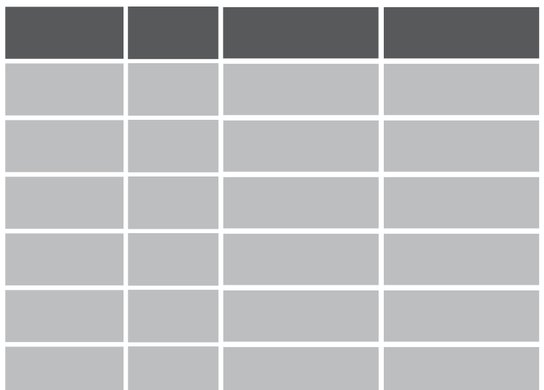
Average marginal effects *(AME)*

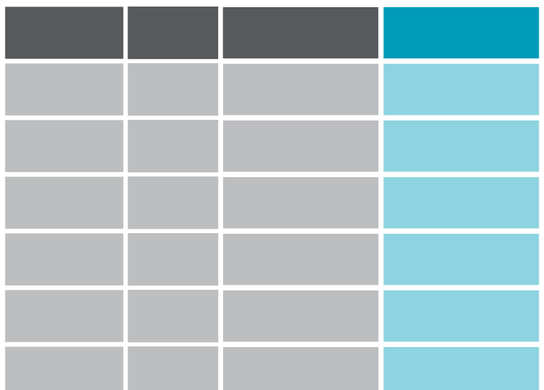
Data



Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results from model

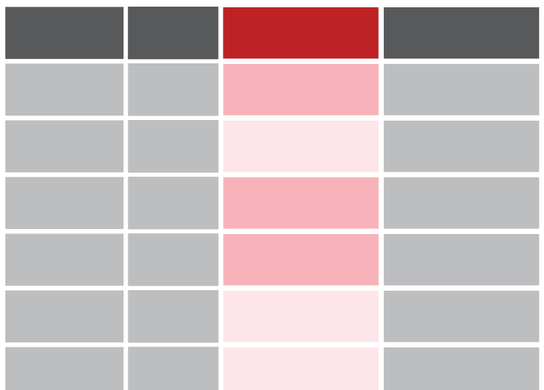


Average fitted results

Marginal details for the whole model come from the **average** of the **fitted results**

Group average marginal effects *(G-AME)*

Data with a categorical variable

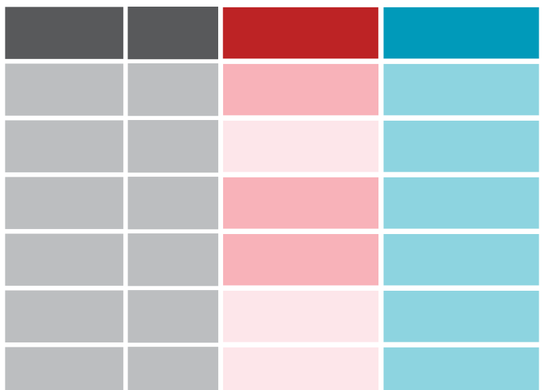


The **data** contains a **categorical variable**
(i.e. `size = c("big", "small")`)

Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results from model

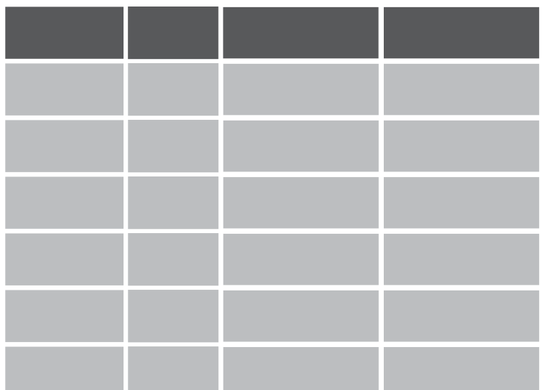


Average fitted results

Marginal details for **each group**
come from the **average** of the
fitted results across **each group**

