# oracle test

beta : 0.5 1.5 2 0 0 0 0 0 intercept : 0

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.23 average sample size for logistic data: 1917

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_100\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	х3
FULL	0.0026	0.4890	1.4841	2.0060
COMPLETE	0.1255	0.4811	1.4182	1.9106
PROPOSED	0.0000	0.5331	1.6639	2.2223

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1690	0.1947	0.1601	0.1713
PROPOSED	0.0000	0.2755	0.4676	0.5870

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0026	-0.0110	-0.0159	0.0060
COMPLETE	0.1255	-0.0189	-0.0818	-0.0894
PROPOSED	0.0000	0.0331	0.1639	0.2223

	(intercept)	x1	x2	x3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1690	0.1947	0.1601	0.1713
PROPOSED	0.0000	0.2755	0.4676	0.5870

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.82 average sample size for logistic data: 1950.62

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_100\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.5129	1.5050	2.0100
COMPLETE	0.1671	0.4888	1.3795	1.8699
PROPOSED	0.0000	0.5771	1.6526	2.2364

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0953	0.1133	0.1116	0.0973
COMPLETE	0.1436	0.1607	0.1370	0.1502
PROPOSED	0.0000	0.2515	0.3827	0.5175

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.0129	0.0050	0.0100
COMPLETE	0.1671	-0.0112	-0.1205	-0.1301
PROPOSED	0.0000	0.0771	0.1526	0.2364

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0953 $0.1436$ $0.0000$	0.200,	0.1116 $0.1370$ $0.3827$	0.1502

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.23 average sample size for logistic data: 1917

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_100\_intercept\_10\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	х3
FULL	10.0026	0.4890 $0.4811$ $0.5331$	1.4841	2.0060
COMPLETE	10.1255		1.4182	1.9106
PROPOSED	0.0000		1.6639	2.2223

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1690	0.1947	0.1601	0.1713
PROPOSED	0.0000	0.2755	0.4676	0.5870

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0026	-0.0110	-0.0159	0.0060
COMPLETE	0.1255	-0.0189	-0.0818	-0.0894
PROPOSED	-10.0000	0.0331	0.1639	0.2223

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0966 $0.1690$ $0.0000$	0.1947	0.1402 $0.1601$ $0.4676$	0.1231 $0.1713$ $0.5870$

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.82 average sample size for logistic data: 1950.62

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_100\_intercept\_10\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	10.0013	0.5129	1.5050	2.0100
COMPLETE	10.1671	0.4888	1.3795	1.8699
PROPOSED	0.0000	0.5771	1.6526	2.2364

#### the estimation sd is

	(intercept)	x1	x2	х3
FULL	0.0953	0.1133	0.1116	0.0973
COMPLETE	0.1436	0.1607	0.1370	0.1502
PROPOSED	0.0000	0.2515	0.3827	0.5175

## the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.0129	0.0050	0.0100
COMPLETE	0.1671	-0.0112	-0.1205	-0.1301
PROPOSED	-10.0000	0.0771	0.1526	0.2364

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0953 $0.1436$ $0.0000$	00	0.1116 $0.1370$ $0.3827$	0.1502

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.23 average sample size for logistic data: 1917

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_100\_intercept\_5\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	5.0026	0.4811	1.4841	2.0060
COMPLETE	5.1255		1.4182	1.9106
PROPOSED	0.0000		1.6639	2.2223

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1690	0.1947	0.1601	0.1713
PROPOSED	0.0000	0.2755	0.4676	0.5870

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0026	-0.0110	-0.0159	0.0060
COMPLETE	0.1255	-0.0189	-0.0818	-0.0894
PROPOSED	-5.0000	0.0331	0.1639	0.2223

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0966 $0.1690$ $0.0000$	0.1947	0.1402 $0.1601$ $0.4676$	0.1231 $0.1713$ $0.5870$

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.82 average sample size for logistic data: 1950.62

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_100\_intercept\_5\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

(int	tercept) x1	x2	x3
FULL COMPLETE PROPOSED	5.0013 0.5129 5.1671 0.4888 0.0000 0.5771	1.0000	1.8699

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0953	0.1133	0.1116	0.0973
COMPLETE	0.1436	0.1607	0.1370	0.1502
PROPOSED	0.0000	0.2515	0.3827	0.5175

