	0.84	0.86	0	0	0	0	0	0	0	0	0	0
V3	0.75	0.72	1.01	0.76	0.85	0.84	0.82	0.77	0.68	0.71	0	0	0	0	0	0	0	0	0	0
V4	0.83	0.78	0.76	1.01	0.88	0.88	0.85	0.77	0.79	0.77	0	0	0	0	0	0	0	0	0	0
V5	0.87	0.78	0.85	0.88	1.01	0.77	0.78	0.81	0.77	0.72	0	0	0	0	0	0	0	0	0	0
V6	0.84	0.84	0.84	0.88	0.77	1.01	0.86	0.71	0.72	0.73	0	0	0	0	0	0	0	0	0	0
V7	0.87	0.78	0.82	0.85	0.78	0.86	1.01	0.8	0.73	0.88	0	0	0	0	0	0	0	0	0	0
V8	0.72	0.83	0.77	0.77	0.81	0.71	0.8	1.01	0.76	0.81	0	0	0	0	0	0	0	0	0	0
V9	0.81	0.84	0.68	0.79	0.77	0.72	0.73	0.76	1.01	0.78	0	0	0	0	0	0	0	0	0	0
V10	0.72	0.86	0.71	0.77	0.72	0.73	0.88	0.81	0.78	1.01	0	0	0	0	0	0	0	0	0	0
V11	0	0	0	0	0	0	0	0	0	0	1.01	0.81	0.75	0.82	0.87	0.83	0.86	0.7	0.8	0.74
V12	0	0	0	0	0	0	0	0	0	0	0.81	1.01	0.73	0.79	0.77	0.84	0.77	0.82	0.83	0.86
V13	0	0	0	0	0	0	0	0	0	0	0.75	0.73	1.01	0.79	0.83	0.83	0.81	0.77	0.69	0.73
V14	0	0	0	0	0	0	0	0	0	0	0.82	0.79	0.79	1.01	0.86	0.86	0.83	0.76	0.8	0.78
V15	0	0	0	0	0	0	0	0	0	0	0.87	0.77	0.83	0.86	1.01	0.77	0.8	0.81	0.79	0.72
V16	0	0	0	0	0	0	0	0	0	0	0.83	0.84	0.83	0.86	0.77	1.01	0.87	0.71	0.73	0.75
V17	0	0	0	0	0	0	0	0	0	0	0.86	0.77	0.81	0.83	0.8	0.87	1.01	0.8	0.72	0.88
V18	0	0	0	0	0	0	0	0	0	0	0.7	0.82	0.77	0.76	0.81	0.71	0.8	1.01	0.76	0.81
V19	0	0	0	0	0	0	0	0	0	0	0.8	0.83	0.69	0.8	0.79	0.73	0.72	0.76	1.01	0.79
V20	0	0	0	0	0	0	0	0	0	0	0.74	0.86	0.73	0.78	0.72	0.75	0.88	0.81	0.79	1.01

Color scale: 1.01, 0.809, 0.608, 0.407, 0.206, 0.004, -0.190, -0.397, -0.598, -0.799, -1

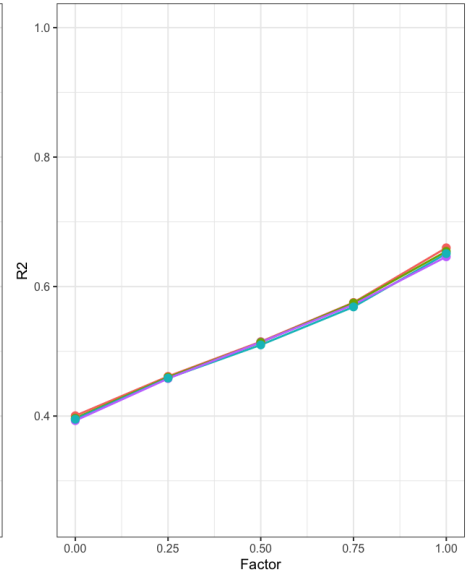**True Correlation V3-V6 Removed. True Factor = 1**

R^2 Values for Diagonal Block Correlation with Block Size 10 and 20 Predictors
M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.1 to 0.3

