Estimate: out.empirical.0

- log10_birth_1: -2.15E-02, -1.42E-01, -3.61E-01
- log10_birth_2: -1.06E-02, -1.57E-01, -5.55E-01
- log10_death: -5.23E-01, -1.01E+00, -1.22E+00
- log10_state_rate: -9.20E-01, -1.06E+00
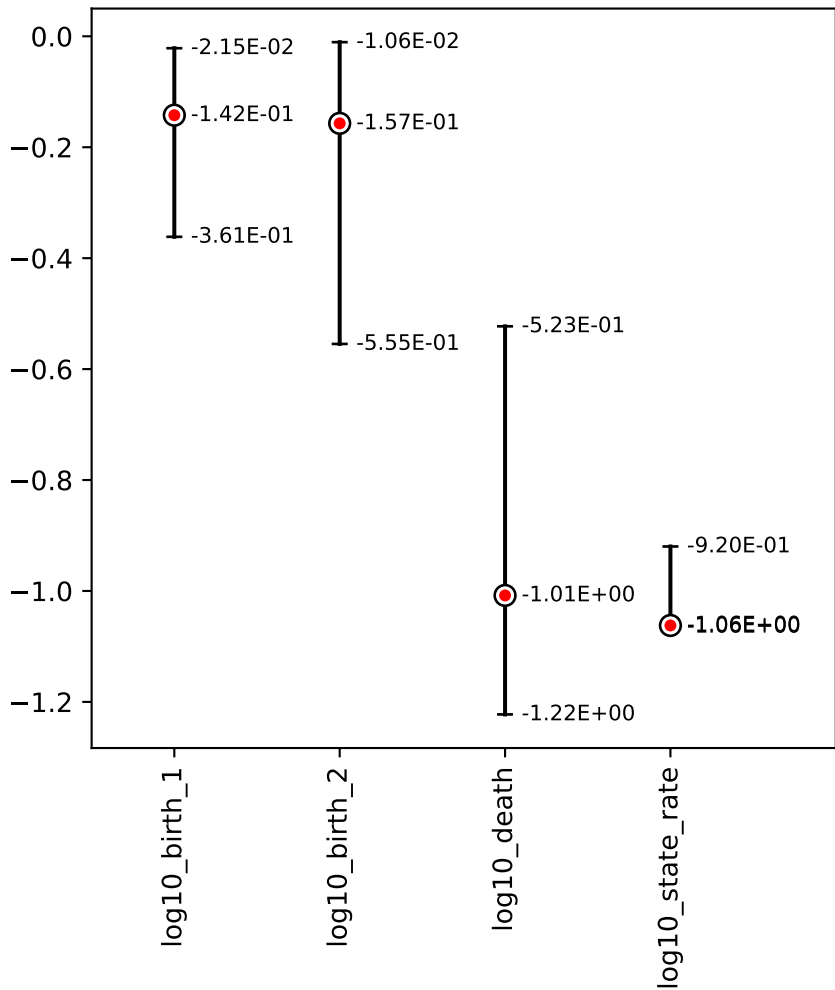
PCA: training aux. data
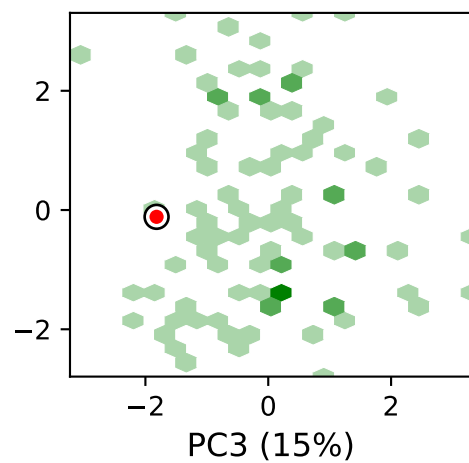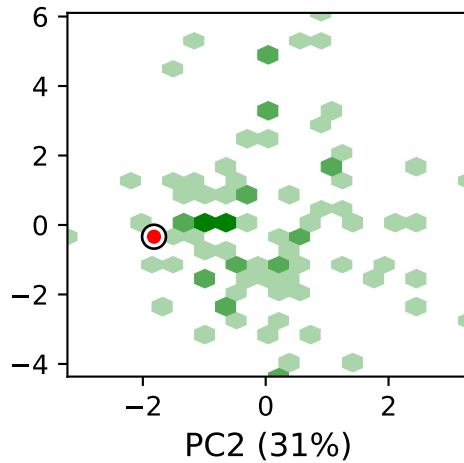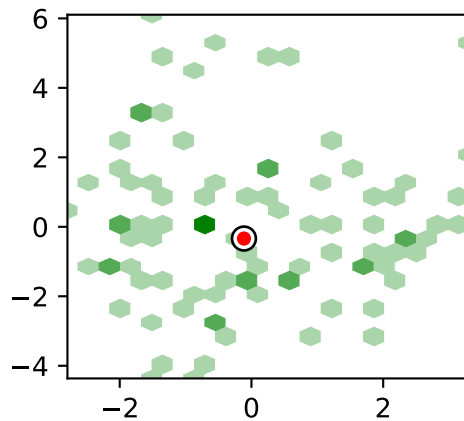