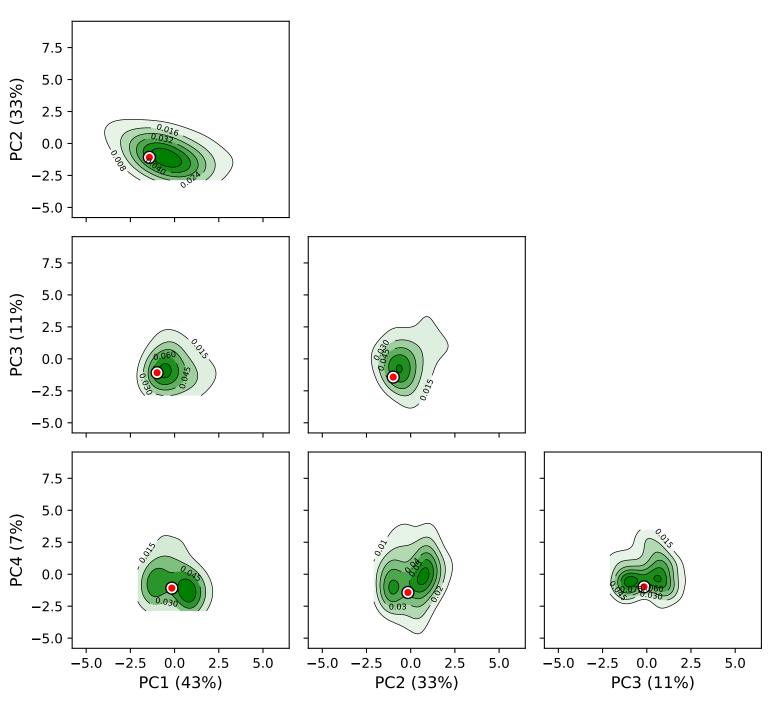
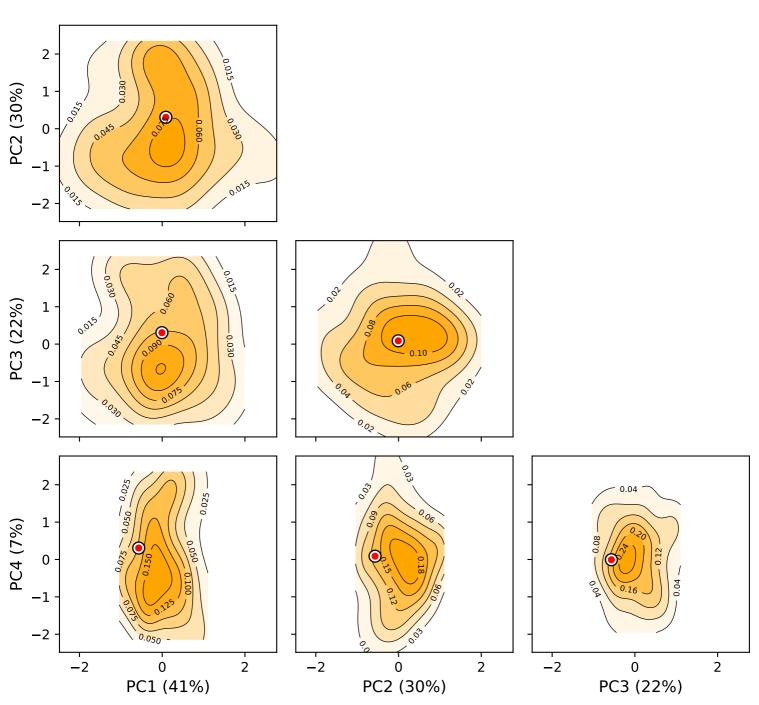
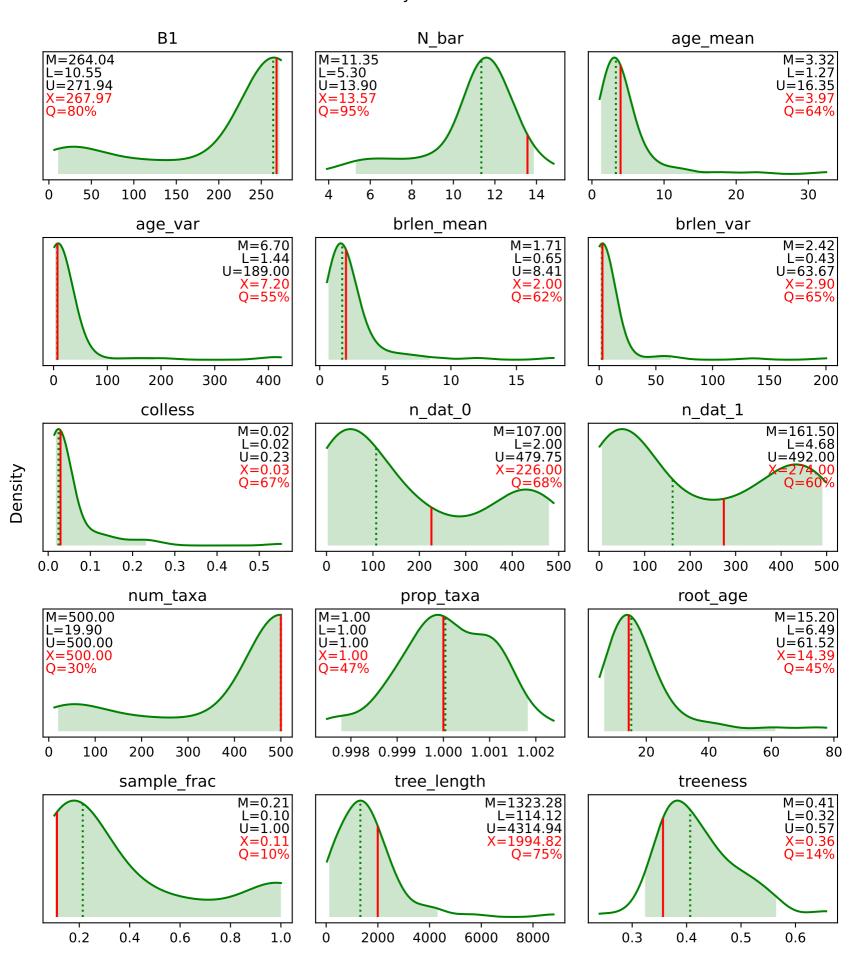


