

2 groups

- Union members
- " non-members

$\text{Union} = 0 \rightarrow \text{non-members}$

$\text{wage} = \beta_0 + \beta_1 \text{educ.} + \beta_2 \text{exper.} + \beta_3 \text{union} + \beta_4 \text{non-union} + \varepsilon$

$\text{wage} = \beta_0 + \beta_1 \text{educ.} + \beta_2 \text{exper.} + \beta_3 \text{union} + \varepsilon$

$\beta_3$ : effect of union membership  
on wages (given educ.  
rel. to  
non-members)

region : N, S, E, W

↳ 3 dummy / binary variables

N → 0 o.w.  
→ 1 North

W → 0 o.w.  
→ 1 west

S → 0 o.w.  
→ 1 South

W: base /  
reference  
group

E → 0 o.w.  
→ 1 → East

$$\text{wage} = \beta_0 + \beta_1 \text{educ.} + \beta_2 \text{exper.} + \\ \beta_3 N + \beta_4 S + \beta_5 E + \varepsilon$$

$\beta_3$ : effect of N on wages (given educ. & exper.)  
rel. to W

$\beta_4$ : effect of S on wages  
rel. to W

N	S	E	W
0	0	1	0
1	0	0	0
0	0	0	1

$$N + S + E + W = 1$$