simulation results

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E-M Simple Linear Regression

Missingness rate

Low

	μ_1	σ_1^2	σ^2	β_0	β_1
Mean					
cc	10.001	24.989	24.717	10.016	1.998
full	10.001	24.867	24.722	10.012	1.999
observed	10.001	24.858	24.728	10.01	1.999
Variance					
cc	0.133	6.564	6.204	0.669	0.005
full	0.128	6.302	6.193	0.662	0.005
observed	0.133	6.495	6.198	0.662	0.005
Coverage rate					
cc	0.946	0.946	0.942	0.95	0.948
full	0.948	0.945	0.946	0.954	0.953
observed	0.942	0.942	0.947	0.953	0.953

Medium

	μ_1	σ_1^2	σ^2	β_0	β_1
Mean					
cc	9.988	25.029	24.777	10.006	2
full	9.987	24.909	24.796	9.99	2.001
observed	9.988	24.872	24.831	9.981	2.002
Variance					
cc	0.159	7.985	7.945	0.785	0.006
full	0.134	6.932	7.868	0.74	0.006
observed	0.159	7.885	7.902	0.743	0.006
Coverage rate					
cc	0.944	0.943	0.931	0.951	0.948
full	0.951	0.945	0.94	0.952	0.952
observed	0.923	0.928	0.942	0.952	0.951

High

	μ_1	σ_1^2	σ^2	β_0	β_1
Mean					
cc	10.013	25.029	24.474	9.995	2
full	10.008	24.888	24.547	9.936	2.005
observed	10.013	24.778	24.777	9.885	2.01
Variance					
cc	0.247	12.943	11.924	1.368	0.011
full	0.149	8.538	11.804	1.167	0.009
observed	0.247	12.684	12.227	1.234	0.01
Coverage rate					
cc	0.949	0.94	0.926	0.942	0.943
full	0.956	0.948	0.939	0.946	0.953
observed	0.877	0.893	0.943	0.94	0.947

High Noise-signal ratio

	μ_1	σ_1^2	σ^2	β_0	β_1
Mean					
cc	9.987	25.01	97.84	10.038	1.994
full	10.001	24.844	98.356	9.959	2.005
observed	9.987	24.759	99.034	9.987	2.003
Variance					
cc	0.253	12.293	206.502	5.039	0.041
full	0.192	10.868	180.224	3.821	0.031
observed	0.253	12.047	181.751	3.897	0.031
Coverage rate					
cc	0.944	0.941	0.919	0.952	0.948
full	0.948	0.947	0.933	0.954	0.954
observed	0.912	0.93	0.939	0.951	0.951

Misspecified X (using a Normal distribution to model a right skewed Exponential distributed data)

	β_0	β_1
Mean		
cc	10.003	2
full	9.963	2.005
observed	9.884	2.017
Variance		
cc	0.513	0.003
full	0.497	0.003
observed	0.576	0.005
Coverage rate		
cc	0.949	0.942
full	0.957	0.932
observed	0.944	0.863

	β_0	β_1
Mean		
cc	9.998	2
full	9.997	2
observed	9.995	2.001
Variance		
cc	0.272	0.001
full	0.272	0.001
observed	0.273	0.001
Coverage rate		
cc	0.947	0.949
full	0.95	0.955
observed	0.951	0.953

E-M Multivariate Linear Regression

```
multvariate_mcar <- readRDS("./simulation_rlt/mult_linear/gamma2p80sigmaSq25.rds")
multvariate_mar <- readRDS("./simulation_rlt/mult_linear/gamma-12p80sigmaSq25.rds")
```

MCAR

	μ_1	μ_2	μ_3	σ_1^2	σ_2^2	σ_3^2	σ^2	β_0	β_1	β_2	β_3
Mean											
cc	10	0	10.002	24.981	0.907	25.027	24.309	9.977	1	2.998	0.003
full	9.825	0	10.002	25.024	0.996	24.867	25.619	10.41	0.975	2.694	0.002
Variance											
cc	0.151	0.005	0.16	9.089	0.012	9.286	8.976	1.769	0.008	0.211	0.008
full	0.142	0.005	0.16	7.181	0.01	7.819	6.982	1.222	0.006	0.13	0.005
Coverage rate											
cc	0.948	0.949	0.947	0.923	0.787	0.926	0.917	0.946	0.946	0.949	0.945
full	0.929	0.954	0.95	0.951	0.951	0.949	0.972	0.964	0.952	0.904	0.982

MAR

	μ_1	μ_2	μ_3	σ_1^2	σ_2^2	σ_3^2	σ^2	β_0	β_1	β_2	β_3
Mean											
cc	10.898	-0.002	9.996	21.331	0.948	24.895	19.77	12.985	0.817	2.446	-0.002
full	10.005	-0.002	9.996	24.923	0.995	24.794	25.659	10.25	0.976	2.81	0
Variance											
cc	0.134	0.005	0.168	6.973	0.013	8.853	5.842	1.51	0.007	0.167	0.006
full	0.155	0.005	0.168	9.223	0.009	7.552	8.953	1.176	0.006	0.136	0.005
Coverage rate											
cc	0.289	0.949	0.938	0.599	0.857	0.927	0.419	0.349	0.433	0.711	0.955
full	0.946	0.954	0.942	0.943	0.951	0.947	0.964	0.982	0.953	0.949	0.982