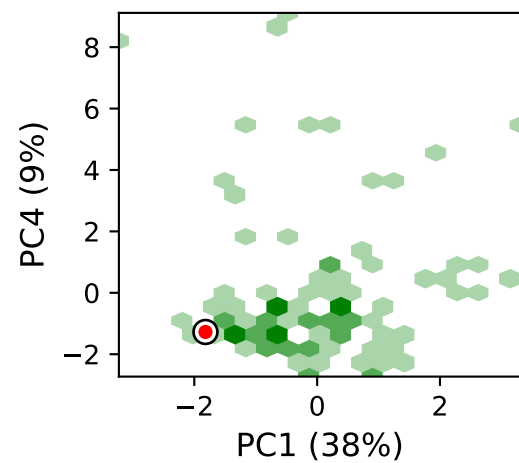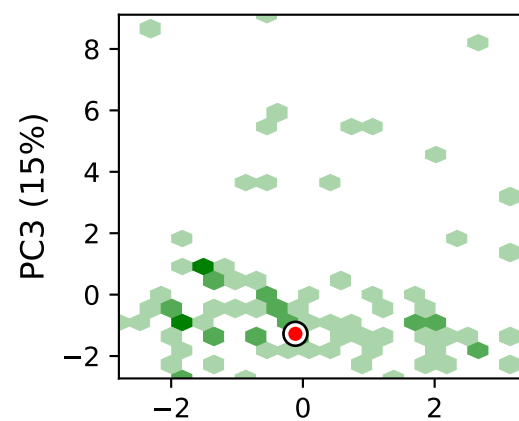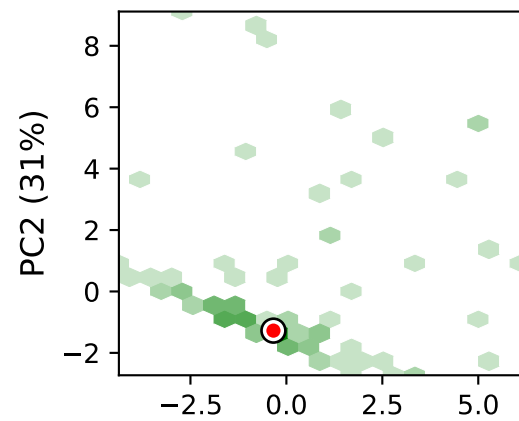
PCA: training labels
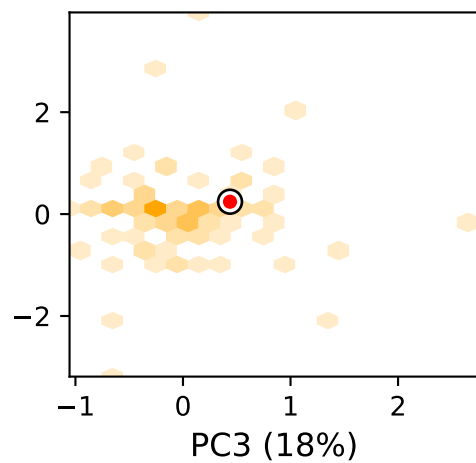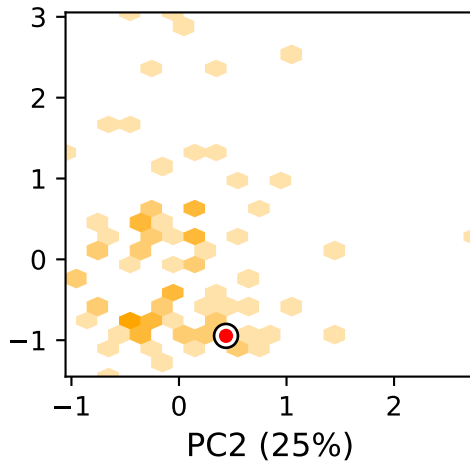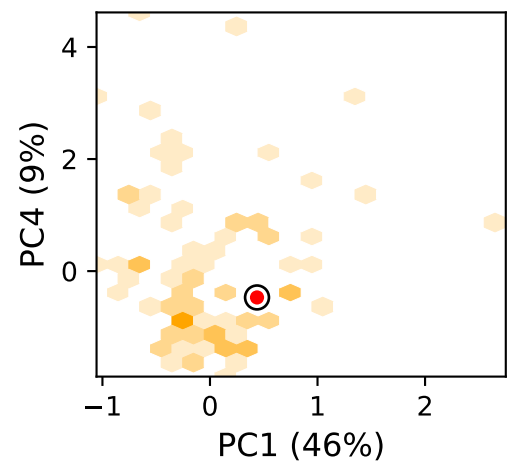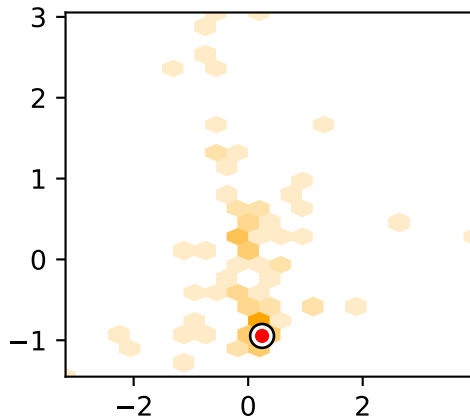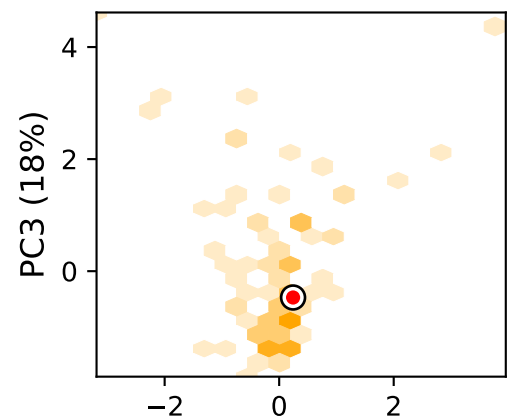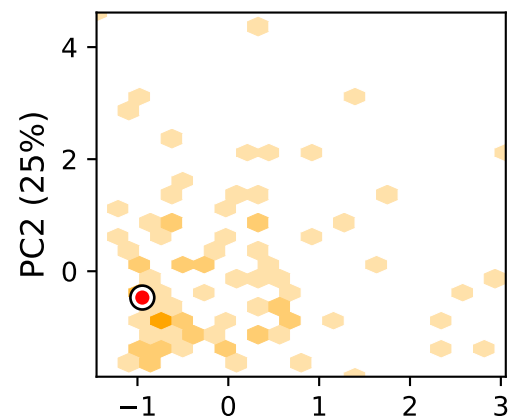
Density: training aux. data