Marginal effects at the mean *(MEM)*

Data



Average covariate values

All covariates are set to their **typical or average values**

Model

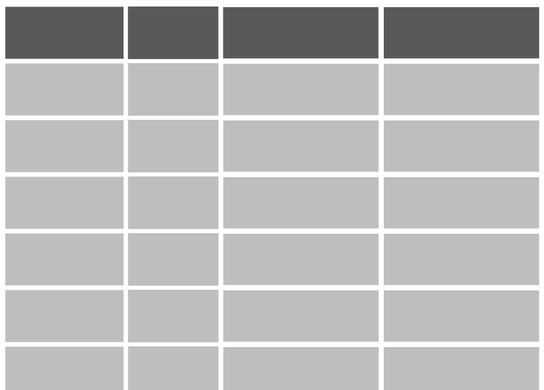
$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results

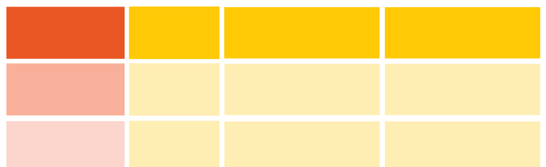
Marginal details for the whole model come from the **fitted results**

Marginal effects at user-specified or representative values *(MER)*

Data



Reference grid

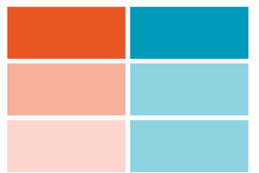


One or more covariates are set to **specific values** (i.e. `x1 = c(10, 50, 100)`) while all others are set to **typical or average values**

Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

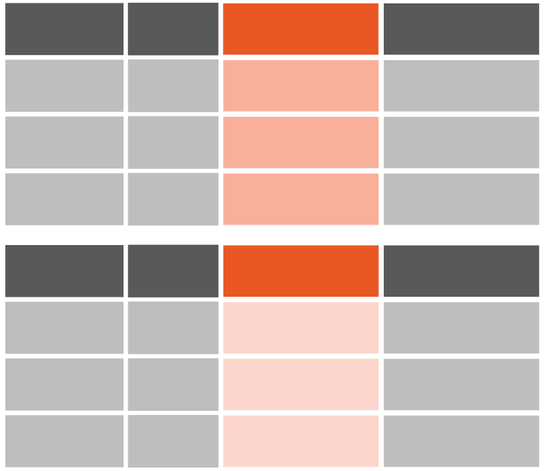
Fitted results



Marginal details for **each row** of the reference grid come from the **fitted results**

Average marginal effects at counterfactual user-specified values

Data



One or more covariates are set to **specific values** (i.e. `x1 = c(10, 50, 100)`) for an entire copy of the data while all others **remain at their original values**; multiple copies of the data are stacked on top of each other

Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

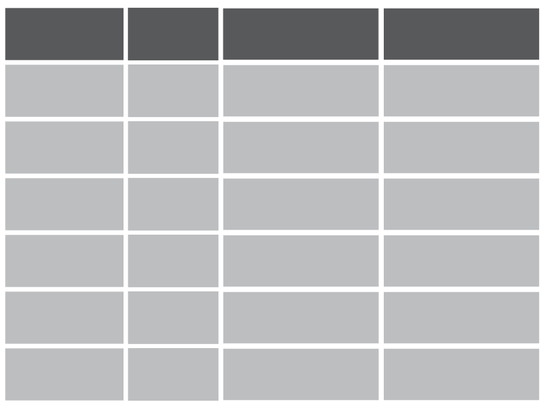
Fitted results from model

Average fitted results

Marginal details for **each specific value** come from the **average** of the **fitted results** across **each value**

Average marginal effects *(AME)*

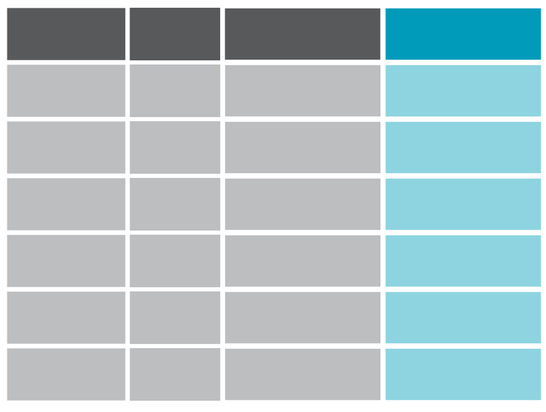
Data



Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results from model

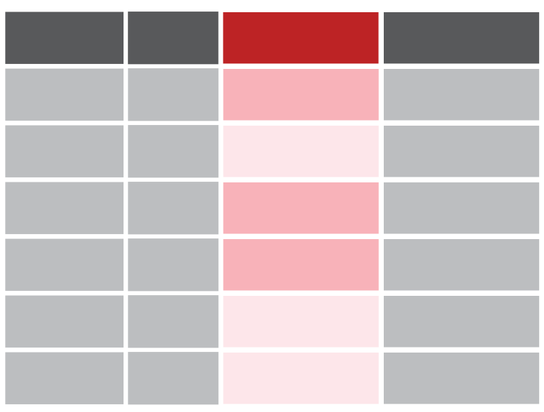


Average fitted results

Marginal details for the whole model come from the **average** of the **fitted results**

