Adding more covariates to our model

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Improving our model further

- Intercept model: $height_i = \beta_0$
- Age model: $height_i = \beta_0 + \beta_{age} Age_i$
- Age and male $height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}\, male_i$

$$male_i = \begin{cases} 1, & child\ is\ male \\ 0, & Otherwise \end{cases}$$

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$$height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}\, \underbrace{male_i}_{\begin{cases} 1, \text{child } i \text{ is male} \\ 0, \text{otherwise} \end{cases}}$$

$$male_i = 1$$

$$height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}$$

$$male_i = 0$$

$$height_i = \beta_0 + \beta_{age}\, age_i$$

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$$height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}\, \underbrace{male_i}_{\begin{cases} 1, child\ i\ is\ male \\ 0, otherwise \end{cases}}$$

$$male_i = 1$$

$$height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}$$

$$male_i = 0$$

$$height_i = \beta_0 + \beta_{age}\, age_i$$

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$$height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}\, \underbrace{male_i}_{\begin{cases} 1, \text{child } i \text{ is male} \\ 0, \text{otherwise} \end{cases}}$$

$$male_i = 1$$

$$height_i = \beta_0 + \beta_{age}\, age_i + \beta_{male}$$

$$male_i = 0$$

$$height_i = \beta_0 + \beta_{age}\, age_i$$

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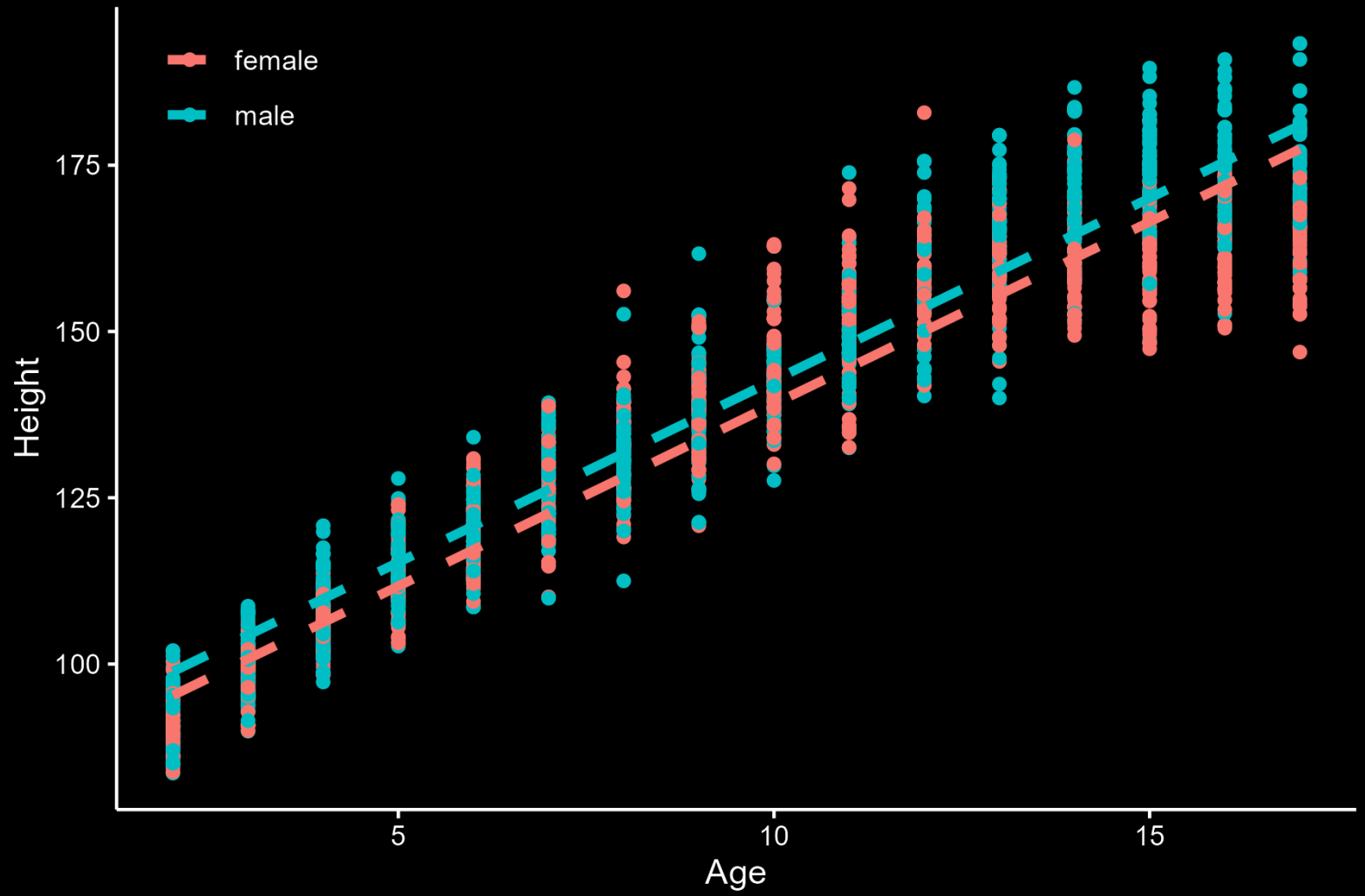

