

Panel Data

Economics

Following the same units over time, and what that buys.

Cross-section

- Many units, one point in time
- Cannot control unobserved fixed traits
- Vulnerable to omitted variables
- Simple to collect

Panel

- Same units, repeated over time
- Fixed effects absorb time-invariant traits
- Can study within-unit change
- Attrition biases the sample over time

THE DIFFERENCE THAT MATTERS

Fixed effects remove anything constant about a unit. They cannot remove things that change alongside the treatment.

Attrition is the main threat: units that drop out are rarely a random subset of those who started.