Group average marginal effects *(G-AME)*

Data with a categorical variable

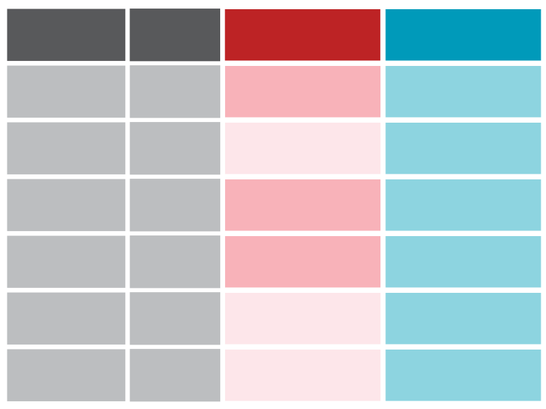


The **data** contains a **categorical variable** (i.e. `size = c("big", "small")`)

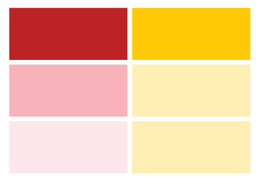
Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results from model



Average fitted results

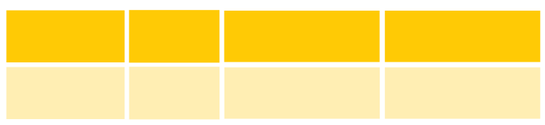


Marginal details for **each group** come from the **average** of the **fitted results** across **each group**

Marginal effects at the mean *(MEM)*

Data

Average covariate values



All covariates are set to their **typical or average values**

Model

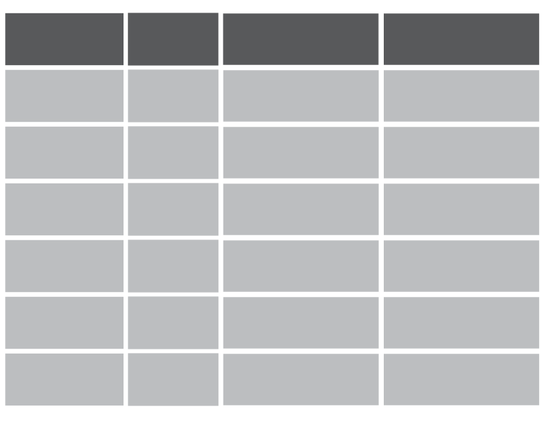
$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results

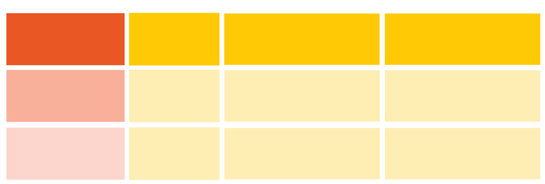
Marginal details for the whole model come from the **fitted results**

Marginal effects at user-specified or representative values *(MER)*

Data



Reference grid



One or more covariates are set to **specific values** (i.e. `x1 = c(10, 50, 100)`) while all others are set to **typical or average values**

Model

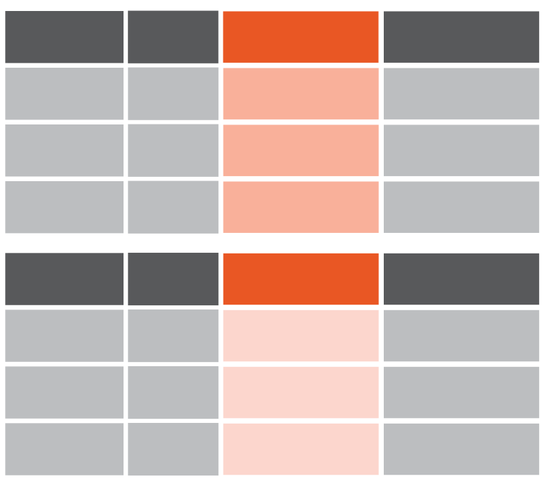
$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results