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.0129	0.0050	0.0100
COMPLETE	0.1671	-0.0112	-0.1205	-0.1301
PROPOSED	-5.0000	0.0771	0.1526	0.2364

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0953 $0.1436$ $0.0000$	0.200,	0.1116 $0.1370$ $0.3827$	0.1502

sample size : 1000 simulation time : 100 loss\_rate: 0.625

average sample size for full data: 1000

average sample size for complete data: 626.77 average sample size for logistic data: 196192.3

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_1000\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL COMPLETE	0.0052 0.1260	$0.4965 \\ 0.4886$	1.4990 1.4359	1.9999 1.9167
PROPOSED	0.0000	0.4986	1.5003	2.0038

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0289	0.0363	0.0393	0.0356
COMPLETE	0.0457	0.0569	0.0596	0.0458
PROPOSED	0.0000	0.0655	0.1022	0.1310

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0052	-0.0035	-0.0010	-0.0001
COMPLETE	0.1260	-0.0114	-0.0641	-0.0833
PROPOSED	0.0000	-0.0014	0.0003	0.0038

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0289 $0.0457$ $0.0000$	0.0569	0.0393 $0.0596$ $0.1022$	0.0356 $0.0458$ $0.1310$

sample size : 1000 simulation time : 100 loss\_rate: 0.625

average sample size for full data: 1000

average sample size for complete data: 623.19 average sample size for logistic data: 193984

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_1000\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL COMPLETE	0.0052 0.1796	0.4955 0.4633	1.3786	2.0013 1.8495
PROPOSED	0.0000	0.5038	1.5107	2.0263

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0290	0.0299	0.0319	0.0339
COMPLETE	0.0491	0.0574	0.0427	0.0526
PROPOSED	0.0000	0.0724	0.1107	0.1342

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0052	-0.0045	-0.0063	0.0013
COMPLETE	0.1796	-0.0367	-0.1214	-0.1505
PROPOSED	0.0000	0.0038	0.0107	0.0263

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	$0.0290 \\ 0.0491 \\ 0.0000$	0.0574	0.0319 $0.0427$ $0.1107$	0.0339 $0.0526$ $0.1342$

sample size : 500

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 500

average sample size for complete data: 312.45 average sample size for logistic data: 48704.19

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_500\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	х3
FULL	-0.0057	0.4938 $0.4719$ $0.4871$	1.5002	1.9992
COMPLETE	0.1219		1.4438	1.9149
PROPOSED	0.0000		1.5079	2.0078

#### the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0398	0.0617	0.0571	0.0575
COMPLETE	0.0702	0.0786	0.0802	0.0755
PROPOSED	0.0000	0.0962	0.1593	0.1935

## the bias mean is

	(intercept)	x1	x2	x3
FULL	-0.0057	-0.0062	0.0002	-0.0008
COMPLETE	0.1219	-0.0281	-0.0562	-0.0851
PROPOSED	0.0000	-0.0129	0.0079	0.0078

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0398 $0.0702$ $0.0000$	0.0617 $0.0786$ $0.0962$	0.000=	0.0575 $0.0755$ $0.1935$

sample size : 500

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 500

average sample size for complete data: 312.37 average sample size for logistic data: 48690.93

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_0.5\_2\_n\_500\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	-0.0055	0.0010		2.0003
COMPLETE PROPOSED	0.1703 $0.0000$	0.4652 $0.5034$	$1.3860 \\ 1.5076$	1.8545 $2.0138$

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0392	0.0477	0.0473	0.0404
COMPLETE	0.0617	0.0730	0.0621	0.0702
PROPOSED	0.0000	0.0955	0.1349	0.1845

the bias mean is

	(intercept)	x1	x2	x3
FULL	-0.0055	0.0019	0.0019	0.0003
COMPLETE	0.1703	-0.0348	-0.1140	-0.1455
PROPOSED	0.0000	0.0034	0.0076	0.0138

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0392 0.0617 0.0000	0.0477 $0.0730$ $0.0955$	0.0473 $0.0621$ $0.1349$	0.0404 $0.0702$ $0.1845$

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.29 average sample size for logistic data: 1920.04

