

# Portfolio : Event count models

Scharpf 2020

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Scharpf (2020) studies the choice by states to train their troops abroad. This is a double-edged sword, since the trainees may gain loyalty to the host state and rise against their government at home. However, there are also advantages to such training. In particular, the government now has access to state-of-the-art warfare.

1. Summarize the argument that the author makes and explain how the theory justifies the choice of model.

What is his theoretical question? How does he test it? Does he find support for his expectations?

2. Explore the distribution of the dependent variable. Begin by replicating Figure 3.

Move then over to a closer scrutiny of the country-level variation. Who were the users of the SOA? Are there signs of extremely high counts? Which countries are that? And what about non-events? In particular, drawing on descriptive statistics, try to identify the potential never takers in Scharpf's study.

One way to do this is to split the data in non-events and events, then make barplots (or maps) that you aggregate to the country level.

3. Replicate Model 1 in Table 1 ("Course attendance", p. 742).

You can rely on my R notebook for inspiration, in particular the section on how to estimate clustered standard errors. My attempt is reported in Table 1.

4. Assess the dispersion of this model in at least two ways. How would you describe the challenge? Are you satisfied?
5. Interpret the marginal effects of the model (not the predicted).

- a. Provide a textual, plain-English interpretation of the theoretical variables without relying on predicted outcomes.
  - b. Zoom in on the count model and create a coefplot similar to the one in figure 5. You can tweak some of the other coefplots we have used to obtain a nice result. What is the advantage of this plot? What does it communicate that other plots may not?
6. Fit an ordinary poisson model to the same predictors as in model 1. How do the results look like? And how is the dispersion of the model?
  7. Relying on the other fixes we have considered, propose a viable alternative to the zeroinflated/hurdle models. How is the overdispersion?
  8. Which one would you prefer – Scharph’s or yours – and why?

Remember to provide arguments that are both empirically and theoretically founded.

## Bibliography

Scharpf, Adam. 2020. “Why Governments Have Their Troops Trained Abroad: Evidence from Latin America.” *International Studies Quarterly* 64 (3): 734–47. <https://doi.org/10.1093/isq/sqaa043>.

Table 1: Replication of model 1, table 1: Zero-inflation

<i>Dependent variable:</i>	
(Intercept)	3.937*** (0.142)
lguerrillad	0.875*** (0.270)
lstrikesd	-0.214 (0.139)
lriotsd	-0.071 (0.158)
ldemond	-0.014 (0.116)
ldmidtoward	0.167 (0.135)
(Intercept)	1.303** (0.538)
lfpsimusa	-0.636*** (0.130)

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01