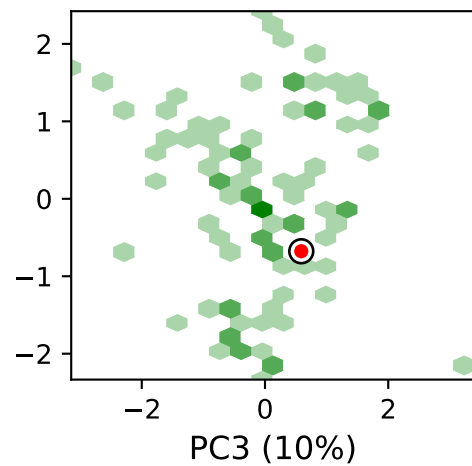
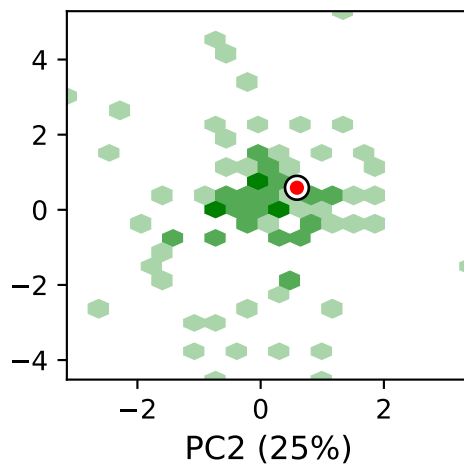
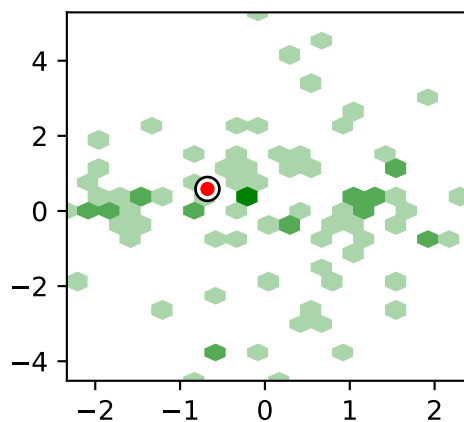
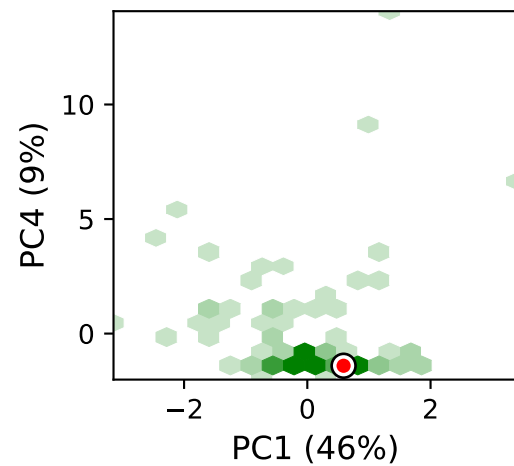
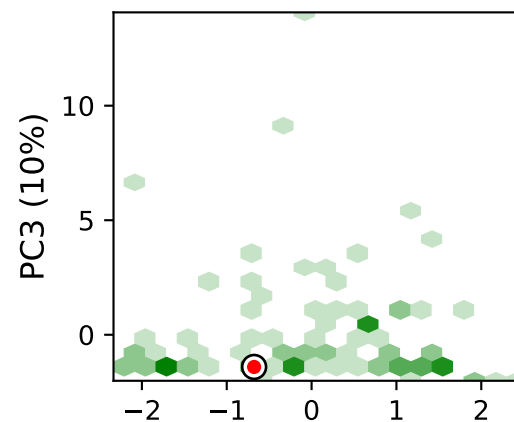
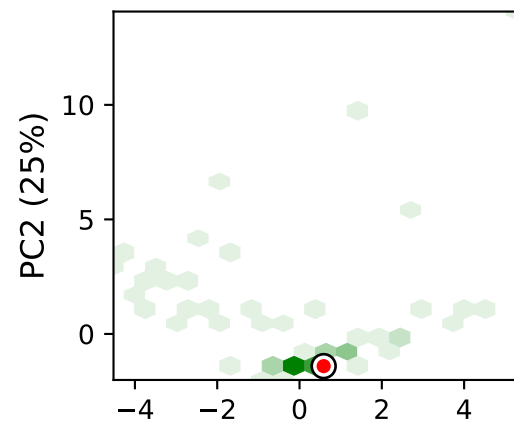
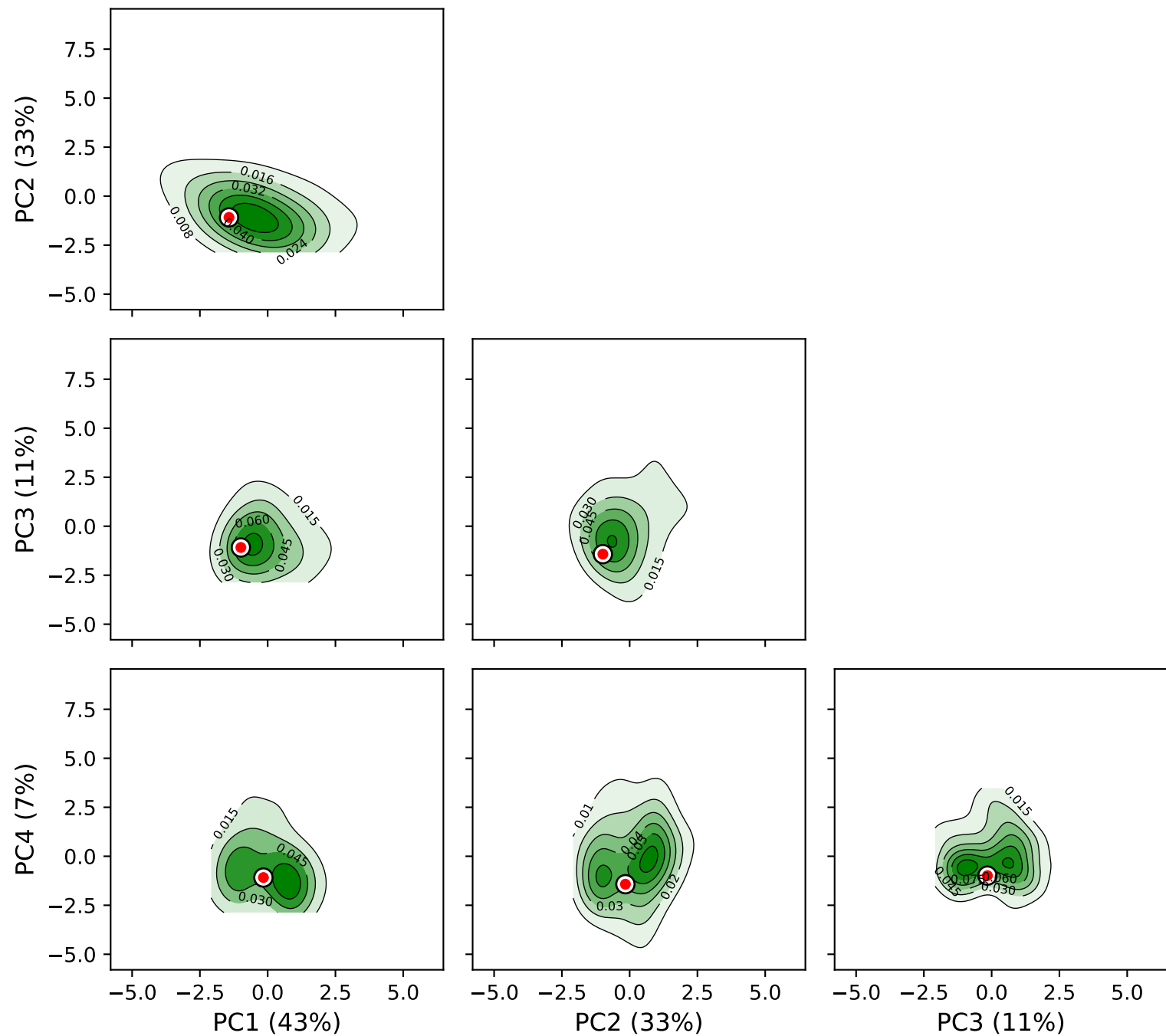