R^2 Values for Diagonal Block Correlation with Block Size 10 and 50 Predictors
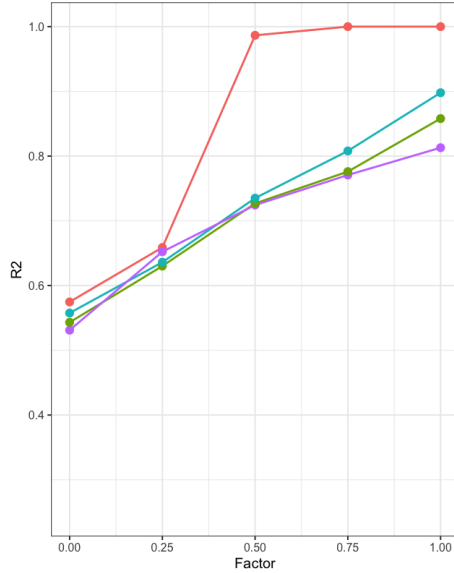M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.1 to 0.3

R^2 Values for Diagonal Block Correlation with Block Size 10 and QuickPred Predictors
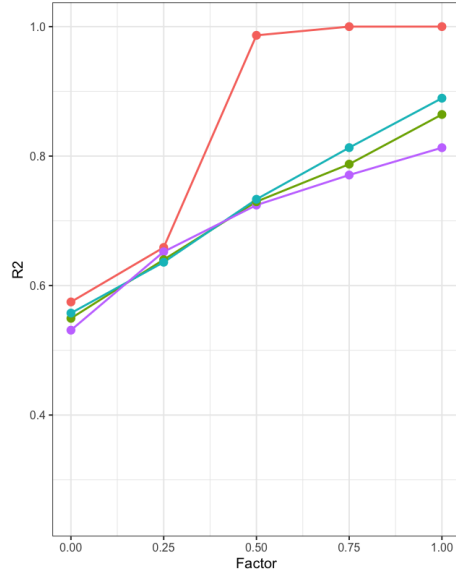M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.1 to 0.3

True Imputed vs. True Value | Factor Imputed vs True Value | Mice Imputed vs True Value | Observed Imputed vs. True Value

R^2 Values for Diagonal Block Correlation with Block Size 4 and 20 Predictors
M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0 to 0.4

R^2 Values for Diagonal Block Correlation with Block Size 4 and 50 Predictors
M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0 to 0.4

R^2 Values for Diagonal Block Correlation with Block Size 4 and QuickPred Predictors
M_1 ranges from 0.6 to 0.6 and M_2 ranges from 0 to 0.4

True Imputed vs. True Value | Factor Imputed vs True Value | Mice Imputed vs True Value | Observed Imputed vs. True Value

R^2 Values for Diagonal Block Correlation with Block Size 4 and 20 Predictors
M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.1 to 0.3

R^2 Values for Diagonal Block Correlation with Block Size 4 and 50 Predictors
M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.1 to 0.3

R^2 Values for Diagonal Block Correlation with Block Size 4 and QuickPred Predictors
M_1 ranges from 0.5 to 0.7 and M_2 ranges from 0.1 to 0.3

R^2 Values for Autoregressive Correlation with 20 Predictors
Rho1 = 0.8 and Rho2 = 0.2

R^2 Values for Autoregressive Correlation with 50 Predictors
Rho1 = 0.8 and Rho2 = 0.2
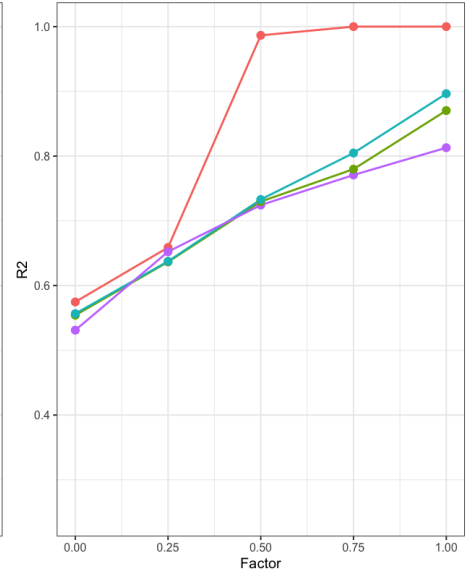
R^2 Values for Autoregressive Correlation with QuickPred Predictors
Rho1 = 0.8 and Rho2 = 0.2

R^2 Values for Autoregressive Correlation with 20 Predictors
Rho1 = 0.8 and Rho2 = 0.4

