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Erratum: A comprehensive set of postestimation measures to enrich interrupted time-series analysis

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The article "A comprehensive set of postestimation measures to enrich interrupted time-series analysis", by Ariel Linden (*Stata Journal* 17: 73–88), contains the following errors.

The formula for computing the treatment group's difference in trends between the preintervention period and the second-intervention period is incorrectly written as $\beta_3 + \beta_5 + \beta_7 + \beta_9 + \beta_{11}$, which appears in the eleventh sentence of paragraph 2 on page 77 and in table 1 on page 81. The correct formula is $\beta_3 + \beta_7 + \beta_9 + \beta_{11}$, and the corresponding generic `lincom` specification for this estimate is

```
lincom _b[_x_t(trp1)] + _b[_z_x_t(trp1)]
     + _b[_x_t(trp2)] + _b[_z_x_t(trp2)]
```

where *trp* = treatment period.

The formula for computing the difference between the treatment and control group in the differences in trends of the preintervention period and the second-intervention period is incorrectly written as $\beta_5 + \beta_7 + \beta_{11}$, which appears in the last sentence of paragraph 2 on page 77 and in table 1 on page 81. The correct formula is $\beta_7 + \beta_{11}$, and the corresponding generic `lincom` specification for this estimate is

```
lincom _b[_z_x_t(trp1)] + _b[_z_x_t(trp2)]
```

where *trp* = treatment period.

The changes in these two formulas affect the results of the example, which are presented in table 2 on page 85. The correct `lincom` specification for the treatment group's difference in trends between the preintervention period and the second-intervention period is as follows:

```
. lincom _b[_x_t1982] + _b[_z_x_t1982] + _b[_x_t1989] + _b[_z_x_t1989]
```

The correct `lincom` specification for computing the difference between the treatment and control group in the differences in trends of the preintervention period and the second-intervention period is as follows:

```
. lincom _b[_z_x_t1982] + _b[_z_x_t1989]
```


To clarify how these two estimates are derived, I reproduce figure 1 from Linden (2017) and add text to show the `lincom` specification for each slope (trend) estimate (for treatment and control at each time period).

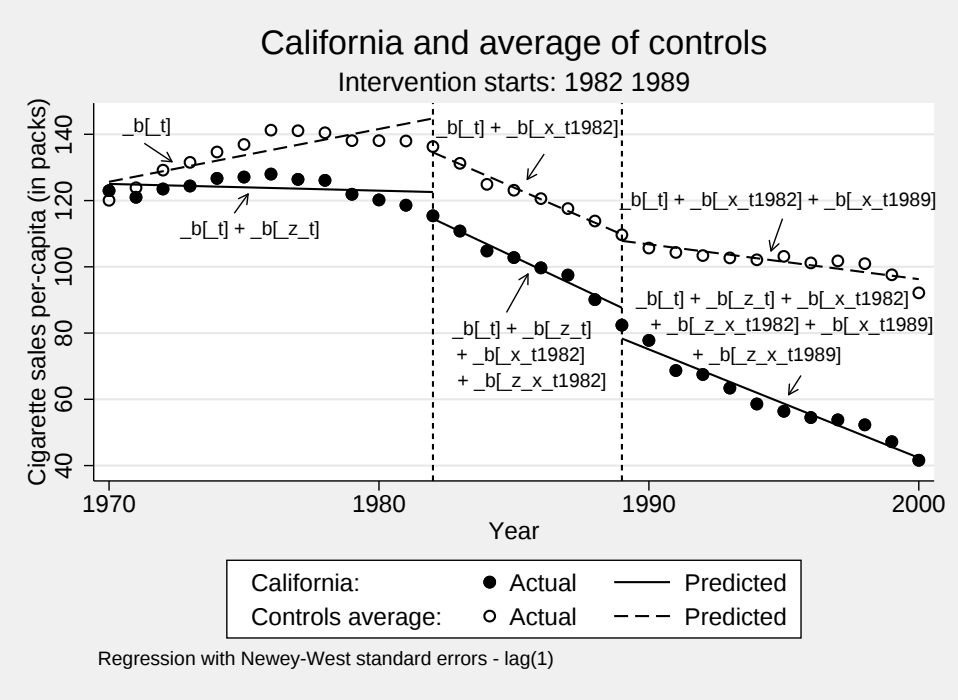

Figure 1. Multiple-group interrupted time-series analysis with Newey–West standard errors and two intervention periods; added text presents the `lincom` specifications for producing slope estimates for each period and study group.

The treatment group's difference in trends between the second-intervention period and the preintervention period is

```
. lincom (_b[_t] + _b[_z_t] + _b[_x_t1982] + _b[_z_x_t1982] + _b[_x_t1989]
>  + _b[_z_x_t1989]) - (_b[_t] + _b[_z_t])
```

However, `_b[_t] + _b[_z_t]` cancels out in the formula, leaving the more succinct specification presented above.

The difference between the treatment and control group in the differences in trends of the second-intervention period and the preintervention period is

```
. lincom (_b[_t] + _b[_z_t] + _b[_x_t1982] + _b[_z_x_t1982] + _b[_x_t1989]
>  + _b[_z_x_t1989]) - (_b[_t] + _b[_x_t1982] + _b[_x_t1989])
>  - (_b[_t] + _b[_z_t] - _b[_t])
```

which shortens to `_b[_z_x_t1982] + _b[_z_x_t1989]` after cancellations in the formula.

1 Acknowledgment

I thank Kao Ching-yuan for bringing these errors to my attention.

2 Reference

Linden, A. 2017. A comprehensive set of postestimation measures to enrich interrupted time-series analysis. *Stata Journal* 17: 73–88. https://doi.org/10.1177/1536867X1701700105.