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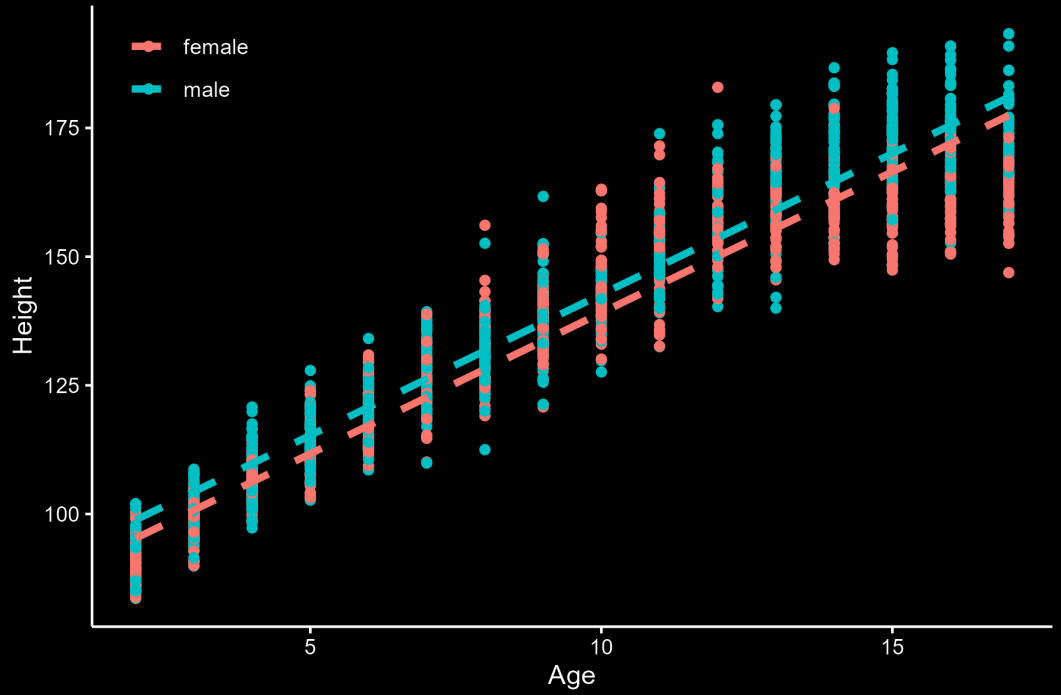

	coef	std err	t	P>|t|
Intercept	83.8128	0.393	213.151	0.000
Gender[T.Male]	3.1271	0.322	9.724	0.000
AgeInYearsAtScreening	5.5006	0.035	156.091	0.000

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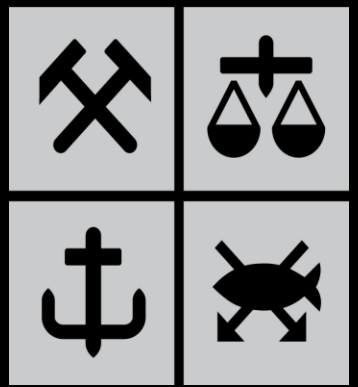

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