R^2 Values for Autoregressive Correlation with 50 Predictors
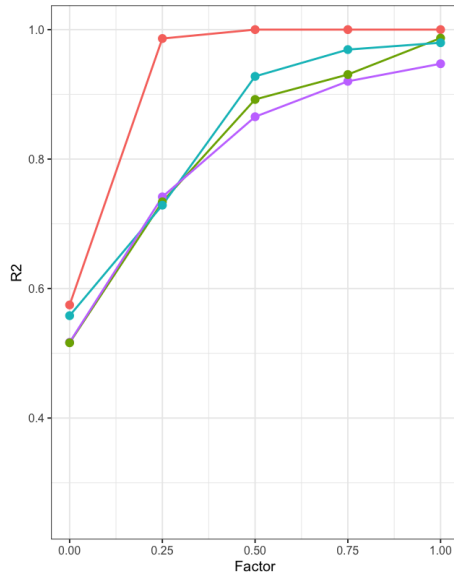Rho1 = 0.8 and Rho2 = 0.4

R^2 Values for Autoregressive Correlation with QuickPred Predictors
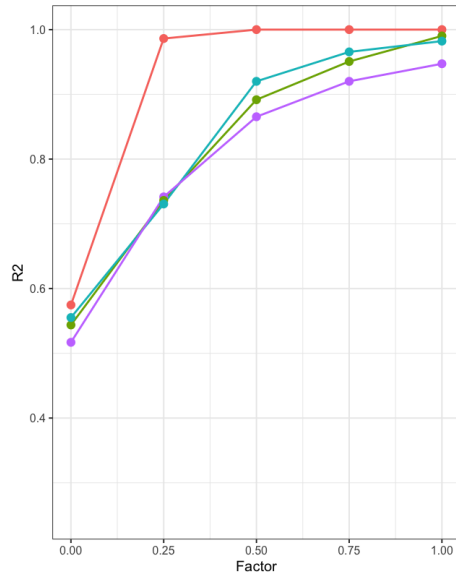Rho1 = 0.8 and Rho2 = 0.4

