

xtdidregress — Fixed-effects difference-in-differences estimation

[Description](#)
 [Quick start](#)
 [Menu](#)
 [Syntax](#)
 [Reference](#)

Description

`xtdidregress` estimates the average treatment effect on the treated (ATET) from observational data by difference in differences (DID) or difference in difference in differences (DDD) for panel data. The ATET of a binary or continuous treatment on a continuous outcome is estimated by fitting a linear model with time and individual (panel) fixed effects.

Quick start

DID estimate of the ATET of `treat1` on outcome `y1` using `xtset` data; `y1` modeled using covariates `x1` and `x2`, and individual (panel) and `tvar` fixed effects, with the treatment occurring at the `grpvar1` and `tvar` levels

```
xtdidregress (y1 x1 x2) (treat1), group(grpvar1) time(tvar)
```

Same as above, but compute wild cluster–bootstrap *p*-values and confidence intervals with `grpvar1` as the clustering variable

```
xtdidregress (y1 x1 x2) (treat1), group(grpvar1) time(tvar) ///
wildbootstrap
```

Same as above, but aggregate data at the `grpvar1` and `tvar` levels to use the [Donald and Lang \(2007\)](#) method to compute the ATET and standard errors

```
xtdidregress (y1 x1 x2) (treat1), group(grpvar1) time(tvar) ///
aggregate(dlang)
```

Aggregate data at the `grpvar1` and `tvar1` levels to estimate the ATET

```
xtdidregress 1(y x1 x2) (grpvar1), group(state) time(tvar1) ///
aggregate(standard)
```

Menu

Statistics > Longitudinal/panel data > Difference in differences (DID) > DID (FE)

Syntax

For syntax, methods, and all other information on `xtdidregress`, see [\[CAUSAL\] didregress](#).

Reference

Donald, S. G., and K. Lang. 2007. Inference with difference-in-differences and other panel data. *Review of Economics and Statistics* 89: 221–233. <https://doi.org/10.1162/rest.89.2.221>.

Stata, Stata Press, and Mata are registered trademarks of StataCorp LLC. Stata and Stata Press are registered trademarks with the World Intellectual Property Organization of the United Nations. StataNow and NetCourseNow are trademarks of StataCorp LLC. Other brand and product names are registered trademarks or trademarks of their respective companies. Copyright © 1985–2023 StataCorp LLC, College Station, TX, USA. All rights reserved.



For suggested citations, see the FAQ on [citing Stata documentation](#).