N_bar
M=1.06
L=0.68
U=1.14
X=1.06
Q=51%

age_var
M=0.92
L=0.16
U=2.19
X=0.70
Q=30%

brlen_var
M=0.46
L=-0.29
U=1.68
X=0.37
Q=36%

colless
M=-1.64
L=-1.80
U=-0.47
X=-1.70
Q=27%

f_dat_0
M=0.52
L=0.10
U=1.00
X=0.63
Q=63%

f_dat_1
M=0.48
L=0.03
U=0.90
X=0.37
Q=35%

log10_B1
M=2.42
L=0.82
U=2.43
X=2.42
Q=44%

log10_age_mean
M=0.59
L=0.08
U=1.19
X=0.59
Q=50%

log10_brlen_mean
M=0.29
L=-0.20
U=0.91
X=0.29
Q=50%

log10_root_age
M=1.20
L=0.74
U=1.77
X=1.04
Q=23%

log10_sample_frac
M=-0.70
L=-0.99
U=0.00
X=-0.95
Q=11%

log10_tree_length
M=3.20
L=1.91
U=3.71
X=3.29
Q=64%

n_dat_0
M=5.28
L=2.08
U=6.17
X=5.76
Q=74%

n_dat_1
M=5.24
L=0.00
U=6.11
X=5.21
Q=48%

num_taxa
M=500.00
L=14.00
U=500.00
X=500.00
Q=28%

prop_taxa
M=1.00
L=1.00
U=1.00
X=1.00
Q=47%

treeness
M=-0.40
L=-0.53
U=-0.24
X=-0.48
Q=8%

Density

Data

Density: training labels

log10_birth_1
M=-0.21
L=-1.37
U=-0.01
X=-0.14
Q=66%

log10_birth_2
M=-0.23
L=-1.04
U=-0.01
X=-0.16
Q=61%

log10_death
M=-0.76
L=-2.43
U=-0.24
X=-1.01
Q=37%

log10_state_rate
M=-1.32
L=-2.54
U=-1.02
X=-1.06
Q=83%

Density
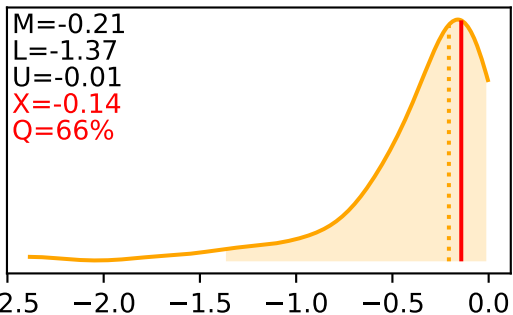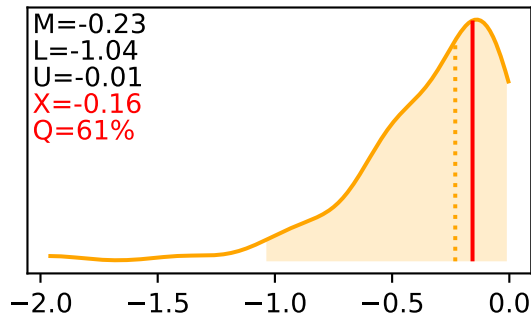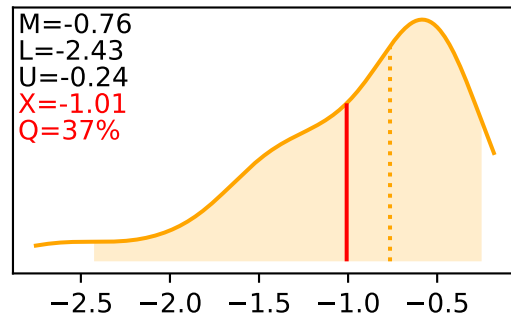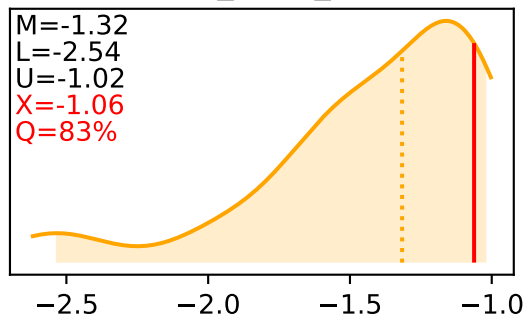
Data