True Imputed vs. True Value   Factor Imputed vs True Value   Mice Imputed vs True Value   Observed Imputed vs. True Value
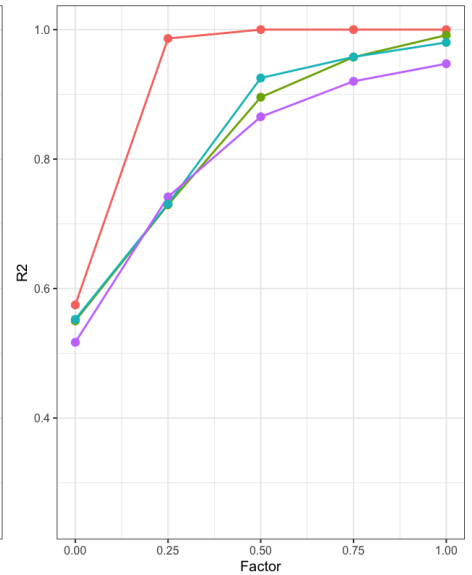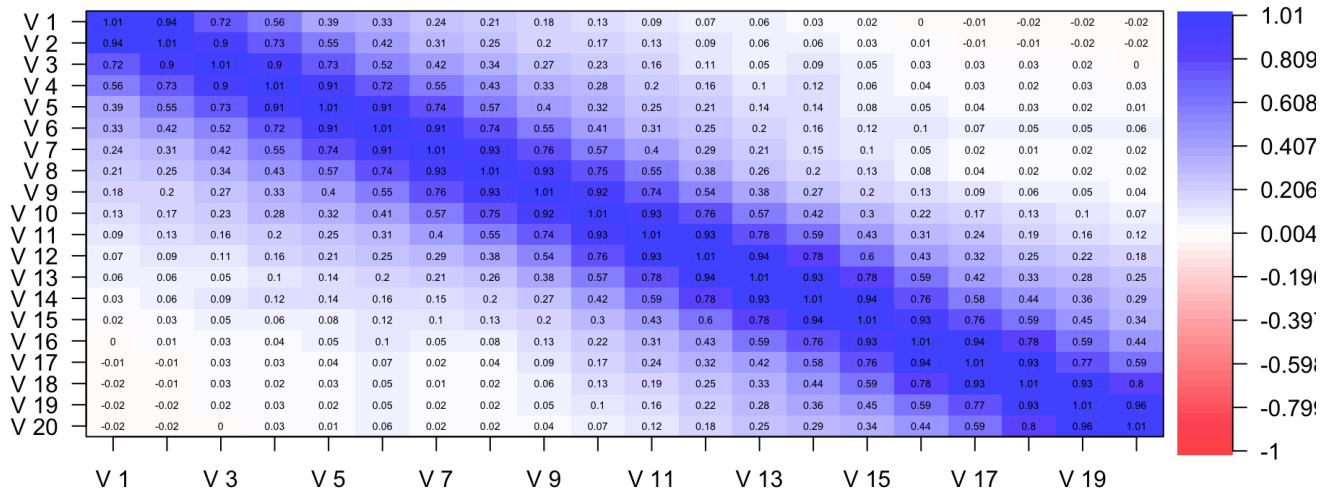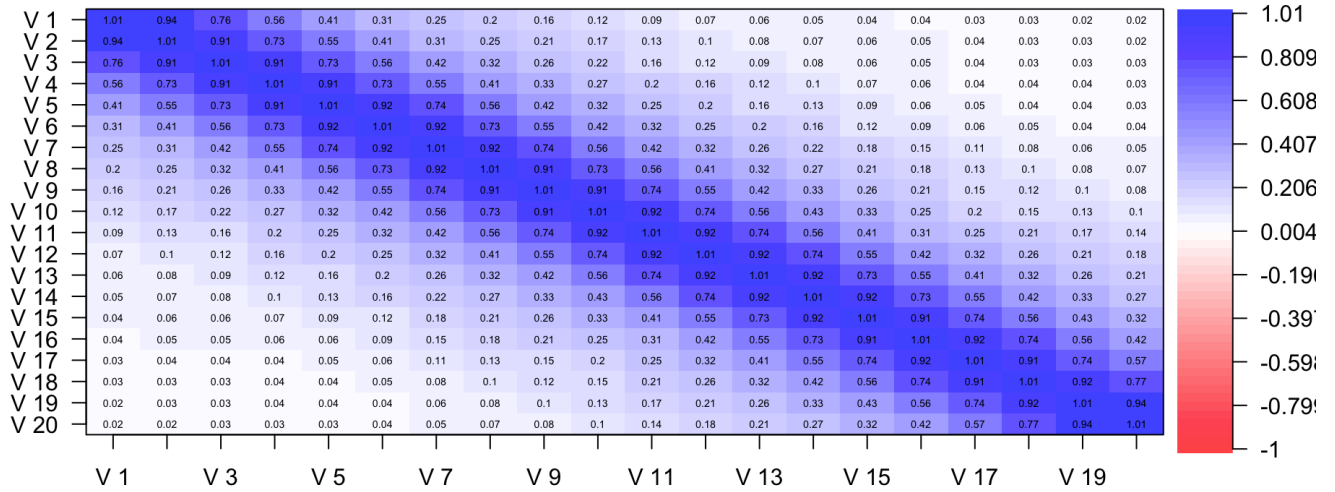