Specification based on Barrot (2015)

$$Y_{it} = \beta_1 + \beta_2 Post_t \times Treat_i \times CF_i + \beta_3 Post_t \times Treat_i \times NCF_i$$

$$+\beta_4 CF_i + \beta_5 Post_t \times CF_i + \beta_6 X_i + \beta_7 Post_t \times X_i + \eta_t + \epsilon_{it}$$

where

- Y_{it} = Delay on project i in quarter t
- $Treat_i = 1$ if the project is classified as "small business"
- $Post_t = 1$ if the quarter is after QuickPay was implemented
- $CF_i = 1$ if the project receives contract financing
- $NCF_i = 1$ if the project does not receive contract financing
- X_i are project level controls
- η_t are year-quarter fixed effects

Interpretation

Projects receiving contract financing

- Small Business + After QP + Receives CF = $\beta_1 + \beta_2 + \beta_4 + \beta_5 + \beta_6 + \beta_7$
- Large Business + After QP + Receives CF = $\beta_1 + \beta_4 + \beta_5 + \beta_6 + \beta_7$
- Small Business + Before QP + Receives CF = $\beta_1 + \beta_4 + \beta_6$
- Large Business + Before QP + Receives CF = $\beta_1 + \beta_4 + \beta_6$

Effect on projects that receive CF =

$$[(SmallBusiness + AfterQP + ReceivesCF) - (LargeBusiness + AfterQP + ReceivesCF)]$$

$$-[(SmallBusiness + BeforeQP + ReceivesCF) - (LargeBusiness + BeforeQP + ReceivesCF)]$$

$$= [(\beta_1 + \beta_2 + \beta_4 + \beta_5 + \beta_6 + \beta_7) - (\beta_1 + \beta_4 + \beta_5 + \beta_6 + \beta_7)] - [(\beta_1 + \beta_4 + \beta_6) - (\beta_1 + \beta_4 + \beta_6)]$$

$$= \beta_2$$

Projects that do not receive contract financing

- Small Business + After QP + No CF = $\beta_1 + \beta_3 + \beta_6 + \beta_7$
- Large Business + After QP + No CF = $\beta_1 + \beta_6 + \beta_7$
- Small Business + Before QP + No CF = $\beta_1 + \beta_6$
- Large Business + Before QP + No CF = $\beta_1 + \beta_6$

Effect on projects that do not receive CF

$$= [(\beta_1 + \beta_3 + \beta_6 + \beta_7) - (\beta_1 + \beta_6 + \beta_7)] - [(\beta_1 + \beta_6) - (\beta_1 + \beta_6)] = \beta_3$$