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_100\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	х3
FULL	0.0026	1.4890	1.9841	3.0060
COMPLETE	0.0803	1.4729	1.9473	2.9428
PROPOSED	0.0000	1.6506	2.2193	3.3474

#### the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1670	0.1903	0.1705	0.1690
PROPOSED	0.0000	0.4506	0.6208	0.8723

## the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0026	-0.0110	-0.0159	0.0060
COMPLETE	0.0803	-0.0271	-0.0527	-0.0572
PROPOSED	0.0000	0.1506	0.2193	0.3474

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	$0.0966 \\ 0.1670 \\ 0.0000$	0.1903	0.1402 $0.1705$ $0.6208$	0.1690

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.96 average sample size for logistic data: 1959.95

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_100\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	х3
FULL	0.0013	1.5129	2.0050	3.0100 $2.9228$ $3.3397$
COMPLETE	0.0946	1.4864	1.9373	
PROPOSED	0.0000	1.6889	2.2096	

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0953	0.1133	0.1116	0.0973
COMPLETE	0.1511	0.1650	0.1333	0.1429
PROPOSED	0.0000	0.4558	0.4942	0.7798

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.0129	0.0050	0.0100
COMPLETE	0.0946	-0.0136	-0.0627	-0.0772
PROPOSED	0.0000	0.1889	0.2096	0.3397

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0953 $0.1511$ $0.0000$	0.1650	0.1116 $0.1333$ $0.4942$	0.00.0

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.29 average sample size for logistic data: 1920.04

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_100\_intercept\_10\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	10.0026	1.4890	1.9841	3.0060
COMPLETE	10.0803	1.4729	1.9473	2.9428
PROPOSED	0.0000	1.6506	2.2193	3.3474

the estimation sd is

	(intercept)	x1	x2	х3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1670	0.1903	0.1705	0.1690
PROPOSED	0.0000	0.4506	0.6208	0.8723

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0026	-0.0110	-0.0159	0.0060
COMPLETE	0.0803	-0.0271	-0.0527	-0.0572
PROPOSED	-10.0000	0.1506	0.2193	0.3474

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0966 $0.1670$ $0.0000$	0.1903	0.1402 $0.1705$ $0.6208$	0.1690

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.96 average sample size for logistic data: 1959.95

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_100\_intercept\_10\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL COMPLETE	10.0013 10.0946	1.5129 1.4864	2.0050 1.9373	3.0100 2.9228
PROPOSED	0.0000	1.4804 $1.6889$	2.2096	3.3397

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0953	0.1133	0.1116	0.0973
COMPLETE	0.1511	0.1650	0.1333	0.1429
PROPOSED	0.0000	0.4558	0.4942	0.7798

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.0129	0.0050	0.0100
COMPLETE	0.0946	-0.0136	-0.0627	-0.0772
PROPOSED	-10.0000	0.1889	0.2096	0.3397

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0953 $0.1511$ $0.0000$	0.1650	0.1116 $0.1333$ $0.4942$	0.00.0

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.29 average sample size for logistic data: 1920.04

 $\operatorname{error\_independent}$ : FALSE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_100\_intercept\_5\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	5.0026	1.4890		3.0060
COMPLETE	5.0803	1.4729	1.9473	2.9428
PROPOSED	0.0000	1.6506	2.2193	3.3474

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0966	0.1248	0.1402	0.1231
COMPLETE	0.1670	0.1903	0.1705	0.1690
PROPOSED	0.0000	0.4506	0.6208	0.8723

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0026	-0.0110	-0.0159	0.0060
COMPLETE	0.0803	-0.0271	-0.0527	-0.0572
PROPOSED	-5.0000	0.1506	0.2193	0.3474

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0966 $0.1670$ $0.0000$	0.1903	0.1402 $0.1705$ $0.6208$	0.1690

sample size: 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.96 average sample size for logistic data: 1959.95

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_100\_intercept\_5\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	5.0013	1.5129	2.0050	3.0100
COMPLETE	5.0946	1.4864	1.9373	2.9228
PROPOSED	0.0000	1.6889	2.2096	3.3397

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0953	0.1133	0.1116	0.0973
COMPLETE	0.1511	0.1650	0.1333	0.1429
PROPOSED	0.0000	0.4558	0.4942	0.7798

