

Variance estimation in variance component models – examples from sibling correlations

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Abstract

The sibling correlation is useful tool for measuring the importance of family background (Björklund, Jäntti, and Lindquist, 2009; Solon, 1999). Sibling correlations are typically estimated using simple variance component models, in terms of a multi-level model or using a method-of-moments estimator. As the variance components, of which the sibling correlation is a function, tend to be treated as nuisance parameters rather than as objects of true interest, variance estimation for these is less developed than for the fixed effects in multi-level models. This paper examines the sampling distribution of the variance components in light of two different settings where sibling correlations are compared across population subgroups using data from Finland – one concerning the impact of comprehensive school reform and one concerning the impact of child evacuation to Sweden during World War II (Jäntti and Pekkarinen, 2010; Jäntti and Santavirta, 2015).

References

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