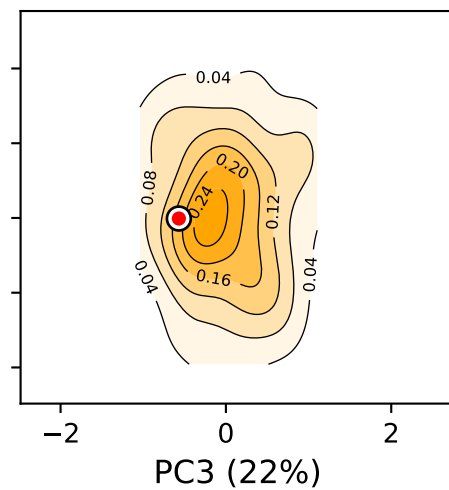
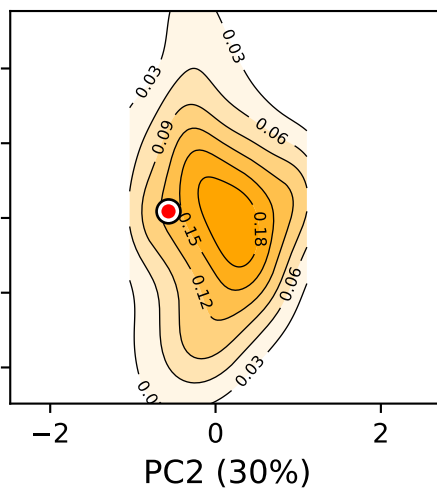
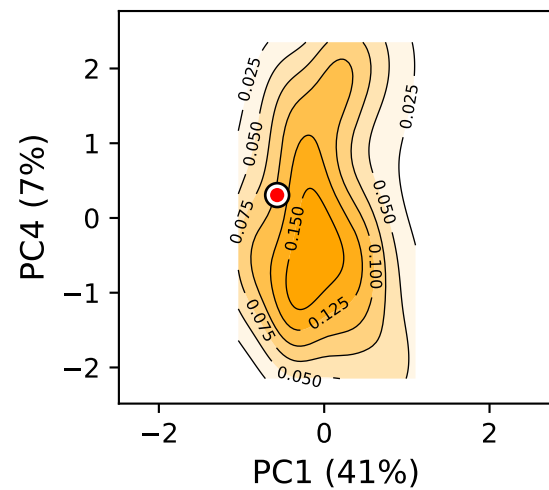
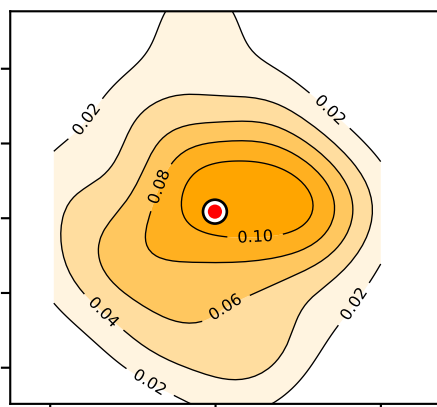
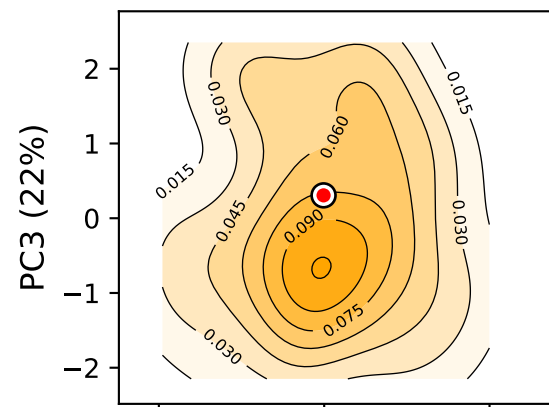
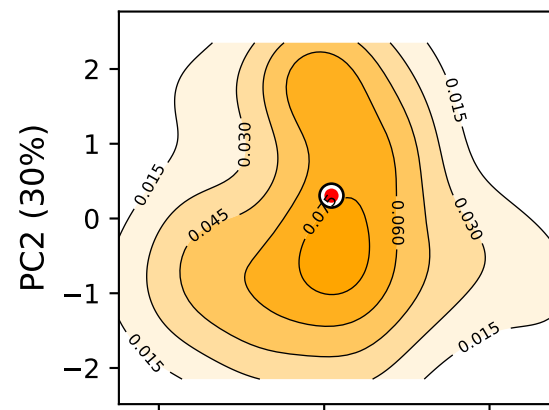
PCA: training aux. data