Train estimates: log10_birth_1

MAE: 2.84E-01
MAPE: -3.2%
MSE: 1.65E-01
RMSE: 4.07E-01
Intercept: -1.23E-02
Slope: 1.10E+00
Coverage: 93.7%
Coverage target: 80.0%
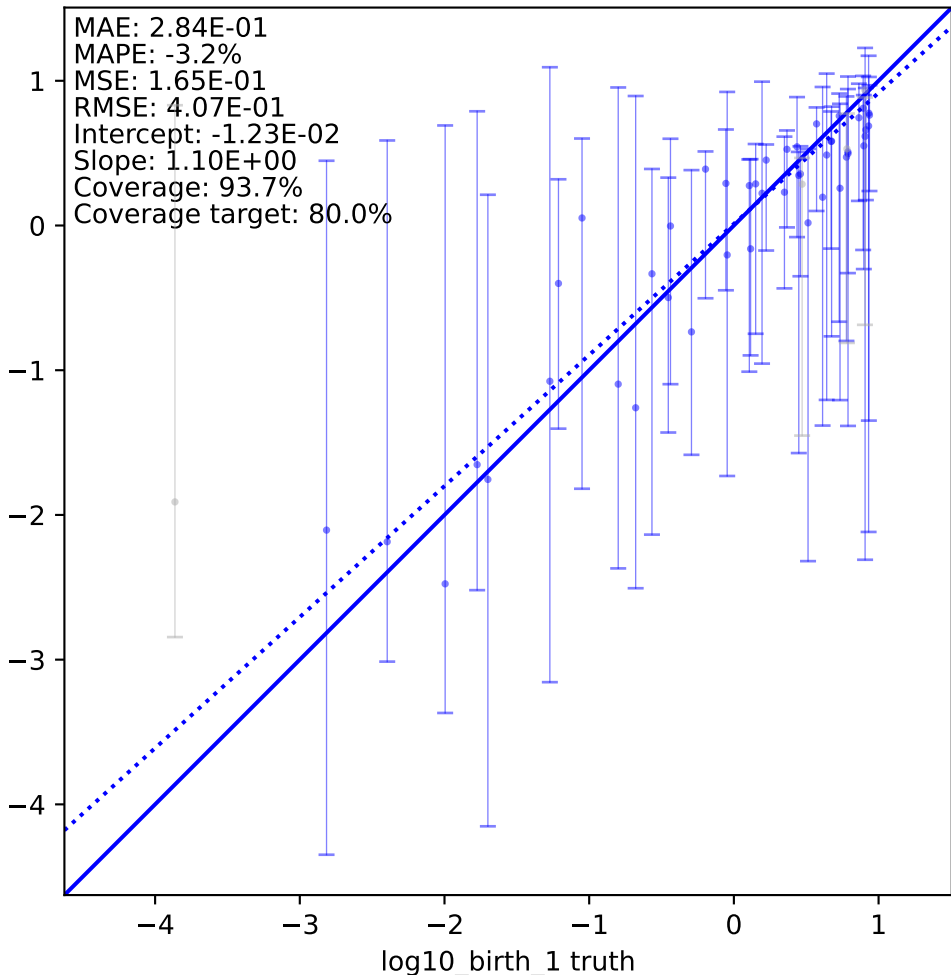
Train estimates: log10_birth_2