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0013	0.0129	0.0050	0.0100
COMPLETE	0.0946	-0.0136	-0.0627	-0.0772
PROPOSED	-5.0000	0.1889	0.2096	0.3397

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0953 $0.1511$ $0.0000$	0.1650	0.1116 0.1333 0.4942	0.0973 $0.1429$ $0.7798$

sample size : 1000 simulation time : 100 loss\_rate: 0.625

average sample size for full data: 1000

average sample size for complete data: 627.08 average sample size for logistic data: 196397.1

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_1000\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	х3
FULL	0.0052 $0.0742$ $0.0000$	1.4965	1.9990	2.9999
COMPLETE		1.4870	1.9662	2.9493
PROPOSED		1.5020	2.0030	3.0053

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0289	0.0363	0.0393	0.0356
COMPLETE	0.0472	0.0538	0.0575	0.0445
PROPOSED	0.0000	0.1023	0.1281	0.1873

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0052	-0.0035	-0.0010	-0.0001
COMPLETE	0.0742	-0.0130	-0.0338	-0.0507
PROPOSED	0.0000	0.0020	0.0030	0.0053

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0289 $0.0472$ $0.0000$	0.0363 $0.0538$ $0.1023$	0.00.0	0.0445

sample size : 1000 simulation time : 100 loss\_rate: 0.625

average sample size for full data: 1000

average sample size for complete data: 623.49 average sample size for logistic data: 194169

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_1000\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	0.0052	1.4955	1.9937	3.0013
COMPLETE	0.1181	1.4554	1.9239	2.9028
PROPOSED	0.0000	1.5153	2.0135	3.0376

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.029	0.0299	0.0319	0.0339
COMPLETE	0.054	0.0619	0.0421	0.0519
PROPOSED	0.000	0.1165	0.1362	0.1909

the bias mean is

	(intercept)	x1	x2	x3
FULL	0.0052	-0.0045	-0.0063	0.0013
COMPLETE	0.1181	-0.0446	-0.0761	-0.0972
PROPOSED	0.0000	0.0153	0.0135	0.0376

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0_0	0.00-0	0.0421	0.0339 $0.0519$ $0.1909$

sample size : 500

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 500

average sample size for complete data: 312.98 average sample size for logistic data: 48875.39

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_500\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	-0.0057	1.4938		2.9992
COMPLETE PROPOSED	$0.0685 \\ 0.0000$	1.4695 $1.4910$	1.9712 $1.9998$	2.9511 3.0049

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0398	0.0617	0.0571	0.0575
COMPLETE	0.0702	0.0807	0.0802	0.0748
PROPOSED	0.0000	0.1610	0.2058	0.2901

the bias mean is

	(intercept)	x1	x2	x3
FULL	-0.0057	-0.0062	0.0002	-0.0008
COMPLETE	0.0685	-0.0305	-0.0288	-0.0489
PROPOSED	0.0000	-0.0090	-0.0002	0.0049

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0398 $0.0702$ $0.0000$	0.0617 $0.0807$ $0.1610$	0.0571 $0.0802$ $0.2058$	0.0575 $0.0748$ $0.2901$

sample size : 500

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 500

average sample size for complete data: 313.24 average sample size for logistic data: 48963.01

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_1.5\_3\_n\_500\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x3
FULL	-0.0055	1.5019	2.0019	3.0003
COMPLETE	0.1063	1.4579	1.9350	2.9062
PROPOSED	0.0000	1.5105	2.0098	3.0163

the estimation sd is

	(intercept)	x1	x2	x3
FULL	0.0392	0.0477	0.0473	0.0404
COMPLETE	0.0657	0.0743	0.0596	0.0702
PROPOSED	0.0000	0.1515	0.1808	0.2641

the bias mean is

	(intercept)	x1	x2	x3
FULL	-0.0055	0.0019	0.0019	0.0003
COMPLETE	0.1063	-0.0421	-0.0650	-0.0938
PROPOSED	0.0000	0.0105	0.0098	0.0163

	(intercept)	x1	x2	x3
FULL COMPLETE PROPOSED	0.0392 $0.0657$ $0.0000$	0.0	0.0473 0.0596 0.1808	0.0404 $0.0702$ $0.2641$

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.68 average sample size for logistic data: 1943.28