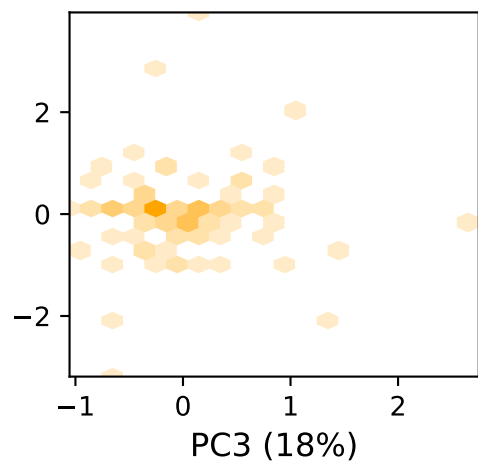
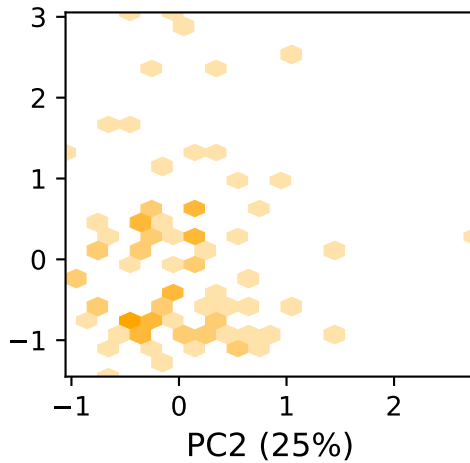
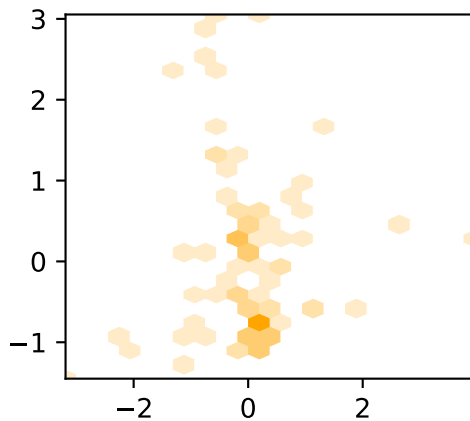
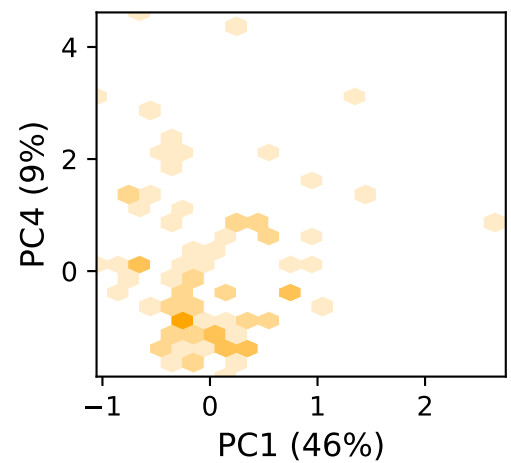
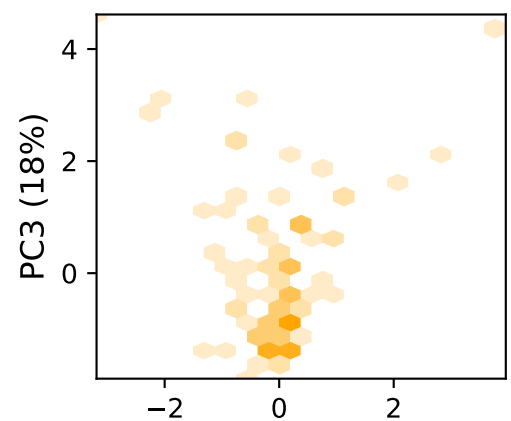
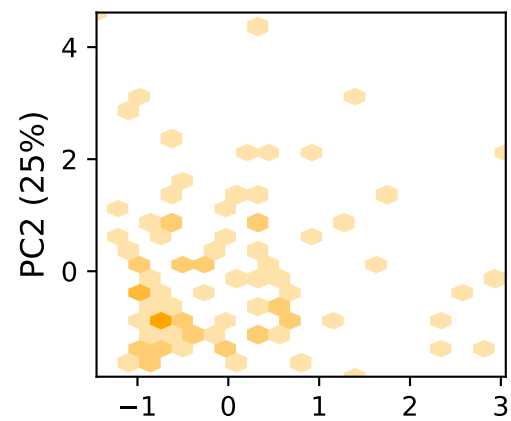
# PCA: training aux. data



