

Supplementary Material for “Linear Regression with a Randomly
Censored Covariate: Application to an Alzheimer’s Study” by Folefac
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Table S.1: Estimation and testing of α_1 : light censoring independent of Y ; 1000 replicates (5000 for type I error)

Method	Bias	SD	SE	MSE	Type 1 error	Power
n=100						
No Censoring	0.0024	0.2766	0.2504	0.0627	0.053	0.558
Complete Case	0.0452	0.4122	0.1433	0.1433	0.056	0.344
Single Imputation	0.0440	0.3126	0.2592			
Multiple Imputation	0.0550	0.3400	0.3355	0.1156	0.052	0.340
Deletion Thresholding	0.0881	0.2592	0.2635	0.0772	0.059	0.199
Complete Thresholding	0.0944	0.2532	0.2514	0.0720	0.060	0.347
Reverse survival					0.053	0.387
n=250						
No Censoring	0.0020	0.1597	0.1422	0.0202	0.048	0.911
Complete Case	0.0302	0.2389	0.2249	0.0515	0.051	0.666
Single Imputation	0.0290	0.1999	0.1742			
Multiple Imputation	0.0386	0.2009	0.1847	0.0356	0.052	0.599
Deletion Thresholding	0.0599	0.1662	0.1654	0.0309	0.056	0.310
Complete Thresholding	0.0491	0.1584	0.1579	0.0273	0.053	0.405
Reverse survival					0.045	0.783

Table S.2: Estimation and testing of α_1 : heavy censoring independent of Y ; 1000 replicates (5000 for type I error)

Method	Bias	SD	SE	MSE	Type 1 error	Power
n=100						
No Censoring	0.0024	0.2766	0.2504	0.0627	0.053	0.558
Complete Case	0.1049	0.8511	0.8957	0.7354	0.056	0.142
Single Imputation	0.1022	0.6359	0.5196			
Multiple Imputation	0.1001	0.6159	0.5677	0.3323	0.055	0.194
Deletion Thresholding	0.1091	0.2819	0.2858	0.0936	0.044	0.117
Complete Thresholding	0.1000	0.2741	0.2744	0.0851	0.044	0.207
Reverse survival					0.057	0.273
n=250						
No Censoring	0.0020	0.1597	0.1422	0.0202	0.048	0.911
Complete Case	0.0651	0.5639	0.5451	0.3014	0.056	0.179
Single Imputation	0.0999	0.4111	0.3069			
Multiple Imputation	0.0983	0.3562	0.3236	0.1144	0.056	0.341
Deletion Thresholding	0.0994	0.1711	0.1773	0.0413	0.048	0.270
Complete Thresholding	0.0612	0.1678	0.1606	0.0295	0.046	0.373
Reverse survival					0.057	0.572