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_100\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0032 0.0883 0.0000	1.9436	0.4896 $0.4600$ $0.5280$	1.4924 1.4259 1.6300

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0973	0.1259	0.1201	0.1079
COMPLETE	0.1713	0.1934	0.1417	0.1305
PROPOSED	0.0000	0.5389	0.2232	0.3896

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0032	-0.0098	-0.0104	-0.0076
COMPLETE	0.0883	-0.0564	-0.0400	-0.0741
PROPOSED	0.0000	0.1811	0.0280	0.1300

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.00.0	000-	0.1201 $0.1417$ $0.2232$	0.1079 0.1305 0.3896

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.9 average sample size for logistic data: 1958.44

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_100\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	$0.0035 \\ 0.0932$		$0.5072 \\ 0.4783$	1.5093 1.4312
PROPOSED	0.0000	2.2085	0.5539	1.6477

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0953	0.1108	0.1084	0.1087
COMPLETE	0.1552	0.1850	0.1345	0.1436
PROPOSED	0.0000	0.4556	0.1912	0.3370

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0035	0.0139	0.0072	0.0093
COMPLETE	0.0932	-0.0412	-0.0217	-0.0688
PROPOSED	0.0000	0.2085	0.0539	0.1477

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0000	0.1850	0.1084 $0.1345$ $0.1912$	0.1436

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.68 average sample size for logistic data: 1943.28

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_100\_intercept\_10\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	10.0032 10.0883	1.9902 1.9436	0.4896	1.4924 1.4259
PROPOSED	0.0000	1.0 100	0.1000	1.4209 $1.6300$

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0973	0.1259	0.1201	0.1079
COMPLETE	0.1713	0.1934	0.1417	0.1305
PROPOSED	0.0000	0.5389	0.2232	0.3896

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0032	-0.0098	-0.0104	-0.0076
COMPLETE	0.0883	-0.0564	-0.0400	-0.0741
PROPOSED	-10.0000	0.1811	0.0280	0.1300

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0973 $0.1713$ $0.0000$	000	0.1201 $0.1417$ $0.2232$	0.1305

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.9 average sample size for logistic data: 1958.44

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_100\_intercept\_10\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	10.0035	2.0139	0.5072	1.5093
COMPLETE	10.0932	1.9588	0.4783	1.4312
PROPOSED	0.0000	2.2085	0.5539	1.6477

#### the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0953	0.1108	0.1084	0.1087
COMPLETE	0.1552	0.1850	0.1345	0.1436
PROPOSED	0.0000	0.4556	0.1912	0.3370

## the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0035	0.0139	0.0072	0.0093
COMPLETE	0.0932	-0.0412	-0.0217	-0.0688
PROPOSED	-10.0000	0.2085	0.0539	0.1477

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0000	0.1850	0.1084 $0.1345$ $0.1912$	0.1436

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.68 average sample size for logistic data: 1943.28

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_100\_intercept\_5\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	5.0032 5.0883 0.0000	1.9436	0.4896 $0.4600$ $0.5280$	1.4924 1.4259 1.6300

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0973	0.1259	0.1201	0.1079
COMPLETE	0.1713	0.1934	0.1417	0.1305
PROPOSED	0.0000	0.5389	0.2232	0.3896

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0032	-0.0098	-0.0104	-0.0076
COMPLETE	0.0883	-0.0564	-0.0400	-0.0741
PROPOSED	-5.0000	0.1811	0.0280	0.1300

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0973 $0.1713$ $0.0000$	000	0.1201 $0.1417$ $0.2232$	0.1305

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.9 average sample size for logistic data: 1958.44

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_100\_intercept\_5\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	5.0035 5.0932		$0.5072 \\ 0.4783$	1.5093 1.4312
PROPOSED	0.0000	2.2085	0.5539	1.6477

#### the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0953	0.1108	0.1084	0.1087
COMPLETE	0.1552	0.1850	0.1345	0.1436
PROPOSED	0.0000	0.4556	0.1912	0.3370

#### the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0035	0.0139	0.0072	0.0093
COMPLETE	0.0932	-0.0412	-0.0217	-0.0688
PROPOSED	-5.0000	0.2085	0.0539	0.1477