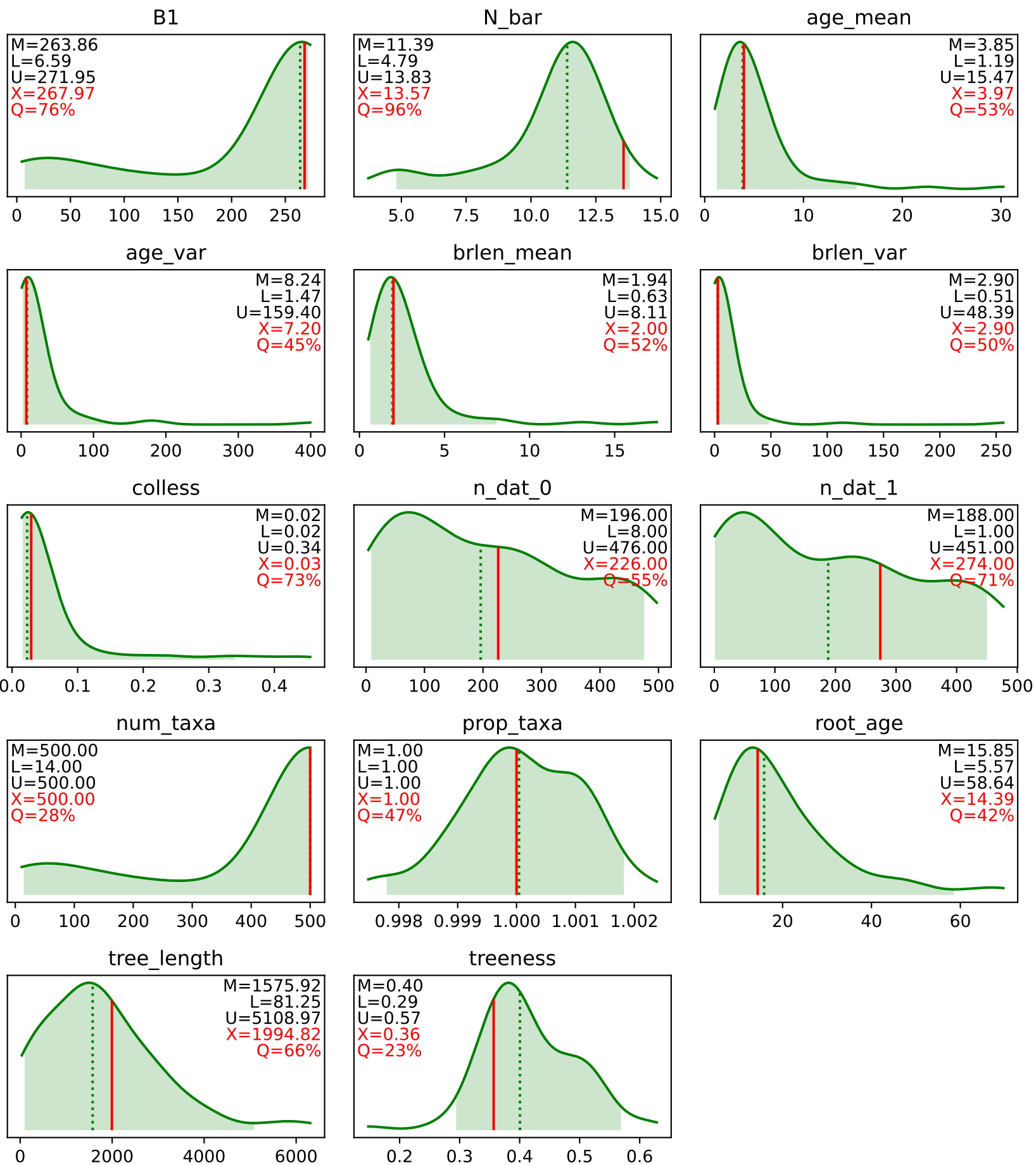
# PCA: training labels



PCA: training labels

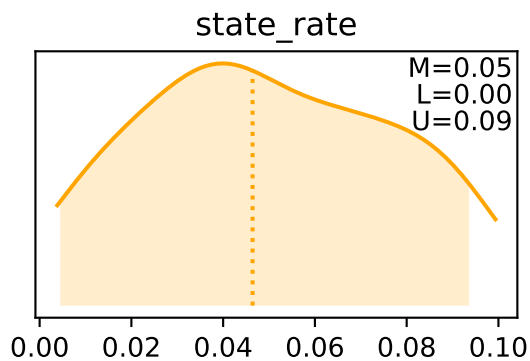
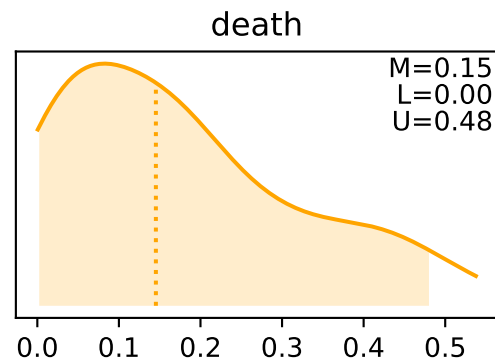
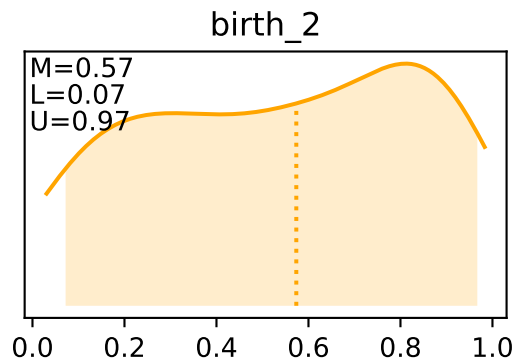
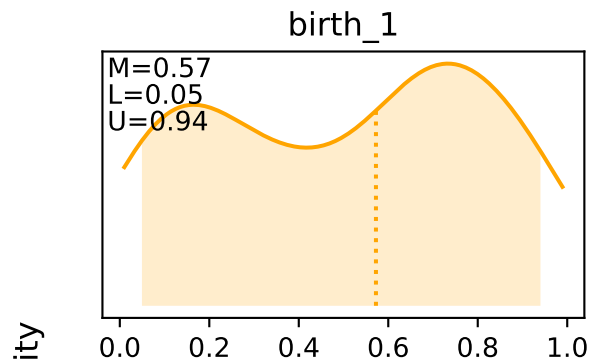