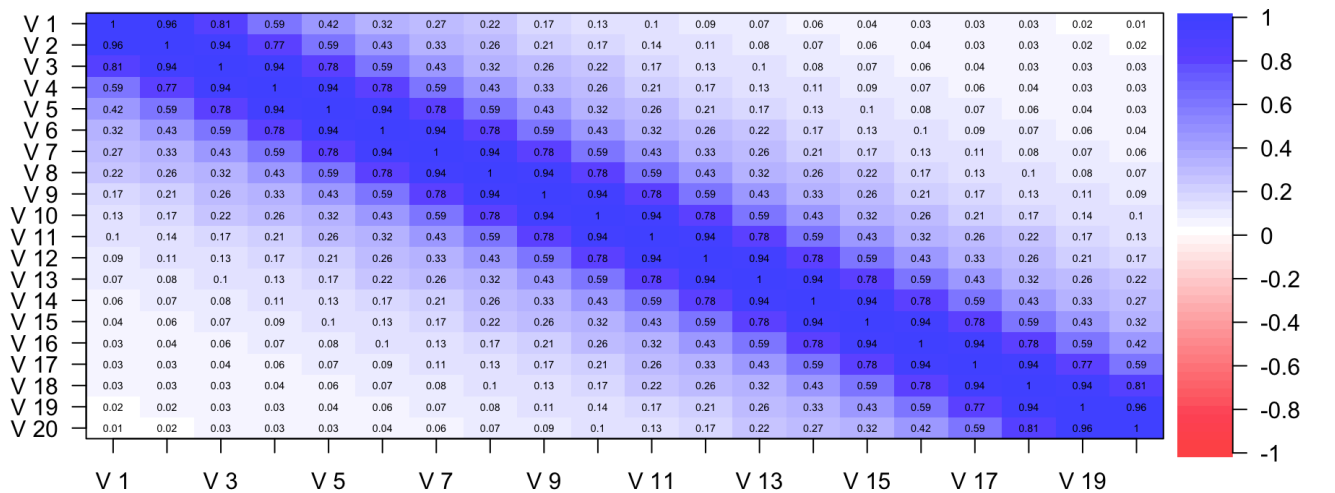
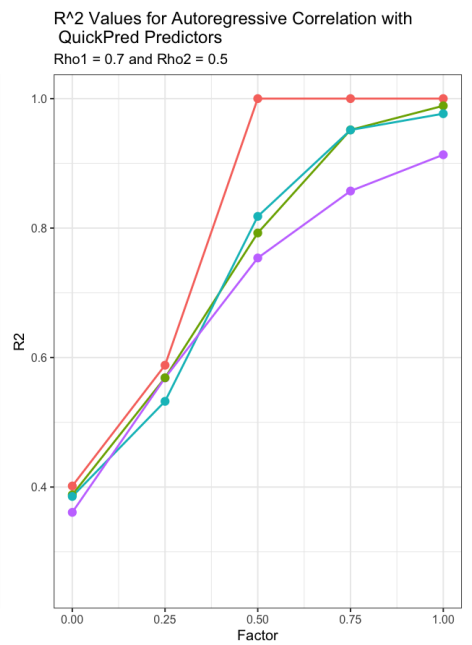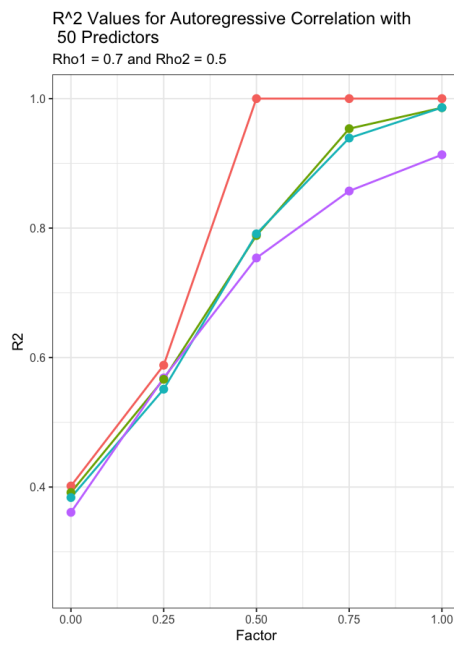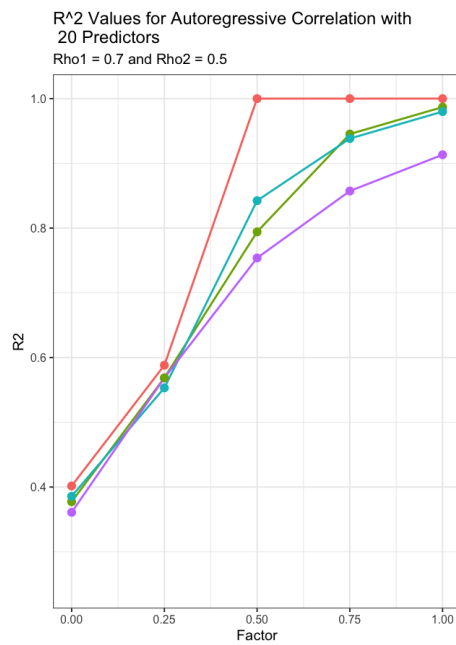## Mice Median Correlation V3-V6 Removed. True Factor = 1

