

**Online Appendix for  
“Participation Following Sudden Access”  
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February 5, 2020

**Notes on the decomposition of covariate effects**

We decompose the covariate effect into three components:

- *Demographics*: gender, age, marital status, number of adults and number of children;
- *Resources*: log income, homeownership, occupation, education;
- *Sentiment*: concerns about the economy in general, concerns about the own economic situation, and log income of peer group.

In order to construct observations that differ between East and West only with respect to the chosen covariate grouping we take the following steps:

- a. Draw as many West German observations with replacement as we have original East German observations
- b. Randomly match each West German observation with an East German observation
- c. Replicate these pairs three times, so that the matching remains the same across changes in subsets of characteristics (demographics or resources or sentiment)
- d. For each West German observation drawn, replace only the relevant attributes (one of: demographics or resources or sentiment) with the corresponding attributes of the East German counterpart in the pair

*Example*: For the demographics segment, we keep all resources and sentiment variables at their West German values, while replacing the demographics variables with the respective East German values.

We can call this a hybrid observation, as it synthesizes characteristics from a West and an East German household.

- e. With each sample of hybrid observations, we predict the participation rates after running the probits on the full West German sample, and we calculate the average over all hybrid households.
- f. We then repeat the exercise 100 times with a new random draw of West German observations and a new random match between East and West German households each of the 100 times, to ensure that our results are not driven by the peculiarities of a specific random matching.
- g. We subsequently use the mean of the average predicted participation rates across the 100 repetitions to calculate the covariate effect, as the difference between the average participation rate in West Germany and the mean of the average predicted participation rates of the hybrid observations. We apply East weights to the entire hybrid observations

in order to weight properly the subset of characteristics taken from the East sample in computing the covariate effect.

Overall, this decomposition serves as an illustration of what roles the three different sets of covariates (demographics, resources, sentiment) may play in the total covariate effect. Note that the three partial covariate effects do not necessarily add up to the total covariate effect. This is due to two reasons:

- a. As a result of the nonlinear nature of probit, the matching of East and West German observations (despite being random and using 100 repetitions) affects the predicted participation rates. The constructed (hybrid) observations are not designed to incorporate any typical relationship across covariate segments that exists in the true East German population, and this affects the predicted participation probabilities. By contrast, such relationships are automatically present when using the full set of covariate values for observations from East Germany.
- b. Secondly, despite running unweighted probits, we use weights (as laid out above) to calculate the predicted participation rate of the hybrid observations. By attaching East German weights to the hybrid observations, we also end up using these weights for the non-replaced covariates coming from the West German household sample. This introduces some difference between the average participation probabilities of West Germans (which weight all West German characteristics with West German weights) and the average participation probabilities of the constructed (hybrid) households. This difference reflects the use of East German population weights on the full set of characteristics of each hybrid household rather than differences in the values of the covariates. This difference may also prevent the estimated covariate effects for each group of characteristics from adding up to the total covariate effect.