# Density: training aux. data



Data

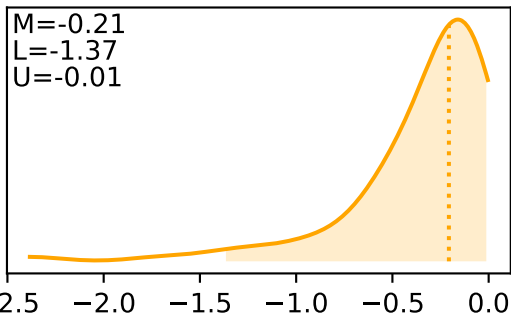
## Density: training labels



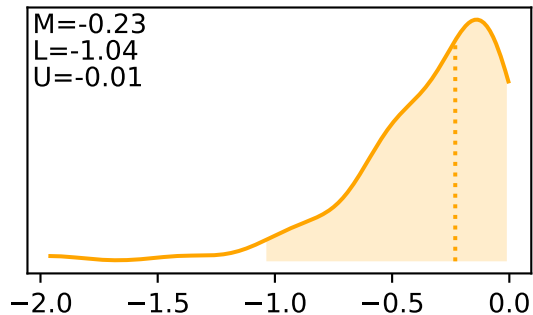
Data

## Density: training labels

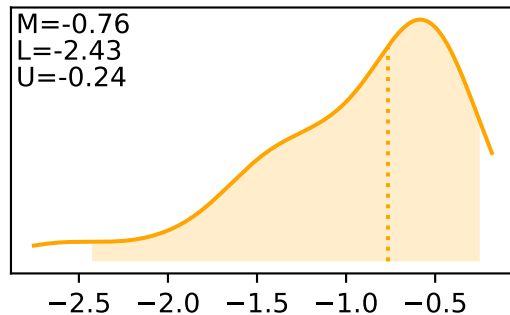
log10\_birth\_1



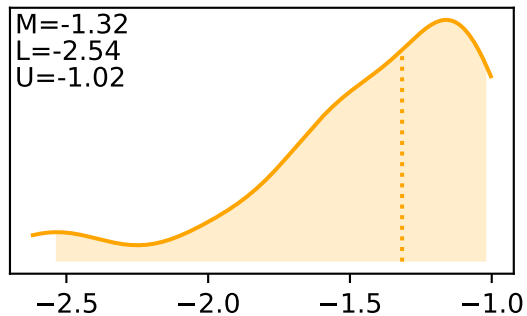
log10\_birth\_2



log10\_death



log10\_state\_rate



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%  
Coverage target: 95.0%

birth\_1 estimate

1.5

1.0

0.5

0.0

-0.5

-0.5

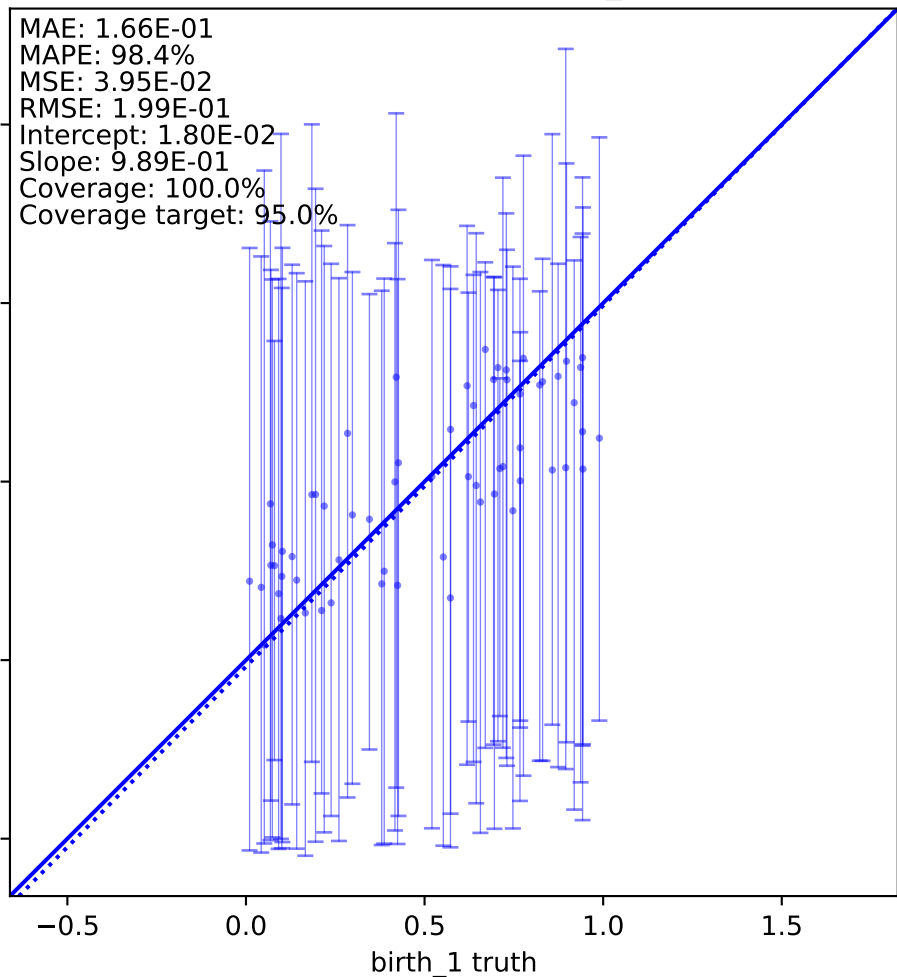
0.0

0.5

1.0

1.5

birth\_1 truth

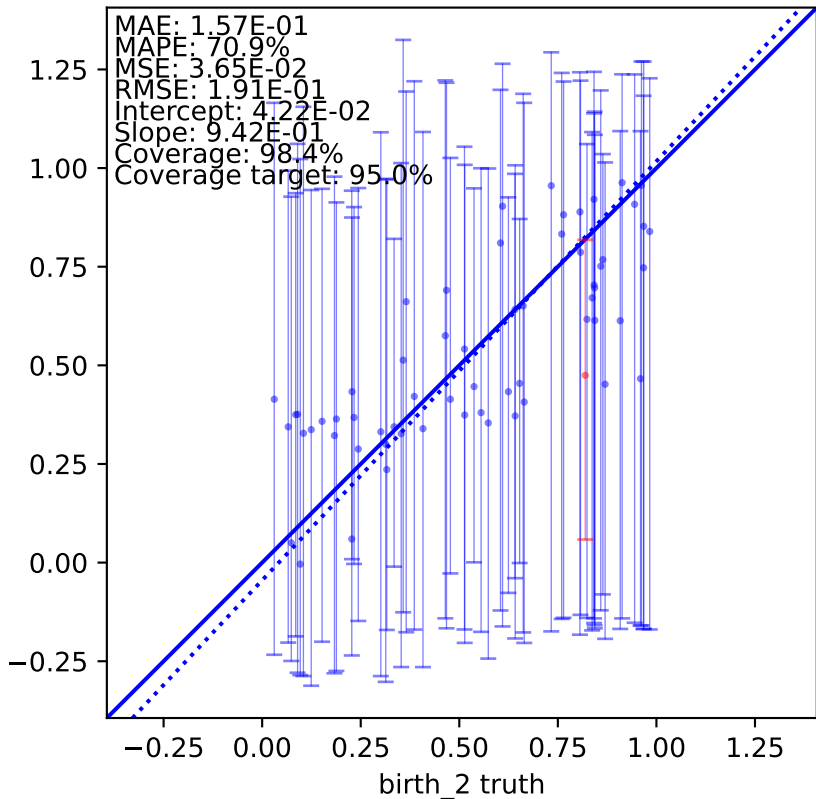




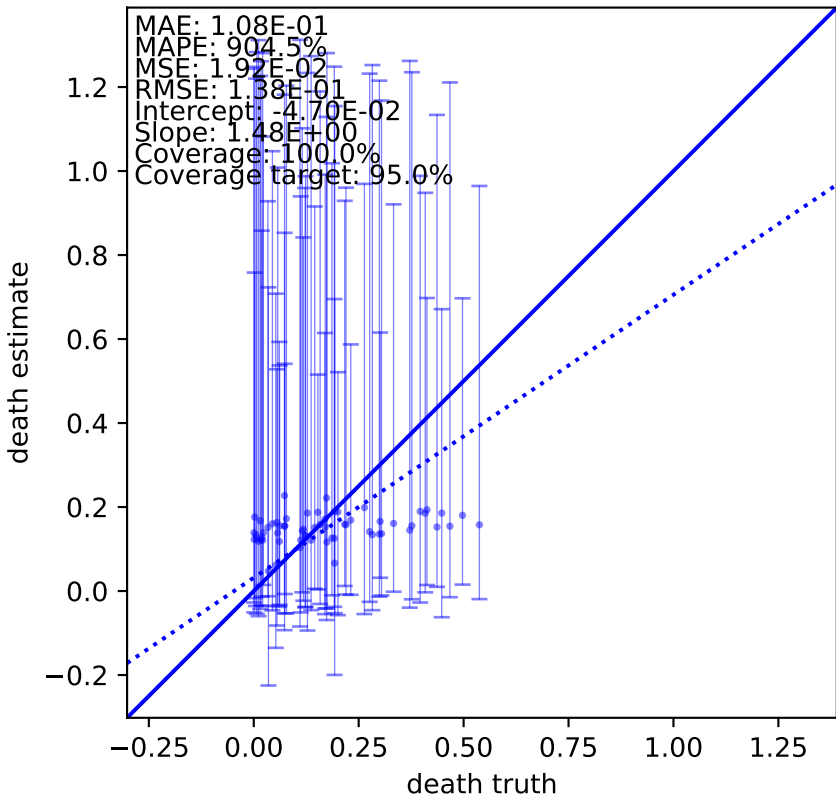
# Train estimates: birth\_2

MAE: 1.57E-01  
MAPE: 70.9%  
MSE: 3.65E-02  
RMSE: 1.91E-01  
Intercept: 4.22E-02  
Slope: 9.42E-01  
Coverage: 98.4%  
Coverage target: 95.0%

