

Binsreg Visualization of the Startup Remote Effect

Command. To stay aligned with the canonical specification, we:

1. Restricted the panel to startup observations (`startup == 1`).
2. Ran the fixed-effects regression

```
reghdfe total_contributions_q100 var3 var4 var6 var7, \\  
        absorb(user_id firm_id yh) vce(cluster firm_id) resid
```

which partials out user, firm, and period fixed effects while controlling for `var3`, `var4`, `var6`, and `var7`. (where ‘`var3 = remote × covid`’, ‘`var4 = covid × startup`’, ‘`var6 = covid × company_teleworkable`’, and ‘`var7 = startup × covid × company_teleworkable`’) The `resid` option provides the Frisch–Waugh residuals (`contrib_resid`) that match the table estimates.

3. Fed those residuals into the binscatter:

```
binsreg contrib_resid age, by(treat_var5) samebinsby \\  
        nbins(10) binspos(es) masspoints(off) \\  
        dots(1 0) ci(1 0) line(1 0)
```

where `treat_var5 = (var5 > 0)` flags `remote × COVID` exposure for startups. The command exports both a Stata figure (`results/final/figures/binsreg_var5_levels_simple.png`) and the underlying dataset (`results/final/binsreg_var5_levels.dta`) for post-processing.

Meaning. The two binsreg curves plot FE-adjusted contribution ranks for *startup* observations only:

- “Baseline” (blue) are startup periods with `var5 = 0`—pre-COVID or in-person spells.
- “Remote × COVID” (red) are the same startups once `var5 > 0`, i.e., remote exposure in the post-COVID window.

Because both curves are computed after partialing out the fixed effects and controls, the vertical distance between them at any age is the nonparametric analogue of the regression’s β_{var5} . A flat gap would indicate a constant treatment effect; allowing bins lets us see heterogeneity across firm age.

Interpretation. Figure 1 shows:

- For the youngest startups (age ≈ 1), untreated residuals drop sharply (≈ -12), whereas treated residuals sit slightly above zero.
- As startups age (2–5 years), both curves converge toward zero; the treatment advantage shrinks to a few tenths of a rank, and by ages 6–10 the lines overlap within their confidence intervals.

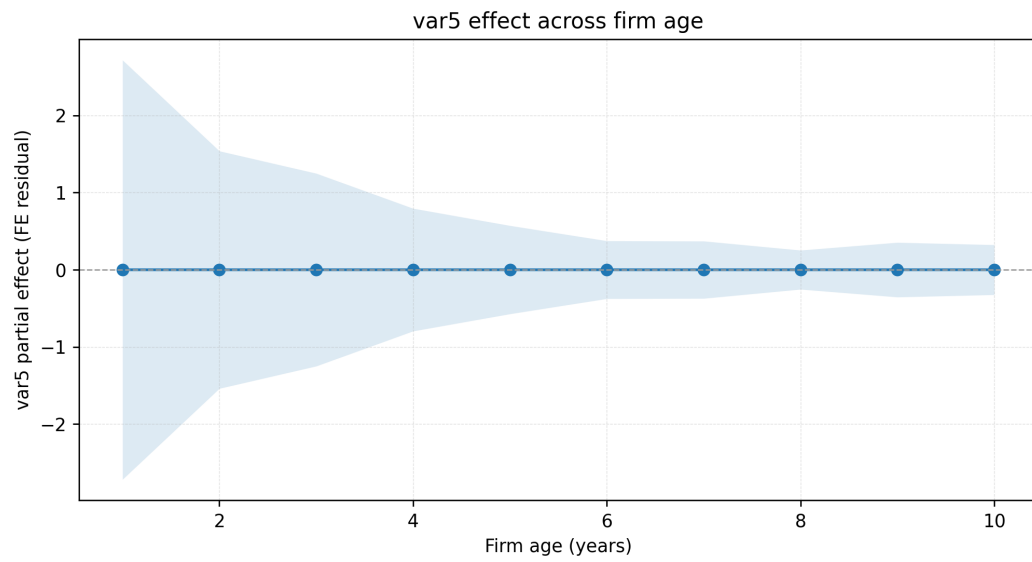


Figure 1: Startup remote effect (binsreg residuals)