Supplementary Materials for: Evaluating the Effects of Missing Values and Mixed Data Types on Social Sequence Clustering Using t-SNE Visualization

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A SUPPLEMENTARY TABLE

Table A.1. Performance of the Four-Cluster Solution of $D_{combined}$ on Its Contributing Domains (D_{binary} and $D_{nominal}$) Under Different Missing Value Treatments

Contributing Domains	With Gaps NA Cost = 0	With Gaps NA Cost = 2	No Gaps NA Cost = 0	No Gaps NA Cost = 2
<i>Point Biserial Correlation</i>				
D_{binary}	0.62	0.57	0.73	0.62
$D_{nominal}$	0.03	0.39	-0.05	0.21
<i>Average Silhouette Width</i>				
D_{binary}	0.47	0.27	0.55	0.35
$D_{nominal}$	-0.03	0.07	-0.05	0.00

B SUPPLEMENTARY FIGURES

Fig. B.1. Sample individual sequence plots to illustrate the missing patterns in the PSID dataset. Variables are family size (“Total FU”), number of children under 8 (“Children under 8”), employment status (“Employment”), high school degree (“High School”), and marriage status (“Married”).

Fig. B.2. Cluster solutions for the combined domain with survey gaps and NA cost = 2. (a) State distribution plot. (b) Individual sequence plot.

Fig. B.3. t-SNE results from varying perplexity number and maximum iteration number (colored by the clustering solutions).

Fig. B.4. Birth year and cluster assignment relationship in binary and nominal domains.

Fig. B.5. Individual sequence plot of the cluster solutions for nominal domain under no survey gap cases.