birth\_2 estimate



# Train estimates: death



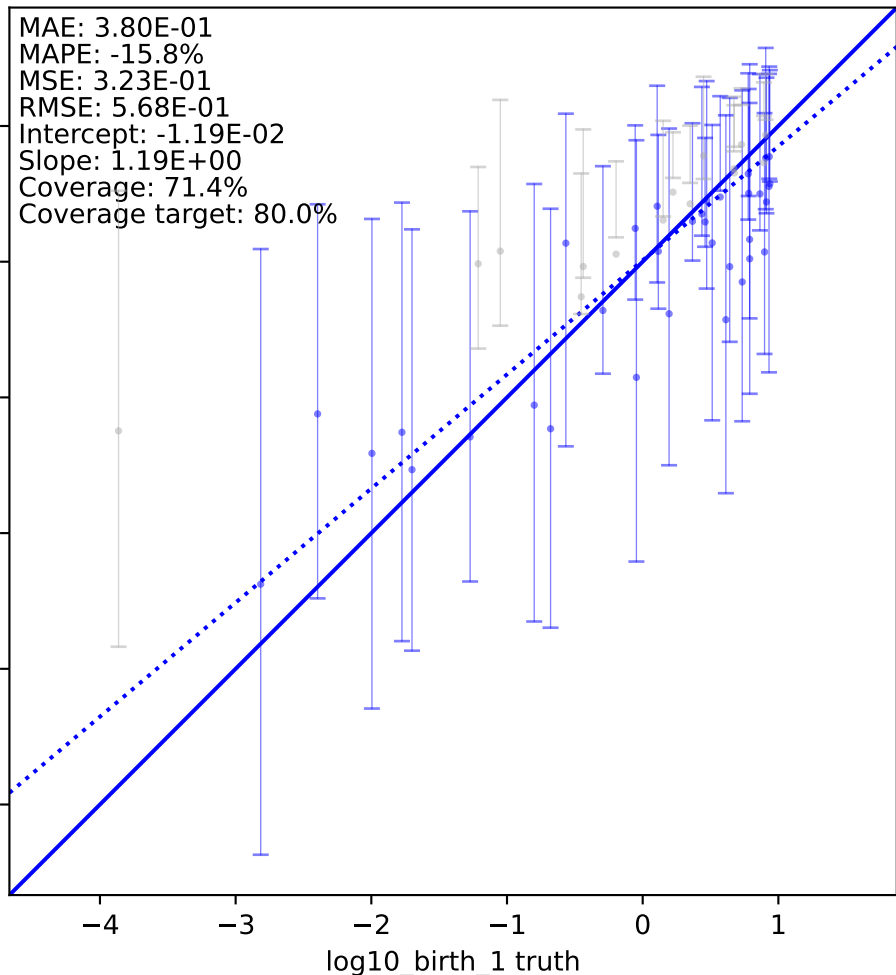
# Train estimates: log10\_birth\_1

MAE: 3.80E-01  
MAPE: -15.8%  
MSE: 3.23E-01  
RMSE: 5.68E-01  
Intercept: -1.19E-02  
Slope: 1.19E+00  
Coverage: 71.4%  
Coverage target: 80.0%

log10\_birth\_1 estimate

-4  
-3  
-2  
-1  
0  
1

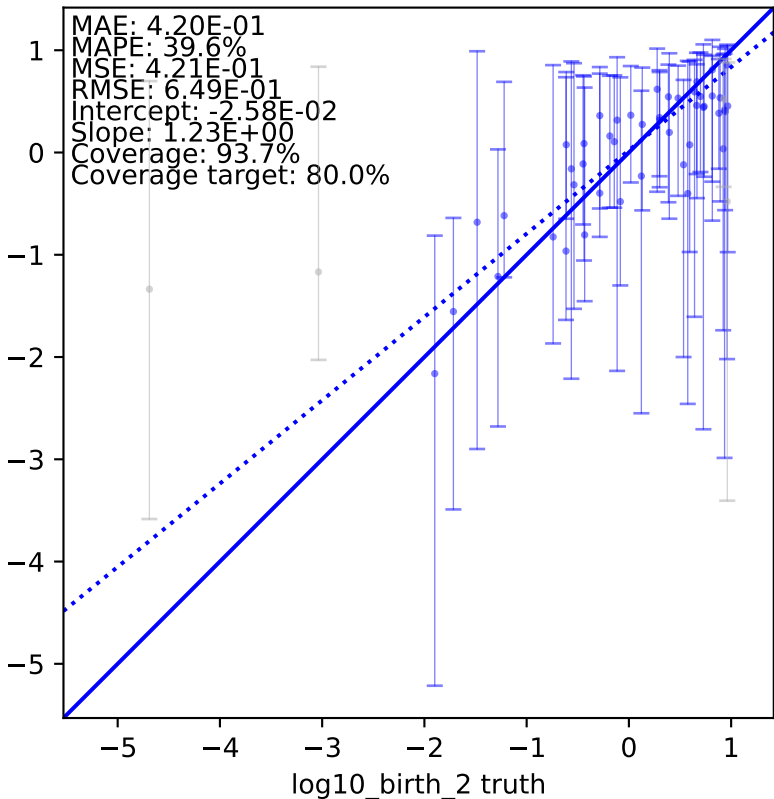
log10\_birth\_1 truth



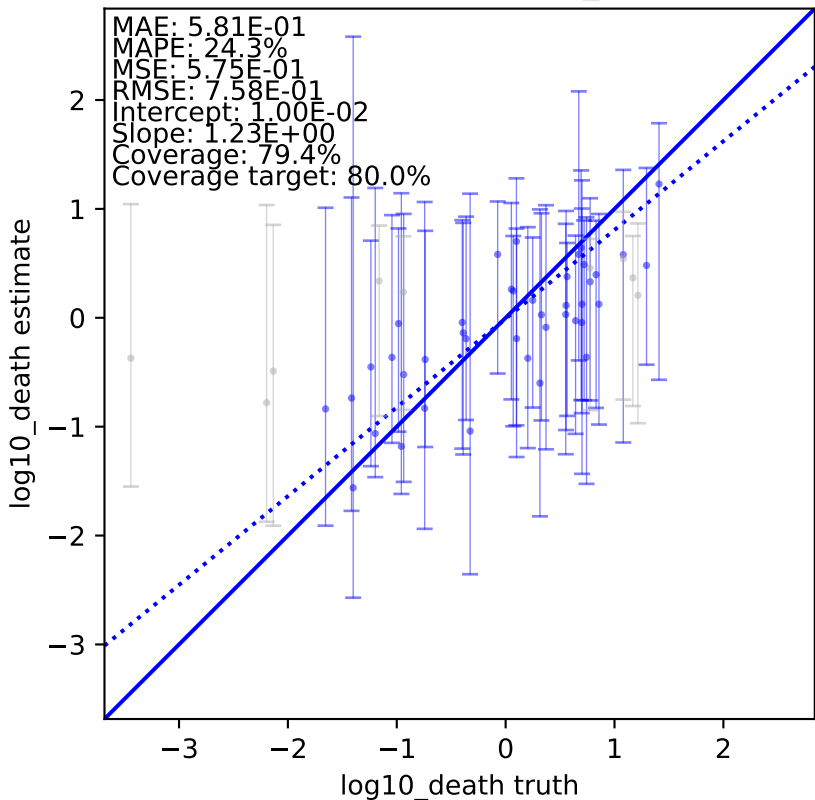
# Train estimates: log10\_birth\_2

MAE: 4.20E-01  
MAPE: 39.6%  
MSE: 4.21E-01  
RMSE: 6.49E-01  
Intercept: -2.58E-02  
Slope: 1.23E+00  
Coverage: 93.7%  
Coverage target: 80.0%