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0000	0.1108 0.1850 0.4556	000-	0.1436

sample size : 500

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 500

average sample size for complete data: 310.76 average sample size for logistic data: 48193.53

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_500\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	-0.0056 0.0781	1.9439	0.1.00	1.4980 1.4363
PROPOSED	0.0000	2.0135	0.5059	1.5090

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0394	0.0612	0.0532	0.0461
COMPLETE	0.0695	0.0826	0.0670	0.0599
PROPOSED	0.0000	0.2050	0.0929	0.1521

the bias mean is

	(intercept)	x1	x2	x5
FULL	-0.0056	-0.0061	0.0002	-0.0020
COMPLETE	0.0781	-0.0561	-0.0201	-0.0637
PROPOSED	0.0000	0.0135	0.0059	0.0090

	(intercept)	x1	x2	x5
FULL COMPLETE	$0.0394 \\ 0.0695$	$0.0612 \\ 0.0826$	$0.0532 \\ 0.0670$	0.0461 $0.0599$
PROPOSED	0.0000	0.2050	0.0929	0.1521

sample size : 500

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 500

average sample size for complete data: 313.45 average sample size for logistic data: 49022.2

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_500\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	-0.0052	2.0020	0.5019	1.4955
COMPLETE	0.0971	1.9327	0.4725	1.4177
PROPOSED	0.0000	2.0012	0.4997	1.4900

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0392	0.0473	0.0476	0.0476
COMPLETE	0.0657	0.0851	0.0544	0.0657
PROPOSED	0.0000	0.1878	0.0712	0.1381

the bias mean is

	(intercept)	x1	x2	x5
FULL	-0.0052	0.0020	0.0019	-0.0045
COMPLETE	0.0971	-0.0673	-0.0275	-0.0823
PROPOSED	0.0000	0.0012	-0.0003	-0.0100

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0392 0.0657 0.0000	0.0 - 1 0	0.0476 $0.0544$ $0.0712$	0.0657

sample size : 500

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 500

average sample size for complete data: 310.76 average sample size for logistic data: 48193.53

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_500\_intercept\_5\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	4.9944 5.0781 0.0000	1.9439	0.5002 $0.4799$ $0.5059$	1.4980 1.4363 1.5090

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0394	0.0612	0.0532	0.0461
COMPLETE	0.0695	0.0826	0.0670	0.0599
PROPOSED	0.0000	0.2050	0.0929	0.1521

the bias mean is

	(intercept)	x1	x2	x5
FULL	-0.0056	-0.0061	0.0002	-0.0020
COMPLETE	0.0781	-0.0561	-0.0201	-0.0637
PROPOSED	-5.0000	0.0135	0.0059	0.0090

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0394 $0.0695$ $0.0000$	0.00-	0.0532 $0.0670$ $0.0929$	0.0461 $0.0599$ $0.1521$

sample size : 500

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 500

average sample size for complete data: 313.45 average sample size for logistic data: 49022.2

error\_independent: TRUE

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_2\_0\_n\_500\_intercept\_5\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	4.9948 5.0971 0.0000	1.9327	0.5019 $0.4725$ $0.4997$	1.4177

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0392	0.0473	0.0476	0.0476
COMPLETE	0.0657	0.0851	0.0544	0.0657
PROPOSED	0.0000	0.1878	0.0712	0.1381

the bias mean is

	(intercept)	x1	x2	x5
FULL	-0.0052	0.0020	0.0019	-0.0045
COMPLETE	0.0971	-0.0673	-0.0275	-0.0823
PROPOSED	-5.0000	0.0012	-0.0003	-0.0100

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0392 0.0657 0.0000	0.0 - 1 0	0.0476 $0.0544$ $0.0712$	0.0657

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.57 average sample size for logistic data: 1937.67

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_100\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	0.0032	2.9681	1.4896	1.9924
COMPLETE	0.0568		1.4517	1.9526
PROPOSED	0.0000		1.6612	2.2012

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0973	0.1259	0.1201	0.1079
COMPLETE	0.1712	0.1912	0.1469	0.1267
PROPOSED	0.0000	0.7875	0.4416	0.5361

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0032	-0.0098	-0.0104	-0.0076
COMPLETE	0.0568	-0.0319	-0.0483	-0.0474
PROPOSED	0.0000	0.3195	0.1612	0.2012