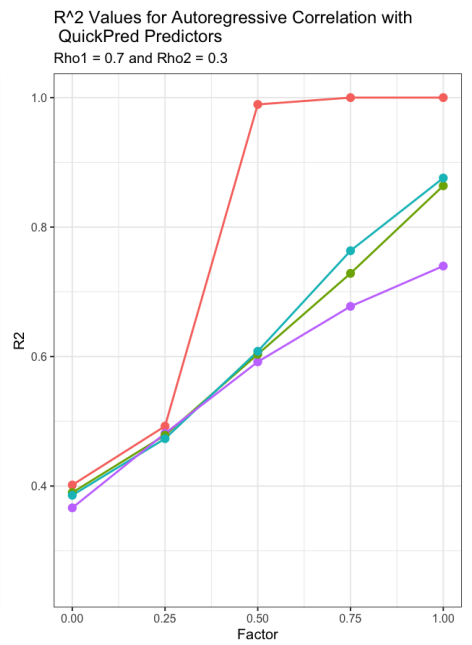|	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
V1	1.01	0.94	0.72	0.56	0.39	0.33	0.24	0.21	0.18	0.13	0.09	0.07	0.06	0.03	0.02	0	-0.01	-0.02	-0.02	-0.02
V2	0.94	1.01	0.9	0.73	0.55	0.42	0.31	0.25	0.2	0.17	0.13	0.09	0.06	0.06	0.03	0.01	-0.01	-0.01	-0.02	-0.02
V3	0.72	0.9	1.01	0.9	0.73	0.52	0.42	0.34	0.27	0.23	0.16	0.11	0.05	0.09	0.05	0.03	0.03	0.03	0.02	0
V4	0.56	0.73	0.9	1.01	0.91	0.72	0.55	0.43	0.33	0.28	0.2	0.16	0.1	0.12	0.06	0.04	0.03	0.02	0.03	0.03
V5	0.39	0.55	0.73	0.91	1.01	0.91	0.74	0.57	0.4	0.32	0.25	0.21	0.14	0.14	0.08	0.05	0.04	0.03	0.02	0.01
V6	0.33	0.42	0.52	0.72	0.91	1.01	0.91	0.74	0.55	0.41	0.31	0.25	0.2	0.16	0.12	0.1	0.07	0.05	0.05	0.06
V7	0.24	0.31	0.42	0.55	0.74	0.91	1.01	0.93	0.76	0.57	0.4	0.29	0.21	0.15	0.1	0.05	0.02	0.01	0.02	0.02
V8	0.21	0.25	0.34	0.43	0.57	0.74	0.93	1.01	0.93	0.75	0.55	0.38	0.26	0.2	0.13	0.08	0.04	0.02	0.02	0.02
V9	0.18	0.2	0.27	0.33	0.4	0.55	0.76	0.93	1.01	0.92	0.74	0.54	0.38	0.27	0.2	0.13	0.09	0.06	0.05	0.04
V10	0.13	0.17	0.23	0.28	0.32	0.41	0.57	0.75	0.92	1.01	0.93	0.76	0.57	0.42	0.3	0.22	0.17	0.13	0.1	0.07
V11	0.09	0.13	0.16	0.2	0.25	0.31	0.4	0.55	0.74	0.93	1.01	0.93	0.78	0.59	0.43	0.31	0.24	0.19	0.16	0.12
V12	0.07	0.09	0.11	0.16	0.21	0.25	0.29	0.38	0.54	0.76	0.93	1.01	0.94	0.78	0.6	0.43	0.32	0.25	0.22	0.18
V13	0.06	0.06	0.05	0.1	0.14	0.2	0.21	0.26	0.38	0.57	0.78	0.94	1.01	0.93	0.78	0.59	0.42	0.33	0.28	0.25
V14	0.03	0.06	0.09	0.12	0.14	0.16	0.15	0.2	0.27	0.42	0.59	0.78	0.93	1.01	0.94	0.76	0.58	0.44	0.36	0.29
V15	0.02	0.03	0.05	0.06	0.08	0.12	0.1	0.13	0.2	0.3	0.43	0.6	0.78	0.94	1.01	0.93	0.76	0.59	0.45	0.34
V16	0	0.01	0.03	0.04	0.05	0.1	0.05	0.08	0.13	0.22	0.31	0.43	0.59	0.76	0.93	1.01	0.94	0.78	0.59	0.44
V17	-0.01	-0.01	0.03	0.03	0.04	0.07	0.02	0.04	0.09	0.17	0.24	0.32	0.42	0.58	0.76	0.94	1.01	0.93	0.77	0.59
V18	-0.02	-0.01	0.03	0.02	0.03	0.05	0.01	0.02	0.06	0.13	0.19	0.25	0.33	0.44	0.59	0.78	0.93	1.01	0.93	0.8
V19	-0.02	-0.02	0.02	0.03	0.02	0.05	0.02	0.02	0.05	0.1	0.16	0.22	0.28	0.36	0.45	0.59	0.77	0.93	1.01	0.96
V20	-0.02	-0.02	0	0.03	0.01	0.06	0.02	0.02	0.04	0.07	0.12	0.18	0.25	0.29	0.34	0.44	0.59	0.8	0.96	1.01