PCA: Aux. data

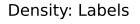


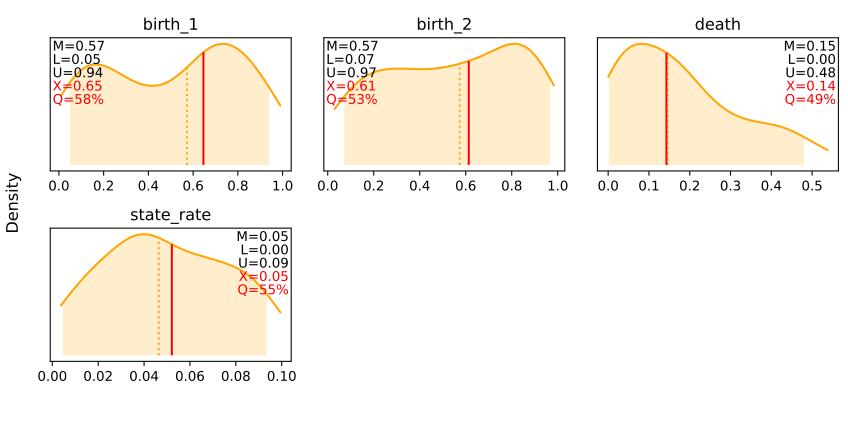


Density: Aux. data



Data





Data

Train estimates: birth 1 MAE: 1.66E-01 MAPE: 98.4% MSE: 3.95E-02 RMSE: 1.99E-01 Intercept: 1.80E-02-Slope: 9.89E-01 Coverage: 100.0% 1.0 birth\_1 truth 0.5 0.0 -0.50.0 0.5 1.0 1.5 -0.5birth\_1 truth

Train estimates: birth 2 MAE: 1.57E-01 1.25 Intercept: 4.22E-02 Slope: 9.42E-01 Coverage: 98.4% 1.00 0.75 birth\_2 truth 0.50 0.25 0.00 -0.250.00 0.25 0.50 0.75 1.00 1.25 -0.25birth\_2 truth

Train estimates: death MAE: 1.08E-01 MAPE: 904.5% RMSE: 1.38E-01 Intercept: -4.70E-02 Slope: 1.48E+00 Coverage: 100.0% 1.0 8.0 death truth 0.6 0.4 0.2 0.0 -0.20.0 0.2 8.0 1.2 -0.20.4 0.6 1.0 death truth

Train estimates: state rate MAE: 1.93E-02 MAPE: 89.6% 0.20 MSE: 5.12E-04 RMSE: 2.26E-02 Intercept: -2.48E-02 Slope: 1.54E+00 Coverage: 98.4% 0.15 0.10 state\_rate truth 0.05 0.00 -0.05-0.10-0.10-0.050.10 0.15 0.20 0.00 0.05 state\_rate truth

Test estimates: birth 1 MAE: 1.34E-01 MAPE: 65.2% 1.25 Intercept: -6.01E-02 Slope: 1.04E+00 Coverage: 100.0% 1.00 0.75 birth\_1 truth 0.50 0.25 0.00 -0.25-0.500.75 -0.250.00 0.25 0.50 1.00 -0.501.25 birth\_1 truth

Test estimates: birth 2 MAE: 1.41E-01 MAPE: 76.6% RMSE: 1.76E-01 Intercept: -2.38E-01 Slope: 1.28E+00 Coverage: 100.0% 1.0 8.0 birth\_2 truth 0.6 0.4 0.2 0.0 -0.20.0 0.2 -0.20.4 8.0 1.0 1.2 0.6 birth\_2 truth

Test estimates: death MAE: 7.04E-02 MAPE: 255.4% MSE: 6.98E-03 RMSE: 8.36E-02 Intercept: 8.44E-02 Slope: 4.75E-02 Coverage: 100.0% 1.0 8.0 death truth 0.6 0.4 0.2 0.0 0.0 0.2 0.4 8.0 1.0 1.2 0.6

death truth

Test estimates: state rate MAE: 2.05E-02 MAPE: 130.6% MSE: 8.05E-04 RMSE: 2.84E-02 0.20 -Intercept: 1.46E-01 Slope: -2.04E+00 Coverage: 90.0% 0.15 0.10 state\_rate truth 0.05 0.00 -0.05-0.10-0.10-0.050.00 0.10 0.20 0.05 0.15 state\_rate truth

