Table 5: Regression model. Dependent variable: expenditures. Independent variables: total income, food purchased, food consumed, nonfood purchased.

Estimand	Q	Avg. $\overline{q_s}$
Coefficients		
Constant	-1664.4878	-825.07984
total income	0.026	0.06612
food purchased	1.017	1.00768
food consumed	0.9924	0.90364
food nonpurchased	1.0886	0.906
R	0.9842	0.90692

Table 6: Regression model. Dependent variable: expenditures. Independent variables: food purchased, food consumed, food nonpurchased.

Estimand	Q	Avg. $\overline{q_s}$
Coefficients		
Constant	-168.794	3725.97836
food purchased	1.0334	1.05348
food consumed	1.0162	1.204032
food nonpurchased	1.1082	0.95308
R	0.9838	0.90272

Tables 2 – 6 summarize the results of simulation for a variety of estimands. Inferences are made using the methods presented in Section 2.2. For simple estimands (table 2) the averages of synthetic point estimates are close to their corresponding Q. The average of parameter R[1] for each regression models for synthetic data sets (tables 3-6) are greater 0.900 which indicates that these models are worth considering. In addition, the averages of regression coefficients are close to original values. So, the analyst will make the same inferences as in the case of actual data.

In case for disclosure risk of each sensitive variable Y_{j_l} $(l=1, 2, \ldots, d)$, we assume that the analyst would estimate Y_{j_l} value of i_{r} 's unit by averaging the replaced values

$$\bar{y}_{i_r j_l} = \sum_{k=1}^{m} y_{i_r j_l}^{rep,k}$$

[1] R shows how much the independent variables explain the dependent variable