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0973 $0.1712$ $0.0000$	0.1912	0.1201 $0.1469$ $0.4416$	0.1079 $0.1267$ $0.5361$

sample size: 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 63.01 average sample size for logistic data: 1964.04

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_100\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	$0.0035 \\ 0.0588$	3.0139 2.9829	1.5072 1.4655	2.0093 1.9599
PROPOSED	0.0000	3.3430	1.6600	2.2143

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0953	0.1108	0.1084	0.1087
COMPLETE	0.1568	0.1867	0.1341	0.1421
PROPOSED	0.0000	0.6990	0.3513	0.4628

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0035	0.0139	0.0072	0.0093
COMPLETE	0.0588	-0.0171	-0.0345	-0.0401
PROPOSED	0.0000	0.3430	0.1600	0.2143

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0953 $0.1568$ $0.0000$	000.	0.1341	000,

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.57 average sample size for logistic data: 1937.67

 $error\_independent \colon FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_100\_intercept\_10\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	10.0032 10.0568	2.9902 $2.9681$	1.4896 1.4517	1.9924 1.9526
PROPOSED	0.0000	3.3195	1.6612	2.2012

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0973	0.1259	0.1201	0.1079
COMPLETE	0.1712	0.1912	0.1469	0.1267
PROPOSED	0.0000	0.7875	0.4416	0.5361

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0032	-0.0098	-0.0104	-0.0076
COMPLETE	0.0568	-0.0319	-0.0483	-0.0474
PROPOSED	-10.0000	0.3195	0.1612	0.2012

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0973 $0.1712$ $0.0000$	0.1912	0.1201 $0.1469$ $0.4416$	0.1267

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 63.01 average sample size for logistic data: 1964.04

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_100\_intercept\_10\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	10.0035 10.0588	3.0139	1.5072 1.4655	2.0093 1.9599
PROPOSED	0.0000	3.3430	1.4655 $1.6600$	2.2143

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0953	0.1108	0.1084	0.1087
COMPLETE	0.1568	0.1867	0.1341	0.1421
PROPOSED	0.0000	0.6990	0.3513	0.4628

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0035	0.0139	0.0072	0.0093
COMPLETE	0.0588	-0.0171	-0.0345	-0.0401
PROPOSED	-10.0000	0.3430	0.1600	0.2143

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0953 $0.1568$ $0.0000$	000.	0.1341	0.1087 $0.1421$ $0.4628$

sample size : 100

simulation time : 100

 $loss\_rate:\ 0.625$ 

average sample size for full data: 100

average sample size for complete data: 62.57 average sample size for logistic data: 1937.67

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_100\_intercept\_5\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	5.0032	2.9681	1.4896	1.9924
COMPLETE	5.0568		1.4517	1.9526
PROPOSED	0.0000		1.6612	2.2012

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0973	0.1259	0.1201	0.1079
COMPLETE	0.1712	0.1912	0.1469	0.1267
PROPOSED	0.0000	0.7875	0.4416	0.5361

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0032	-0.0098	-0.0104	-0.0076
COMPLETE	0.0568	-0.0319	-0.0483	-0.0474
PROPOSED	-5.0000	0.3195	0.1612	0.2012

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0973 $0.1712$ $0.0000$	00	0.1201 0.1469 0.4416	0.1267

sample size : 100

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 100

average sample size for complete data: 63.01 average sample size for logistic data: 1964.04

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_100\_intercept\_5\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	5.0035	3.0139	1.4655	2.0093
COMPLETE	5.0588	2.9829		1.9599
PROPOSED	0.0000	3.3430		2.2143

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0953	0.1108	0.1084	0.1087
COMPLETE	0.1568	0.1867	0.1341	0.1421
PROPOSED	0.0000	0.6990	0.3513	0.4628

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0035	0.0139	0.0072	0.0093
COMPLETE	0.0588	-0.0171	-0.0345	-0.0401
PROPOSED	-5.0000	0.3430	0.1600	0.2143

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0953 $0.1568$ $0.0000$	000.	0.1341	000,

sample size : 1000 simulation time : 100 loss\_rate: 0.625

average sample size for full data: 1000

average sample size for complete data: 628.07 average sample size for logistic data: 196997.7