log10\_birth\_2 estimate



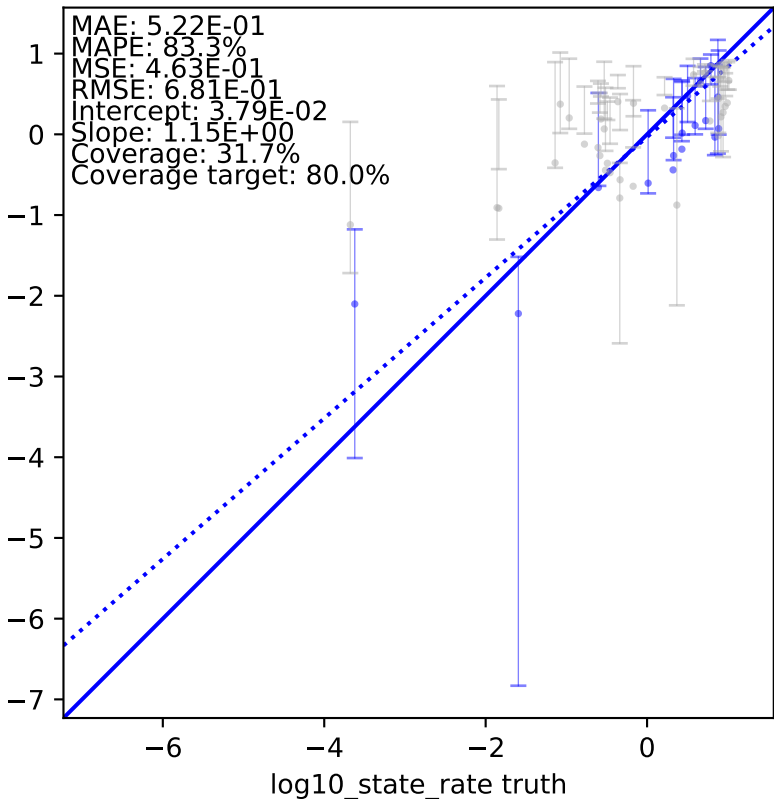
# Train estimates: log10\_death



# Train estimates: log10\_state\_rate

MAE: 5.22E-01  
MAPE: 83.3%  
MSE: 4.63E-01  
RMSE: 6.81E-01  
Intercept: 3.79E-02  
Slope: 1.15E+00  
Coverage: 31.7%  
Coverage target: 80.0%

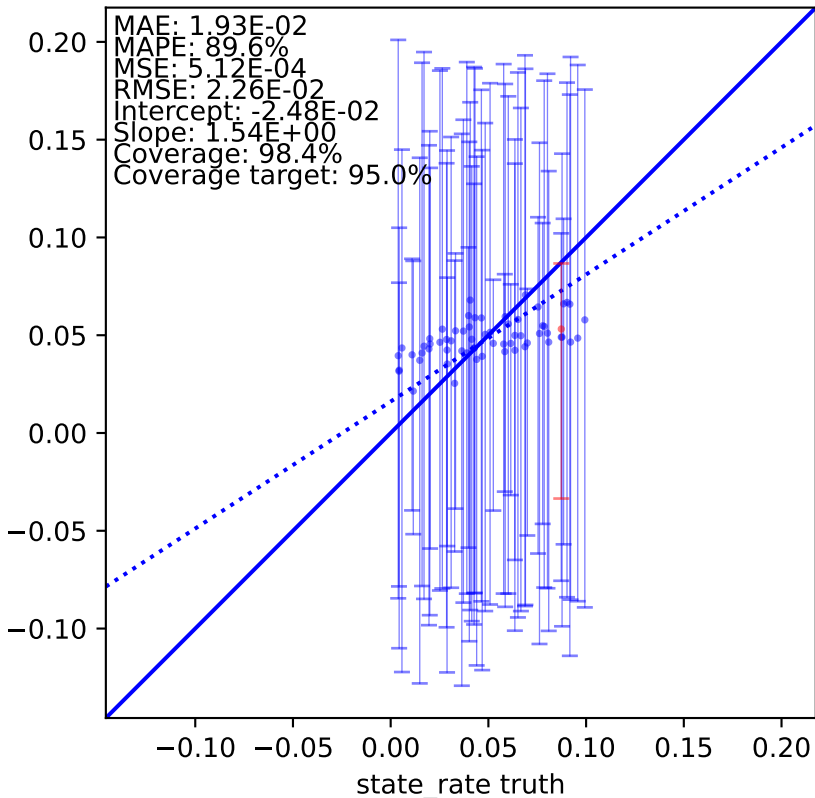
log10\_state\_rate estimate



# Train estimates: state\_rate

MAE: 1.93E-02  
MAPE: 89.6%  
MSE: 5.12E-04  
RMSE: 2.26E-02  
Intercept: -2.48E-02  
Slope: 1.54E+00  
Coverage: 98.4%  
Coverage target: 95.0%

