



## **Exercise 7**

### **Applied Longitudinal Data Analysis**

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**Preparation:** Team-up in a group of 2-3 persons. Select an outcome and a key variable of interest (see Appendix). Prepare a short presentation of your main findings (max. 5 minutes).

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#### **6.1**

- a) Formulate a testable hypothesis on the effect of your key variable of interest on your outcome. Do you expect a quick recuperation/rebound after the event?
- b) Do you expect effect heterogeneities? Select at least two suitable dimensions (such as gender, region, education).

#### **6.2**

- a) Estimate the mean of your outcome variable by time period. Plot the values.
- b) Conduct the analysis by your main dimensions of interest.

#### **6.3**

- a) Estimate a pooled OLS (POLS) control for the time variable (e.g. TIME\_MARRIAGE).
- b) Estimate a pooled OLS (POLS) control for the time variable (e.g. TIME\_MARRIAGE) and suitable controls (e.g. age, COLLEGE).
- c) Present the results in a suitable figure.

#### **6.4**

- a) Estimate a fixed effects model. Control for the treatment dummy (e.g. TREAT\_MARRIAGE).
- b) Include suitable further covariates. How do the results change?
- c) Shorten the time window (only use -2 to +2 years before/after the event). How do the results change. Explain why.

## **APPENDIX**

### **Possible Outcomes:**

- Satisfaction with work, school (sat1i1)
- Satisfaction with leisure, hobbies (sat1i2)
- Satisfaction with friends, social contacts (sat1i3)
- Satisfaction with family (sat1i4)
- Satisfaction with sex life (sat5)
- Satisfaction with life in general (sat6)
- Satisfaction with work-life-balance (sat7)
- Satisfaction with household finances (inc28)
- Depression (DEPRESSION)

### **Possible Determinants:**

- First Child (TIME\_KID, TREAT\_KID)
- First Marriage (TIME\_MARRIAGE, TREAT\_MARRIAGE)
- First Separation (TIME\_SEP, TREAT\_SEP)

### **Possible Controls:**

- Sex/gender (SEX)
- Age (age)
- Education (COLLEGE)
- Migration (migstatus)
- Equalized household income (hhincoecd)
- East German (EAST)