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_1000\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	0.0052	2.9821	1.4988	2.0005
COMPLETE	0.0450		1.4767	1.9706
PROPOSED	0.0000		1.5024	2.0064

#### the estimation sd is

	(intercept)	x1	x2	x5
FULL COMPLETE	0.0289 0.0491	0.0367 $0.0537$	0.0350 $0.0483$	0.0338
PROPOSED	0.0000	0.0337 $0.1808$	0.0403	0.0410 $0.1280$

## the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0052	-0.0037	-0.0012	0.0005
COMPLETE	0.0450	-0.0179	-0.0233	-0.0294
PROPOSED	0.0000	0.0135	0.0024	0.0064

	(intercept)	x1	x2	x5
FULL	0.0289 $0.0491$ $0.0000$	0.0367	0.0350	0.0338
COMPLETE		0.0537	0.0483	0.0416
PROPOSED		0.1808	0.0913	0.1280

sample size : 1000 simulation time : 100 loss\_rate: 0.625

average sample size for full data: 1000

average sample size for complete data: 623.65 average sample size for logistic data: 194277.7

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_1000\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	0.0051	2.9495	1.4938	2.0046
COMPLETE	0.0753		1.4505	1.9553
PROPOSED	0.0000		1.4981	2.0232

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0289	0.0299	0.0319	0.0286
COMPLETE	0.0495	0.0625	0.0397	0.0409
PROPOSED	0.0000	0.1711	0.0984	0.1221

the bias mean is

	(intercept)	x1	x2	x5
FULL	0.0051	-0.0043	-0.0062	0.0046
COMPLETE	0.0753	-0.0505	-0.0495	-0.0447
PROPOSED	0.0000	0.0293	-0.0019	0.0232

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0289 $0.0495$ $0.0000$	0.0299 $0.0625$ $0.1711$	0.0397	0.0286 $0.0409$ $0.1221$

sample size : 500

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 500

average sample size for complete data: 310.93 average sample size for logistic data: 48246.61

 $error\_independent: FALSE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_500\_intercept\_0\_error\_independent\_FALSE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL	-0.0056	2.9939	1.5002	1.9980
COMPLETE	0.0391	2.9682	1.4797	1.9663
PROPOSED	0.0000	3.0209	1.5154	2.0131

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0394	0.0612	0.0532	0.0461
COMPLETE	0.0726	0.0864	0.0701	0.0604
PROPOSED	0.0000	0.2907	0.1612	0.1955

the bias mean is

	(intercept)	x1	x2	x5
FULL	-0.0056	-0.0061	0.0002	-0.0020
COMPLETE	0.0391	-0.0318	-0.0203	-0.0337
PROPOSED	0.0000	0.0209	0.0154	0.0131

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0394 $0.0726$ $0.0000$	0.0612 $0.0864$ $0.2907$	0.0701	0.0604

sample size : 500

simulation time : 100

 $loss\_rate: 0.625$ 

average sample size for full data: 500

average sample size for complete data: 313.52 average sample size for logistic data: 49045.64

 $error\_independent: TRUE$ 

missing\_method: xy missing\_location: 1

 $file\_name: ./data/beta\_3\_0\_n\_500\_intercept\_0\_error\_independent\_TRUE.Rdata$ 

the estimation mean is

	(intercept)	x1	x2	x5
FULL COMPLETE	-0.0052 0.0598	3.0020 2.9570	1.5019	1.9955 1.9477
PROPOSED	0.0598 $0.0000$	3.0002	$1.4674 \\ 1.5034$	1.9477

the estimation sd is

	(intercept)	x1	x2	x5
FULL	0.0392	0.0473	0.0476	0.0476
COMPLETE	0.0676	0.0829	0.0572	0.0648
PROPOSED	0.0000	0.2551	0.1315	0.1723

the bias mean is

	(intercept)	x1	x2	x5
FULL	-0.0052	0.0020	0.0019	-0.0045
COMPLETE	0.0598	-0.0430	-0.0326	-0.0523
PROPOSED	0.0000	0.0002	0.0034	-0.0059

	(intercept)	x1	x2	x5
FULL COMPLETE PROPOSED	0.0392 0.0676 0.0000	0.0829	0.0476 $0.0572$ $0.1315$	0.0648