Factor Analysis Correlation V3-V6 Removed. True Factor = 1

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
V1	1.01	0.94	0.76	0.56	0.41	0.31	0.25	0.2	0.16	0.12	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02
V2	0.94	1.01	0.91	0.73	0.55	0.41	0.31	0.25	0.21	0.17	0.13	0.1	0.08	0.07	0.06	0.05	0.04	0.03	0.03	0.02
V3	0.76	0.91	1.01	0.91	0.73	0.56	0.42	0.32	0.26	0.22	0.16	0.12	0.09	0.08	0.06	0.05	0.04	0.03	0.03	0.03
V4	0.56	0.73	0.91	1.01	0.91	0.73	0.55	0.41	0.33	0.27	0.2	0.16	0.12	0.1	0.07	0.06	0.04	0.04	0.04	0.03
V5	0.41	0.55	0.73	0.91	1.01	0.92	0.74	0.56	0.42	0.32	0.25	0.2	0.16	0.13	0.09	0.06	0.05	0.04	0.04	0.03
V6	0.31	0.41	0.56	0.73	0.92	1.01	0.92	0.73	0.55	0.42	0.32	0.25	0.2	0.16	0.12	0.09	0.06	0.05	0.04	0.04
V7	0.25	0.31	0.42	0.55	0.74	0.92	1.01	0.92	0.74	0.56	0.42	0.32	0.26	0.22	0.18	0.15	0.11	0.08	0.06	0.05
V8	0.2	0.25	0.32	0.41	0.56	0.73	0.92	1.01	0.91	0.73	0.56	0.41	0.32	0.27	0.21	0.18	0.13	0.1	0.08	0.07
V9	0.16	0.21	0.26	0.33	0.42	0.55	0.74	0.91	1.01	0.91	0.74	0.55	0.42	0.33	0.26	0.21	0.15	0.12	0.1	0.08
V10	0.12	0.17	0.22	0.27	0.32	0.42	0.56	0.73	0.91	1.01	0.92	0.74	0.56	0.43	0.33	0.25	0.2	0.15	0.13	0.1
V11	0.09	0.13	0.16	0.2	0.25	0.32	0.42	0.56	0.74	0.92	1.01	0.92	0.74	0.56	0.41	0.31	0.25	0.21	0.17	0.14
V12	0.07	0.1	0.12	0.16	0.2	0.25	0.32	0.41	0.55	0.74	0.92	1.01	0.92	0.74	0.55	0.42	0.32	0.26	0.21	0.18
V13	0.06	0.08	0.09	0.12	0.16	0.2	0.26	0.32	0.42	0.56	0.74	0.92	1.01	0.92	0.73	0.55	0.41	0.32	0.26	0.21
V14	0.05	0.07	0.08	0.1	0.13	0.16	0.22	0.27	0.33	0.43	0.56	0.74	0.92	1.01	0.92	0.73	0.55	0.42	0.33	0.27
V15	0.04	0.06	0.06	0.07	0.09	0.12	0.18	0.21	0.26	0.33	0.41	0.55	0.73	0.92	1.01	0.91	0.74	0.56	0.43	0.32
V16	0.04	0.05	0.05	0.06	0.06	0.09	0.15	0.18	0.21	0.25	0.31	0.42	0.55	0.73	0.91	1.01	0.92	0.74	0.56	0.42
V17	0.03	0.04	0.04	0.04	0.05	0.06	0.11	0.13	0.15	0.2	0.25	0.32	0.41	0.55	0.74	0.92	1.01	0.91	0.74	0.57
V18	0.03	0.03	0.03	0.04	0.04	0.05	0.08	0.1	0.12	0.15	0.21	0.26	0.32	0.42	0.56	0.74	0.91	1.01	0.92	0.77
V19	0.02	0.03	0.03	0.04	0.04	0.04	0.06	0.08	0.1	0.13	0.17	0.21	0.26	0.33	0.43	0.56	0.74	0.92	1.01	0.94
V20	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.07	0.08	0.1	0.14	0.18	0.21	0.27	0.32	0.42	0.57	0.77	0.94	1.01