MAE: 3.83E-01
MAPE: 44.4%
MSE: 4.38E-01
RMSE: 6.62E-01
Intercept: -1.02E-01
Slope: 1.14E+00
Coverage: 95.2%
Coverage target: 80.0%
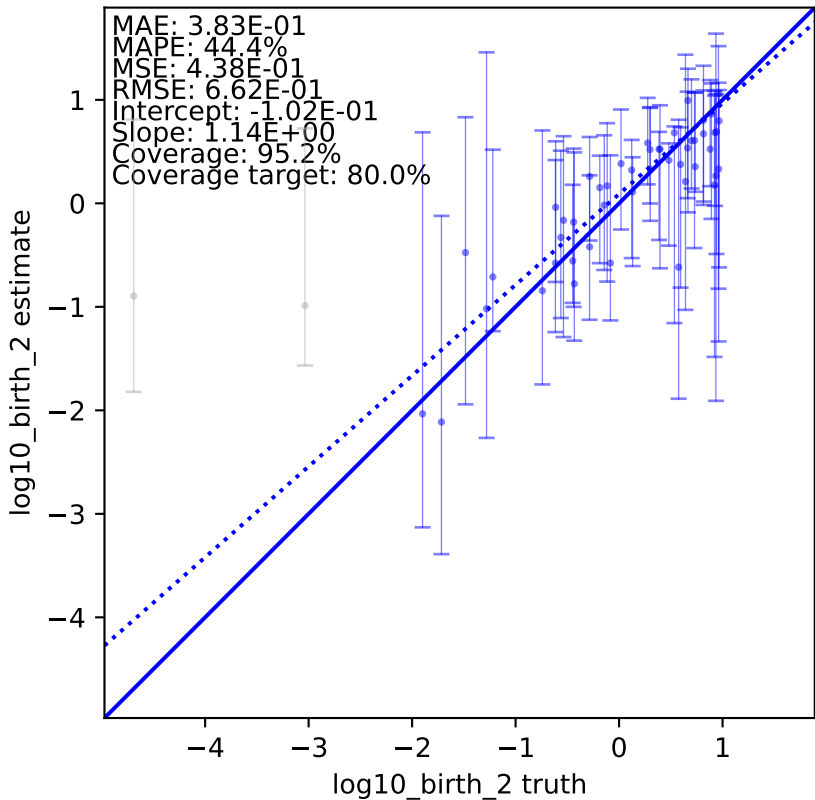
Train estimates: log10_death

MAE: 4.71E-01
MAPE: 26.2%
MSE: 4.59E-01
RMSE: 6.78E-01
Intercept: -2.48E-02
Slope: 1.17E+00
Coverage: 65.1%
Coverage target: 80.0%
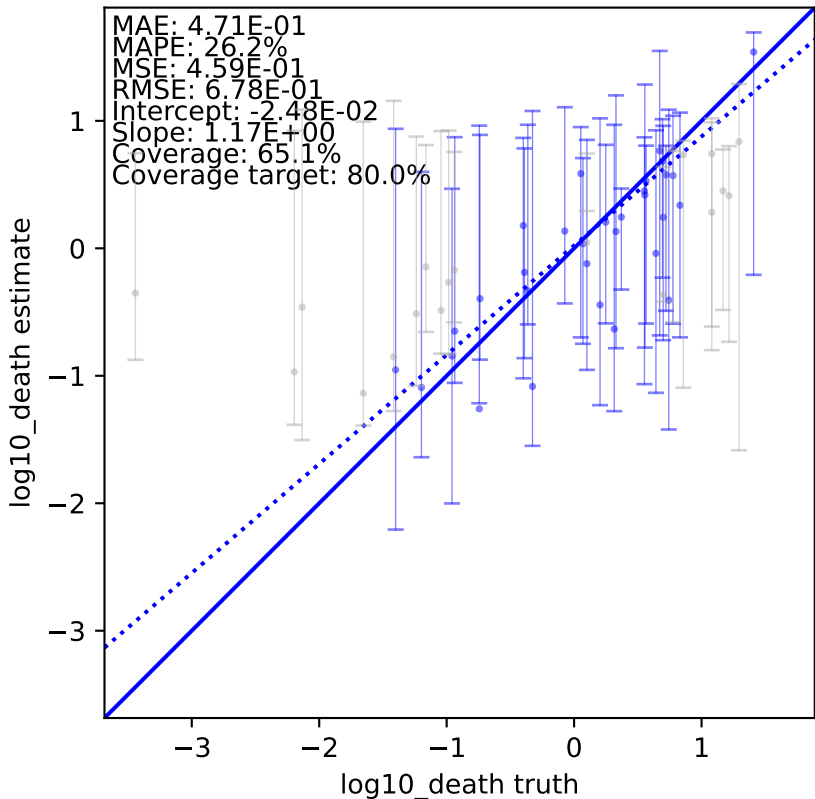
Train estimates: log10_state_rate