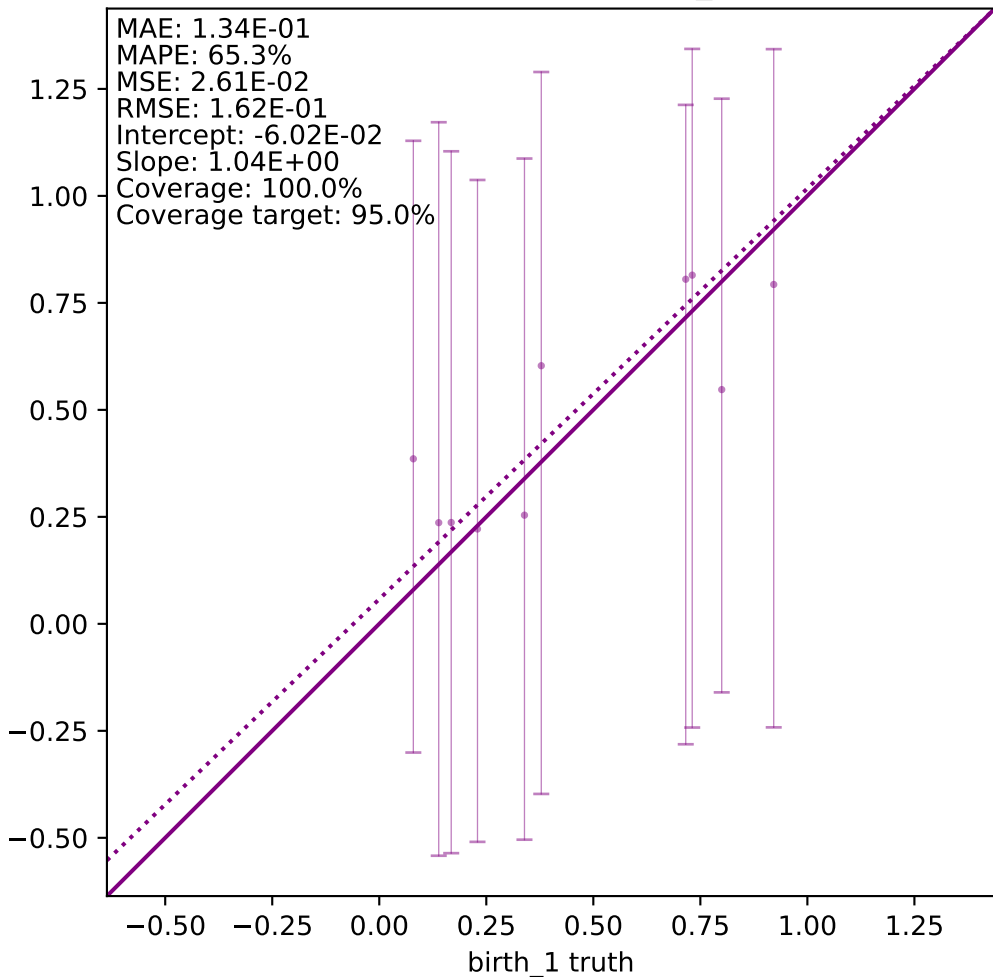
state\_rate estimate



# Test estimates: birth\_1

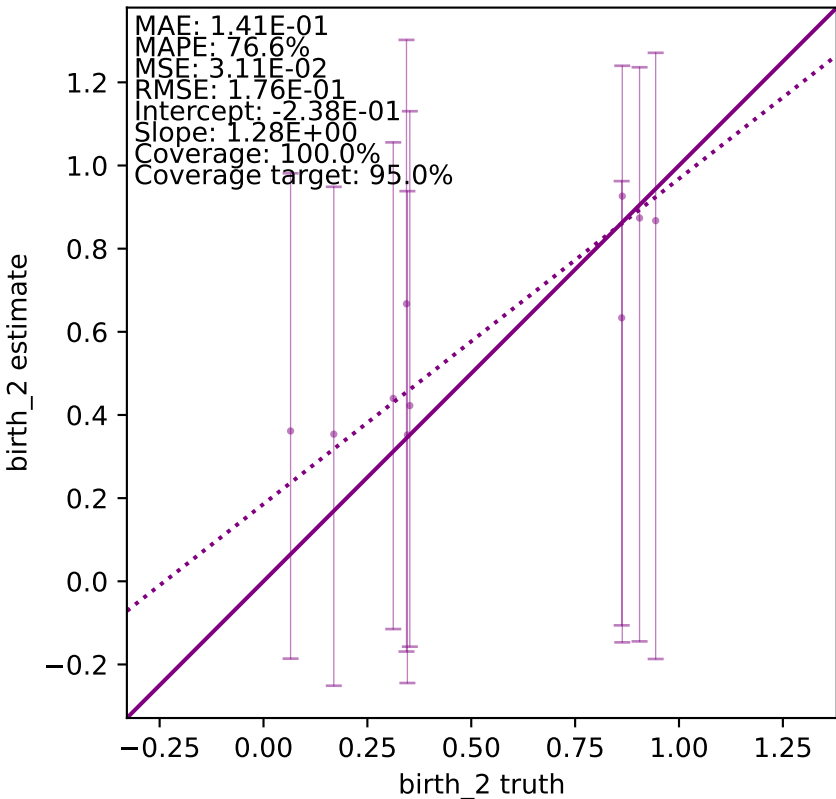
MAE: 1.34E-01  
MAPE: 65.3%  
MSE: 2.61E-02  
RMSE: 1.62E-01  
Intercept: -6.02E-02  
Slope: 1.04E+00  
Coverage: 100.0%  
Coverage target: 95.0%

birth\_1 estimate

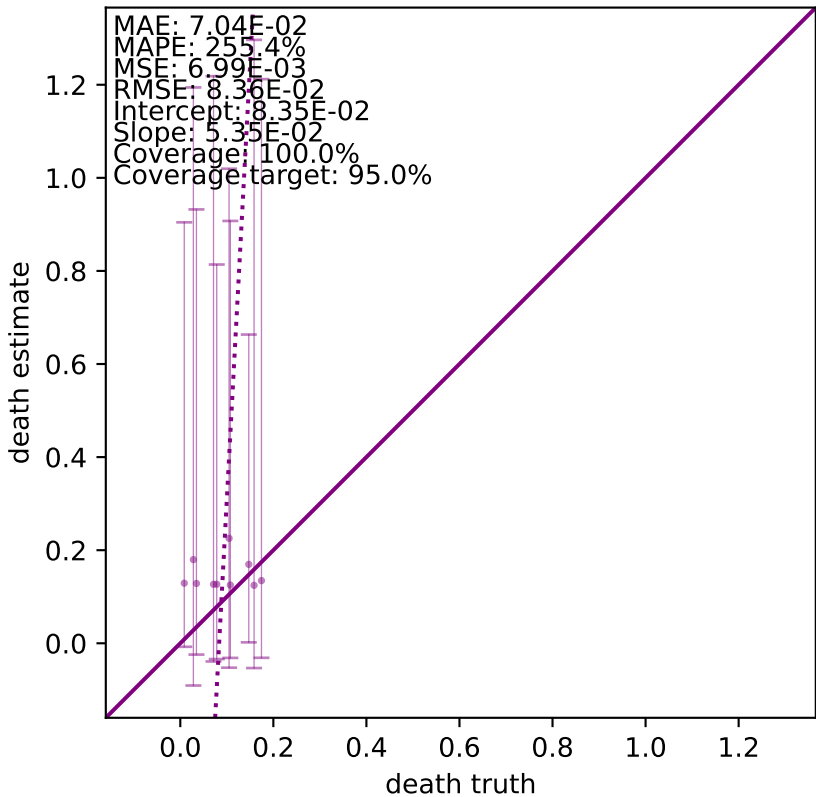




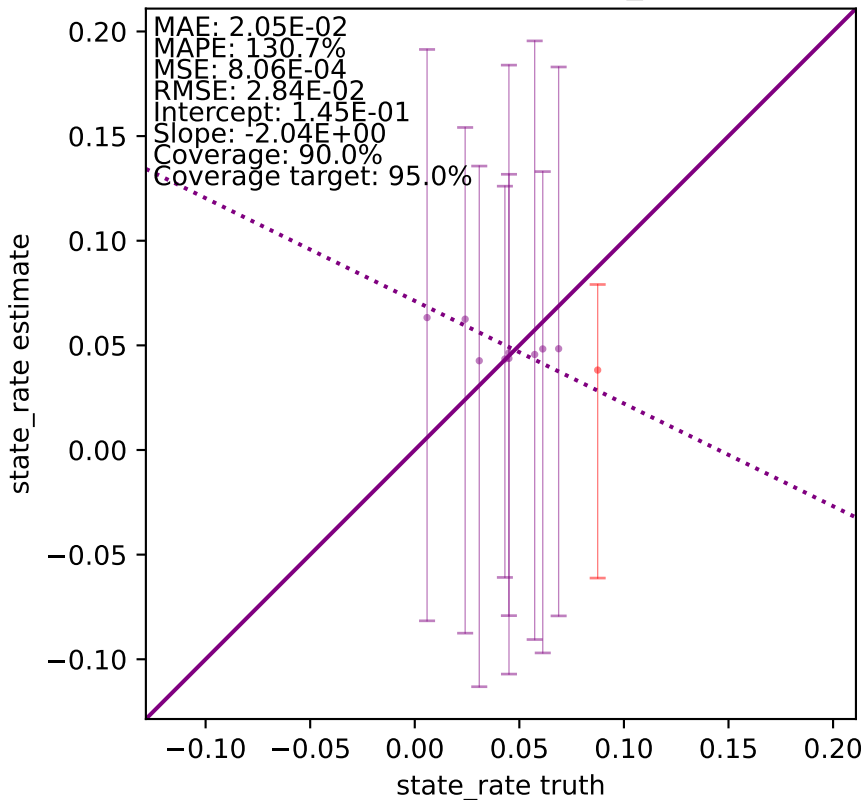
# Test estimates: birth\_2



# Test estimates: death



Test estimates: state\_rate



# Training history