True Correlation V3-V6 Removed. True Factor = 1

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20
V1	1	0.96	0.81	0.59	0.42	0.32	0.27	0.22	0.17	0.13	0.1	0.09	0.07	0.06	0.04	0.03	0.03	0.03	0.02	0.01
V2	0.96	1	0.94	0.77	0.59	0.43	0.33	0.26	0.21	0.17	0.14	0.11	0.08	0.07	0.06	0.04	0.03	0.03	0.02	0.02
V3	0.81	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.22	0.17	0.13	0.1	0.08	0.07	0.06	0.04	0.03	0.03	0.03
V4	0.59	0.77	0.94	1	0.94	0.78	0.59	0.43	0.33	0.26	0.21	0.17	0.13	0.11	0.09	0.07	0.06	0.04	0.03	0.03
V5	0.42	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.21	0.17	0.13	0.1	0.08	0.07	0.06	0.04	0.03
V6	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.22	0.17	0.13	0.1	0.09	0.07	0.06	0.04
V7	0.27	0.33	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.33	0.26	0.21	0.17	0.13	0.11	0.08	0.07	0.06
V8	0.22	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.22	0.17	0.13	0.1	0.08	0.07
V9	0.17	0.21	0.26	0.33	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.33	0.26	0.21	0.17	0.13	0.11	0.09
V10	0.13	0.17	0.22	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.21	0.17	0.14	0.1
V11	0.1	0.14	0.17	0.21	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.22	0.17	0.13
V12	0.09	0.11	0.13	0.17	0.21	0.26	0.33	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.33	0.26	0.21	0.17
V13	0.07	0.08	0.1	0.13	0.17	0.22	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32	0.26	0.22
V14	0.06	0.07	0.08	0.11	0.13	0.17	0.21	0.26	0.33	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.33	0.27
V15	0.04	0.06	0.07	0.09	0.1	0.13	0.17	0.22	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.43	0.32
V16	0.03	0.04	0.06	0.07	0.08	0.1	0.13	0.17	0.21	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.78	0.59	0.42
V17	0.03	0.03	0.04	0.06	0.07	0.09	0.11	0.13	0.17	0.21	0.26	0.33	0.43	0.59	0.78	0.94	1	0.94	0.77	0.59
V18	0.03	0.03	0.03	0.04	0.06	0.07	0.08	0.1	0.13	0.17	0.22	0.26	0.32	0.43	0.59	0.78	0.94	1	0.94	0.81
V19	0.02	0.02	0.03	0.03	0.04	0.06	0.07	0.08	0.11	0.14	0.17	0.21	0.26	0.33	0.43	0.59	0.77	0.94	1	0.96
V20	0.01	0.02	0.03	0.03	0.03	0.04	0.06	0.07	0.09	0.1	0.13	0.17	0.22	0.27	0.32	0.42	0.59	0.81	0.96	1

R^2 Values for Autoregressive Correlation with 20 Predictors — Rho1 = 0.7 and Rho2 = 0.3

R^2 Values for Autoregressive Correlation with 50 Predictors — Rho1 = 0.7 and Rho2 = 0.3

R^2 Values for Autoregressive Correlation with QuickPred Predictors — Rho1 = 0.7 and Rho2 = 0.3

R^2 Values for Autoregressive Correlation with 20 Predictors — Rho1 = 0.7 and Rho2 = 0.5

R^2 Values for Autoregressive Correlation with 50 Predictors — Rho1 = 0.7 and Rho2 = 0.5

R^2 Values for Autoregressive Correlation with QuickPred Predictors — Rho1 = 0.7 and Rho2 = 0.5

Legend: True Imputed vs. True Value, Factor Imputed vs True Value, Mice Imputed vs True Value, Observed Imputed vs. True Value

```
# ###FOR Sensitivity Analysis
# for (i in seq(1,24,4)){
#   print(ggarrange(plot_list[[i]],
#             plot_list[[i+1]],
#             plot_list[[i+2]], ncol=3, common.legend = TRUE, legend="bottom",align = c("h")))
# }
```

```
###FOR from truth

# cor.plot(data_frame_list[[2]][[3]][,,3],
#           main = "ATBC True Correlation")
#
# cor.plot(data_frame_list[[52]][[3]][,,3],
#           main = "PLCO True Correlation")
#
#
# for (i in seq(1,44,4)){
#   print(annotate_figure(ggarrange(plot_list[[i]],
#                                     plot_list[[i+2]],
#                                     ncol=2, common.legend = TRUE, legend="bottom",align = c("hv")),top = "A
TBC"))
#   print(annotate_figure(ggarrange(plot_list[[i+50]],
#                                     plot_list[[i+2+50]],
#                                     ncol=2, common.legend = TRUE, legend="bottom",align = c("hv")),top = "P
LCO"))
#
#   # if (i == 9){
#   #   cor.plot(data_frame_list[[i+1]][[2]][,,1], main = "Mice Median Correlsation for Factor = 0")
#   #   cor.plot(data_frame_list[[i+1]][[1]][,,1], main = "Factor Analysis Correlation for Factor = 0")
#   #   cor.plot(data_frame_list[[i+1]][[3]][,,1], main = "True Correlation for Factor = 0")
#   # }
# }
```