MAE: 4.76E-01
MAPE: 21.2%
MSE: 3.79E-01
RMSE: 6.16E-01
Intercept: -2.43E-02
Slope: 9.93E-01
Coverage: 23.8%
Coverage target: 80.0%
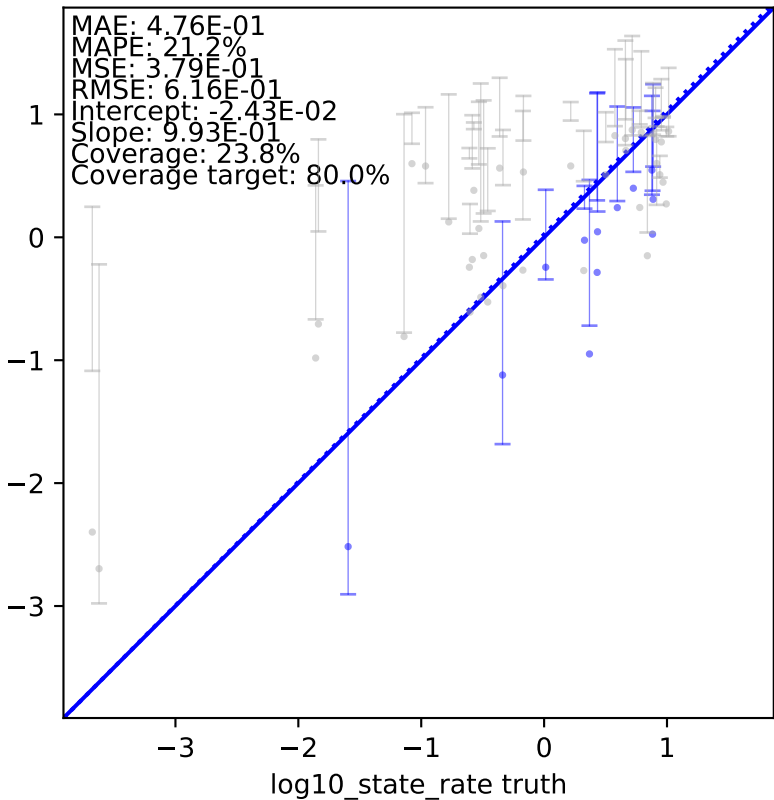
Test estimates: log10_birth_1

MAE: 2.18E-01
MAPE: -325.4%
MSE: 8.42E-02
RMSE: 2.90E-01
Intercept: 1.75E-03
Slope: 7.81E-01
Coverage: 80.0%
Coverage target: 80.0%
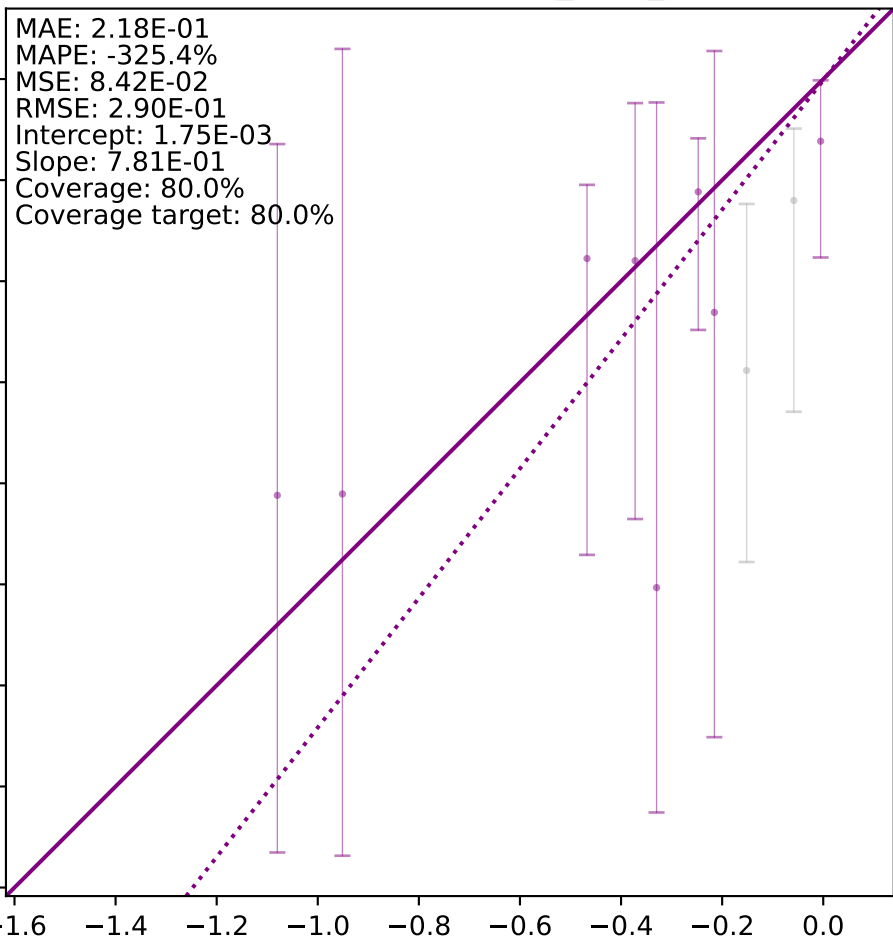
Test estimates: log10_birth_2

MAE: 1.85E-01
MAPE: -289.4%
MSE: 7.67E-02
RMSE: 2.77E-01
Intercept: -6.55E-02
Slope: 7.32E-01
Coverage: 80.0%
Coverage target: 80.0%

