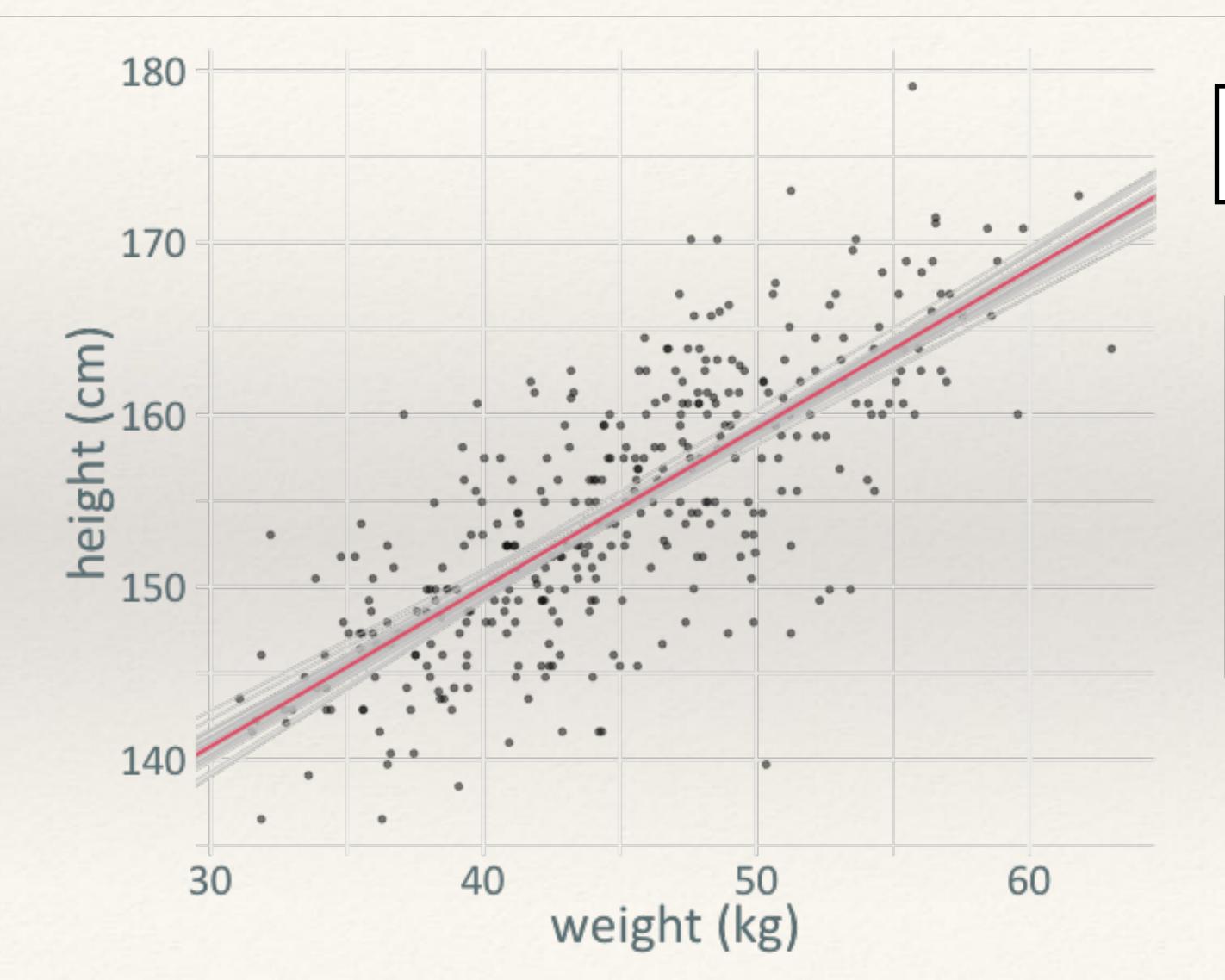


```
> samples
# A tibble: 2,000 × 3
                      sigma
                 b
         а
  <dbl[1d]> <dbl[1d]> <dbl[1d]>
      115. 0.889 4.78
2
                    5.30
      109. 1.02
3
     112. 0.928
                    5.07
4
     111.
              0.949
                     5.30
5
     111.
             0.955
                     5.04
6
     115.
              0.872
                     5.19
      109.
              1.01
                     5.13
8
      117.
              0.844
                     5.00
      115.
            0.882
                     4.94
10
                      4.95
     112.
           0.939
# ... with 1,990 more rows
```

> colMeans(samples) sigma 5.0453651 112,9296580 0.9253803

MODEL FIT



```
> samples
# A tibble: 2,000 × 3
                          sigma
  <dbl[1d]> <dbl[1d]> <dbl[1d]>
       115.
                0.889
                           4.78
       109.
                1.02
                           5.30
                0.928
                           5.07
       112.
       111.
                0.949
                           5.30
       111.
                0.955
                           5.04
       115.
                0.872
                           5.19
                1.01
                           5.13
       109.
                0.844
                           5.00
       117.
       115.
                0.882
                           4.94
       112.
                0.939
                           4.95
# ... with 1,990 more rows
```

POSTERIOR SAMPLES ARE EVERYTHING!

 ML methods use estimated values for parameters for everything

•
$$\mu = f(\hat{\theta})$$

 Bayesian methods use the posterior distribution of the parameters for everything