Marginal details for **each row** of the reference grid come from the **fitted results**

Average marginal effects at counterfactual user-specified values

Data



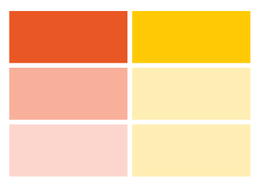
One or more covariates are set to **specific values** (i.e. `x1 = c(10, 50, 100)`) for an entire copy of the data while all others **remain at their original values**; multiple copies of the data are stacked on top of each other

Model

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$$

Fitted results from model

Average fitted results



Marginal details for **each specific value** come from the **average** of the **fitted results** across **each value**

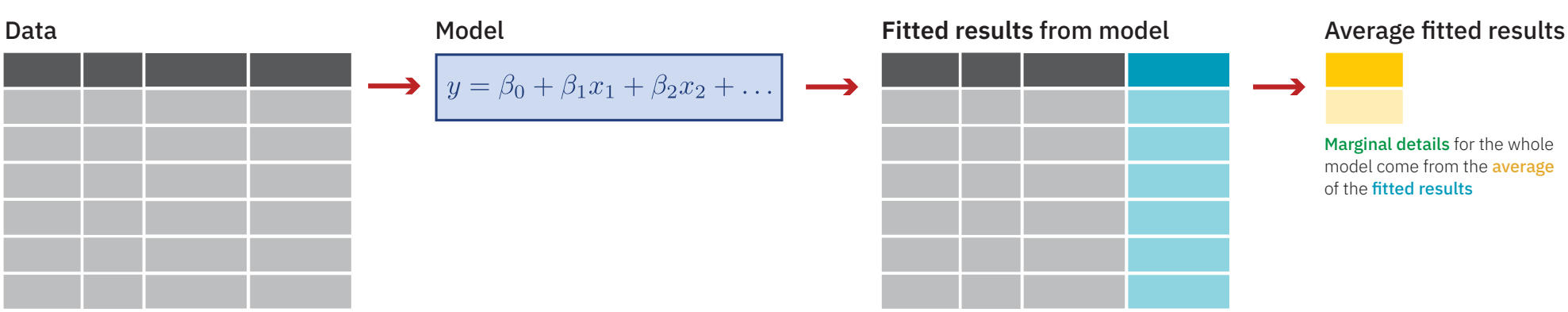
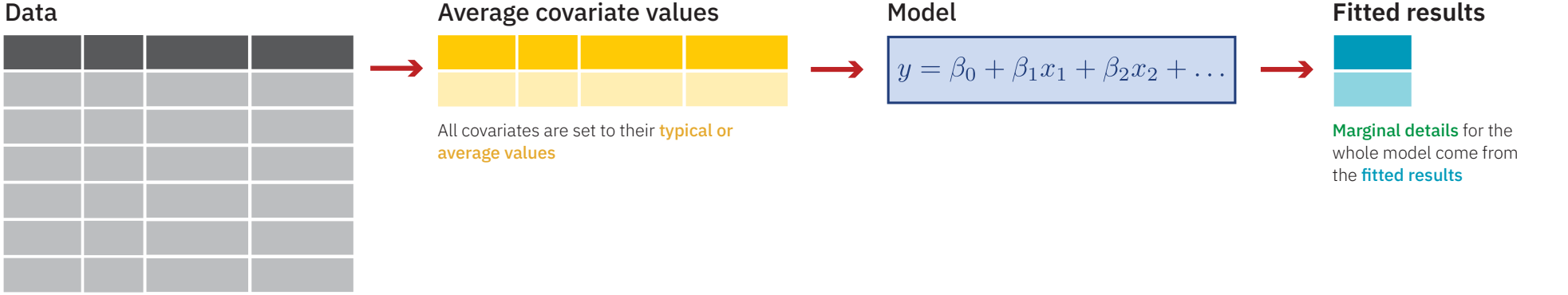
Categorical variable

Continuous variable

Many simultaneous continuous variables

Many simultaneous categorical variables

Average marginal effects *(AME)*



Marginal effects at the mean *(MEM)*