Test estimates: log10_death

MAE: 4.11E-01
MAPE: -81.6%
MSE: 2.14E-01
RMSE: 4.62E-01
Intercept: -4.43E-01
Slope: 2.40E-01
Coverage: 80.0%
Coverage target: 80.0%
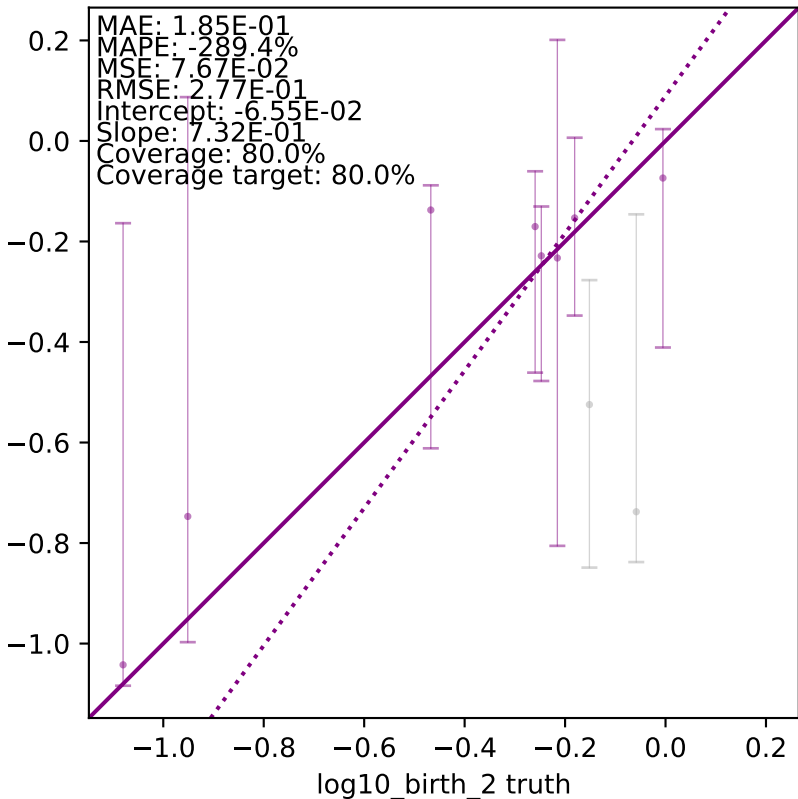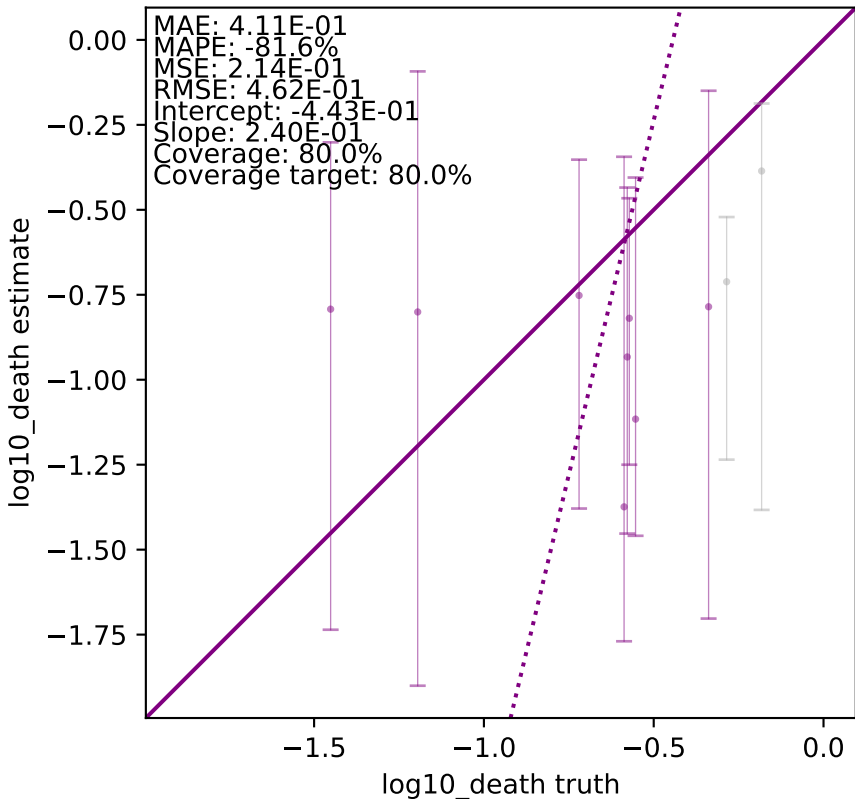
Test estimates: log10_state_rate

MAE: 4.07E-01
MAPE: -29.1%
MSE: 2.44E-01
RMSE: 4.94E-01
Intercept: -1.19E+00
Slope: 1.70E-01
Coverage: 30.0%
Coverage target: 80.0%

Training history

input-tensor
depth:0 (10, 4, 500)

input-tensor
depth:0 (10, 17)

Conv1d
depth:1 | input: (10, 4, 500) | output: (10, 64, 500)

Conv1d
depth:1 | input: (10, 4, 500) | output: (10, 64, 165)
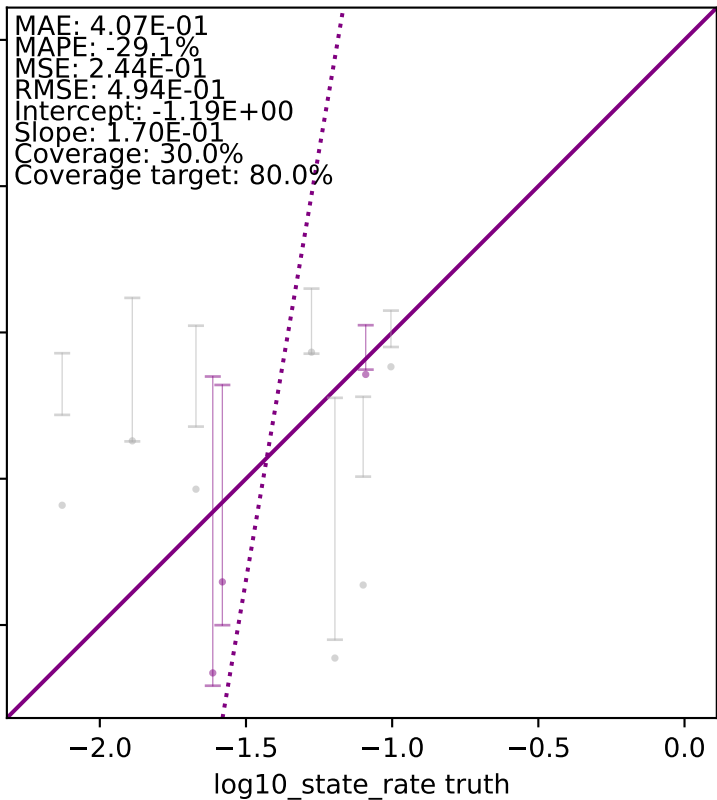
Conv1d
depth:1 | input: (10, 4, 500) | output: (10, 32, 500)

Linear
depth:1 | input: (10, 17) | output: (10, 128)

relu
depth:1 | input: (10, 64, 500) | output: (10, 64, 500)

relu
depth:1 | input: (10, 64, 165) | output: (10, 64, 165)

relu
depth:1 | input: (10, 32, 500) | output: (10, 32, 500)

relu
depth:1 | input: (10, 128) | output: (10, 128)

Conv1d
depth:1 | input: (10, 64, 500) | output: (10, 96, 500)

Conv1d
depth:1 | input: (10, 64, 165) | output: (10, 96, 27)

Conv1d
depth:1 | input: (10, 32, 500) | output: (10, 64, 500)

Linear
depth:1 | input: (10, 128) | output: (10, 64)

relu
depth:1 | input: (10, 96, 500) | output: (10, 96, 500)

relu
depth:1 | input: (10, 96, 27) | output: (10, 96, 27)

relu
depth:1 | input: (10, 64, 500) | output: (10, 64, 500)

relu
depth:1 | input: (10, 64) | output: (10, 64)

Conv1d
depth:1 | input: (10, 96, 500) | output: (10, 128, 500)

AdaptiveAvgPool1d
depth:1 | input: (10, 64, 500) | output: (10, 64, 1)

Linear
depth:1 | input: (10, 64) | output: (10, 32)

relu
depth:1 | input: (10, 128, 500) | output: (10, 128, 500)

relu
depth:1 | input: (10, 32) | output: (10, 32)

AdaptiveAvgPool1d
depth:1 | input: (10, 128, 500) | output: (10, 128, 1)

AdaptiveAvgPool1d
depth:1 | input: (10, 96, 27) | output: (10, 96, 1)

unsqueeze
depth:1 | input: (10, 32) | output: (10, 32, 1)

cat
depth:1 | input: (10, 128, 1), (10, 96, 1), (10, 64, 1), (10, 32, 1) | output: (10, 320, 1)

squeeze
depth:1 | input: (10, 320, 1) | output: (10, 320)

Linear
depth:1 | input: (10, 320) | output: (10, 128)

Linear
depth:1 | input: (10, 320) | output: (10, 128)

Linear
depth:1 | input: (10, 320) | output: (10, 128)

relu
depth:1 | input: (10, 128) | output: (10, 128)

relu
depth:1 | input: (10, 128) | output: (10, 128)

relu
depth:1 | input: (10, 128) | output: (10, 128)

Linear
depth:1 | input: (10, 128) | output: (10, 64)

Linear
depth:1 | input: (10, 128) | output: (10, 64)

Linear
depth:1 | input: (10, 128) | output: (10, 64)

relu
depth:1 | input: (10, 64) | output: (10, 64)

relu
depth:1 | input: (10, 64) | output: (10, 64)

relu
depth:1 | input: (10, 64) | output: (10, 64)

Linear
depth:1 | input: (10, 64) | output: (10, 32)

Linear
depth:1 | input: (10, 64) | output: (10, 32)

Linear
depth:1 | input: (10, 64) | output: (10, 32)

relu
depth:1 | input: (10, 32) | output: (10, 32)

relu
depth:1 | input: (10, 32) | output: (10, 32)

relu
depth:1 | input: (10, 32) | output: (10, 32)

Linear
depth:1 | input: (10, 32) | output: (10, 4)

Linear
depth:1 | input: (10, 32) | output: (10, 4)

Linear
depth:1 | input: (10, 32) | output: (10, 4)

output-tensor
depth:0 (10, 4)

output-tensor
depth:0 (10, 4)

output-tensor
depth:0 (10, 4)